

BCA-4 - 04



VARDHAMAN MAHAVEER OPEN UNIVERSITY, KOTA

B. CA - 04

Computer Application for Office Management

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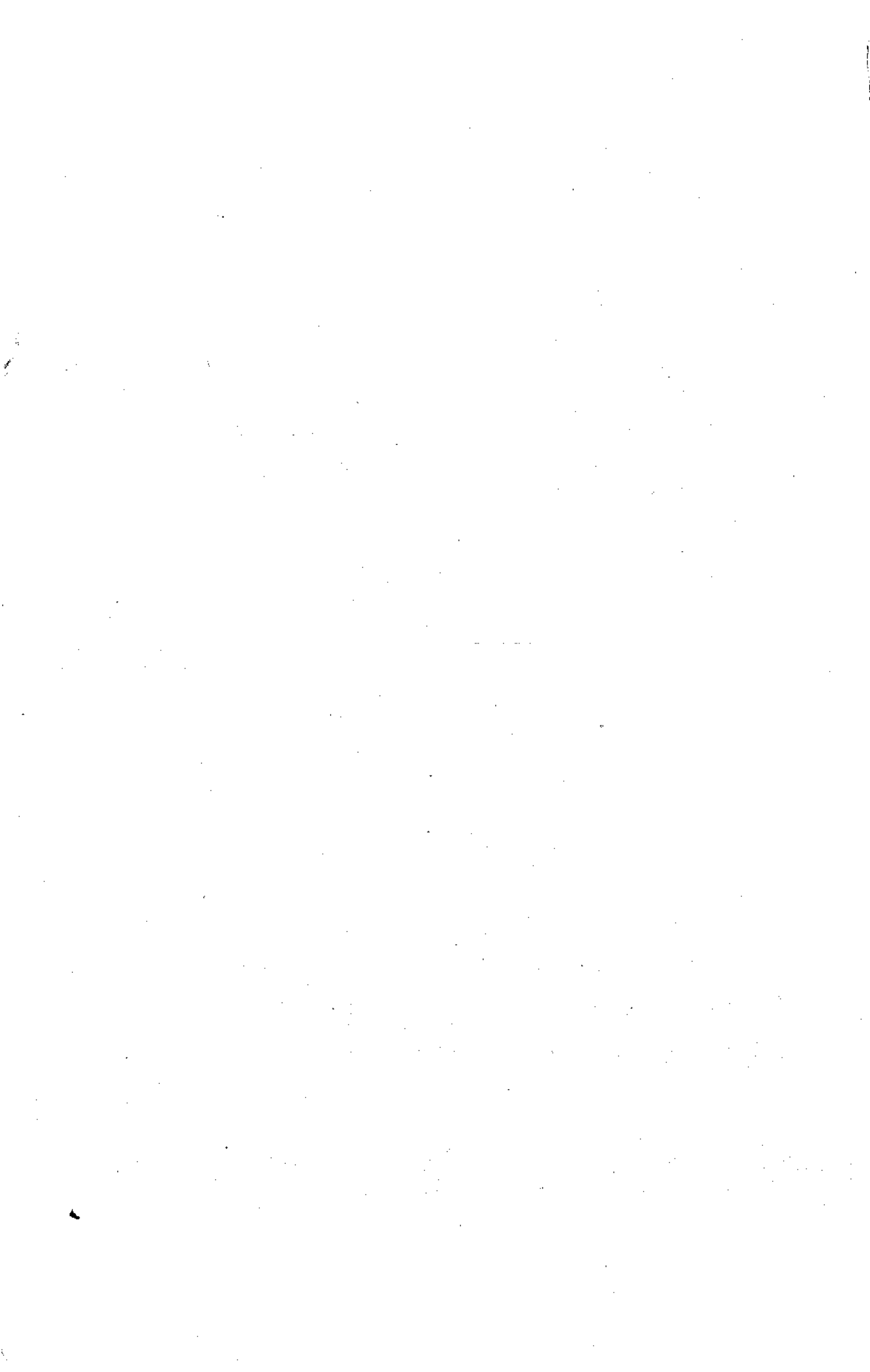
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Production : Jan. 2011 ISBN No.:- 13/978-81-8496-255-0

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Printed and published on behalf of Registrar V. M. Open University, Kota.

Printed by :- Kanchan Offset Printers, Kota Qty. 500.





B. CA-07

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Computer Application for Office Management

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Unit 1: Introduction To Windows Operating System

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1.0 OBJECTIVES

After going through this unit to will be able to :

- Describe Features of Windows, taskbar, toolbar, desktop, recyclebin, control panel etc.
- Describe File folders management, windows explorer, installing and running programmes, configuring mouse and keyboard, managing software and hardware.
- Describe setting printer and fonts, backup, sound configuration network management
- Describe clipboard, system information, NTFS, sharing information between programmes.

1.1 INTRODUCTION

MS-Windows 2000 is the most popular GUI for personal computers. Windows provides an environment that enhances DOS in many ways.

Microsoft Windows 2000 Professional, the premier desktop operating system for businesses and organizations. Windows 2000 provides faster performance, greater reliability, improved security, and a more manageable desktop. With its support for hardware and applications, Windows 2000 is the best platform for running the latest software and hardware.

No matter where you are working, your computer will be easier to use and to manage, because Microsoft Windows 2000 Professional is more compatible and more powerful than any workstation you've used before.

1. Easier to use

With Windows 2000 Professional, you have faster access to information, and you are able to accomplish tasks more quickly and easily.

Windows 2000 Professional makes it easier to:

- Work with files.
- Find information.
- Personalize your computing environment.
- Work on the Web.
- Work remotely.

2. Easier to manage

You and your network administrators can work more efficiently now, because many of the most common computer-management tasks are automated and streamlined with Windows 2000 Professional.

With Windows 2000, your workstation will be easier to:

- Set up.
- Administer or
- Support.

3. More compatible

Windows 2000 Professional offers increased compatibility with different types of networks and with a wide array of legacy hardware and software.

Windows 2000 also provides:

- Improved driver support.
- Increased support for new-generation hardware and multimedia technologies.
- Integration of the new Euro currency symbol.

4. More powerful

For all your computing needs, Windows 2000 Professional provides:

- Industrial-strength reliability.
- The highest level of security.
- Powerful performance.

1.2 FEATURES OF MS-WINDOWS 2000

The major benefits of Windows are :

1. **Common Look and Feel :** All Windows applications have the same basic look and feel. Once you know one or two Windows applications. It is easy to learn another one.
2. **Device Independence :** Windows presents a device-independent interface to applications. Unlike most of today's DOS applications, a Windows application is not bound to the underlying hardware such as mouse, keyboard or display. Windows shields the applications from this responsibility. The application deals with the Windows API to manipulate any underlying devices.
3. **Memory Management:** Windows also provides memory management to break the 640K limitation of MS-DOS. An application has the ability to use the extended memory, share data segments with other applications and swap unwanted segments to disk.
4. **Support for existing DOS applications :** Windows allow most standard DOS applications to run under it directly. Any application that does not control the PC's hardware, use the PC BIOS or MS-DOS software interrupts, can run in its own window.
5. **Data Sharing :** Windows allows data transfer between application Clipboard. Any type of data can be transferred from one window with the Clipboard. The Dynamic Data Exchange (DDE) protocol defines how two applications can share information. Information such as bitmap, metafile, character strings and other data formats can be shared .
6. **True 32-bit Operating System :** The computer stores and processes data in bits, which is the smallest unit for measuring information. OS can be classified on the basis of the number of bits it can process at a time. Windows NT is a 32-bit OS, which implies that it can send or receive 32 bits of information at a time and can internally process 32 bits of data.
7. **Portability :** The characteristics of the microprocessor affect the OS design. An OS which is designed with a particular processor in mind can take advantage of the specific features of that processor, but will not be able to run on computers which use any other processor. The ability of software to run on different processors is referred to as portability. Windows NT is one such portable OS, which can run on both the older Intel 80486 processors as well as on the latest Pentium and MIPS R 400 processors.
8. **Scalability :** Windows NT is a multi-processing OS, which means that it can use more than one microprocessor for its internal processing. If such a processor is available in the system unit. In fact, Windows NT can run on computers with as many as 32 processors. The architecture of Windows NT is designed to take maximum advantage of the additional processors and ensure that none of the processors is idle.
9. **Multitasking Features :** Windows NT is a multitasking OS, which means that it can perform more than one task at the same time. For example, you can write a sales report in MS-WORD, and can refer to the latest sales figures by having the data file open. While you are writing this report, your system could also be printing a document in the background. Multitasking is implemented by using the principle of time-sharing, where each application is allowed to run only for a fixed duration of time. After that, the microprocessor puts that task on a queue and performs another task. Thus, it manages to perform more than one task at a time. This feature is also known as preemptive multitasking.
10. **Multiple User Support :** Windows NT is also a multi-user OS, which means that is supports more than one user. Several users can access the same files; share the same resources, like printers or scanners. However at the same time, Windows NT ensures that no user can use another user's files without authorization or interfere with the tasks being executed by another user.

11. **Multi-Threading :** The multiple tasking and multiple user support provided by windows NT is implemented by the principle of multiple threading. A thread is defined as a single sequential flow of control. A program is normally broken into small chunks called tasks, and tasks are further broken into smaller chunks called threads. Every process has a thread that determines the system resources it can access and the operation that it can perform on it. Windows NT allows a process to have more than one thread associated with it. For example, you can edit a file, print in the background and another user may also be working on the same file simultaneously. All these processes seem to be running simultaneously because each of these processes is different thread. This feature makes multi-tasking and multi-user support possible.
12. **Built-in Networking :** Windows NT can be used as a server, with several workstations, known as nodes, connected to it. The nodes can communicate, access resources and data on the server as well as on other nodes. The networking support also enables Windows NT to make use of microprocessors of other computers on a network. This ensures maximum utilization of system resources. This feature is known as distributed processing.
13. **Graphical User Interface:** Windows NT 4.0 has a user-friendly graphical interface. Users can now perform complex tasks by selecting options from drop-down menus and click on icons to execute programs.
14. **Extensibility**
The extensibility of window NT provides the flexibility of adding faster workstations and servers to the network.
15. **Localization**
Window NT is being offered in many countries around the world in local languages. Thus users located in different countries can interact with the system in their native language. Windows NT supports date, time and currency formats of different countries.

RESOURCES

Resources are used to manage windows and user-defined objects, MS-Windows provides nine kinds of resources to application developers. These resources are : icons, cursors, menus dialog boxes, fonts, bitmaps, char strings, user-defined resources, and keyboard accelerators.

1. **Icons and cursors:** Windows defines a few types of icons and cursors. An icon or a cursor is essentially a bit-mapped region that is used to represent and symbolize a window or cursor. A developer can also define an original icon or cursor using the ICON EDIT utility.
2. **Menus :** Each window can have its own menu bar. A menu item can be a character string or a bitmap. Each item of a menu bar in turn can have a pop-up menu presenting a list of options. Currently, Windows does not support nesting of pop-up menus within other pop-up menus. (Windows 3.0 provides this functionality). But a pop-up menu can invoke a dialog box.
3. **Dialog boxes :** These provide another mechanism besides pop-up menu and menu bars to obtain information from the end-user. Dialog boxes are much more flexible than menu bars or pop-up menus. Dialog boxes usually contain a group of child windows such -as buttons, scroll bars, and editable fields. Just like windows, dialog boxes have a function that is used to process messages received from the user upon selection of options
4. **Fonts :** Windows provides a few families of fonts with different sizes and shapes : modern, roman, Swiss, Helvetica, and script. Application processors and desktop publishing can define additional fonts as needed.

5. **Bitmaps** : They are used to represent icons, cursors, or draw picture on the screen. Both mono and color bitmaps can be defined.
6. **Character Strings** : Character strings are handled as resources mainly to provide a manageable solution to internationalization of a window application.
7. **User-Defined Resources** : These can be used for any purpose and support any user-defined data type. Any arbitrary data can be managed as a user-defined resource.

1.3 Windows 2000 Professional at a Glance

Windows 2000 is the most manageable, reliable, and secure version of Windows ever. Improved hardware support and increased software compatibility make using Windows 2000 even easier. And enhancements to networking, printing, and storage help you find resources more quickly and work more efficiently.

Easiest Windows Yet

Desktop and window enhancements make Windows 2000 easy to use. You can customize menus and toolbars to tailor Windows 2000 to your needs. Microsoft Windows Explorer displays more information about files and folders, including thumbnail views and encryption information. Using the enhanced search capabilities, you can browse and see search results in the same window. In My Documents and My Pictures folders you have a convenient place to back up and store all of your work.

And Microsoft Internet Explorer gives you the best Internet experience and latest Web browsing features. For example, the AutoComplete feature finishes typing Internet addresses and previously-viewed files for you. The AutoDetect feature detects and configures a proxy server for your connection.

Windows 2000 includes hundreds of new printer, modem, and other hardware drivers, making hardware installation and setup easy and efficient. New wizards make configuring hardware simple. The Add/Remove Hardware wizard automatically detects and configures new devices. The Add Printer wizard helps you change printer settings from within applications. And Windows 2000 includes improved printing support-Internet printing, Image Color Management 2.0, and new font technologies.

Windows 2000 Professional is the best operating system for mobile users. The Network Connection wizard simplifies setting up network and dial-up connections. You can take network-based files and folders offline, making them available when you aren't connected to the network. Likewise, you can save Web pages for offline browsing. And Synchronization Manager ensures that offline and network versions of a file are up-to-date.

Building on the Traditional Strengths of Windows NT

Windows 2000 significantly expands the existing capabilities of Windows NT, providing a more stable and responsive computing experience. The new Encrypting File System ensures that information is completely private and secure, even for users who share a computer. You can now more easily create a virtual private network to securely connect computers over the Internet. Windows 2000 supports the following scalable security technologies: Kerberos V5 protocol, smart card, public key cryptography, and Internet Protocol security (IPSec). You need only log on once to use all Windows 2000 Server network resources.

With the latest installation technology, you can install, customize, and remove programs more reliably. Windows Installer helps prevent system file conflicts, repairs incomplete installations, updates out-of-date components, and removes all traces of a program, including registry entries.

For more efficient disk space allocation, Windows 2000 now supports the file allocation table (FAT) 32 file system. The NTFS file system includes many performance enhancements and new features such as per-user disk quotas and file encryption.

Information travels faster with improved TCP/IP stack performance, reducing network traffic. Files built with dynamic Hypertext Markup Language (DHTML) load more quickly. You can accommodate the latest transmission technologies, including cable modems, through support for asynchronous transfer mode technology.

Best of Windows 98

Windows 2000 contains key Windows 98 features, such as Advanced Configuration and Power Interface power management, the DirectX technologies, and Web integration. It's as easy to install and use state-of-the-art hardware with Windows 2000 as it was with Windows 98 because Windows 2000 also supports Plug and Play, IEEE 1394, DVD, and the universal serial bus (USB) standards. And as in Windows 98, in Windows 2000 you can use multiple monitors with a single computer to dramatically increase the size of your workspace.

Windows 2000 is compatible with more applications than ever before, continuing to support software for previous versions of Windows—as well as older hardware. To ensure that you're using the highest quality hardware drivers, the drivers are digitally signed by Microsoft after testing. Also, Windows 2000 is ideally suited to support the demands of new programs, including distributed programs written using Windows Distributed Internet Applications (Windows DNA) architecture.

Lower Total Cost of Ownership

Windows 2000 can reduce the total cost of ownership—the costs involved in administering personal computer networks—compared with that of other versions of Windows. Remote installation, a disk imaging tool, support for Windows 95 and Windows 98 upgrades, and the unattended Setup tools help administrators easily deploy Windows 2000, saving time and expense. With Windows Script Host, you can also automate tasks with language-independent scripts. And Microsoft Management Console (MMC) consolidates several administrative programs into a single interface you can use to manage and support local and remote computers.

The breakthrough IntelliMirror technology uses the power of Windows 2000 Server to make it easier for administrators to manage desktops remotely—each user's documents, system files, and administrative settings are stored on a server. Administrators are able to quickly duplicate a Windows 2000 installation from one computer to another.

Whether administering small businesses or large corporations, you can manage desktops centrally using Active Directory service and its Group Policy support in Windows 2000. Administrators can deploy software applications using group policies. Support for Windows Management Instrumentation, a program management tool, reduces the maintenance cost of event reporting and makes managing device drivers easier.

And you can keep Windows 2000 current by using the Windows Update Web site, an extension of Windows 2000. From this Web site, you can download system enhancements, such as drivers and service packs.

Multilanguage technology lets you view, print, and share documents from any localized language supported in Windows 2000. A single version of Windows 2000 Professional can be deployed globally while still allowing users to access information in their preferred language.

1.4 Accessibility for special needs

You can adjust the appearance and behavior of Windows 2000 to enhance accessibility for some vision-impaired, hearing-impaired, and mobility-impaired users without requiring additional software or hardware.

Windows 2000 includes the following programs to enhance accessibility:

- Magnifier enlarges a portion of the screen for easier viewing.
- Narrator uses text-to-speech technology to read the contents of the screen a loud. This is useful for people who are blind or who have low vision.
- On-Screen Keyboard provides users with limited mobility the ability to type on-screen using a pointing device.
- Utility Manager enables users with administrator-level access to check an Accessibility program's status, start or stop an Accessibility program, and designate to have the program start when Windows 2000 starts.

Using Accessibility Options in Control Panel, you can easily set up how you want to use your keyboard, display, and mouse functions.

The accessibility tools available in Accessibility Options in Control Panel perform various functions:

- StickyKeys enables simultaneous keystrokes while pressing one key at a time.
- FilterKeys adjusts the response of your keyboard.
- ToggleKeys emits sounds when certain locking keys are pressed.
- SoundEntry provides visual warnings for system sounds.
- ShowSounds instructs programs to display captions for program speech and sounds.
- High Contrast improves screen contrast with alternative colors and font sizes.
- MouseKeys enables the keyboard to perform mouse functions.
- SerialKeys allows the use of alternative input devices instead of a keyboard and mouse.

You can use the Accessibility wizard to help you set up the options and programs for your individual needs. Please see Related Topics for information on using these Accessibility aids.

A wide variety of hardware and software products are available to make personal computers easier to use for people with disabilities. Among the different types of products available for MS-DOS and the Microsoft Windows operating systems are:

- Programs that enlarge or alter the color of information on the screen for people with visual impairments.
- Programs that describe information on the screen in Braille or synthesized speech for people who are blind or have difficulty reading.
- Hardware and software utilities that modify the behavior of the mouse and keyboard.
- Programs that enable the user to type using a mouse or his or her voice.
- Word or phrase prediction software, that allows users to type more quickly and with fewer keystrokes.
- Alternate input devices, such as single switch or puff-and-sip devices, for people who cannot use a mouse or a keyboard.

The Accessibility tools that ship with Windows 2000 are intended to provide a minimum level of functionality for users with special needs. Most users with disabilities will need utility programs with higher functionality for daily use.

1.5 HARDWARE REQUIREMENT OF WINDOWS 2000

Before you install Windows 2000, make sure your computer meets the following minimum hardware requirements:

- 133 MHz Pentium or higher microprocessor (or equivalent). Windows 2000 Professional supports up to two processors on a single computer.
- 64 megabytes (MB) of RAM recommended minimum.
32 MB of RAM is the minimum supported. 4 gigabytes (GB) of RAM is the maximum.

- A 2 GB hard disk with 650 MB of free space.

If you're installing over a network, more free hard disk space is required.

- VGA or higher resolution monitor.
- Keyboard.
- Microsoft Mouse or compatible pointing device (optional).

For CD-ROM installation:

- A CD-ROM or DVD drive.
- High-density 3.5-inch disk drive, unless your CD-ROM drive is bootable and supports starting the Setup program from a CD.

For network installation:

- Windows 2000-compatible network adapter card and related cable (see the Hardware Compatibility List, Hcl.txt, in the Support folder on the Windows 2000 Professional CD).
- Access to the network share that contains the Setup files.

1.6 DESKTOP ENVIRONMENT

When you start Windows 2000 for the first time, you see icons displayed on the screen. The Windows 2000 screen is a Desktop. The desktop is the first view of the Windows 2000 operating system. The desktop contains icons, shortcuts and the taskbar. The user can navigate the user interface using the taskbar or the start menu.

For starting WINDOWS 2000, simply switch-on the computer and you will come directly to WINDOWS 2000 screen (as shown in the figure given below). This screen is called the desktop (metaphor), the settings of which can be changed as the user likes

To adjust settings such as desktop color and background, use the right mouse button to click anywhere on the desktop, and then click Properties.

The icons on the left side represent some of the accessories and tools. They provide the short and easier access to the features that we will discuss in the later sessions. The bar that is at the bottom of the screen is called the taskbar.

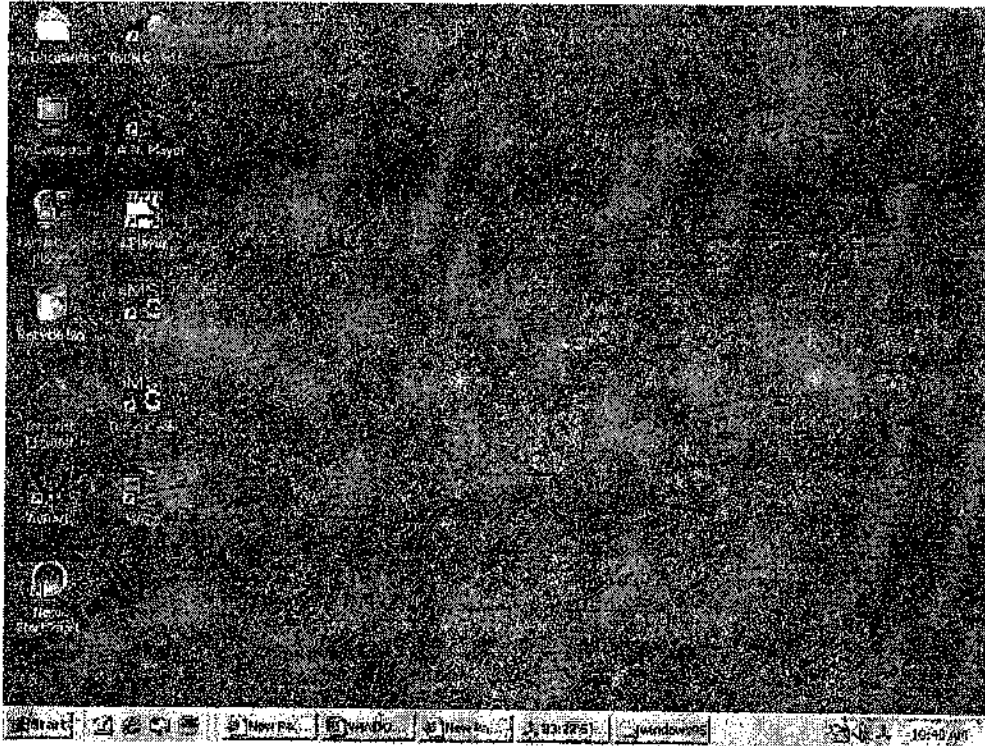


Figure : Desktop of windows 2000

1.7 TASKBAR

The Taskbar is a bar that appears at the bottom of the windows 2000 desktop by default. The start button is at the left end of the taskbar. All the applications that are running appear as minimized buttons on the taskbar. The current window is displayed as a pressed button: all other applications are displayed as raised buttons. Clicking on a button for an inactive application activates the application and displays its window as the current window. The taskbar thus makes it easier to switch between applications.



figure: task bar

1.8 START MENU

The start menu is a menu located at the left end of the taskbar. Start menu is integral to the clean look of the Windows NT desktop because it helps you to minimize the clutter on your desktop. Clicking on the start button opens a popup menu that makes help, the run command, a list of programs and a list of recently accessed documents available to you, to execute with a single click. From the start menu, you can customize the look and feel of windows, find files and folders and shut down your computer. For some items, submenu opens to the side of the main item to display the list of choices

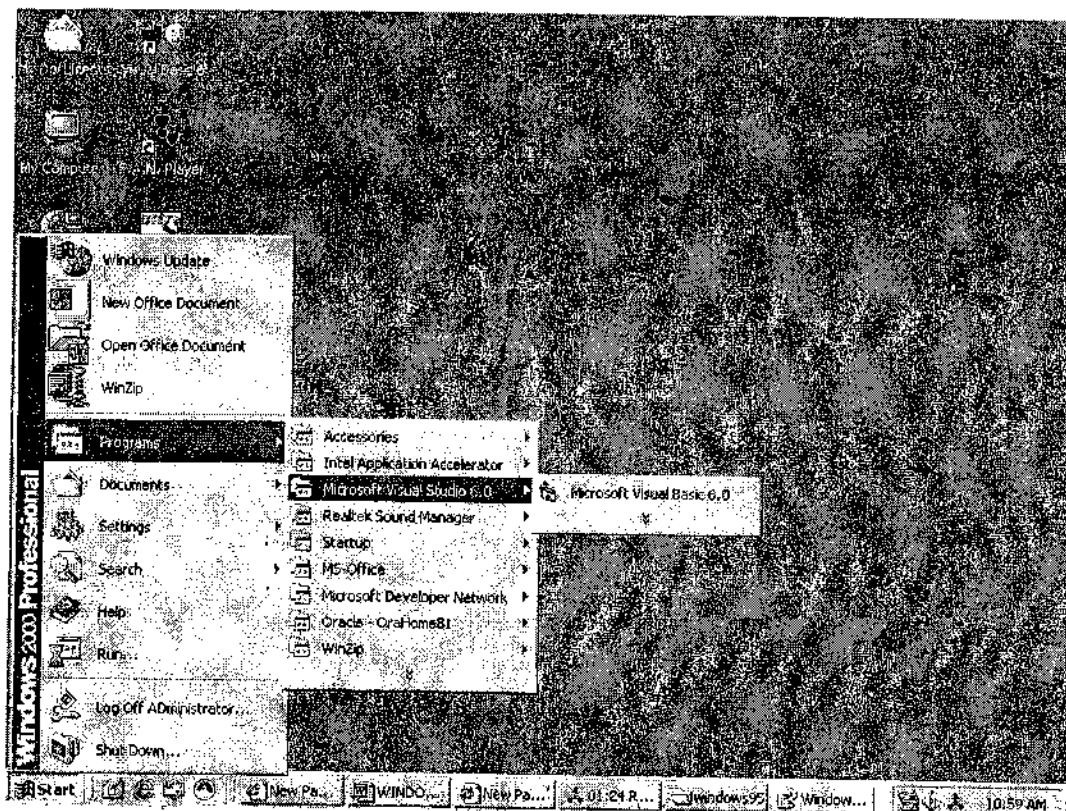


Figure : Start menu

Launching an Application

To start an application, select the Programs option and click on the program application you want to execute. The Programs option displays a submenu with a list of sub options as displayed in Figure

The Programs option usually displays Accessories, Startup, Command Prompt, and Windows Explorer as a part of its submenu.

The Accessories sub option includes Games, Multimedia, system Tools, Calculator, Calendar, Paint, Hyper Terminal and WordPad.

This option is used to launch various applications. Alternatively, application can also be launched through the Run option of the Start menu. The user needs to specify the name of the executable file and the application is launched. Figure 4 shows the Run window.

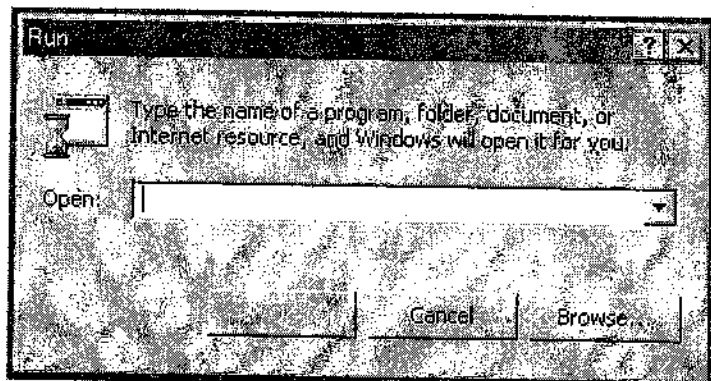


Figure : Run Menu

DOS AS AN APPLICATION

Windows NT is a new operating system that is being used by a large number of computer users all over the world. Many companies however still use MS-DOS based applications. Therefore, supports for these applications were a key design goal. Windows NT provides compatibility with MS-DOS based applications.

In Windows NT, DOS is an application by name CMD. EXE. This application displays a simulated screen of the DOS command prompt in the form of a window.

To start command prompt application in the Windows NT server

- Select the programs option from the start menu
- Click command prompt in the programs sub-menu

The command prompt, which appears here, is C :>. (Refer FIGURE 5) If drive C is currently active, and you want to access the files on a diskette in drive A, you can change to drive A by specifying A: at the cursor position.

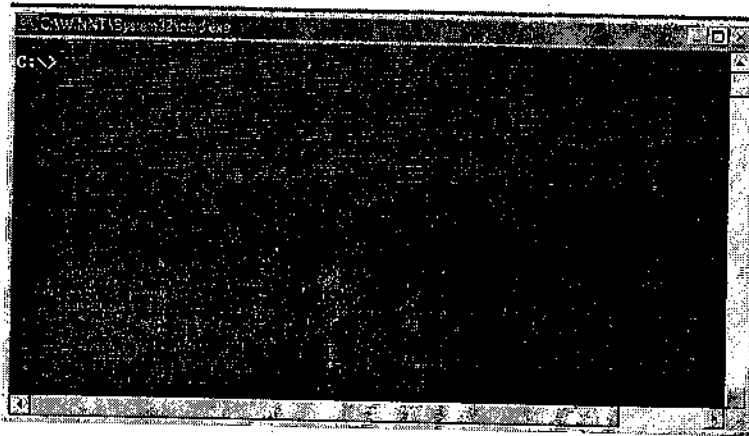


Figure : Command Prompt

Similarly, to change to drive C type C: and press <enter>.

1.9 MY COMPUTER

The My Computer window displays icons representing the various drives like A: C: etc and resource icons like printers, dial-up networking and the control panel. The various drive icons let you access the contents of each of the drives. The printers icon is a folder represent in the collection of printers installed in the system. It also lets the user install a new printer. Every window has three buttons on the right-upper corner that can be used to minimize, maximize and close the window. In a maximized window, the maximize button is replaced by the restore button. FIGURE 2 displays the My Computer window.

Use My Computer when you want to view the contents of a single folder or disk. A disk is a device, such as a hard disk or floppy disk, on which you can store files. When you double-click My Computer on your desktop, icons representing the available drives appear in a new window. When you double-click a drive icon, a window displays the folders contained on that drive. You can then double-click an icon to open the folder or file.

Some of the following icons may appear in the My Computer window.

Double-click	To
	View the contents of the floppy disk, which is usually designated as A.
	View the contents of the hard disk, which is usually designated as C.
	View the contents of a network drive, if your computer is connected to one.
	View the contents of a compact disc in the CD-ROM drive, if your computer has one.
	View features you can use to modify your computer settings.
	Set up a printer and view information about available printers and print job status.
	Schedule or view tasks for computer maintenance.
	View the contents of a folder.
	View files and folders on a Web server, if your computer is connected to one.

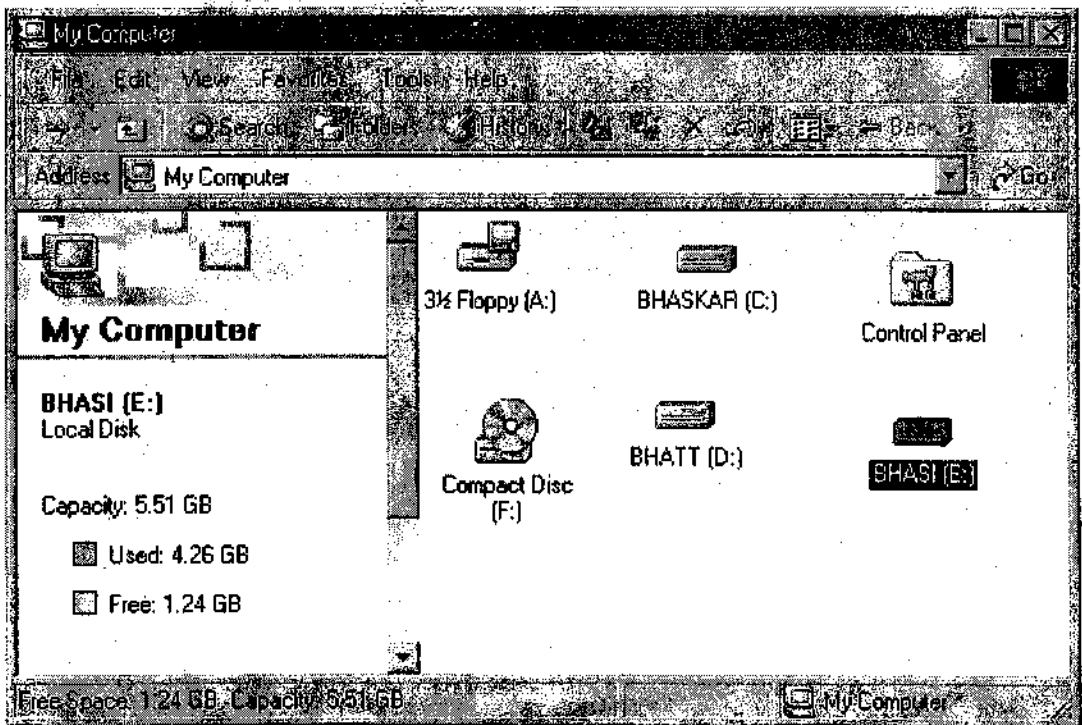


Figure: My Computer

1.10 RECYCLE BIN

Windows stores deleted files in the Recycle Bin. Which is located on the desktop? You can use the recycle bin to retrieve files that you have accidentally deleted, or empty the recycle bin to create more disk space.

When you delete a file or folder, it is removed from the folder where it used to be. It moves the file from the folder to a storage area, known as the recycle bin. You see the recycle bin as an icon on your desktop (REFER FIGURE)



Recycle Bin

Figure: Recycle Bin Icon

Windows NT moves all deleted objects - files folders, shortcuts, and printers - into the recycle bin as a precautionary measure. In case a file is deleted accidentally, you can double-click on the recycle bin icon and move the file (s) back to their original location by selecting the restore option from the file menu. However, if the files have to be deleted, they should be deleted from the Recycle Bin. Figure 21 shows the Recycle Bin window and the options that the file menu provides for managing the files in the Recycle Bin

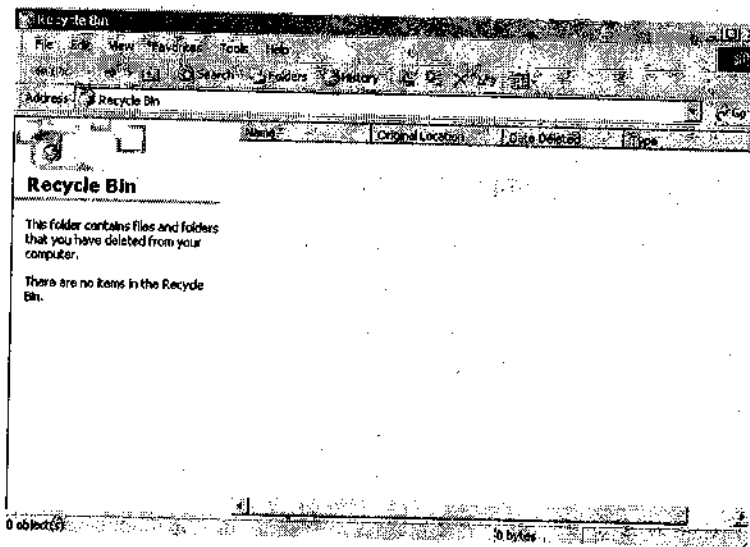


Figure: Recycle Bin Folder

1.11 CONTROL PANEL

Control Panel is a convenient way to customize your computer. From Control Panel you can add and remove programs, fonts, and hardware; control hardware, such as your mouse and modem; and select folder, display, and sound options.

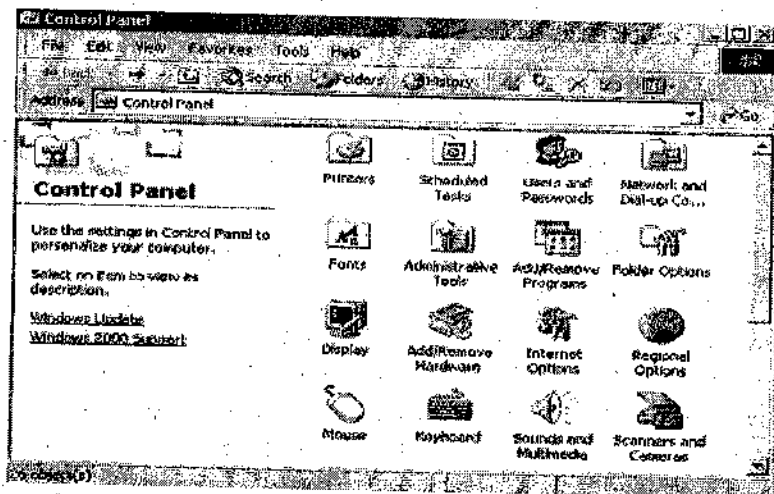


Figure: Control Panel

To open a Control Panel item

1. Click the Start button, point to Settings, and then click Control Panel.
2. Double-click the icon of the feature you want to open.

Choosing Folder Options

Use Folder Options in Control Panel to change how your desktop appears and how you browse through your files and folders. You can choose Web-style options, keep familiar options from earlier versions of Windows, or choose a combination of both.

You can use Folder Options to choose whether:

- The Active Desktop is on or off.
- Web-like content appears in folders.
- You browse folder content in multiple windows or a single window.
- You double-click or single-click to open files.

To change your folder options

You can also double-click My Computer, and then on the Tools menu, click Folder Options.

1. Click the Start button, point to Settings, and then click Control Panel.

Control Panel appears.

2. Double-click the Folder Options icon.

The Folder Options dialog box appears.

3. On the General tab, click the folder options you want, and then click OK.

1.12 WINDOW EXPLORER

Windows Explorer displays the hierarchical structure of files, folders, and drives on your computer. It also shows any network drives which have been mapped to drive letters on your computer. You can also view My Network Places, which lists other computers that are connected to your local area network (LAN). Using Windows Explorer, you can copy, move, rename, and search for files and folders. For example, you can open a folder that contains a file you want to copy or move, and then drag it to another folder or even another drive.

There are other places in Windows 2000 where you can view and work with files and folders. My Documents is a convenient place to store documents, graphics, or other files you want to access quickly. When you delete files or folders from your hard disk, Windows 2000 places them in the Recycle Bin, where you can retrieve them. Files or folders deleted from a floppy disk or a network drive are permanently deleted and are not sent to the Recycle Bin. For information about My Documents or Recycle Bin, see Related Topics.

You can also navigate in Windows 2000 by using the taskbar (including the Start button), My Computer, Windows Explorer, or My Network Places. In some cases, one way is more efficient than another. For example, it's faster to start programs from the Start button than from Windows Explorer, but, Windows Explorer gives you a more complete picture of all of the files on your computer. In other cases, the choice is personal preference. When browsing through folders (containers for documents and programs), for instance, you can use either My Computer or Windows Explorer-it's a matter of how you prefer to display the contents of your computer. The following sections familiar you with some of your choices.

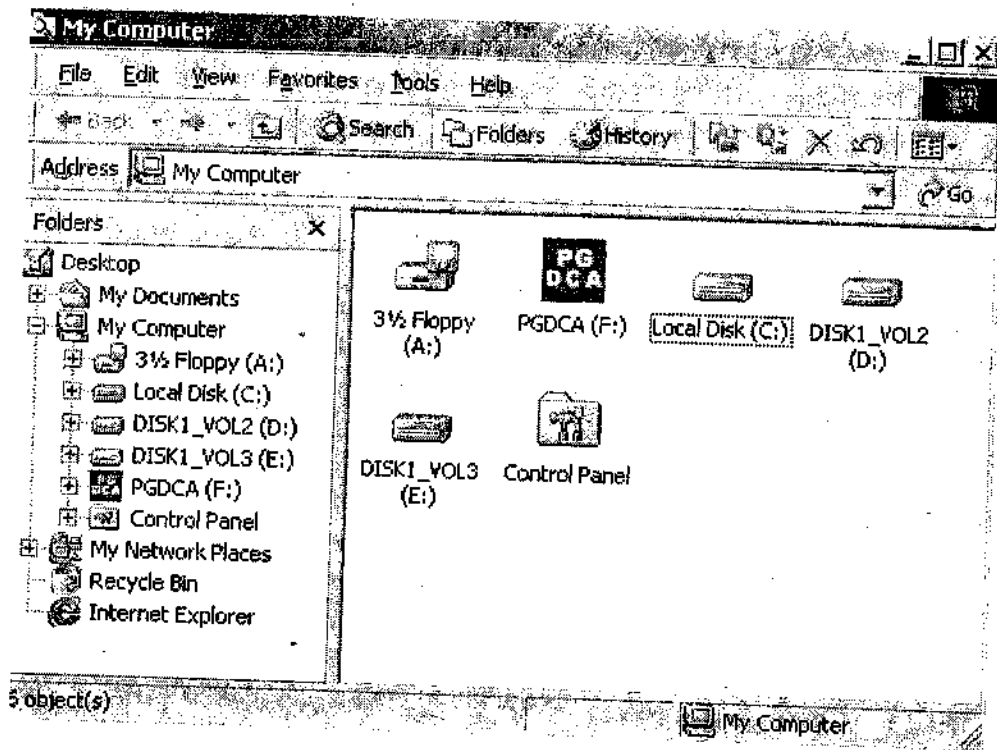


Figure: Windows Explorer

To create a new folder -

1. Open Windows Explorer.
2. Click the drive or folder in which you want to create a new folder.
3. On the File menu, point to New, and then click Folder.
4. Type a name for the new folder, and then press ENTER.

Note

- To open Windows Explorer, click Start, point to Programs, point to Accessories, and then click Windows Explorer.
- You can also create a new folder by right-clicking a blank area in the right pane of Windows Explorer or on the desktop, pointing to New, and then clicking Folder.

To select multiple files and folders -

1. Open Windows Explorer.
2. Click the drive or folder you want to work with, and then do one of the following:
 - To select consecutive files or folders, click the first item, press and hold down SHIFT, and then click the last item.
 - To select files or folders that are not consecutive, press and hold down CTRL, and then click each item.
 - To select all the files and folders in the window, click the Edit menu, and then click Select All.

To copy or move a file or folder -

1. Open Windows Explorer.
2. Click the drive or folder you want to work with.

3. Click the file or folder you want to copy or move.
4. On the Edit menu, click Copy. Or, click Cut to move the item.
5. Open the folder or disk where you want to copy or move the item.
6. On the Edit menu, click Paste.

Notes

- To select consecutive files or folders to copy or move, click the first item, press and hold down SHIFT, and then click the last item.
- To select files or folders that are not consecutive, press and hold down CTRL, and then click each item.

To move files by dragging

1. Open Windows Explorer.
2. Find the file or folder you want to move.
3. Make sure the destination for the file or folder you want to move is visible.
4. Drag the file or folder to the destination.

Notes

- If you drag using the right mouse button, a menu appears with the commands Move Here, Copy Here, Create Shortcut(s) Here, and Cancel. Click the command you want.
- To copy the item instead of moving it, press and hold down CTRL while dragging.
- If you drag an item to another disk, it is copied, not moved. To move the item, press and hold down SHIFT while dragging.

To delete a file or folder -

1. Open Windows Explorer.
2. Click the file or folder you want to delete.
3. On the File menu, click Delete.

Notes

- Deleted files remain in the Recycle Bin until you empty it unless you press and hold down SHIFT while dragging an item to the Recycle Bin. Then the item is deleted from your computer without being stored in the Recycle Bin.
- If you want to retrieve a file you have deleted, double-click Recycle Bin on the desktop, right-click the file you want to retrieve, and then click Restore.
- You can also delete files or folders by right-clicking the file or folder and then clicking Delete.

To create a shortcut in a folder -

1. Open Windows Explorer.
2. In the Folders list, click the folder in which you want to create the shortcut.
3. On the File menu, point to New, and then click Shortcut.
4. Follow the instructions on your screen.

Notes

- To open Windows Explorer, click Start, point to Programs, point to Accessories, and then click Windows Explorer.
- Folders can also be opened by double-clicking the folder in the details pane on the right.
- A shortcut is a quick way to start a frequently used program or open a file or folder without having to go to its installed location. For information about creating shortcuts on the desktop or Start menu, see Related Topics.

To change the name of a file or folder

1. Open Windows Explorer.
2. Click the file or folder you want to rename.
3. On the File menu, click Rename.
4. Type the new name, and then press ENTER.

Notes

- You do not need to open the file or folder to rename it.
- A file name can contain up to 215 characters, including spaces. However, it is not recommended that you create file names with 215 characters. Most programs cannot interpret extremely long file names. File names cannot contain the following characters:

\\ : * ? " < > |

- You can also rename a file or folder by right-clicking it and then clicking Rename.
- The name of system folders such as Documents and Settings, Winnt, or System32 cannot be changed because they are required for Windows to run properly.

To search for a file or folder

1. Click Start, point to Search, and then click For Files or Folders.
2. In Search for files or folders named, type all or part of the file name or folder you want to find.
3. To search for files containing specific text, in Containing text, type the text you want to find.
4. In Look in, click the drive, folder, or network you want to search.
5. To specify additional search criteria, click Search Options, and then click one or more of the following options to narrow your search:
 - Select Date to look for files that were created or modified on or between specific dates.
 - Select Type to look for files of a specific type, such as a text or WordPad document.
 - Select Size to look for files of a specific size.
 - Select Advanced Options to specify additional search criteria.
6. Click Search Now.

Notes

- If you get too many results, try entering additional search criteria to make your search more specific.
- To clear the search criteria fields and begin a new search, click New.

- Under Advanced Options, Search slow files refers to files that reside on removable storage media, such as optical or tape backup. These files may need to be copied to a faster storage medium before the contents can be searched.

To change file or folder properties

1. Open Windows Explorer.
2. Click the file or folder whose properties you want to change.
3. On the File menu, click Properties.

Notes

- You can also right-click a file or folder and then click Properties.
- To change properties for archiving, indexing, compression, or encryption on NTFS drives, right-click the file or folder, click Properties, click Advanced, and then select the options you want to change.

1.13 WINDOWS 2000 ACCESSORIES

In the following session, we will discuss the various accessories in more detail.

RUN YOUR PROGRAMS

To run the accessory programs, follow the instructions:

1. Click the Start button.
2. Then click on Programs, and then click on Accessories.
3. The cascading menu appears. Click on the program you want to run

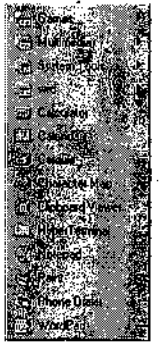


Figure: Window Accessories

To run other programs, that have been created by the users :

1. Click on Run... option from the Start menu.
2. Run dialog box is opened. In the Open text box, enter the path name of the program you want to run.
3. If you do not remember the name of the file, click on Browse... button.
4. In the Browse window, look in text box lists the available drives, folders, and files. Click on the down-arrow.
5. To see inside a folder, click it. The box below shows the folders and files in the selected location.
6. Double-click a folder or file to open it.
7. To open the folder one level higher, click on the toolbar.
8. Once the file is located, click on Open and then click on OK from the Run window.

General Use

The usual accessory programs that are used are easy and useful to work with. They are provided for performing certain day-to-day activities of the users.

CALENDAR

Windows Calendar is used to view the current month's calendar that shows the day and date, and also the current day showing the timings to keep track of your appointments. To display either of the mentioned views, click on the View option, and select whichever you require.

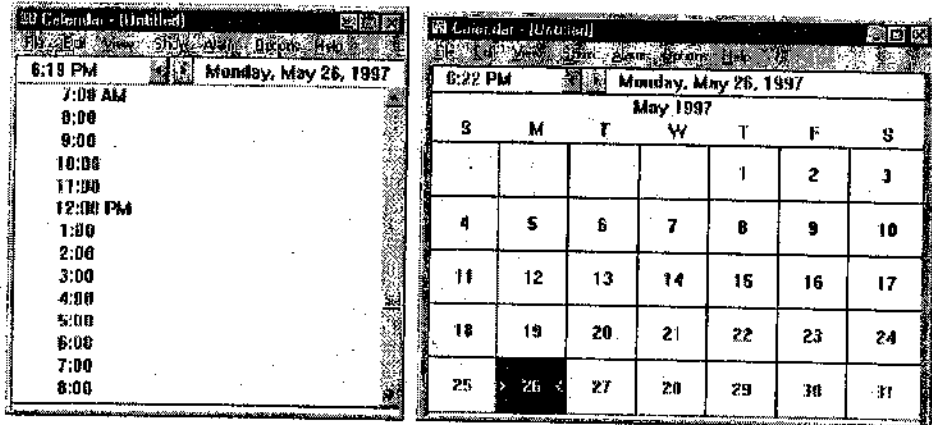


Figure: Calendar

Above given are the samples of two views. The left window displays the day schedule to track your appointments, whereas, the right window displays the month calendar.

CALCULATOR

You can use Calculator in standard view to do simple calculations, or use it in scientific view to do advanced scientific and statistical calculations. You have been using this program in earlier versions of Windows also.

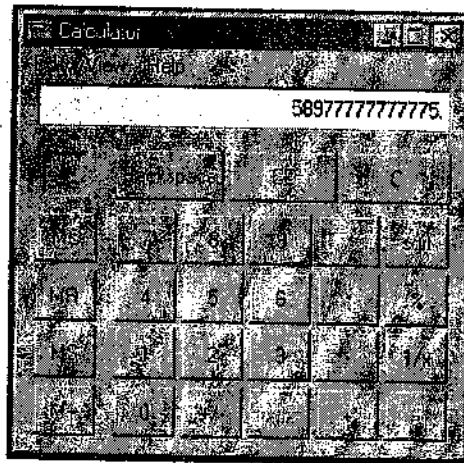


Figure: Calculator

CHARACTER MAP

Character Map works only with Windows-based programs. This is used to insert a special character into a document.

To insert a special character in the document, follow the given steps :

1. Select Character Map from the cascading menu of Accessories.
2. Click the Font box, and then click a font.
3. To magnify a character in Character Map, click it and hold down the mouse button. Double-click

each character you want. The character(s) will appear in the Characters To Copy box.

4. Click Copy.
5. In your document, click where you want the character(s) to appear, click the Edit menu, and then click Paste.
6. Select the characters, and then change them to the same font you used in Character Map.

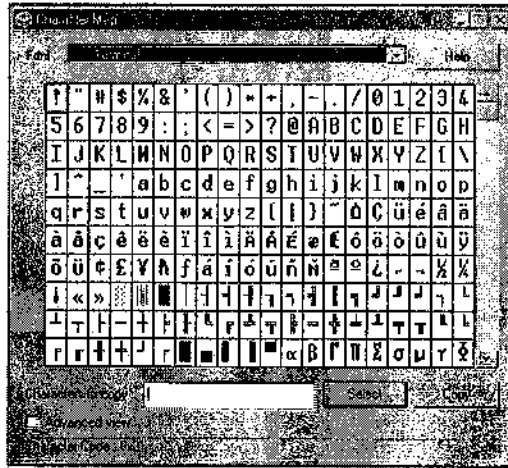


Figure : Character Map

PAINT

Paint is a bitmap-painting program with a full set of painting tools and a wide range of colors. You can use it to create, edit, and view pictures. The pictures created by Paint can be pasted into another document you have created, or use it as your desktop background. You can even use Paint to view and edit scanned photos.

To start Paint, select Paint from the cascading menu of Accessories.

The Paint window consists of a workspace, or canvas, where you paint pictures. To the left of the canvas is the Toolbox, which contains a set of painting tools. The color palette is at the bottom of the canvas. The selection box is on the left side, where you select the width of lines or pen tips to use for the Brush, Line, Eraser, and other tools. To paint, select a tool, a color, and a line width, and then start painting on the canvas.

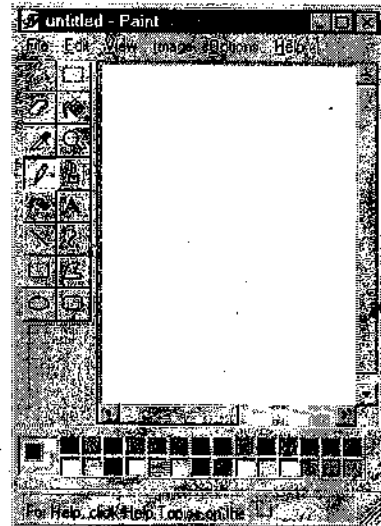


Figure: PAINT

WORDPAD

WordPad is a text editor for short documents. Though, this accessory does not have the advanced features of full-blown word processors like MS-Word. You can format documents in WordPad with various fonts and paragraph styles.

To start WordPad, click on Start menu, then on Accessories, and then on WordPad.

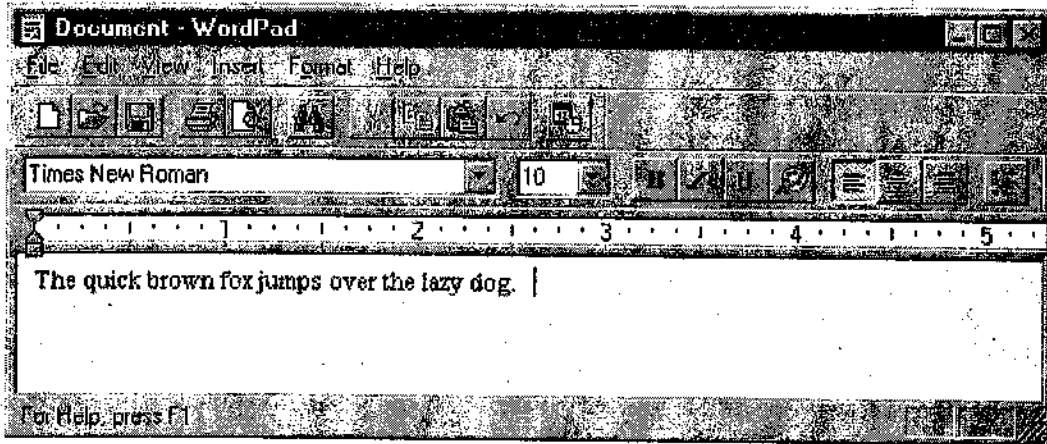


Figure: WORD PAD

Once WordPad is running, you can do the following:

1. Specify the initial page layout for a document, such as paper size and margin settings.
2. Type, edit, and delete text, as well as copy or move text from one place to another. You can also copy or move text between two different applications.
3. Change the font, style, and size of characters, and change the alignment and indents of paragraphs. You can also set special tabs and create bulleted or numbered lists.
4. Search for previously typed text or replace text with new text.
5. Create compound documents that contain pictures, spreadsheet data, charts, sound, and video created in other applications.

NOTEPAD

You can use Notepad to create or edit text files that do not require formatting and are smaller than 64K. Notepad opens and saves text in ASCII (text-only) format only. To create or edit files those require formatting or are larger than 64K, use WordPad. Notepad loads very quickly and is easy to learn and use.

To start Notepad, click on Notepad from the cascading menu of Accessories.

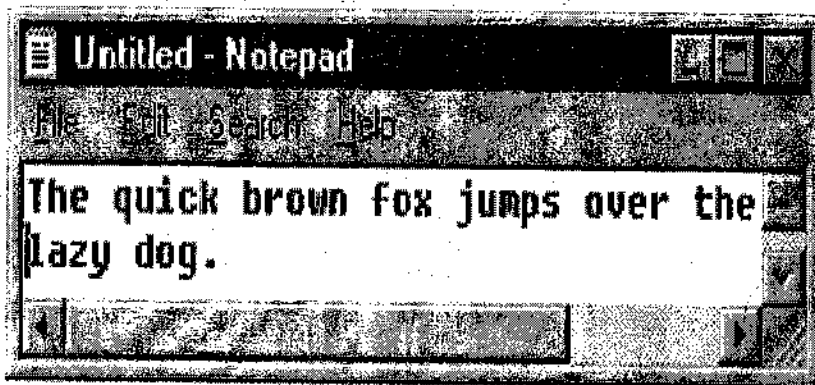


Figure : NOTEPAD

Now you can type text in the workspace and use standard editing techniques to insert, delete, and copy or move text.

ENTERTAINMENT

MULTIMEDIA IN WINDOWS 2000

The previous versions of Windows and DOS were not designed to support multimedia, therefore, the multimedia presentations were either not running or running very slowly. With WINDOWS 2000, things are improved as it supports multimedia at the base level, as discussed below:

- Multimedia presentations require more than one media, and WINDOWS 2000 is a 32-bit, multitasking and multithreading operating system. This assures playing more than one media smoothly, and more responsive to user interaction.
- During installation procedure of WINDOWS 2000, it automatically detects and configures itself for multimedia devices.
- WINDOWS 2000 allows you to create compound documents that include sound, video, graphics, charts, pictures, and other elements from various applications.
- A new CD-ROM file system in WINDOWS 2000 improves CD-ROM performance.
- An AutoPlay feature makes it easy to set up and play back programs on CD-ROM.
- The video standard in WINDOWS 2000 is widely supported in the computer industry.
- WINDOWS 2000 supports larger video windows and higher frame rates.
- WINDOWS 2000 supports Sony VISCA interface which means that you and your applications can control VCRs and laser disc players.
- New graphic programming interface improves the game performance in WINDOWS 2000 .
- WINDOWS 2000 supports a variety of industry-standard sound and video compression codecs (coders / decoders). Codecs reduce the size of multimedia files.
- All the multimedia controls can be changed or edited from the Multimedia Properties dialog box. To open this box, open the Control Panel and double-click the Multimedia utility.

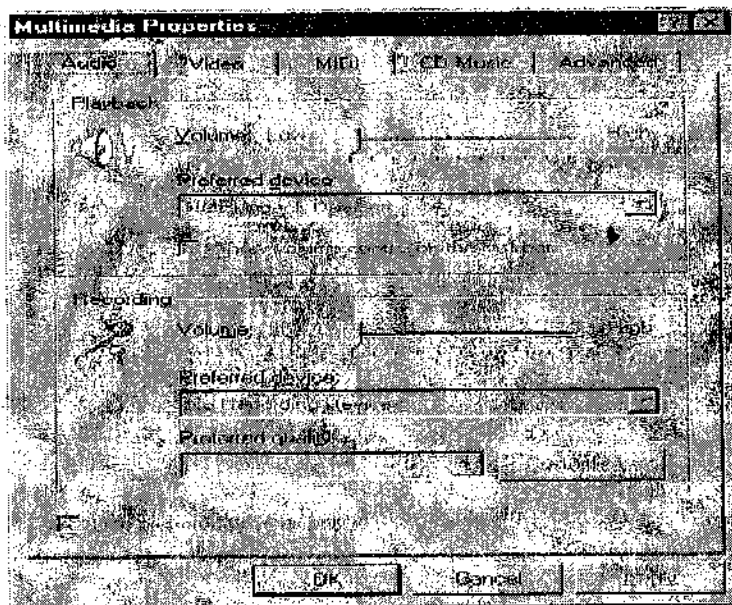


Figure : MULTIMEDIA PROPERTIES

MULTIMEDIA TOOLS

WINDOWS 2000 offers accessories for editing and listening to sound, playing movies, and playing music CDs.

To access these accessories, follow the given steps:

1. Open the Start menu.
2. Select Programs from the menu.
3. From the cascading menu, click on Accessories.
4. Then click on Multimedia from the cascading menu of Accessories.

The options of the Multimedia menu are - CD player, Media Player, Sound Recorder, and Volume Control. Each of these is discussed in the subsections.

CD PLAYER

You can use CD Player to play audio compact discs from a CD-ROM drive connected to your computer. To use CD Player, you also need a sound card.

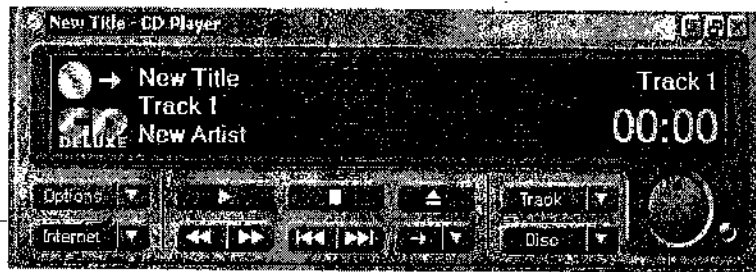


Fig : CD PLAYER

Before playing a CD make sure it is in the CD-ROM drive, and then click the start button as shown in Figure. Your CD continues to play even if you minimize CD Player.

MEDIA PLAYER

You can use Media Player to play audio, video, or animation files, and to control the settings for multimedia hardware devices. To use Media Player also, you should have a sound card.

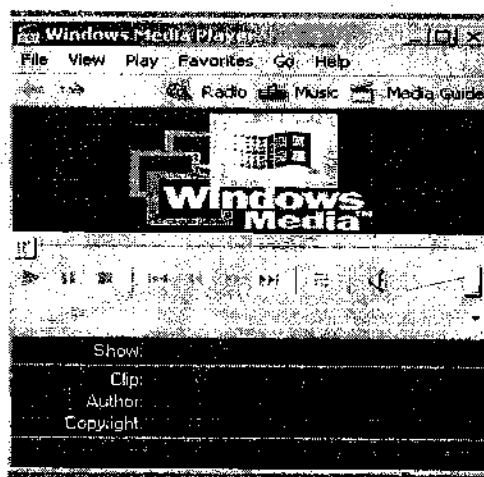


Figure : MEDIA PLAYER

SOUND RECORDER

The Sound Recorder is a handy but somewhat limited digital recorder. Using Sound Recorder you can record, play, and edit sound files. To use Sound Recorder, you must have a sound card and speakers installed on your computer. If you want to record live sound, you also need a microphone. This multimedia utility can be used to create recorded messages and include them in files or include them in electronic mail messages that you send to other users.

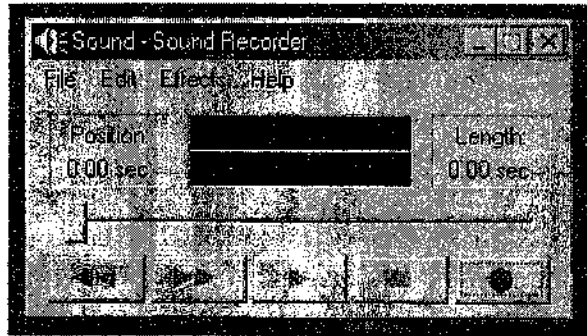


Figure : SOUND RECORDER

To record a new sound, follow the steps given:

1. Attach a microphone to the soundboard or attach cable from another sound source, such as a CD audio player or stereo.
2. To customize recording options, choose Properties from the File menu.
3. Choose recording format in the Format Conversion field.
4. Click the Convert now button that opens the Sound Selection dialog box.
5. In the Name field, specify the quality of sound from the pull-down list - CD Quality, Radio Quality, or Telephone Quality. For every option of the Name field that you select, note the contents of the Format and Attributes fields, which show the recording options and disk space requirements in seconds.

VOLUME CONTROL

If you have a sound card, you can use Volume Control to control the volume and speaker balance when you play audio files.

To adjust the volume for multimedia devices, open the Multimedia Properties dialog box. In the Playback or Recording area, drag the Volume slider.



Figure : VOLUME CONTROL

1.14 MANAGING HARDWARE AND SOFTWARE AND ITS INSTALLATION

SYSTEM SETTINGS

The System can be personalized by making interesting and useful changes to WINDOWS 2000 settings. For example, you can :

- Adjust the double-click speed for your mouse.
- Change number, currency, time, and date settings.
- Change printer settings.
- Change settings for network service.
- Change background of your desktop.
- Change the capacity of the Recycle Bin.
- Change the number of colors your monitor displays.
- Have your monitor automatically turn off.
- Change the screen resolution.
- Change display fonts.
- Protect your screen by setting-up a screen saver.
- Configure multimedia devices.
- Enable multiple users to personalize settings.
- View or change resource settings for a hardware device.

CONTROL PANEL

When you click on the option Control Panel from the cascading menu of Settings, a window is opened that contains the icon of the utilities for changing hardware configurations or customizing the WINDOWS 2000 graphical interface as shown below

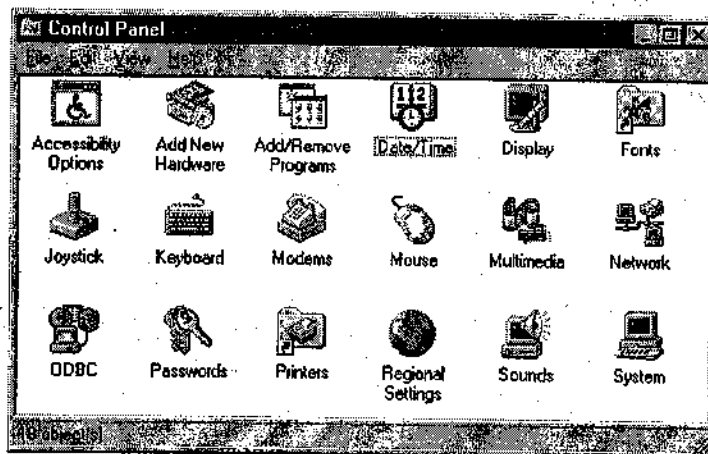


Figure : CONTROL PANEL

You can also access the utilities of Control Panel, if you click on My Computer and then on Control Panel icon.

1.15 ADD/REMOVE APPLICATIONS (SOFTWARES)

The WINDOWS 2000 components, accessories, or other applications can be added or installed, and removed by using the Add/Remove Programs utility from the Control Panel window. The advantage of using this utility is that WINDOWS 2000 maintains control over the installation process by making proper entries into the registry.

- To install an application, click on Install... button. While installing the application, the wizard helps you to complete the process step-by-step.
- To add a program, select it from the displayed list of programs and then click on Add/Remove button.
- To remove the application, again select it from the displayed list of applications and programs and click on Add/Remove button.

1.16 ADD NEW HARDWARE

To set up new hardware

- Click on the Add New Hardware icon (as shown) to start Add New Hardware wizard.



Figure : Add New Hardware

Simply, follow the instructions on your screen.

It is recommended that you let Windows detect your new hardware. Make sure you have connected your hardware or installed its components in your computer before running the wizard.

1.17 PRINTERS

WINDOWS 2000 has significant advances in printing features. These are :

- It supports bi-directional communication with printers so that printers can provide WINDOWS 2000 with information about their current state and attributes.
- The WINDOWS 2000 printing system also returns control to users more quickly after a job is sent to the printer due to a new print spooler.
- Mobile and remote users can defer their printing job until later if they are not connected to a printer. Print jobs are stored in a local queue and automatically sent to the printer when they reconnect with the printer or reconnect to a network that has printers.

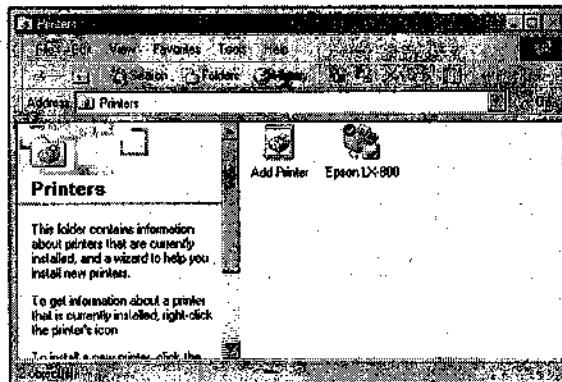


Figure: PRINTER CONTROLS

To change printer settings

1. Select the object Printers from the Control Panel window.
2. From the Printers window, click the icon for the printer you are using.
3. On the File menu, click Properties.
4. The settings you can change depend on the type of printer you have. Click the different tabs to see all of the options you can set.

Changing the printer properties will change them for all documents you print on this printer. To change these settings for one document, use the Page Setup or Print Setup command on the File menu in your program.

To set up a new printer

1. Select Add Printer icon from the Printers window.
2. Add Printer Wizard is opened, and follow the instructions on the screen.
3. If you want to print a test page, first make sure your printer is on and ready to print.

If you want to use a shared network printer, you can set it up quickly by browsing for it in Network Neighborhood, clicking the printer's icon, and then clicking Install on the File menu.

1.18 SYSTEM TOOLS (DISK DRIVE UTILITIES)

WINDOWS 2000 includes utilities to format diskettes, Check diskettes and hard drives for errors, defragments disks, and do other types of maintenance. Some of these utilities are discussed below.

To access these utilities

1. Open the Start menu and select Programs.
2. Choose Accessories and then System Tools. The cascading menu that appears includes the various Disk Drive utilities.

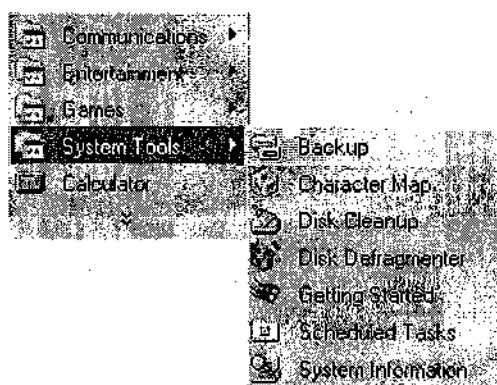


Figure: SYSTEM TOOLS

1.19 DISK DEFRAGMENTER

Disk Defragmenter is used to rearrange files and unused space on the hard disk so that programs run faster.

To speed up your hard disk by using Disk Defragmenter, follow the instructions given below :

1. From the cascading menu of System Tools, select Disk Defragmenter. Select Drive dialog box is opened to select the drive you want to defragment.

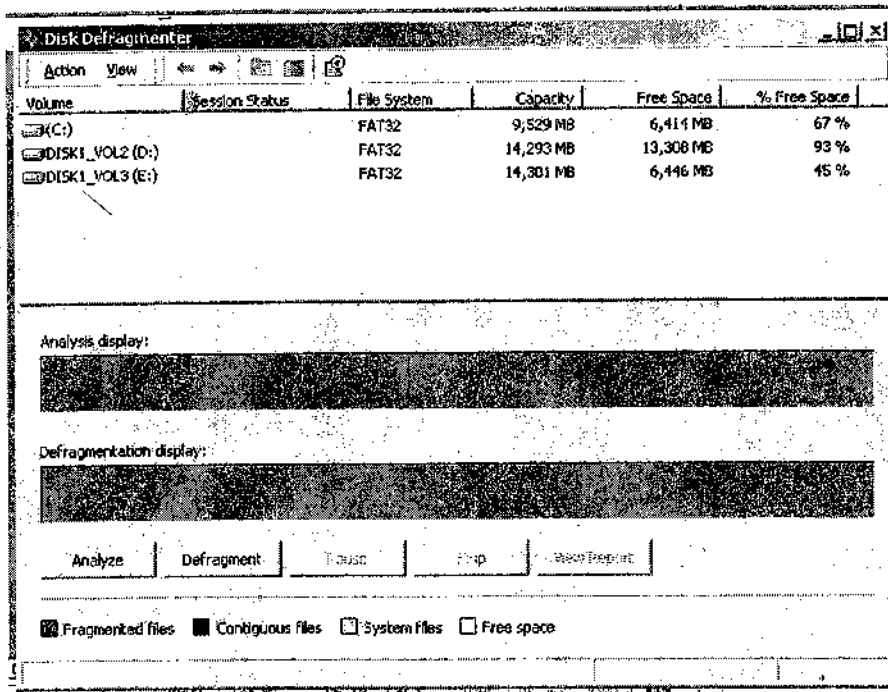


Figure : DEFRAGMENTER

2. Click the drive you want to defragment, and then click OK.
3. If you want to change the settings that Disk Defragmenter uses, click Advanced...
4. Click Start.

While Windows defragments the selected disk, the computer can safely carry out other tasks. However, the computer will operate more slowly. To temporarily stop Disk Defragmenter so you can run other programs at full speed, click Pause.

1.20 CHECK FOR DISK ERRORS (SCAN DISK)

You can use Scandisk to check your hard disk for logical and physical errors, and then repair the damaged areas.

To check your disk's surface, files, and folders for errors

1. Select the option Scandisk from the cascading menu of System Tools.
2. Click the drive you want to check.
3. Click Thorough. If you want to change the settings Scandisk uses when checking the disk's surface, click Options. If you want to change the settings Scandisk uses when checking files and folders, click Advanced.
4. Click Start.

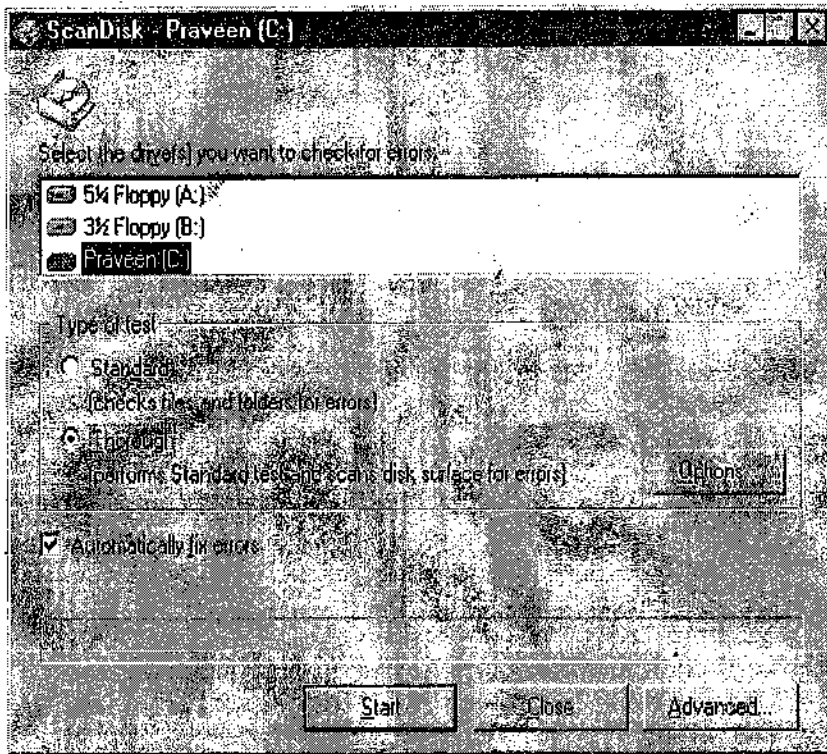


Figure : SCAN DISK

If you want to specify how Scandisk repairs any errors it finds, make sure that the Automatically Fix Errors box is not checked.

The Standard type of test is only to check errors in files and folders, but does not check the disk surface.

DRIVE SPACE

You can use DriveSpace to compress both hard and floppy disks to create more free space for files. You can also use DriveSpace to configure disk drives that you have already compressed by using DoubleSpace or DriveSpace.

To determine how much space is available on a disk

1. Double-click the My Computer icon, and then click the disk you want to check.
2. On the File menu, click Properties. A pie chart shows how much free and used space is on the disk.

To create more disk space by using DriveSpace

1. In the Drives On This Computer list, click the drive you want to compress.
2. On the Drive menu, click Compress.
3. Click Start.
4. If you have not backed up your files, click Back Up Files, and then follow the instructions on your screen. When you are done, proceed to step 6.
5. Click Compress Now.
6. If Windows prompts you to restart your computer, click Yes.

7. If you want to free up more disk space after your computer restarts, start the Disk Space Troubleshooter again.

1.21 BACKUP YOUR DATA

You can use Backup to back up files on your hard disk. You can back up files to floppy disks, a tape drive, or another computer on your network. When you have made a backup file, you can restore it if your original files are damaged or lost.

There are two ways you can backup your files :

- You can backup files on your hard disk to a floppy disk or other media by using simple copy techniques.
- The Microsoft Backup utility can also be used, which compresses files and puts them in an archive. These compressed files can be copied to a floppy drive, tape drive or other backup device.

To start the Backup utility

1. Click Start and select Programs.
2. Select Accessories from the cascading menu, and then click on System Tools.
3. Now click on Backup. If this utility is not present in the cascading menu of System Tools, then probably this utility was not installed when you set up the system.

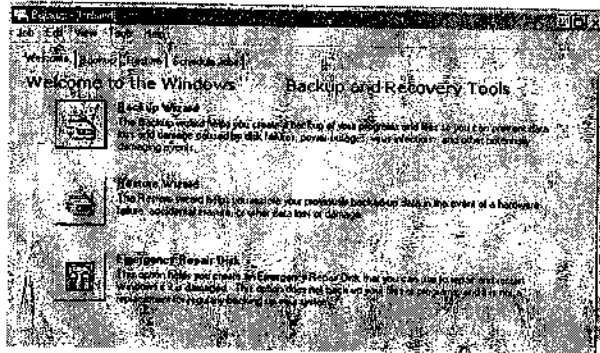


Figure : BACK UP & RECOVERY

To install the Backup utility, follow the instructions given below :

1. Start the Add/Remove Programs utility from the Control Panel window.
2. Click the Windows Setup tab and click the Disk Tools option in the window.
3. Then click OK to install the Backup utility, and then follow the instructions on the screen.

While restoring backup files, again the Microsoft Backup utility is used. Restoring the files may pose a problem if you need to restore them on a system that does not have this utility or is not running WINDOWS 2000. In that case, other backup method may be used.

1.22 Clipboard Viewer

When you cut or copy information from a program, it is moved to the Clipboard and remains there until you clear the Clipboard or until you cut or copy another piece of information. The Clipboard window in ClipBook Viewer shows the contents of the Clipboard. You can paste the information from the Clipboard into any document as often as you like. However, the information is only stored on the Clipboard temporarily.

Using ClipBook Viewer, you can cut or copy information from another program and store it in a page that you can name, save, use again, and share with others.

You can share ClipBook pages with others who have ClipBook Viewer installed on their computers, and they can share their ClipBook pages with you.

You can also save the contents of the Clipboard to an individual Clipboard file instead of a ClipBook page. These files generally have the extension .clip and cannot be shared with others.

The Clipboard can store text in different formats, such as the Text character set (used by most Windows 2000 and Windows NT-based programs), the OEM Text format (used by MS-DOS-based programs), and the Unicode character set (a superset of all of the major scripts used in the world). The View menu gives you the ability to see your data in various formats.

In Windows 2000, Clipboard Viewer has been renamed Clipbook Viewer. ClipBook Viewer shows you the information you have copied to the Clipboard. You can store information permanently in your Local ClipBook and share it with other users. The Local ClipBook opens when you start ClipBook Viewer. For information about using ClipBook Viewer, see Related Topics or click the Help menu in ClipBook Viewer.

Note

- To open ClipBook Viewer, click Start, click Run, and then type clipboard.

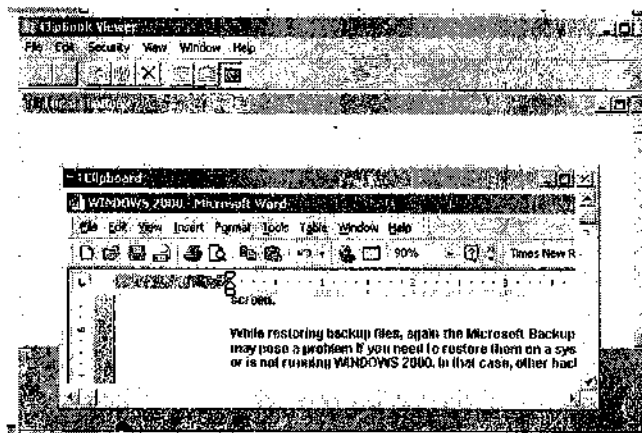


Figure : CLIPBOARD VIEWER

1.23 SYSTEM INFORMATION

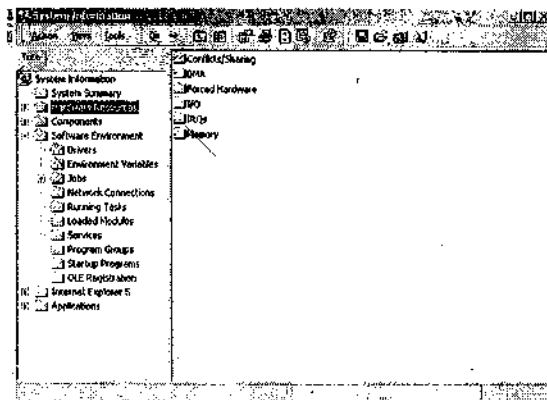


Figure : System Information

In Windows 2000, you can use System Information in Computer Management to collect and display your system configuration data. Support technicians require specific information about your computer so that they can resolve your system problem. You can use System Information to quickly find the data they need. For information about using System Information, see Related Topics or click the Action menu in Computer Management, and then click Help.

1. Open Computer Management (Local).
2. In the console tree, double-click System Tools, and then click System Information.

Note

- To open Computer Management, click Start, point to Settings, and then click Control Panel. Double-click Administrative Tools, and then double-click Computer Management.

1.24 NTFS

The NTFS file system is the recommended file system for use with Windows 2000. NTFS has all of the basic capabilities of FAT, and it provides the following advantages over the FAT and FAT 32 file systems:

- Better file security.
- Better disk compression.
- Support for large hard disks, up to 2 terabytes (TB). (The maximum drive size for NTFS is much greater than that for FAT, and as drive size increases, performance with NTFS doesn't degrade as it does with FAT.)

If you're using a dual-boot configuration (using both Windows 2000 and another operating system on the same computer), you may not be able to gain access to files on NTFS partitions from the other operating system on your computer. For this reason, you should probably use FAT32 or FAT if you want a dual-boot configuration.




An advanced file system designed for use specifically within the Windows 2000 operating system. It supports file system recovery, extremely large storage media, long file names, and various features for the POSIX subsystem. It also supports object-oriented applications by treating all files as objects with user-defined and system-defined attributes.

1.25 NETWORK NEIGHBOURHOOD (MY NETWORK PLACES)

In Windows 2000, Network Neighbourhood has been renamed My Network Places and is located on the desktop. My Network Places provides a view of all the shared computers, files and folders, printers, and other resources on the network to which your computer is connected.

A network is a group of computers connected to one another so that they can share resources such as files and printers. If your computer is connected to a network, you can use My Network Places to browse network resources the same way you browse the contents of your own computer. When you double-click My Network Places on your desktop, icons representing network resources appear in a window.

Some of the following icons may appear in My Network Places.

Double Click	To
	Create a shortcut to a specific network location. Runs the Add Network Place wizard, which helps you create a connection to a shared folder, a Web folder on the Internet, or a FTP site.
	Display all of the computers, printers, files and folders, and people on your organization's network
	Display only those computers in your domain or workgroup

To open network resources

1. On the desktop, double-click My Network Places.
2. If you want to browse shared resources in your workgroup, double-click Computers Near Me. The computers and resources in your workgroup appear.
If you want to view all of the resources available on the network, double-click Entire Network. Depending on how your network is set up, you may see computers arranged by domain or by workgroup.
3. Double-click the item you want to open, just as you would open drives and folders on your own computer

1.26 SHARING INFORMATION BETWEEN PROGRAMS -

Concept of OLE- OBJECT LINKING AND EMBEDDING

Cutting information from one document and pasting it into another is a good way of reusing information. When you paste information into a document, the information that you paste becomes part of the second document. If you make changes to the information in the original document, those changes will not be reflected in the fragment that you pasted into the second document.

For Windows-based programs that support drag-and-drop functions, you can use linking or embedding to transfer information from one document to another document, even if that document is in a different program.

Linking means inserting information that retains a connection to the information stored in the original file. Linking keeps the inserted information up-to-date by refreshing it when there is a change to the original document. To link selected information, use the Copy and Paste Special commands on the Edit menu. To link a file into your document, use the Object command on the Insert menu. For example, if you want to use WordPad to create text that you can reuse in other documents, you can use the Object command on the Insert menu to insert the text into your document as a linked WordPad file. Then, whenever you make changes to the text in the WordPad file, those changes automatically appear in any other documents that contain a link to that WordPad file. Some programs do not support linking.

Embedding means inserting information (such as text or a graphic) into a document in a different program. The embedded information, or object, becomes part of the new document. Changes you make to the original document will not be reflected in the new document. To edit an embedded object, double-click it; the program in which the object was created opens. In order to edit an embedded object, the program in which the object was created (or another program capable of editing the object) must be installed on your computer. When you finish editing the object and return to your document, the document reflects all of the changes you've made. To embed selected information, use the Copy and Paste commands on the Edit menu.

Use linking when you want the information to be updated dynamically as the data in the source file changes. Use embedding when you want to edit the information separately from the source file or if you think the source file will not be available.

To embed information in another document

1. Select the information you want to embed in another document.
2. On the Edit menu, click Copy.
3. Click the location in the new document where you want to insert the information.
4. On the Edit menu, click Paste Special, click Paste, then click OK

Notes

- Not all programs support embedding. If embedding isn't supported, your information will be copied.
- You can embed information in documents that were created in different programs.
- If you want the embedded information to be updated when it is changed in the original document, you may be able to link the information instead of embedding it.

To copy information into another document

1. Select the information you want to copy.
2. On the Edit menu, click Copy.
3. In the document where you want the information to appear, click the location where you want to place the information.
4. On the Edit menu, click Paste.

Notes

- You can also link or embed information.
- You can paste the information multiple times.

To link information between documents

1. Select the information that you want to link to another document.
2. On the Edit menu, click Copy.
3. Click the location in the new document where you want to place the linked object.
4. On the Edit menu, click Paste Special.
5. Click Paste Link, then click OK.

Notes

- Some programs do not support linking. If linking isn't available, Paste Special will be available on the Edit menu.
- You can link information between documents that were created in different programs.

Ways to share information in Application Programs-

There are many different ways to share information between Office programs. You can make your decision based on how you want the information to appear in the program, whether you want the information updated when it changes, and whom you want to share the information with.

To	Use
Make a copy of information that appears in one program and paste it into another program	Copy and paste
Quickly copy or move information between two open files	Drag-and-drop editing
Use a file created in another program	Import and export
Create a jump to information in one program and represent it with colored and underlined text or a graphic	Hyperlink
Copy information from another file and keep the copied information up to date if the original data changes in the source file	Linked object
Copy information from a file created in another program so that you can easily edit the data in the source program without leaving your current document	Embedded object
Make information available in a public place	Post to a public folder on Microsoft Exchange Server
Show a file with others so they can review and make comments	Route a file in e-mail
Send a file to others	Send a file in e-mail
Communicate and collaborate on a file with one or more participants during an online meeting	Schedule an online meeting

1.27 SUMMARY

- MS-Windows 2000 is the most popular GUI for personal computers. Windows provides an environment that enhances DOS in many ways.
- Windows 2000 Professional offers increased compatibility with different types of networks and with a wide array of legacy hardware and software.
- Common Look and Feel, Device Independence, Memory Management, Support for existing DOS applications, Data Sharing, True 32-bit Operating System, Portability, Scalability, Multitasking, Multiple User Support, Multi-Threading, Graphical User Interface are important features of windows OS.
- The desktop is the first view of the Windows 2000 operating system. The desktop contains icons, shortcuts and the taskbar. The user can navigate the user interface using the taskbar or the start menu.
- The start menu is a menu located at the left end of the taskbar. Start menu is integral to the clean look of the Windows NT desktop because it helps you to minimize the clutter on your desktop.
- Windows stores deleted files in the Recycle Bin. Which is located on the desktop.
- Control Panel is a convenient way to customize your computer. From Control Panel you can add and remove programs, fonts, and hardware; control how hardware, such as your mouse and modem, behaves; and select folder, display, and sound options.
- Windows Explorer displays the hierarchical structure of files, folders, and drives on your computer. It also shows any network drives which have been mapped to drive letters on your computer.
- WordPad is a text editor for short documents. Though, this accessories does not have the advanced features of full-blown word processors like MS-Word. You can format documents in WordPad with various fonts and paragraph styles.
- The WINDOWS 2000 components, accessories, or other applications can be added or installed, and removed by using the Add/Remove Programs utility from the Control Panel window.
- WINDOWS 2000 includes utilities to format diskettes, Check diskettes and hard drives for errors, defragments disks, and do other types of maintenance.
- When you cut or copy information from a program, it is moved to the Clipboard and remains there until you clear the Clipboard or until you cut or copy another piece of information.

1.28 UNIT-END QUESTIONS

1. Describe in brief the following desktop items.
 - a. My computer
 - b. Network neighbourhood
 - c. Recycle Bin
 - d. Internet Explorer
 - e. My Documents
2. How you will manage file and folder with windows explorer.
3. What is windows clipboard. Describe its usage and cut copy and paste operation.
4. Describe different components of windows operating.
5. How will you set up the DOS program in windows.
6. What are the multimedia devices work that work with windows.
7. What do you mean by term Plug and Play.
8. What is internet explorer, how do you enter the web addresses.
9. What is a taskbar in windows, how you will customize it.
10. What do you mean by OLE.
11. What is the use of control panel.
12. How will you install printer.
13. List various features of windows OS.

Unit 2: Documentation Using Word Processor

Structure of the Unit

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- 2.1 Introduction to Word processor
- 2.2 Getting Started
 - 2.2.1 Menus
 - 2.2.2 Shortcut menus
 - 2.2.3 Toolbars
 - 2.2.4 Customizing toolbars
- 2.3 Working With Files
 - 2.3.1 Creating and opening documents
 - 2.3.2 Saving documents
 - 2.3.3 Renaming documents
 - 2.3.4 Working on multiple documents
 - 2.3.5 Close a document
- 2.4 Working With Text
 - 2.4.1 Typing and inserting text
 - 2.4.2 Selecting text
 - 2.4.3 Deleting text
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- 2.5 Formatting Paragraphs
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- 2.9 **Graphics**
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 - 2.9.3 Editing a graphic
 - 2.9.4 AutoShapes
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 - 2.10.4 Thesaurus
- 2.11 **Page Formatting**
 - 2.11.1 Page margins
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 - 2.11.3 Headers and footers
 - 2.11.4 Page numbers
 - 2.11.5 Print preview and printing
- 2.12 **Summary**
- 2.13 **Unit end Questions**

2.0 Objectives

After completing this unit you will be able to-

- Define Ms Office and Ms Word
- Word processing create file save file and open close a word document
- Text formatting ,Text selection, Insert, Delete ,Redo,Undo
- Formatting toolbar ,Format Painter ,Paragraph Formatting
- Cut , Copy, Paste, Print Preview And Printing

2.1 Introduction to Word Processing?

Word Processing, in computer terminology, refers to typing, editing and formatting of any kind of document, which could be a letter, memorandum, balance sheet, or something similar. As the term suggests, word processing simply processes words, i.e. textual information. You can use it to print letters, reports, booklets, and so forth, in a suitable layout. A word processor does this by simply for-matting the information. You or someone else has keyed into the computer. (Keying information into a computer refers to typing information using the computer keyboard.)

What is Word Processing?

Word Processing, in computer terminology, refers to typing, editing and formatting of any kind of document, which could be a letter, memorandum, balance sheet, or something similar. As the term suggests, word processing simply processes words, i.e. textual information. You can use it to print letters, reports, booklets, and so forth, in a suitable layout. A word processor does this by simply for-matting the information. You or someone else has keyed into the computer. (Keying information into a computer refers to typing information using the computer keyboard.)

Word processing is different from conventional typing in many ways. Here, the document is not printed while it is being keyed in. However, its image is displayed on the video display unit (computer screen) The user, who is typing the document, can verify the correctness of document that is displayed on the computer screen. If the user finds any mistake while typing or later, he/she can easily correct mistakes. Once the user is sure that there are no mistakes in the document, it may be printed. The current word processors are very powerful. You can create any type of document using the powerful features of the word processor. Some of the features available in most word processors are:

- Facility to create footnotes and endnotes.
- Facility to create multiple-column text.
- Index and table of contents generation.
- Spelling and grammar checking.
- Thesaurus, etc.

While working on a word processor, you first key-in the document that you want to print, keying-in the document, you can also use the various commands to format it in the desired way. You can check on the computer screen for mistakes and correct them. The word processing program normally helps you to correct mistakes. Depending on the type of the word processor in use, the display on the computer screen can resemble up to a 100% of the printed output that one gets on printing document.

When you use a manual typewriter, if you notice any mistakes after you have completed the typing, you may have to retype the document; a most cumbersome procedure. However, in a word processor, you can recall the document from computer's memory, correct mistakes and reprint it. The corrected document can be again saved in the memory for future use.

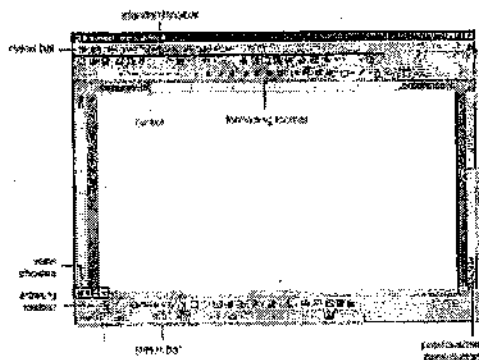
- Adjustable page size and margins.
- Printing selected text in boldface, italic or underlined.
- Printing selected text in superscript or subscript style.
- Changing the font and the size of letters of the selected text.
- Right justifying paragraphs (The last character of each line is aligned at the right margin.)
- Adjustable line and characters spacing.
- Moving selected text to another location within the document or to another document.

2.2 Starting MS-Office

To start the Ms-word

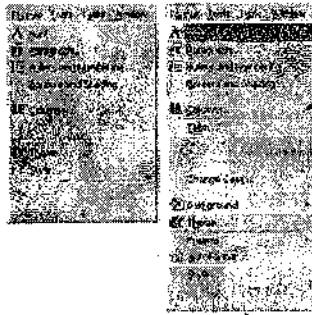
Start -> Programme -> MS-Office -> MS-Word

Screen Layout



2.2.1 Menus

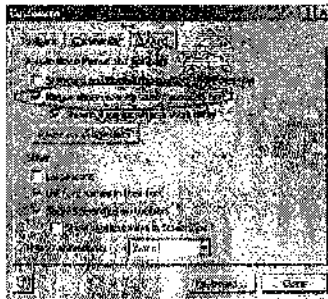
When you begin to explore Word 2000, you will notice a significant change in the menu structure if you are familiar with previous versions of Word. The menus in Word 2000 display only the commands you have recently used. To view all options in each menu, you must click the double arrows at the bottom of the menu. The images below show the Format menu collapsed (left) and expanded (right) after the double arrows at the bottom of the menu were clicked:



Follow the steps below to display menus similar to previous versions of Word with all the choices listed initially:

Select View|Toolbars|Customize from the menu bar.

- Click on the Options tab.
- Uncheck the Menus show recently used commands first check box.



2.2.2 Shortcut Menus

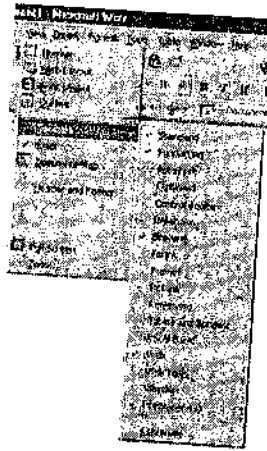
These features allow you to access various Word commands faster than using the options on the menu bar. View shortcut menus by right-clicking with the mouse. The options on this menu will vary depending on the element that was right-clicked. For example, the shortcut menu below is produced by right-clicking on a bulleted list.



Actions such as "Decrease Indent" and "Increase Indent" are only applicable to lists and therefore only appear on the list shortcut menu. The shortcut menus are helpful because they only display the options that can be applied to the item that was right-clicked and, therefore, prevent searching through the many menu options.

2.2.3 Toolbars

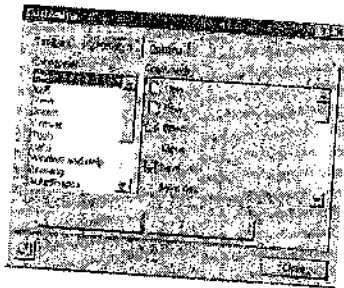
Many toolbars displaying shortcut buttons are also available to make editing and formatting quicker and easier. Select View|Toolbars from the menu bar to select the toolbars. The toolbars that are already displayed on the screen are checked. Add a toolbar simply by clicking on the name.



2.2.4 Customizing Toolbars

There may be certain actions on a toolbar that you do not use and there may also be commands that you execute often but that are not located on any toolbar. Word toolbars can be customized so these commands can be added and deleted.

- Select View|Toolbars|Customize and click the Commands tab.



- By highlighting the command categories in the Categories box, the choices will change in the Commands box to the right.
- Select the command you would like to add to the toolbar by selecting it in the Commands box.
- Drag the command with the mouse to the desired location on the toolbar and release the mouse button.
- Remove a button from the toolbar by clicking and dragging the button off the toolbar.

2.3 Working With Files

2.3.1 Creating and Opening Documents

There are several ways to create new documents, open existing documents, and save documents in Word:

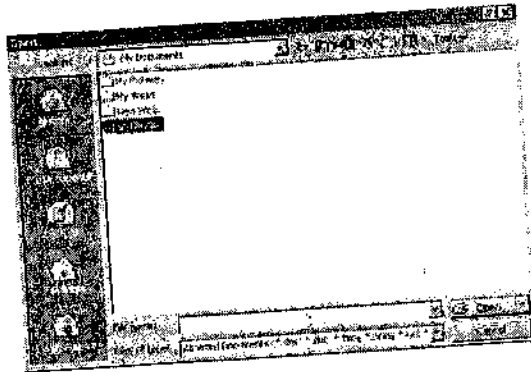
Create a New Document

- Click the New Document button on the menu bar.
- Choose File|New from the menu bar.
- Press CTRL+N (depress the CTRL key while pressing "N") on the keyboard.

Open an Existing Document

- Click the Open File button on the menu bar.
- Choose File|Open from the menu bar.
- Press CTRL+O on the keyboard.

Each method will show the Open dialog box. Choose the file and click the Open button.

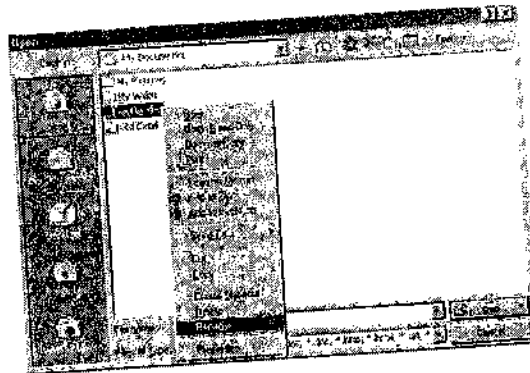


2.3.2 Saving Documents

- Click the Save button on the menu bar.
- Select File|Save from the menu bar.
- Press CTRL+S on the keyboard.

2.3.3 Renaming Documents

To rename a Word document while using the program, select File|Open and find the file you want to rename. Right-click on the document name with the mouse and select Rename from the shortcut menu. Type the new name for the file and press the ENTER key.




2.3.4 Working on Multiple Documents

Several documents can be opened simultaneously if you are typing or editing multiple documents at once. All open documents are listed under the **Window** menu as shown below. The current document has a checkmark beside the file name. Select another name to view another open document or click the button on the Windows taskbar at the bottom of the screen.



2.3.5 Close a Document

Close the current document by selecting File|Close or click the Close icon if it's visible on the Standard Toolbar. 

2.4 Working With Text

2.4.1 Typing and Inserting Text

To enter text, just start typing! The text will appear where the blinking cursor is located. Move the cursor by using the arrow buttons on the keyboard or positioning the mouse and clicking the left button. The keyboard shortcuts listed below are also helpful when moving through the text of a document:

Move Action	Keystroke
Beginning of the line	HOME
End of the line	END
Top of the document	CTRL+HOME
End of the document	CTRL+END

2.4.2 Selecting Text

To change any attributes of text it must be highlighted first. Select the text by dragging the mouse over the desired text while keeping the left mouse button depressed, or hold down the SHIFT key on the keyboard while using the arrow buttons to highlight the text. The following table contains shortcuts for selecting a portion of the text:

Selection	Technique
Whole word	double-click within the word
Whole paragraph	triple-click within the paragraph
Several words or lines	drag the mouse over the words, or hold down SHIFT while using the arrow keys
Entire document	choose Edit Select All from the menu bar, or press CTRL+A

Deselect the text by clicking anywhere outside of the selection on the page or press an arrow key on the keyboard.

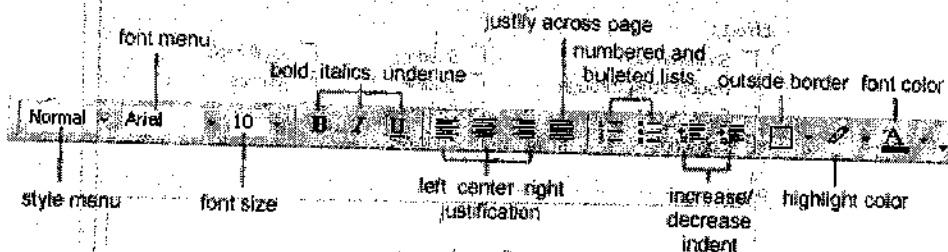
2.4.3 Deleting Text

Use the BACKSPACE and DELETE keys on the keyboard to delete text.

Backspace will delete text to the left of the cursor and Delete will erase text to the right. To delete a large selection of text, highlight it using any of the methods outlined above and press the DELETE key.

2.4.4 Formatting Text

The formatting toolbar is the easiest way to change many attributes of text. If the toolbar as shown below isn't displayed on the screen, select View | Toolbars and choose Formatting.



- **Style Menu** - Styles are explained in detail later in this tutorial.
- **Font Face** - Click the arrowhead to the right of the font name box to view the list of fonts available. Scroll down to the font you want and select it by clicking on the name once with the mouse. A serif

font (one with "feet" circled in the illustration below) is recommended for paragraphs of text that will be printed on paper as they are most readable. The following graphic demonstrates the difference between serif (Times New Roman on the left) and sans-serif ("no feet", Arial on the right) fonts.

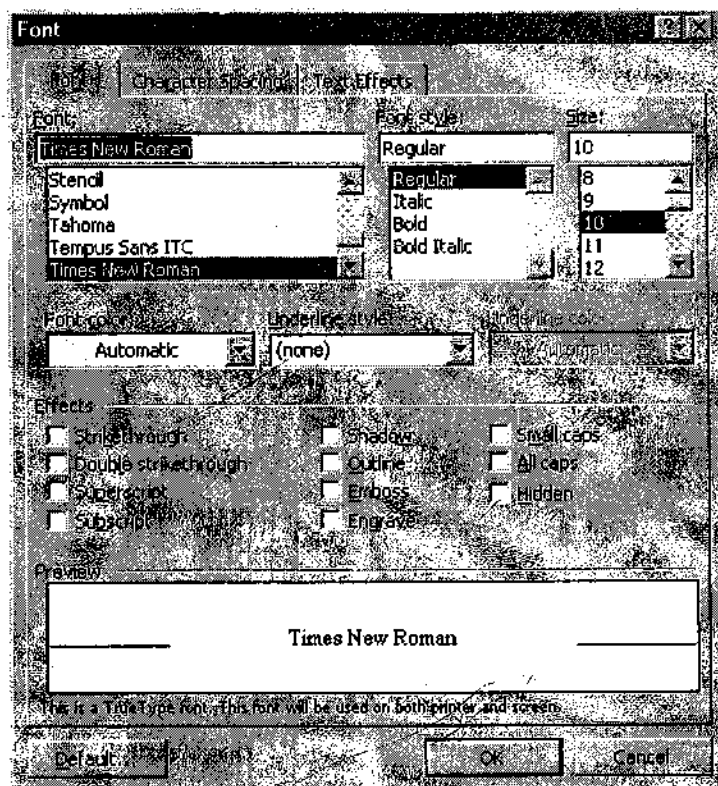
Ŧ T

- **Font Size** - Click on the white part of the font size box to enter a value for the font size or click the arrowhead to the right of the box to view a list of font sizes available. Select a size by clicking on it once. A font size of 10 or 12 is best for paragraphs of text.
- **Font Style** - Use these buttons to bold, italic, and underline text.
- **Alignment** - Text can be aligned to the left, center, or right side of the page or it can be justified across the page.

Numbered and Bulleted Lists - Lists are explained in detail later in this tutorial.

- **Increase/Decrease Indent** - Change the indentation of a paragraph in relation to the side of the page.
- **Outside Border** - Add a border around a text selection.
- **Highlight Color** - Use this option to change the color behind a text selection. The color shown on the button is the last color used. To select a different color, click the arrowhead next to the image on the button.
- **Text Color** - This option changes the color of the text. The color shown on the button is the last color chosen. Click the arrowhead next to the button image to select another color.

The Font dialog box allows you to choose from a larger selection of formatting options. Select **Format|Font** from the menu bar to access the box.



2.4.5 Format Painter

A handy feature for formatting text is the Format Painter located on the standard toolbar. For example, if you have formatting a paragraph heading with a certain font face, size, and style and you want to format another heading the same way, you do not need to manually add each attribute to the new headline. Instead, use the Format Painter by following these steps:

- Place the cursor within the text that contains the formatting you want to copy.
- Click the Format Painter button in the standard toolbar. Notice that your pointer now has a paintbrush beside it.
- Highlight the text you want to add the same format to with the mouse and release the mouse button.

To add the formatting to multiple selections of text, double-click the Format Painter button instead of clicking once. The format painter then stays active until you press the ESC key to turn it off.

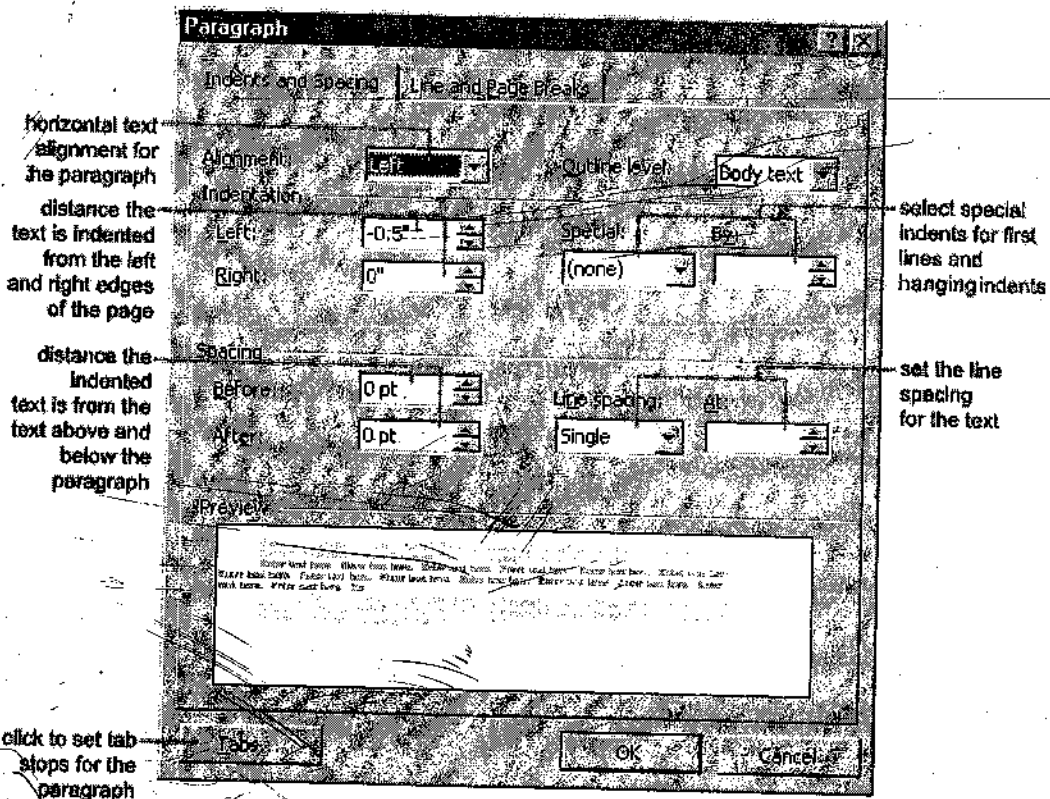
2.4.6 Undo

Feel free to experiment with various text styles. You can always undo your last action by clicking the Undo button on the standard toolbar or selecting Edit|Undo... from the menu bar. Click the Redo button on the standard toolbar or select Edit|Redo... to erase the undo action.

2.5 Formatting Paragraphs

2.5.1 Paragraph Attributes

Format a paragraph by placing the cursor within the paragraph and selecting Format|Paragraph from the menu bar.



2.5.2 Moving (Cutting) Text

Highlight the text that will be moved and select **Edit|Cut** from the menu bar, click the **Cut** button on the standard tool bar, or press **CTRL+X** at once. This will move the text to a clipboard. To move a small amount of text a short distance, the drag-and-drop method may be quicker. Highlight the text you want to move, click the selection with the mouse, drag the selection to the new location, and release the mouse button.

Copying Text

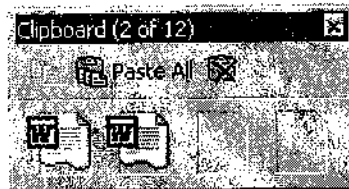
To copy text, choose **Edit|Copy**, click the **Copy** button on the standard toolbar, or press **CTRL+C** to copy the text to the clipboard.

Paste Text

To paste cut or copied text, move the cursor to the location you want to move the text to and select **Edit|Paste** from the menu bar, click the **Paste** button on the standard toolbar, or press **CTRL+V**.

2.5.3 The Clipboard

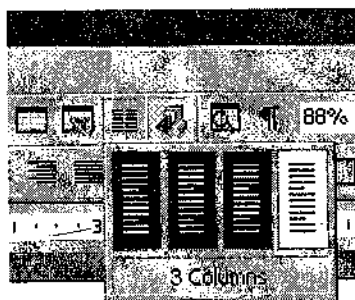
The last 12 elements that were cut or copied are placed onto Word's clipboard. You can view the elements on the clipboard by selecting **View|Toolbars|Clipboard** from the menu bar.



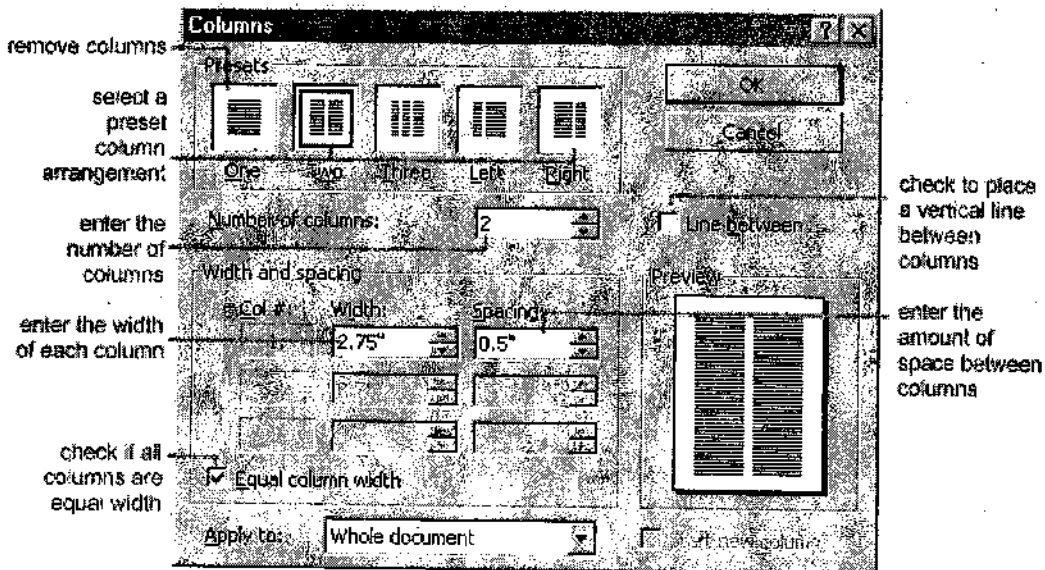
Place the mouse arrow over each element in the clipboard to view the contents of each item and click on an element to add its contents to the document. Click **Paste All** to add all of the items to the document at once. Click the **Clear Clipboard** button (the icon with an "X" over the clipboard image) to clear the contents of the clipboard.

2.5.4 Columns

To quickly place text in a column format, click the **Columns** button on the standard toolbar and select the number of columns by dragging the mouse over the diagram.



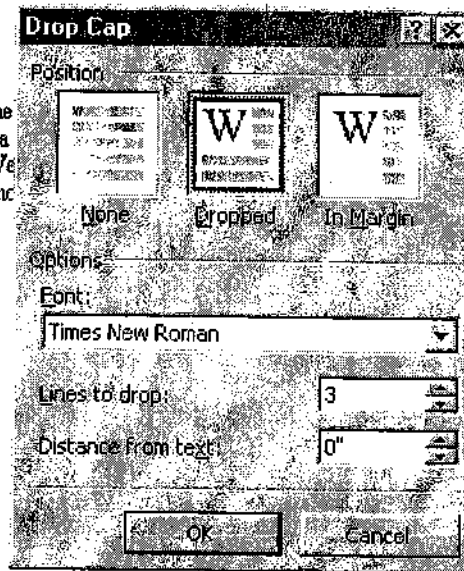
For more column options, select **Format|Columns** from the menu bar. The **Columns** dialog box allows you to choose the properties of the columns. Select the number and width of the columns from the dialog box.



2.5.5 Drop Cap

A drop cap is a large letter that begins a paragraph and drops through several lines of text as shown below.

Welcome to the
at the Florida
website. We
will increase your kno
Office 2000 programs.

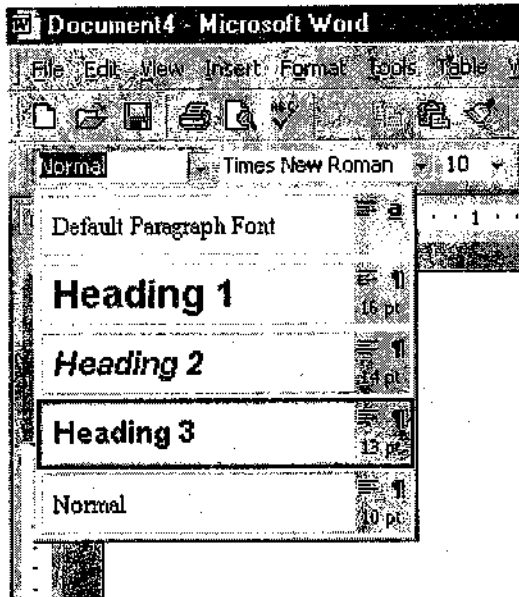


Add a drop cap to a paragraph by following these steps:

- Place the cursor within the paragraph whose first letter will be dropped.
- Click the Delete button.
- You will be asked if you really want to delete the style. Click Yes.
- Click Close on the dialog box.

2.6 Styles

The use of styles in Word will allow you to quickly format a document with a consistent and professional look. Paragraph and character styles can be saved for use in many documents.

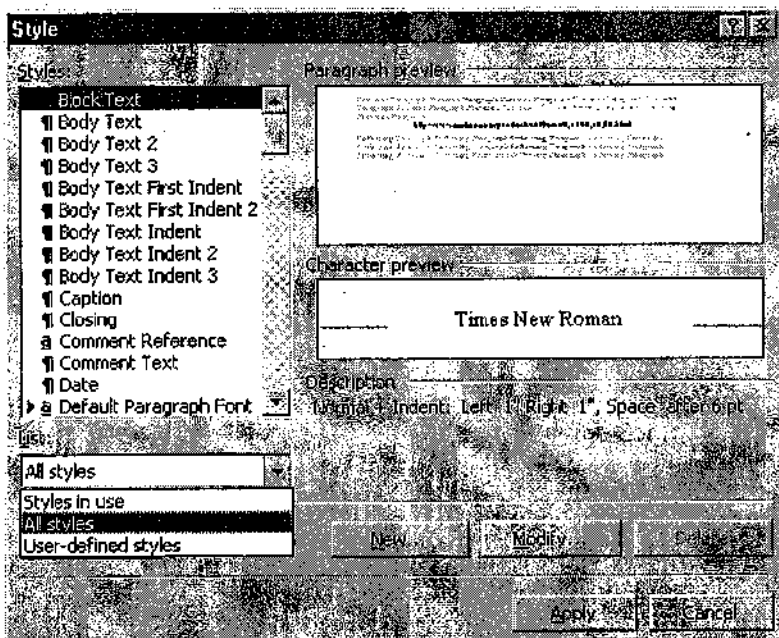


2.6.1 Applying a Style

- Place the cursor in the paragraph where the style will be applied.
- Click the Style drop-down menu on the Formatting toolbar and select a style by clicking on it.
- To apply the same style to multiple paragraphs, double click the Format Painter button on the standard toolbar and click in all the paragraphs that the style should be applied to. Press the ESC key to disable the Format Painter.

2.6.2 Apply a Style from the Style Dialog Box

Choose from a larger selection of styles from the Style dialog box.



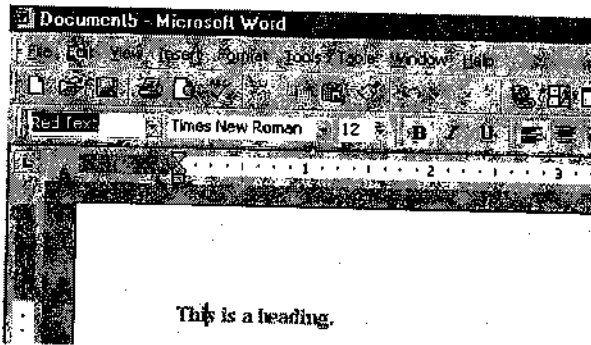
- Click in the paragraph you want to add a style to.
- Select Format|Style... from the menu bar.
- From the List drop-down menu, choose All styles to view all the styles available.

- The styles are displayed in the Styles list. Preview each style by clicking once on the name. Paragraph styles are preceded by the paragraph symbol (¶) and character styles are preceded by an "a" icon (a). A pointer arrow is located next to the current style. Highlight the style you want to apply to the paragraph and click Apply.

2.6.3 Create a New Style from a Model

To create a style from text that is already formatted in a document, follow these steps:

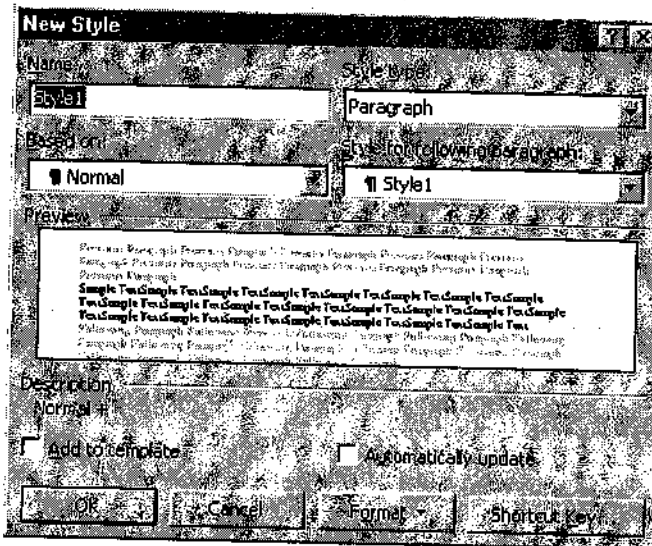
- Place the cursor in the paragraph you would like to set as a new style.
- Click the Style box on the formatting toolbar so the style name is highlighted.



- Delete the text in the field and type the name of the new style.
- Press the ENTER key to save the new style.

2.6.4 Create a Simple Style from the Style Dialog Box

- Select Format|Style... from the menu bar and click the New button on the Style dialog box to access the New Style dialog box.



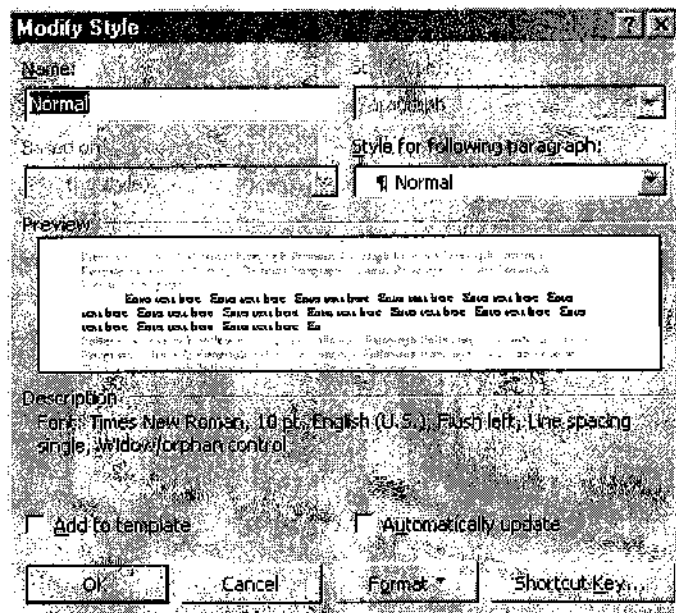
- Type the name for the new style in the Name field.
- Select "Paragraph" or "Character" from the Style type drop-down menu.
- Click the Format button at the bottom of the window and choose the paragraph element that will be formatted for the style. Continue to make changes from the options from the Format button menu, making changes to the dialog boxes for each element you choose.

- Click OK to set the style and close the New Style dialog box.
- Click Apply on the Style dialog box to apply the new style to the current paragraph.

2.6.5 Modify or Rename a Style

An existing style can be changed from the Style dialog box.

- Select Format|Style... from the menu bar.
- Highlight the style from the Styles list that you want to modify and click the Modify button.



- Use the same methods to modify the style from the Modify Style dialog box that were used for the New Style box.
- To only rename the style, type a new name in the Name field.
- Click OK when you are finished making modifications.
- Click Apply to update the style in the document.

2.6.6 Delete a Style

Preset styles created by Word cannot be deleted, but to delete a style you have made, follow these steps:

- Select Format|Style... from the menu bar
- Highlight the style from the Styles list that you want to delete.
- Click the Delete button.
- You will be asked if you really want to delete the style. Click Yes.
- Click Close on the dialog box.

2.7 Lists

To create a bulleted or numbered list, use the list features provided by Word.

2.7.2 Bulleted and Numbered Lists

- Click the Bulleted List button or Numbered List button on the formatting toolbar.
- Type the first entry and press ENTER. This will create a new bullet or number on the next line. If you want to start a new line without adding another bullet or number, hold down the SHIFT key while pressing ENTER.
- Continue to typing entries and press ENTER twice when you are finished typing to end the list.

Use the Increase Indent and Decrease Indent buttons on the formatting toolbar to create lists of multiple levels.

NOTE: You can also type the text first, highlight the section, and press the Bulleted List or Numbered List buttons to add the bullets or numbers.

2.7.3 Nested Lists

To create a nested list, such as a numbered list inside of a bulleted list, follow these steps:

- Type the list and increase the indentation of the items that will make up the nested list by clicking the Increase Indent button for each item.

- Lists
 - Bulleted and Numbered Lists
 - Nested Lists
 - Formatting Lists
- Tables
 - Create a Table

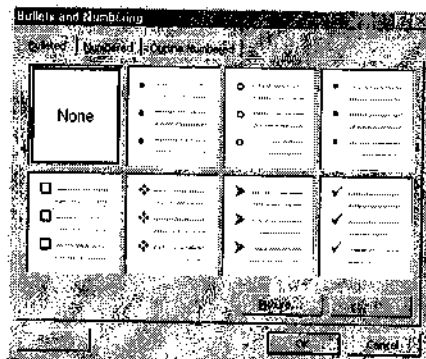
- Lists
 1. Bulleted and Numbered Lists
 2. Nested Lists
 3. Formatting Lists
- Tables
 - Create a Table

- Highlight the items and click the Numbered List button on the formatting toolbar.

2.7.4 Formatting Lists

The bullet image and numbering format can be changed by using the Bullets and Numbering dialog box.

- Highlight the entire list to change all the bullets or numbers, or Place the cursor on one line within the list to change a single bullet.
- Access the dialog box by selecting Format|Bullets and Numbering from the menu bar or by right-clicking within the list and selecting Bullets and Numbering from the shortcut menu.



- Select the list style from one of the seven choices given, or click the Picture... button to choose a different icon. Click the Numbered tab to choose a numbered list style.
- Click OK when finished.

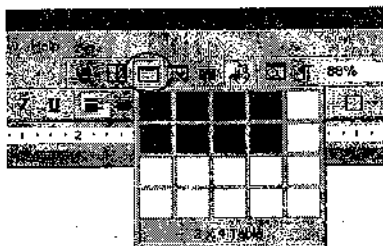
2.8 Tables

Tables are used to display data and there are several ways to build them in Word. Begin by placing the cursor where you want the table to appear in the document and choose one of the following methods.

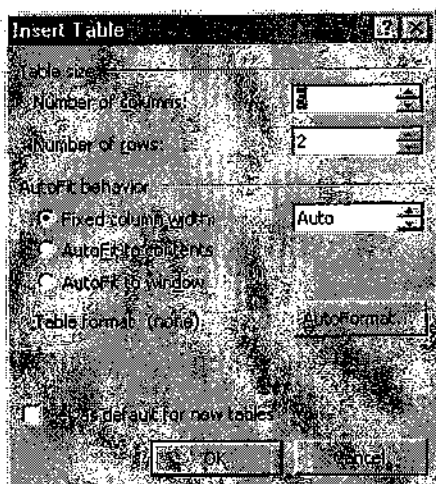
2.8.1 Insert a Table

There are two ways to add a table to the document using the Insert feature:

- Click the Insert Table button on the standard toolbar. Drag the mouse along the grid, highlighting the number of rows and columns for the table.



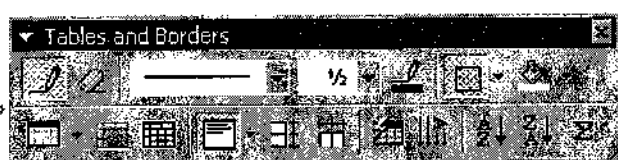
- Or, select Table|Insert|Table from the menu bar. Select the number of rows and columns for the table and click OK.





2.8.2 Draw the Table

A table can also be drawn onto the document:

- Draw the table by selecting Table|Draw Table from the menu bar. The cursor is now the image of a pencil and the Tables and Borders toolbar has appeared.



- Draw the cells of the table with the mouse. If you make a mistake, click the Eraser button  and drag the mouse over the area to be deleted.
- To draw more cells, click on the Draw Table button .

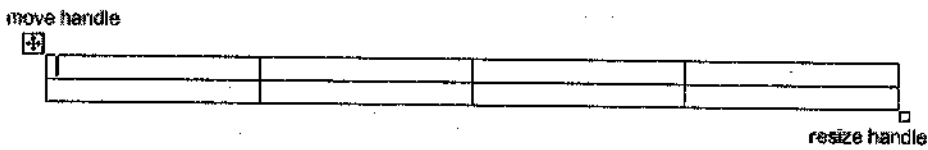
2.8.3 Inserting Rows and Columns

Once the table is drawn, insert additional rows by placing the cursor in the row you want to be adjacent to. Select **Table|Insert|Rows Above** or **Rows Below**. Or, select an entire row and right-click with the mouse. Choose **Insert Rows** from the shortcut menu.

Much like inserting a row, add a new column by placing the cursor in a cell adjacent to where the new column will be added. Select **Table|Insert|Columns to the Left** or **Columns to the Right**. Or, select the column, right-click with the mouse, and select **Insert Columns**.

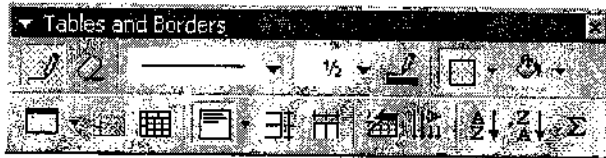
2.8.4 Moving and Resizing a Table

A four-sided moving arrow and open box resizing handle will appear on the corners of the table if the mouse is placed over the table. Click and drag the four-ended arrow to move the table and release the mouse button when the table is positioned where you want it. Click and drag the open box handle to resize the table. Change the column widths and row heights by clicking the cell dividers and dragging them with the mouse.



2.8.5 Tables and Borders Toolbar

The Tables and Borders toolbar allows you to add border styles, shading, text effects, alignment, and more options to your table. Access the toolbar by clicking **Table|Draw Table** or **View|Toolbars|Tables and Borders**.

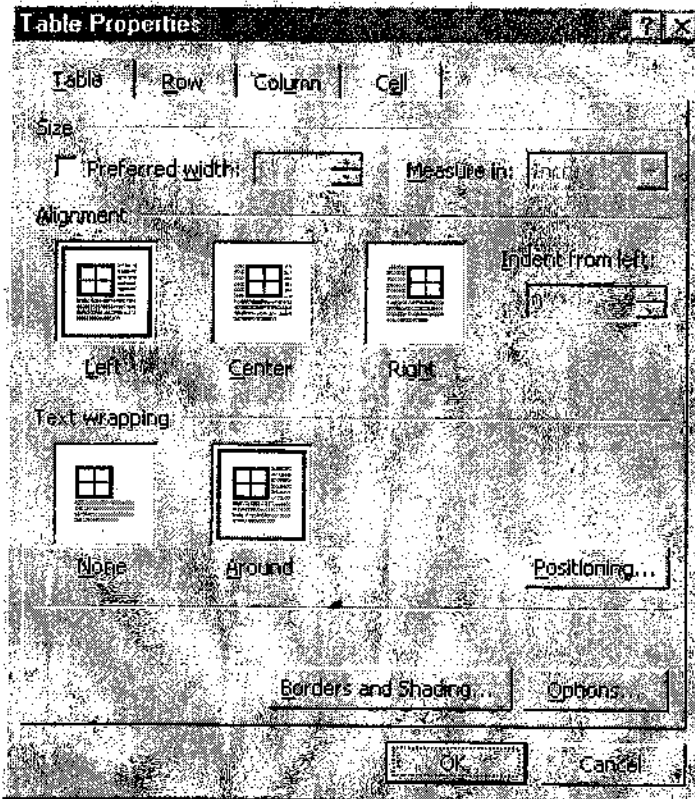


You will need to highlight the cells of the table you want to format. Click and drag the mouse over the cells, or use the following shortcuts:

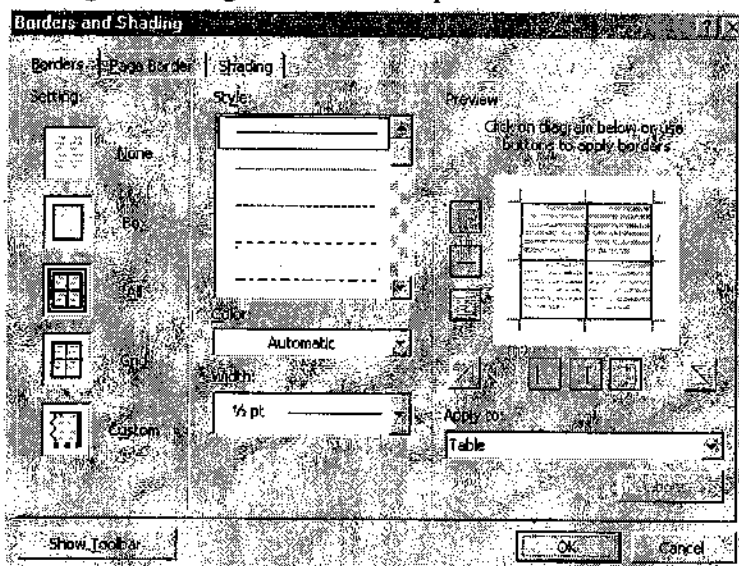
Selection	Menu Method	Mouse Method
One cell	Table Select Cell	Click the bottom, left corner of the cell when a black arrow appears
One row	Table Select Row	Click outside the table to the left of the row
One column	Table Select Column	Click outside the table above the column when a black arrow appears
Several rows	(none)	Click outside the table to the left of the row and drag the mouse down
Several columns	(none)	Click outside the table above the column
Entire table	Table Select Table	Triple-click to the left of the table

2.8.6 Table Properties

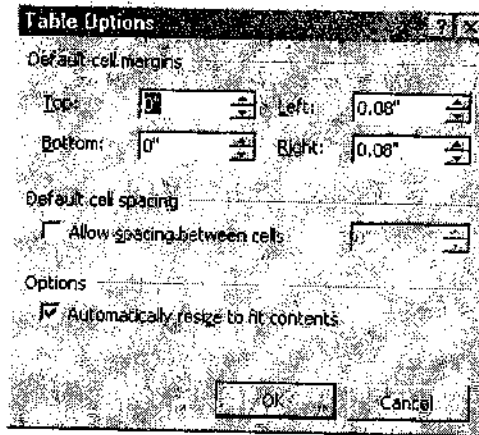
Use the Table Properties dialog box to modify the alignment of the table with the body text and the text within the table. Access the box by selecting **Tables|Table Properties**.



- Size - Check the Preferred width box and enter a value if the table should be an exact width.
- Alignment - Highlight the illustration that represents the alignment of the table in relation to the text of the document.
- Text wrapping - Highlight "None" if the table should appear on a separate line from the text or choose "Around" if the text should wrap around the table.
- Borders and Shading - Select from a number of border styles, colors, and widths. Click the Shading tab to change the background color and pattern.



- Options - Click the Options button on the Table Properties window. To change the spacing between the document text and the table borders under Default cell margins. Check the Allow spacing between cells box and enter a value to add space between the table cells.

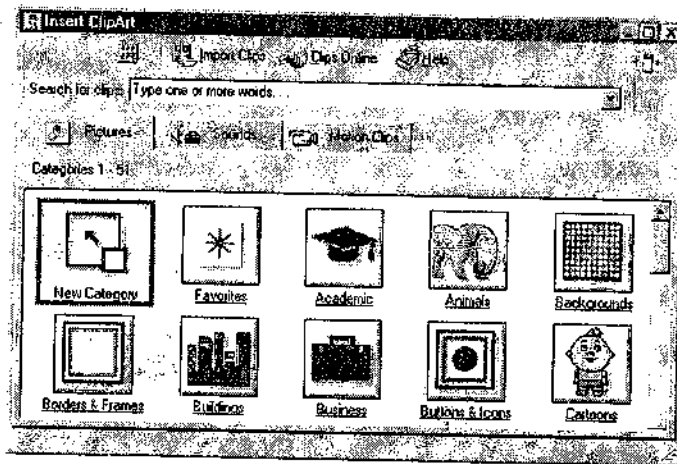


2.9 Graphics

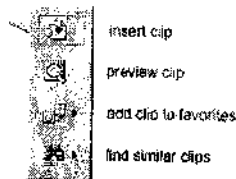
2.9.1 Adding Clip Art

To add a clip art image from the Microsoft library to a document, follow these steps:

- Select Insert|Picture|Clip Art from the menu bar.



- To find an image, click in the white box following Search for clips, Delete the words "Type one or more words. . ." and enter keywords describing the image you want to use.
- Click once on the image you want to add to the document and the following popup menu will appear:



- Insert Clip to add the image to the document.
- Preview Clip to view the image full-size before adding it to the document. Drag the bottom, right corner of the preview window to resize the image and click the "x" close button to end the preview.
- Add Clip to Favorites will add the selected image to your favorites directory that can be chosen from the Insert ClipArt dialog box.
- Find Similar Clips will retrieve images similar to the one you have chosen.

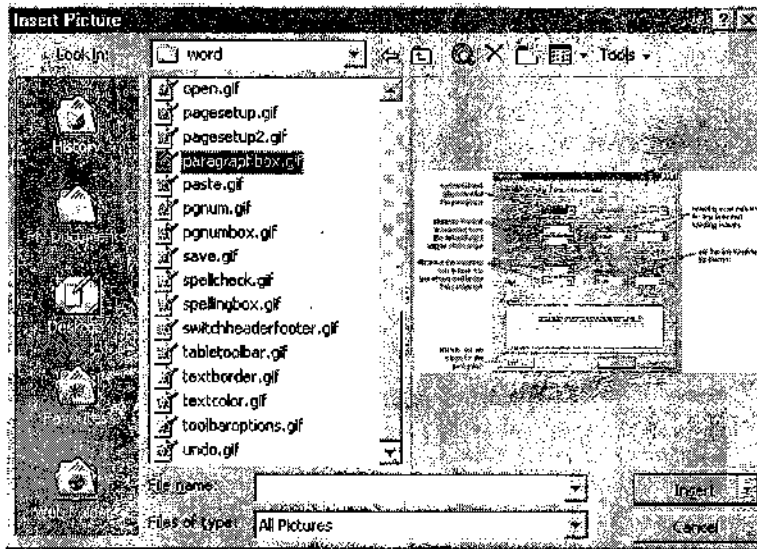
- Continue selecting images to add to the document and click the Close button in the top, right corner of the Insert ClipArt window to stop adding clip art to the document.

2.9.2 Add An Image from a File

Follow these steps to add a photo or graphic from an existing file:

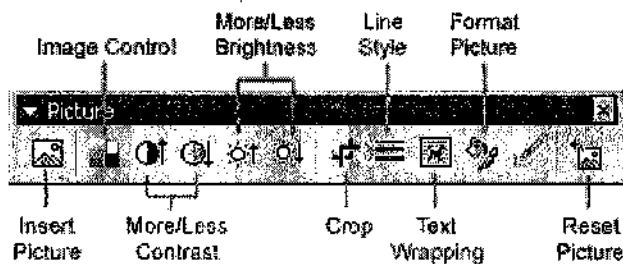
Select Insert|Picture|From File on the menu bar.

- Click the down arrow button on the right of the Look in: window to find the image on your computer.
- Highlight the file name from the list and click the Insert button.



2.9.3 Editing A Graphic

Activate the image you wish to edit by clicking on it once with the mouse. Nine handles will appear around the graphic. Click and drag these handles to resize the image. The handles on the corners will resize proportionally while the handles on the straight lines will stretch the image. More picture effects can be changed using the Picture toolbar. The Picture toolbar should appear when you click on the image. Otherwise, select View|Toolbars|Picture from the menu bar to activate it.

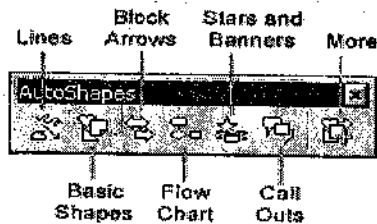


- Insert Picture will display the image selection window and allows you to change the image.
- Image Control allows to to make the image grayscale, black and white, or a watermark.
- More/Less Contrast modifies the contrast between the colors of the image.
- More/Less Brightness will darken or brighten the image.
- Click Crop and drag the handles on the activated image to delete outer portions of the image.

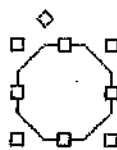
- Line Style will add a variety of borders to the graphic.
- Text Wrapping will modify the way the document text wraps around the graphic.
- Format Picture displays all the image properties in a separate window.
- Reset Picture will delete all the modifications made to the image.

2.9.4 Auto Shapes

The AutoShapes toolbar will allow you to draw many different geometrical shapes, arrows, flow chart symbols, stars, and banners on the document. Activate the AutoShapes toolbar by selecting Insert|Picture|AutoShapes or View|Toolbars|AutoShapes from the menu bar, or clicking the AutoShapes button on the Drawing toolbar. Click each button on the toolbar to view the options for drawing the shape.



- **Lines** - After clicking the Lines button on the AutoShapes toolbar, draw a straight line, arrow, or double-ended arrow from the first row of options by clicking the respective button. Click in the document where you would like the line to begin and click again where it should end. To draw a curved line or freeform shape, select curved lines from the menu (first and second buttons of second row), click in the document where the line should appear, and click the mouse every time a curve should begin. End creating the graphic by clicking on the starting end or pressing the ESC key. To scribble, click the last button in the second row, click the mouse in the document and hold down the left button while you draw the design. Let go of the mouse button to stop drawing.
- **Basic Shapes** - Click the Basic Shapes button on the AutoShapes toolbar to select from many two- and three-dimensional shapes, icons, braces, and brackets. Use the drag-and-drop method to draw the shape in the document. When the shape has been made, it can be resized using the open box handles and other adjustments specific to each shape can be modified using the yellow diamond handles.

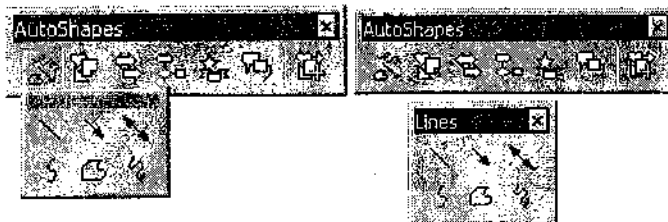


- **Block Arrows** - Select Block Arrows to choose from many types of two- and three-dimensional arrows. Drag-and-drop the arrow in the document and use the open box and yellow diamond handles to adjust the arrowheads. Each AutoShape can also be rotated by first clicking the Free Rotate button on the drawing toolbar. Click and drag the green handles around the image to rotate it. The tree image below was created from an arrow rotated 90 degrees.



- **Flow Chart** - Choose from the flow chart menu to add flow chart elements to the document and use the line menu to draw connections between the elements.
- **Stars and Banners** - Click the button to select stars, bursts, banners, and scrolls.
- **Call Outs** - Select from the speech and thought bubbles, and line call outs. Enter the call out text in the text box that is made.
- **More AutoShapes** - Click this button to choose from a list of clip art categories.

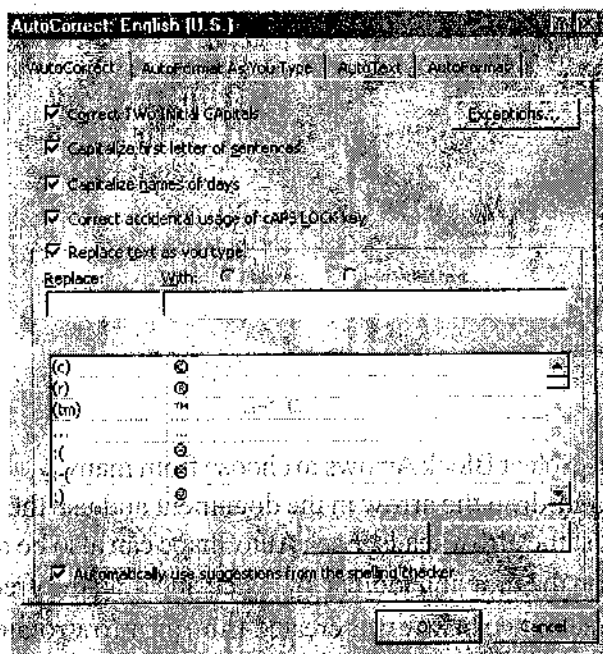
Each of the submenus on the AutoShapes toolbar can become a separate toolbar. Just click and drag the gray bar across the top of the submenus off of the toolbar and it will become a separate floating toolbar.



2.10 Spelling and Grammar

2.10.1 AutoCorrect

Word automatically corrects many commonly misspelled words and punctuation marks with the AutoCorrect feature. To view the list of words that are automatically corrected, select Tools|AutoCorrect. This may be a hidden feature so click the double arrows at the bottom of the Tools menu listing if the AutoCorrect choice is not listed.



Many options including the accidental capitalization of the first two letters of a word and capitalization of the first word of the sentence can be automatically corrected from this page. If there are words you often misspell, enter the wrong and correct spellings in the Replace and With fields.

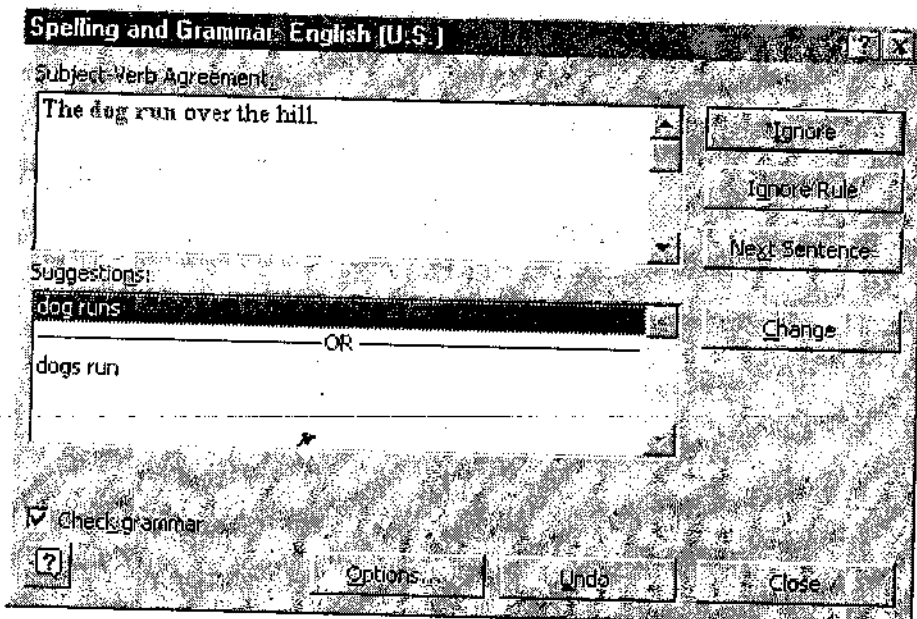
2.10.2 Spelling and Grammar Check

Word will automatically check for spelling and grammar errors as you type unless you turn this feature off. Spelling errors are noted in the document with a red underline. Grammar errors are indicated by a green underline. To disable this feature, select Tools|Options from the menu bar and click the Spelling and Grammar tab on the dialog box. Uncheck "Check spelling as you type" and "Check grammar as you type", and click OK.

If the word is spelled correctly and will appear in many documents you type (such as your name), click the Add button to add the word to the dictionary so it will no longer appear as a misspelled word.

As long as the Check Grammar box is checked in the Spelling and Grammar dialog box, Word will check the grammar of the document in addition to the spelling. If you do not want the grammar checked, remove the checkmark from this box. Otherwise, follow these steps for correcting grammar:

- If Word finds a grammar mistake, it will be shown in the box as the spelling errors. The mistake is highlighted in green text.

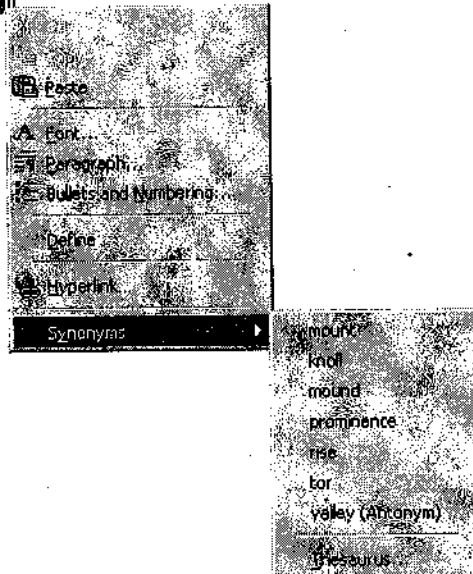


- Several suggestions may be given in the Suggestions box. Select the correction that best applies and click Change.
- If no correction is needed (Word is often wrong more than it is right), click the Ignore button.

2.10.3 Synonyms

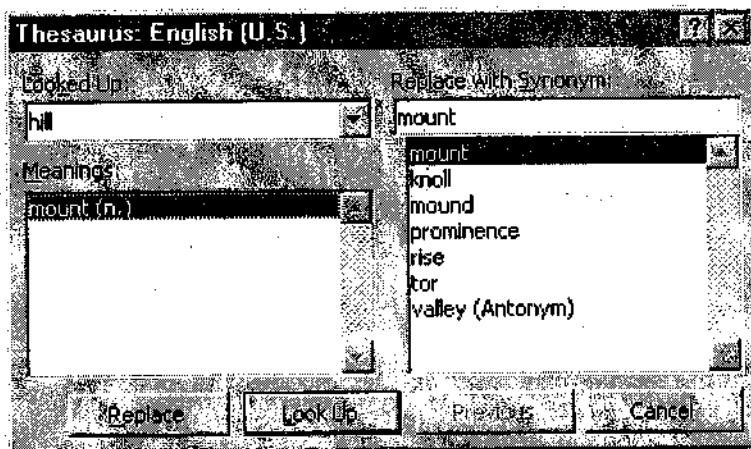
Word 2000 has a new feature for finding synonyms. Simply right-click on the word and select Synonyms from the shortcut menu. From the list of suggested words, highlight the word you would like to use or click Thesaurus... for more options.

The dog runs over the hill.



2.10.4 Thesaurus

To use the thesaurus, select Tools|Language|Thesaurus from the menu bar or select it from the Synonyms shortcut menu as detailed above.



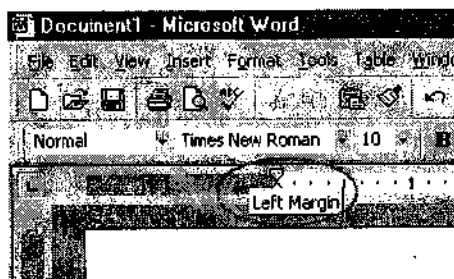
A list of meanings and synonyms are given on the windows. Double-click on the words in the Meanings box or click the Look Up button to view similar words. Double-click words in the Replace with Synonym box to view synonyms of those words. Highlight the word you would like to add and click the Replace button.

2.11 Page Formatting

2.11.1 Page Margins

The page margins of the document can be changed using the rulers on the page and the Page Setup window. The ruler method is discussed first:

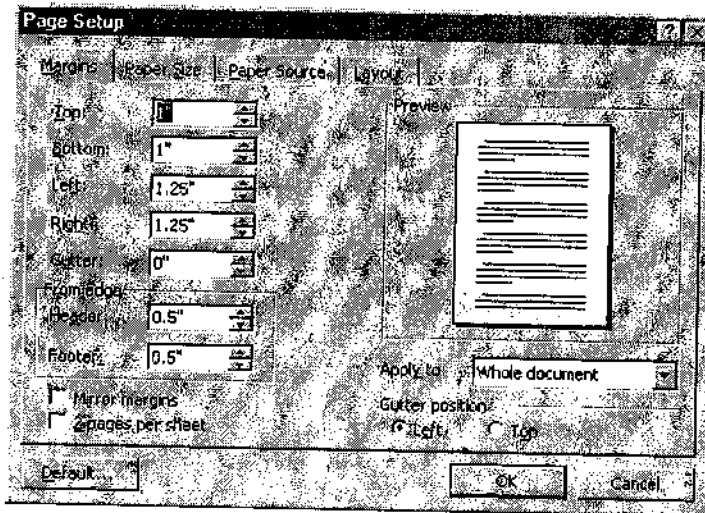
- Move the mouse over the area where the white ruler changes to gray.



- When the cursor becomes a double-ended arrow, click with the mouse and drag the margin indicator to the desired location.
- Release the mouse when the margin is set.

The margins can also be changed using the **Page Setup** dialog box:

- Select File|Page Setup and choose the Margins tab in the dialog box.



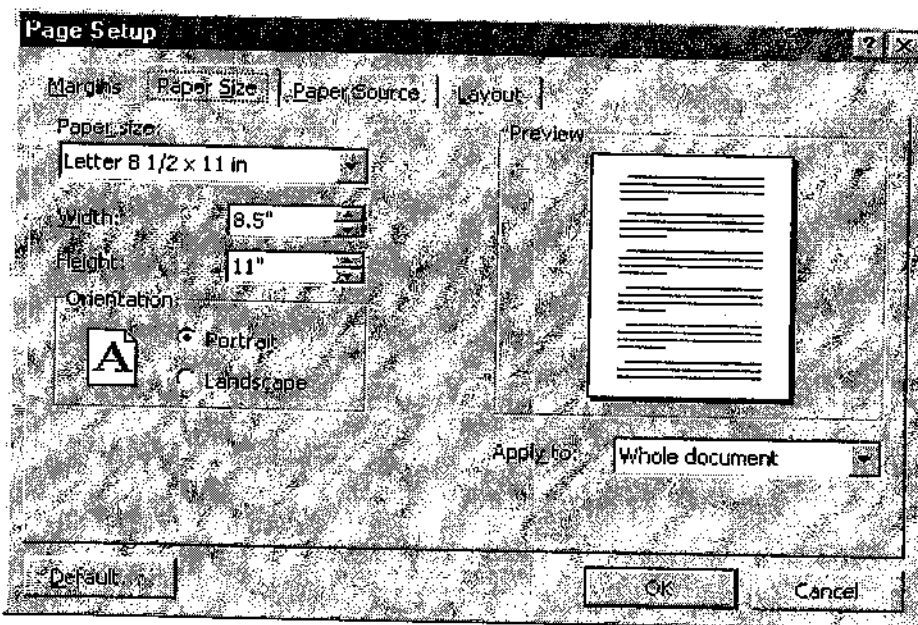
Enter margin values in the Top, Bottom, Left, and Right boxes. The Preview window will reflect the changes.

- If the document has Headers and/or Footers, the distance this text appears from the edge of the page can be changed.
- Click OK when finished.

2.11.2 Page Size and Orientation

Change the orientation page within the Page Setup dialog box.

- Select File|Page Setup and choose the Paper Size tab.

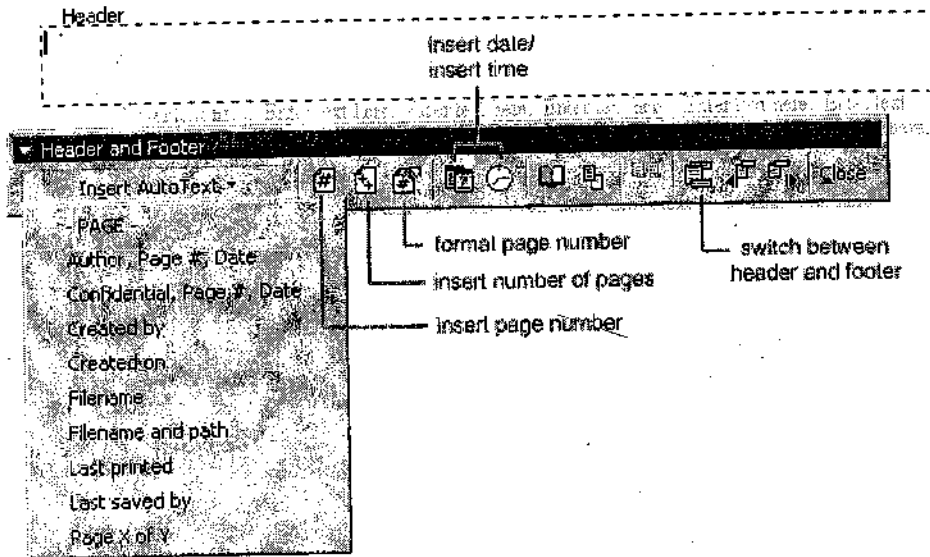


- Select the proper paper size from the drop-down menu.
- Change the orientation from Portrait or Landscape by checking the corresponding radio button.

2.11.3 Headers and Footers

A header is text that is added to the top margin of every page such as a document title or page number and a footer is text added to the bottom margin. Follow these steps to add or edit headers and footers in the document:

Select View|Header and Footer from the menu bar. The Header and Footer toolbar will appear and the top of the page will be highlighted as shown below.

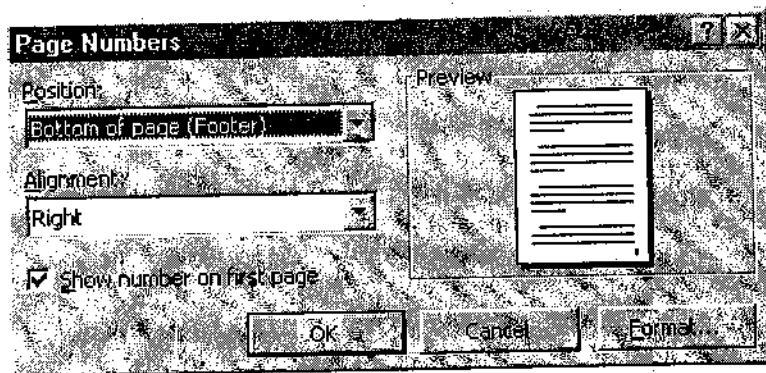


- Type the heading in the Header box. You may use many of the standard text formatting options such as font face, size, bold, italics, etc.
- Click the Insert AutoText button to view a list of quick options available.
- Use the other options on the toolbar to add page numbers, the current date and time.
- To edit the footer, click the Switch Between Header and Footer button on the toolbar.
- When you are finished adding headers and footers, click the Close button on the toolbar.

2.11.4 Page Numbers

Follow these instructions for another way to add page numbers to a document.

- Select Insert|Page Numbers from the menu bar and the following dialog box will appear.



- Select the position of the page numbers by choosing "Top of page" or "Bottom of page" from the Position drop-down menu.
- Select the alignment of the page numbers in the Alignment drop-down menu.
- If you do not want the page number to show on the first page (if it is a title page, for example), uncheck the Show number of first page box.
- Click OK when finished.

2.11.5 Print Preview and Printing

Preview your document by clicking the Print Preview button on the standard toolbar or by selecting File|Print Preview. When the document is ready to print, click the Print button from the Print Preview screen or select File|Print.

2.12 Summary

- Word Processing, in computer terminology, refers to typing, editing and formatting of any kind of document, which could be a letter, memorandum, balance sheet, or something similar. As the term suggests, word processing simply processes words, i.e. textual information.
- word processor. Some of the features available in most word processors are:
 - Facility to create footnotes and endnotes.
 - Facility to create multiple-column text.
 - Index and table of contents generation.
 - Spelling and grammar checking.
 - Thesaurus, etc.
- To start the Ms-word
 - Start -> Programme -> MS-Office -> MS-Word**
- Format Painter is a handy feature for formatting text is the Format Painter located on the standard toolbar. For example, if you have formatted a paragraph heading with a certain font face, size, and style and you want to format another heading the same way, you do not need to manually add each attribute to the new headline.
- Ⓜ The AutoShapes toolbar will allow you to draw many different geometrical shapes, arrows, flow chart symbols, stars, and banners on the document.
- Ⓜ Word automatically corrects many commonly misspelled words and punctuation marks with the AutoCorrect feature.

2.13 Unit End Questions

1. . What do you mean by word processing ?
2. What is the shortcut key for making text BOLD,ITALIC,and UNDERLINE.?
3. Write shortcut key for cut,Copy,paste?
4. What is the use of format painter?
5. What is the ext. Name of word file ?
6. Write the steps for renaming the file. ?
7. What is the difference between copy and move. ?
8. What do you mean by font dialog box. ?
9. what are the steps for changing a paragraph in to columns. ?
10. What id UNDO and REDO. ?
11. What are the work of following short keys.
 1. Ctrl + N
 2. Ctrl + O
 3. Ctrl + S
 4. Ctrl + C
 5. Ctrl + P
 6. Ctrl + X
 7. Ctrl + V
 8. Ctrl + B
 9. Ctrl + I
 10. Ctrl + ENTER
 11. Ctrl + L
 12. Ctrl + E
 13. Ctrl + R
 14. Ctrl + Z
 15. Ctrl + Y
 16. Ctrl + END
 17. Ctrl + HOME
 18. Ctrl + F

Unit 3: Advanced Wordprocessing

Structure of the Unit

- 3.0 Objectives
- 3.1 Introduction
- 3.2 Mail Merge
- 3.3 Macros
- 3.4 Tables
- 3.5 File Management
- 3.6 Printing the document
- 3.7 Styles & Templates
- 3.8 Linking & Embedding objects
- 3.9 Templates
- 3.10 Working with Graphics
- 3.11 Summary
- 3.12 Unit End Questions
- 3.0 Objectives

This unit teaches the advanced features provided Microsoft Word. In this unit, you will learn about advanced features of word processing like mail merge, macros, tables etc.

3.1 Introduction

A word processor is software that alters text. It enables you to create, edit, format, print and save documents for future retrieval and reference. It also allows you to check & correct your common typing errors as well as grammatical errors. Most word processors, however, provide additional features that enable you to manipulate and format documents in more sophisticated ways. They are often known as *full-featured word processors*. Full-featured word processors usually support the following features:

- **Mail-merge:** Multiple copies of letters, labels can be generated with different addresses through the mail-merge facility.
- **File management:** Many word processors contain file management capabilities that allow you to create, delete, move, and search for files.
- **Macros:** A macro is a command/word that represents a series of keystrokes. The keystrokes can represent text or commands. The ability to define macros allows you to save yourself a lot of time by replacing common combinations of keystrokes.
- **Graphics:** Allows you to embed illustrations and graphs into a document. Some word processors let you create the illustrations within the word processor; others let you insert an illustration produced by a different program.

3.2 Mail Merge

There are situations when a similar type of letter or document has to be sent to a number of persons who reside at different locations. The letters may contain the standard information and some variable information like address of each recipient. One way of doing this is to print the letters by changing the address each time in the document after printing such letter, which is quite time consuming. This can be taken care of using Mail Merge facility.

Mail merge is a tool which allows you to create form letters, mailing labels, and envelopes by linking a main document to a set of data or data source. The main document is linked to the data source by common fields of data, called merge fields. You can create your own merge fields, specific to your data source, or you can use a predefined set provided by Word. Mail merge can be used to create any type of printed document, as well as electronically distributed documents and faxes. Microsoft Word further facilitates

you to use data from other Office components such as Excel and Outlook, as well as providing a wizard that will walk you through the creation process.

For example, if you wish to send invitation card to your friends, your main document would be the letter informing the venue and date of the party. The data source is where the fields of information about each friend receiving the letter are saved. The data source would contain names, addresses, phone number, etc.

Mail Merge is the facility which requires the following information:

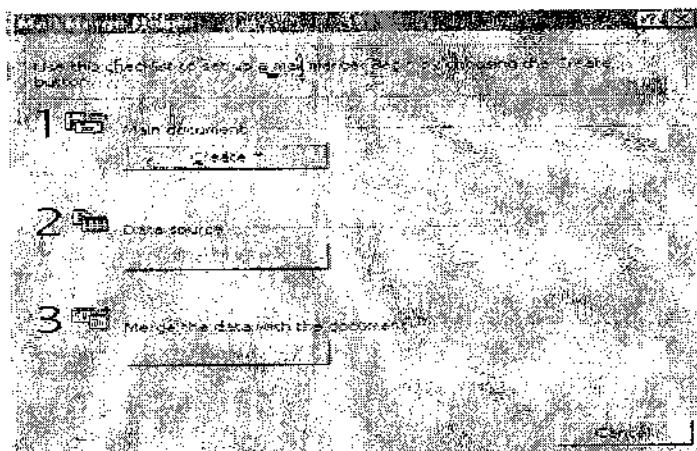
- General body of the letter called main document
- Data for all the individuals, for whom the letters are to be generated also called data source

For creating a Mail Merge document, you need to

- Create the main document
- Create data source
- Merge the data with document

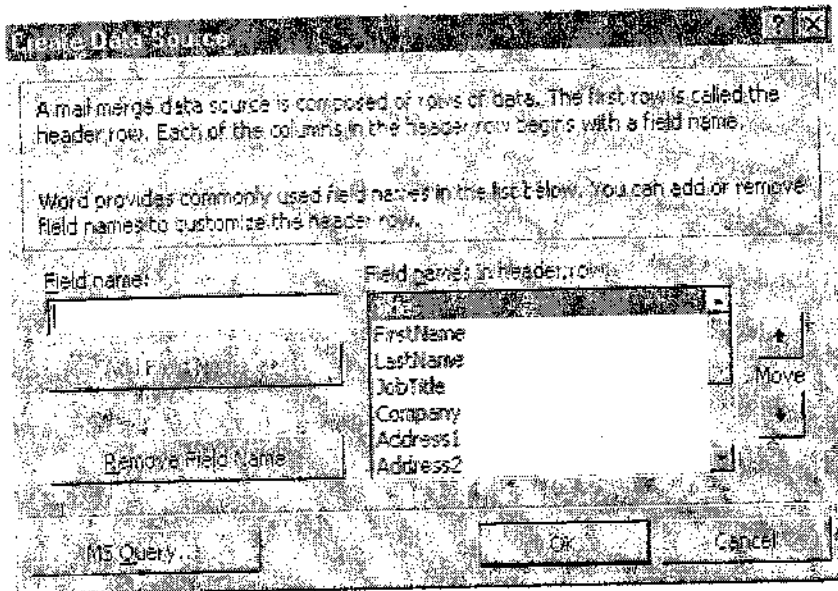
The steps are as follows:

1. Open a new blank document.
2. Go to the Tools Menu and select "Mail Merge". Mail Merge helper guides you through the steps of mail merging a document. There are three main options available in the box. The following Mail Merge Helper box will appear:



Mail Merge Helper

3. The first step in the mail merge is to create the main document. Under the heading, "Main Document", click on the "Create" button. In this dropdown list, you will see four choices: Form Letters, Mailing Labels, Envelopes, and Catalogs.
4. Choose "Form Letters" option from this list. Then a dialog box will appear asking you if you want to use the active window or a new main document. Choose the Active Window button from the above box. Type the main document and again invoke the Mail Merge Helper.
5. Choose the "Get Data" button from the Mail Merge Helper box. For creating data source, select Create Data Source. The following dialog box will appear.



Structure of Data File

6. This box will show you a list of fields that will be used by default. You can add or remove fields. For removing a field, highlight that particular field and click on the "Remove field Name" button. For adding a new field, type the name of the field in the Field Name box and then click on the "Add Field Name" button.
7. Click on the OK button and save your data source with a meaningful name.
8. Click on the "Edit Data Source" button from the box to enter records in the data file. A Data Form dialog box will be displayed. Fill in the information for the first person you want to add to your database. New persons can be added using the "Add New" button. When you are done, click on OK button.

Note: You can also use an existing data source; by clicking the "Get Data" option in the Mail Merge Helper and then selecting "Open Data Source". A dialog box will appear with a list of data source file names. Select the name of the data source to be opened.
9. Now, you are returned to your blank document and you will notice a new toolbar at the top of your screen, which includes a button that says "Insert Merge Field". This is your Mail Merge toolbar, which provides you with various options related to Mail merge.
10. Put your cursor at the beginning of your blank document and click on the "Insert Merge Field" button. A dropdown list containing the header fields gets displayed. Eg. To insert the title field into your document, click on Title in the dropdown list. (It looks like <<Title>>) and your mouse pointer is blinking just to the right of this field. Press spacebar once to put a space between this field and your next field. Now, go back to the "Insert Merge Field" button and select the FirstName field, hit your space bar again, then go back and insert the LastName field. You should now have a line in your document which looks like this: <<Title>> <<FirstName>> <<LastName>>.
11. After creating the main document and data source, the third step is to merge the main document with the data source. For this, invoke the Mail Merge Helper again and choose the 'Merge' button.

12. Select 'New Document' from the 'Merge To' drop-down list and click on 'Merge' button. The form letters are generated and stored in the document which may be previewed for final adjustment in the main document, before printing the letters.

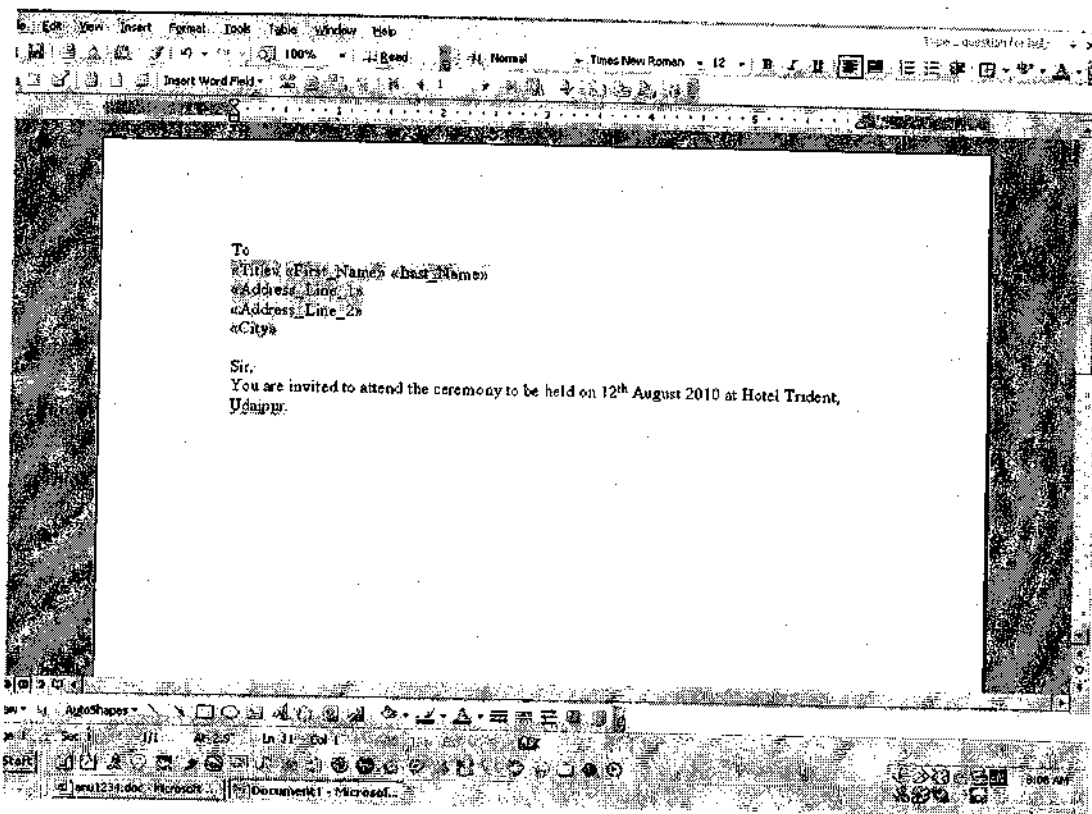
Merge Printing

You can directly print the Form Letters without previewing them. Select the Printer option, and then the form letters are directly printed on the printer.

Conditional Merging

You can also mail merge the document based on some condition. This is known as Conditional Merging. Using Query Option' you can define the selection criteria so that at the time of merging, only those records are selected which meet the defined selection criteria.

The main document, after inserting merge fields will look like:



3.3 Macros

If you perform a task repeatedly in Word, you can automate the task by using a macro. The task may be performed in a sequence of steps. A macro is a series of steps that is grouped together as a single step and then executed when necessary.

Macros are advanced features that can speed up editing or formatting you may perform often in a Word document. They can also combine multiple commands together. They record sequences of menu selections that you choose so that a series of actions can be completed in one step. E.g. To have a particular page setup, to copy selected text to a new document, etc.

A macro can be created by performing the following steps:

- Naming the macro
- Assigning the macro to a toolbar, menu or a shortcut key:
- Describing the action performed by the macro
- Recording the macro operations

Naming the macro

The macro name cannot include spaces, commas or begin with a number.

Assigning the macro

If you use a particular macro often, assign it to a toolbar button, a menu, or shortcut keys. That way, you can run the macro directly without having to open the Macros dialog box.

Describing the macro

The macro description is the text that describes what a macro does. This is for your reference only so you remember what the macro does.

Recording the macro

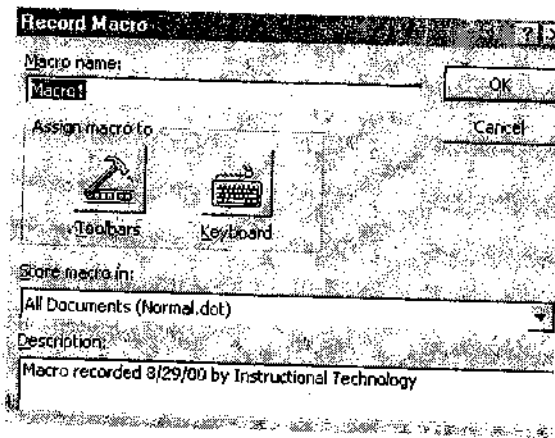
The easiest way to quickly create a simple macro in Word is to use the macro recorder. To define the macro operations, perform those very operations once and let Word “remember” the sequence. This process is called recording the macro. Internally, word writes down each action being performed using a programming language called VBA(Visual Basic for Applications).

The Macro Recorder creates a copy of the commands you select with your mouse. When the Macro Recorder is active, the tip of the mouse pointer will contain a cassette. Before you record or write a macro, plan the steps and commands carefully you want the macro to perform, because all the steps get recorded.


To record a macro, follow these steps:

1. Go to the Tools Menu and select “Macro”.
2. Select “Record New Macro” from the Macro submenu. The Record Macro dialog box is displayed as shown in the figure(at end of the steps).
3. Name the macro in the “Macro name” field.
4. Under “Store macro in” drop down box, select the document you would like the macro to be associated with. Select “All Documents” if you want to use this macro globally.
5. Enter a description of what the macro will do in the “Description” field. Include the date the macro was created and the creator.
6. Assign the macro to a Toolbar or Keyboard, by clicking on the respective buttons. Short cut commands for a macro must begin with Ctrl or Alt or Ctrl + Alt followed by a letter or number.
7. Click OK to begin recording.

Record Macro Dialog box



8. Perform the actions you want to include in your macro. You can use the mouse to click commands and options, but the macro recorder cannot record mouse actions in a document window. To move the insertion point or select, copy, or move text you must use keyboard commands.
9. The recording toolbar will allow you to stop, pause, and resume recording.

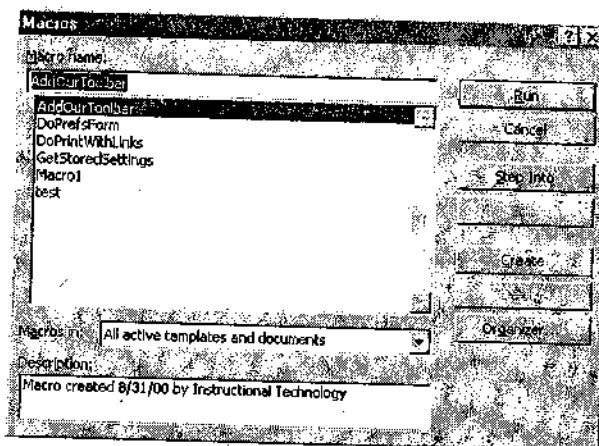
10. To stop recording your macro, click Stop Recording. 

Running a Macro

To run an existing macro, follow these steps.

1. Select "Macros" from the "Tools" menu. Macros dialog box gets opened.
2. Under Macro Name, click the macro you want to run.
3. Click the Run button
4. If a shortcut key has been assigned, press that shortcut key at any time to run the macro. Similarly, press the toolbar button created for macro.

Macros Dialog box



3.4 Tables

Tables are used to organize information into rows and columns. They are also useful when you want to arrange and align fields in a Word form. The cells of a table can hold text, graphics, fields, and other

types of objects — even other tables. Table menu provides commands for creating and formatting tables, rows, columns, and cells, as well as sorting and calculation tools.

Creating a Table

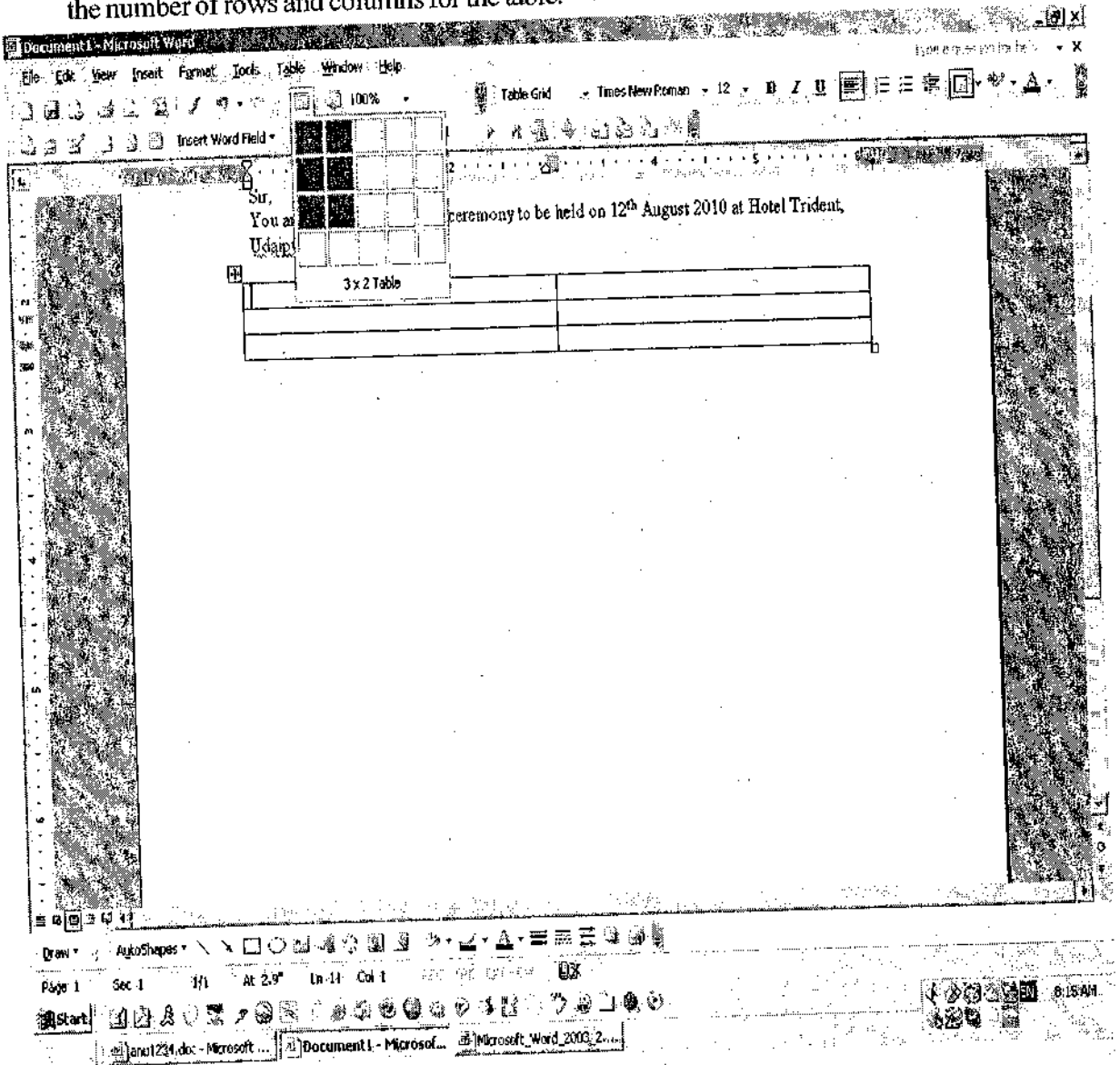
There are two ways in which you can create a table:

- Insert Table
- Draw Table

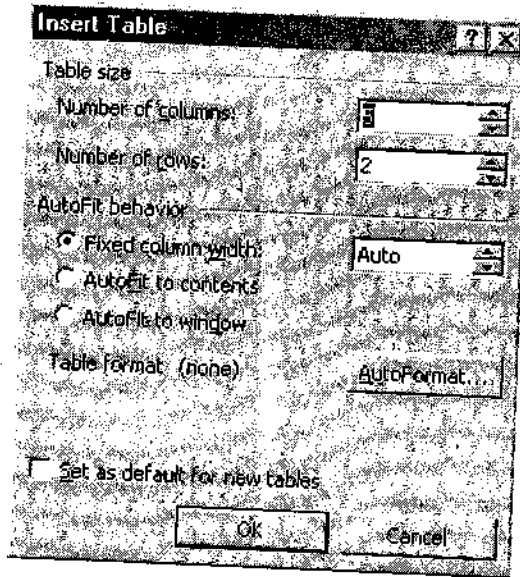
Inserting a Table

There are two ways to add a table to the document using the Insert feature:

1. Click the “Insert Table” button on the standard toolbar. Drag the mouse along the grid, highlighting the number of rows and columns for the table.



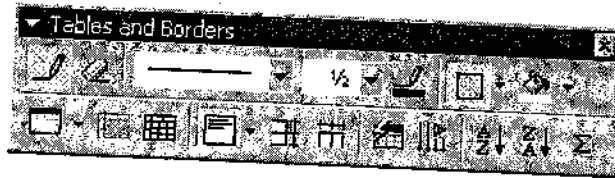
2. Select “Table” from the “Insert” submenu of the “Table” menu. Select the number of rows and columns for the table and click OK.



Drawing a Table

A table can also be drawn onto the document:

1. Select "Draw Table" from the "Table" menu. This displays the "Tables and Borders" toolbar. The pointer now turns to a pencil.



Navigating in a Table

You can move around in the table by using mouse, as well as the keyboard.

To move to	Key press
Next cell	Tab
Preceding cell	Shift + Tab
Previous or next row	Up arrow or Down arrow
First cell in the row	Alt + Home
Last cell in the row	Alt + End
First cell in the column	Alt + PgUp
Last cell in the column	Alt + PgDn

Inserting & Deleting Rows and Columns

To add rows and columns:

1. Place the cursor in the row or column adjacent to where the new row or column has to be added.
2. Select "Insert" submenu from the "Table" menu. Then select "Rows Above" or "Rows Below" for row; "Columns to the Left" or "Columns to the Right" for the column.

- Alternatively, select an entire row or column and right-click with the mouse. Choose "Insert Rows" or "Insert Columns" from the shortcut menu.

To delete rows and columns:

- Select the row or column to be deleted.
- Select "Delete" submenu from the "Table" menu. Then select "Rows" or "Columns" accordingly.

Formatting a Table

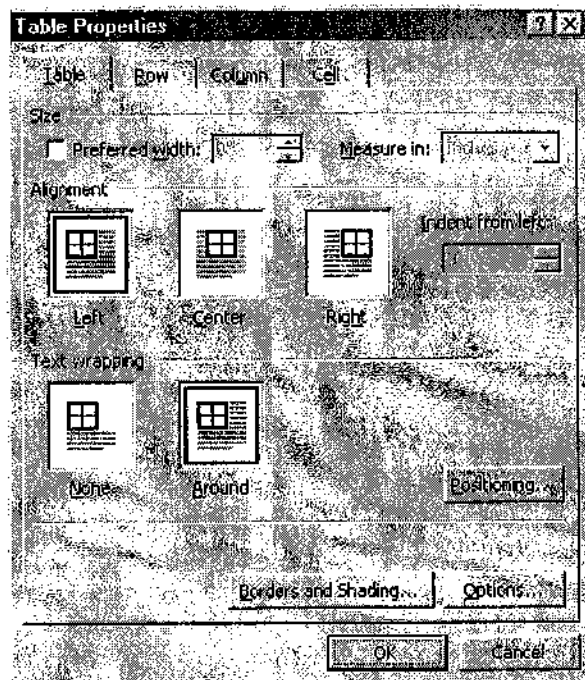
Formatting the table involves merging and splitting cells, changing the width of columns or cells, changing the row height, changing the vertical and horizontal alignment of text, adding shading to a table, removing table borders, hiding or unhiding the table gridlines, adding or changing the line style, color, and thickness of borders.

You will need to highlight the cells of the table you want to format. Click and drag the mouse over the cells, or use the following shortcuts:

Selection	Method
One cell	Click the bottom, left corner of the cell when a black arrow appears
One row	Click outside the table to the left of the row
One column	Click outside the table above the column when a black arrow appears
Several rows	Click outside the table to the left of the row and drag the mouse down
Several columns	Click outside the table above the column
Entire table	Triple-click to the left of the table

The Tables and Borders toolbar allows you to format your table. Access the toolbar by clicking Table ! Draw Table or View ! Toolbars ! Tables and Borders. The text in the table can be formatted in the same way you would format non-tabular text.

You can also use the Table Properties dialog box to modify the alignment, height, width, shading effects, etc. Select Tables ! Table Properties.



- *Size* - Check the Preferred width box and enter a value if the table should be an exact width.
- *Alignment* - Highlight the illustration that represents the alignment of the table in relation to the text of the document.
- *Text wrapping* - Highlight “None” if the table should appear on a separate line from the text or choose “Around” if the text should wrap around the table.
- *Borders and Shading* - Select from a number of border styles, colors, and widths. Click the Shading tab to change the background color and pattern.

You can also use the “Table AutoFormat” command from the “Table” menu to choose from a series of pre-defined table formats.

Moving and Resizing a Table

A four-sided moving arrow and open box resizing handle will appear on the corners of the table if the mouse is placed over the table. Click and drag the four-ended arrow to move the table and release the mouse button when the table is positioned where you want it. Click and drag the open box handle to resize the table. Change the column widths and row heights by clicking the cell dividers and dragging them with the mouse.

3.5 File Management

Word provides with various file management capabilities which include opening documents, selecting more than one file simultaneously, Cycle between multiple open documents, search for a file, delete or rename a file.

Opening Documents

A document can be opened using one of the various methods:

- File '!' Open
- Open toolbar button (usually 2nd from the left on the Standard toolbar)
- Pressing Ctrl + O
- Ctrl + F12

This will display the “Open” dialog box. Now, you can select the file to be opened.

Opening a file as Read-only

A document can be opened as read-only using the Open dialog box. Select the file(s) in Open dialog box. Right Click on the mouse, select “Open Read Only” command from the drop down menu.

Selecting more than one file

Multiple files can be selected & opened simultaneously using the Open dialog box.

- To select non-adjacent files, click one file, and then hold down “Ctrl” key and click each additional file.
- To select adjacent files, click the first file in the sequence, and then press “Shift” key and click the last file.
- To unselect a highlighted file you don't want, hold down “Ctrl” key and click the file again.

Switching between multiple open documents

You can cycle between the multiple open documents using one of the various methods:

1. Press Ctrl + F6.
2. Click on the "Window" menu and click on the required file from the list displayed.
3. Select the Word document icon displayed in the task bar

Searching a File

Word lets you search for a file, if you are unable to locate it. Within the Open dialog box, click on the Tools icon and then select the Find option. This will open the "Find" dialog box. Within the "Look in" section of the dialog box, define the location where you wish to search. If you wish to search sub-folders, tick the "Search subfolders" check box. In the "Value" field, enter a value such as the name of the file you are searching for (or may be text contained within a file). Click on the "Find Now" button to start the search. The system will now search through the entire hard disk and locate any file with the specified file name.



Deleting a file

1. Select the required file in the "Open" dialog box.
2. Press the Delete key, or right click on the file & select "Delete" from the pop-up menu.

Renaming a file

1. Select the required file in the "Open" dialog box.
2. Right click on the file and select "Rename" from the pop-up menu.

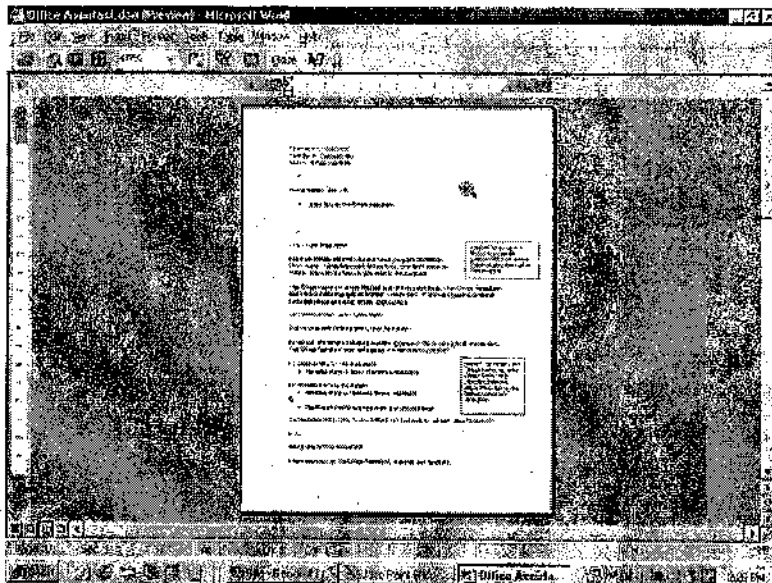
3.6 Printing

After a document has been prepared, you may want to print the document. The printed copy of the document is also called hard copy. Before printing, you must install the printer.

Print Preview

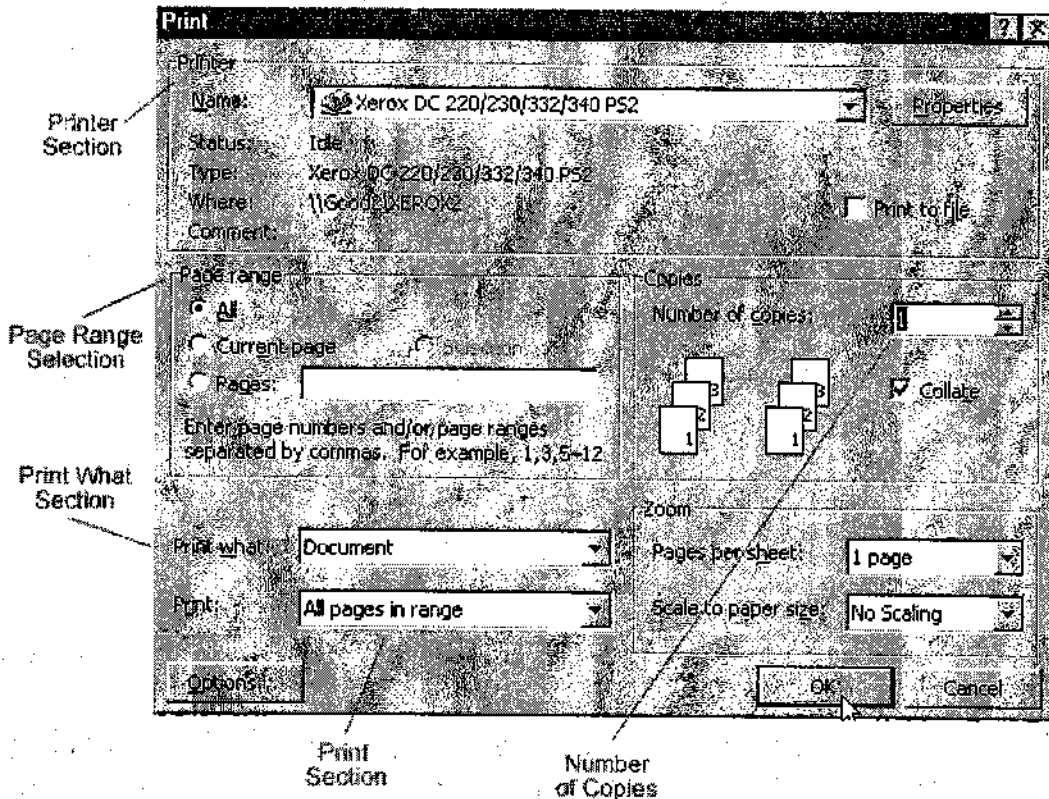
Print Preview allows you to see how your file looks before you print. This prevents a waste of paper and ink.

To Access Print Preview, you should choose "Print Preview" from the "File" menu. Alternatively, you can click the "Print Preview" button on the standard toolbar. Once you have accessed Print Preview, your document will now be in **Print Preview mode**. The document will look like as given in the figure.



3.6 Printing the Document

1. Choose "Print" from the "File" menu. The Print dialog box will appear.
2. Click the "Print" button on the "Standard" toolbar. This starts printing immediately. The print dialog box will not appear.



The Print Dialog Box

Selecting the Printer

When working in an office environment, it is possible your computer is part of a network that accesses several printers. You can choose the printer to which your document will be sent for printing, using "Name" drop down box.

Selecting the Page Range

The default setting is **all**. If you want to print only the current page, select the current page radio button. If you want to print only part of a document (but it is more than one page), select the **Pages** radio button and enter in the page numbers you would like to print. If you want to print selected part of the document, select the "Selection" radio button.

Selecting the Number of Copies

The default setting is **1 copy**. Enter the number of copies you would like to print. You may use the **up** or **down** arrows to indicate the desired number of copies. **Collate** is a default setting. Collate means to put pages in proper order. If you would like to turn off the collating feature, simply deselect the radio button (this means that if you print more than one copy of a document, all the page 1s will be together, all the page 2s, etc.)

Miscellaneous Options

You can choose to print only the odd or even pages. The default setting is "**all pages in range**." You can also choose to print either directly to printer or to a file.

3.7 Styles


A style is a set of pre-defined formatting instructions that you can use repeatedly throughout the document. Styles define the format for a paragraph using specific margins, font sizes, or underlining. Styles are used to identify parts of a document. E.g. heading, footnote, hyperlink, or body text. Using styles, you apply a whole group of formatting characteristics in one simple task.

The use of styles in Word will allow you to quickly format a document with a consistent and professional look. If you store the formatting commands in a style, you can apply that style any time you need it without having to do all of the reformatting.

There are two ways to choose a style:

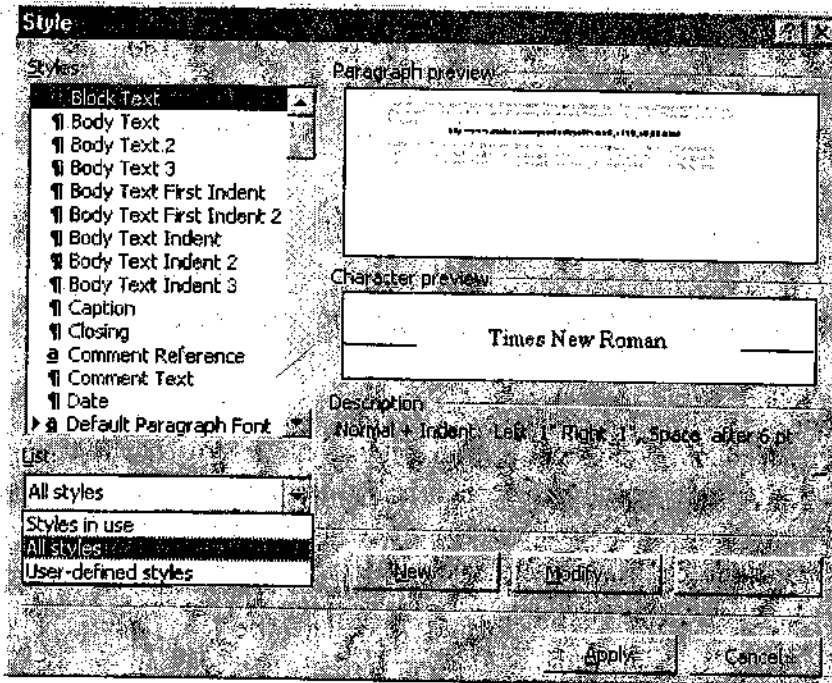
- The "Style" dialog box.
- The "Style" list box on the "Formatting" toolbar.

Choosing a Style using the Style List Box:

1. Place the cursor in the paragraph where the style will be applied.
2. Click the "Style" drop-down menu on the Formatting toolbar and select a style by clicking on it.
3. To apply the same style to multiple paragraphs, double click the "Format Painter" button  on the standard toolbar and click in all the paragraphs that the style should be applied to. Press the ESC key to disable the Format Painter.

Choosing a Style using the Style Dialog Box

1. Click in or select the paragraph text that you want format with a style.
2. Choose "Style" option from the "Format" menu. The Style dialog box appears.
3. Click the style you want to use.
4. Click Apply.



Style Dialog Box

Creating a New Style from a Model

To create a style from text that is already formatted in a document, follow these steps:

1. Place the cursor in the paragraph you would like to set as a new style.
2. Click the **Style** box on the formatting toolbar so the style name is highlighted.
3. Delete the text in the field and type the name of the new style.
4. Press the **ENTER** key to save the new style.

Deleting a Style

Preset styles created by Word cannot be deleted, but to delete a style you have made, follow these steps:

1. Select "Style" from the "Format" menu.
2. Highlight the style from the "Styles" list that you want to delete.
3. Click the "Delete" button.
4. You will be confirmed to delete the style. Click "Yes" & Click "Close" button.

3.8 Linking & Embedding Objects

There are times when you need to explain a concept with the help of a picture or a graph. These elements enhance the visual appeal & quality of the document. Word provides a feature called Object Linking & Embedding (OLE), which allows you to include objects of other applications in your document. E.g. an Excel spreadsheet can be embedded within a Word document using OLE. Double-clicking the

embedded spreadsheet will launch Excel and allow the user to modify the sheet. Objects can either be inserted or linked into the document.

Linking

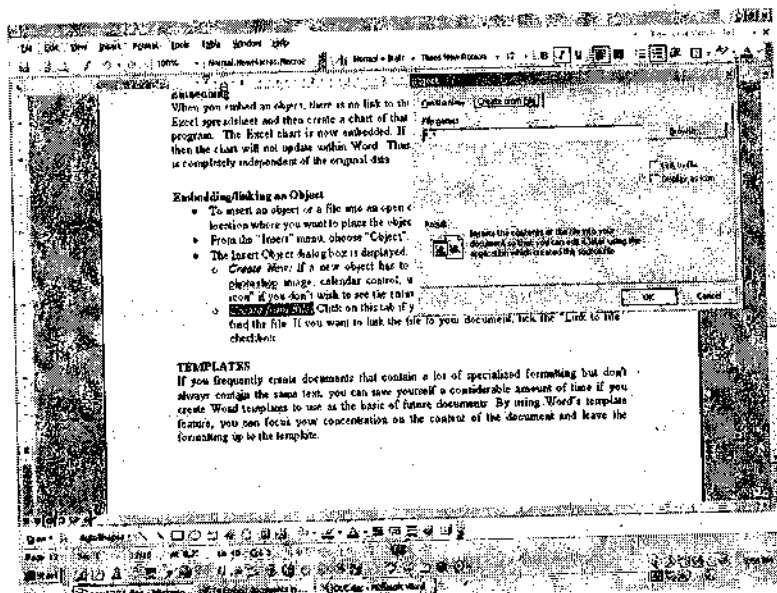
When you link an object from one application to another, this means that an active link is maintained between the applications. Thus you can enter data into an Excel spreadsheet and then create a chart of that data within Excel. Save the Excel document and then link the Excel chart to your Word program. Every time you change the original data within Excel the chart will update automatically within Word. Similarly, a bitmap file can be linked to your document.

Embedding

When you embed an object, there is no link to the original. Thus you can enter data in to an Excel spreadsheet and then create a chart of that data within Excel & copy it to your Word program. The Excel chart is now embedded. If you change the original data within Excel, then the chart will not update within Word. Thus the copy of the chart embedded into Word is completely independent of the original data.

Embedding/Linking an Object

1. To insert an object or a file into an open document, position the insertion point at the location where you want to place the object in the current document.
2. From the "Insert" menu, choose "Object".
3. The Insert Object dialog box is displayed, as shown in the figure. There are two tabs:
 - *Create New:* If a new object has to be inserted, select the type of object like photoshop image, calendar control, which has to be inserted. Tick "Display as icon" if you don't wish to see the entire object.
 - *Create from File:* Click on this tab if you wish to insert an existing file. Browse to find the file. If you want to link the file to your document, tick the "Link to file" checkbox.



Inserting an Object

3.9 Templates

If you frequently create documents that contain a lot of specialized formatting but don't always contain the same text, you can save yourself a considerable amount of time if you create Word templates to

use as the basis of future documents. By using Word's template feature, you can focus your concentration on the content of the document and leave the formatting up to the template. They give documents a more consistent look and feel. A Word template can contain formatting, styles, headers, footers, macros, toolbars, and AutoText entries.

Word provides three types of templates.

- **Themes:** Color schemes, background images, bullets, fonts, horizontal lines, etc.
- **Style Templates:** One or more styles for creating common types of documents such as fax cover pages, memos, business letters, and resumes.
- **Styles:** Defines the format for a paragraph using specific margins, font sizes, or underlining. Styles have been discussed earlier.

Choosing a Theme

1. Choose "Theme" from "Format" menu.
2. The **Theme** dialog box appears. In the **Choose a Theme** list, click the theme you want to use.
3. Word gives you a **preview** of how that theme can change the appearance of your document.

Style Templates

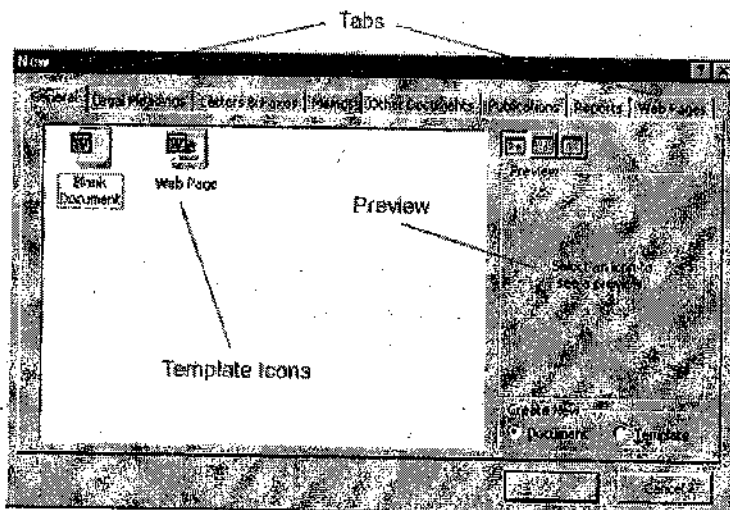
Using a **style template**, you simply select the text in the template and replace it with your own text. Templates also automate common tasks, such as inserting the current date and time into your document. The templates available in Word are accessed through the "New" dialog box.

Choosing a Style Template:

1. Choose "Theme" from "Format" menu.
2. The **Theme** dialog box appears, showing the theme in your current document.
3. Click the "Style Gallery" button.
4. Click on the style templates listed in the "Template" box, such as *Professional Fax* and *Elegant Memo*.
5. Click **OK**.

Access Style Templates Using the New Dialog Box:

You can also access Style Templates using the "New" dialog box & then choosing from any of the tabs.



Creating Your Word Template

Once you have outlined your document and are ready to create your Word template, follow these simple steps:

1. Click the "File" menu and select "Save".
2. In the "File Name" box, give your template a name that will be easily recognizable.
3. In the Save as type box, select "Document Templates". The extension for templates is ".dot".
4. Word will automatically open the default save location for Templates. You can save the template in another location also by navigating through the folders on your hard drive. Templates saved in locations other than the default location will not appear in the Templates dialog box.
5. Click Save.

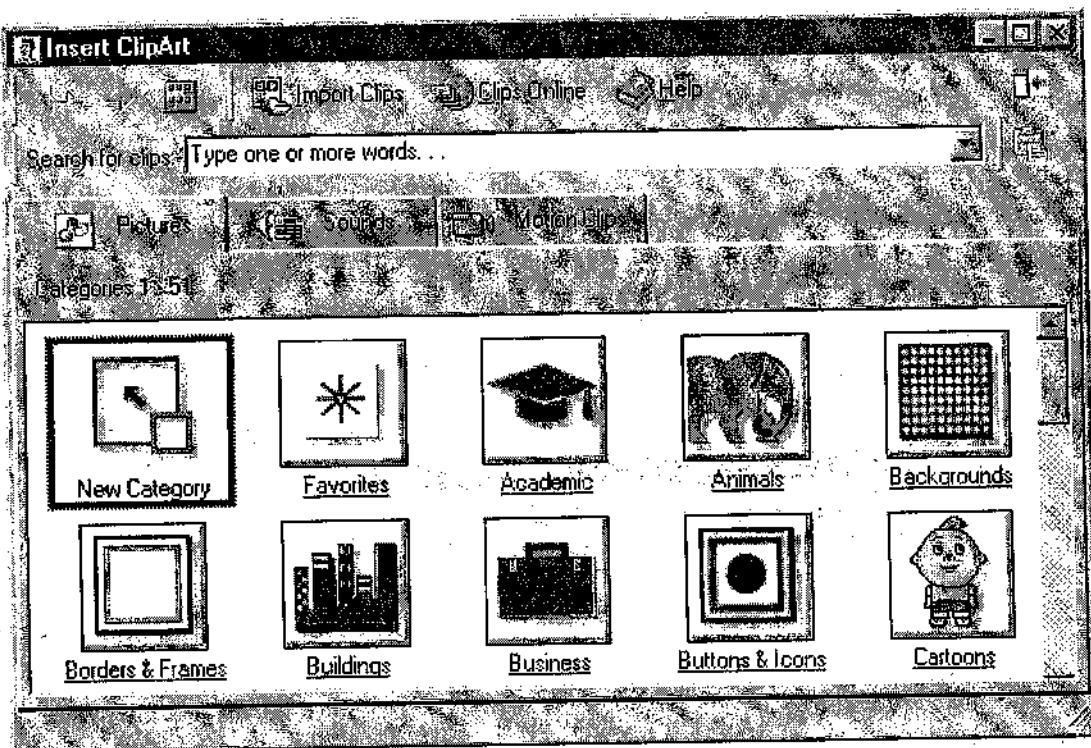
3.10 Working with Graphics

Graphics can be added to a document to enhance its appearance. It also makes the document more interesting visually.

Adding Clip Art

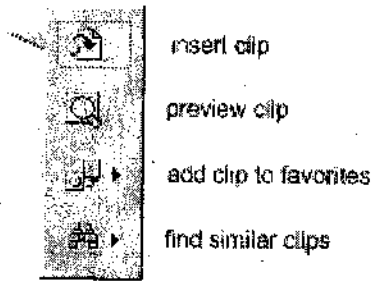
Clip Art is the term given to pre-made images that are ready for use in your Microsoft Word documents. There are many Clip Art categories, such as Special Occasions, People, Business, Decorative Elements, Animals, Cartoons and many more. To add a clip art image from the Microsoft library to a document, follow these steps:

1. Click on "Insert" menu. Select "Clip Art" from "Picture" submenu. The "Insert Clip Art" dialog box appears.



2. To find an image, click in the white box following "Search for clips". Otherwise, Click one of the category icons.

- Click once on the image you want to add to the document and the following popup menu will appear:



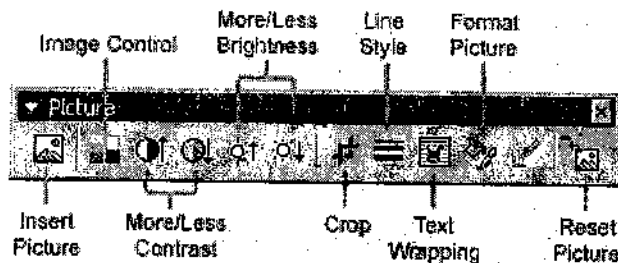
- Insert Clip to add the image to the document.
 - Preview Clip to view the image full-size before adding it to the document. Drag the bottom, right corner of the preview window to resize the image and click the “x” close button to end the preview.
 - Add Clip to Favorites will add the selected image to your favorites directory that can be chosen from the Insert ClipArt dialog box.
 - Find Similar Clips will retrieve images similar to the one you have chosen.
- Continue selecting images to add to the document and click the Close button in the top, right corner of the Insert ClipArt window to stop adding clip art to the document.

Adding an Image from a File

- Select Insert > Picture > From File on the menu.
- Click the down arrow button on the right of the “Look in” window to find the image on your computer.
- Highlight the file name from the list and click the “Insert” button.

Editing a Graphic

Activate the image you wish to edit by clicking on it once with the mouse. Click and drag these handles to resize the image. The handles on the corners will resize proportionally while the handles on the straight lines will stretch the image. More picture effects can be changed using the Picture toolbar. The Picture toolbar should appear when you click on the image.



- *Insert Picture* will display the image selection window and allows you to change the image.
- *Image Control* allows the image to be changed to grayscale, black and white, or a watermark.
- *More/Less Contrast* modifies the contrast between the colors of the image.
- *More/Less Brightness* will darken or brighten the image.

- Click *Crop* and drag the handles on the activated image to delete outer portions of the image.
- *Line Style* will add a variety of borders to the graphic.
- *Text Wrapping* will modify the way the document text wraps around the graphic.
- *Format Picture* displays all the image properties in a separate window.
- *Reset Picture* will delete all the modifications made to the image.

Wrapping Text Around Graphics

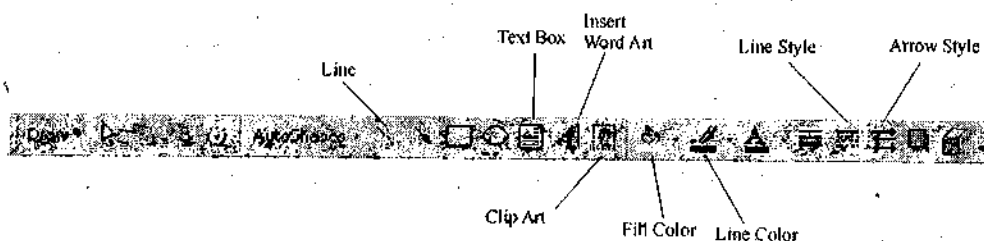
Wrapping means that text flows around a graphic object rather than over it. When positioning a graphic near text, you can specify how you would like the text to wrap around the graphic. This can be done as follows:

1. Click the Graphic to select it. When the graphic is selected, the "Picture" Toolbar gets opened.
2. Click the "Text Wrapping" button on the Picture Toolbar.
3. Click one of the text wrapping options that appears
4. Click "Picture" on the "Format" menu. Then click the "Layout" tab
5. Click "Advanced", then click the "Text Wrapping" tab
6. Click one of the text wrapping options that appears, Click OK.
7. Click OK

Auto Shapes

You can also create your own graphics using the Drawing tools on the Drawing Toolbar, which includes tools for drawing lines and shapes, as well as tools for applying color, shadows, and fills to the images you create. The AutoShapes toolbar will allow you to draw many different geometrical shapes, arrows, flow chart symbols, stars, and banners on the document.

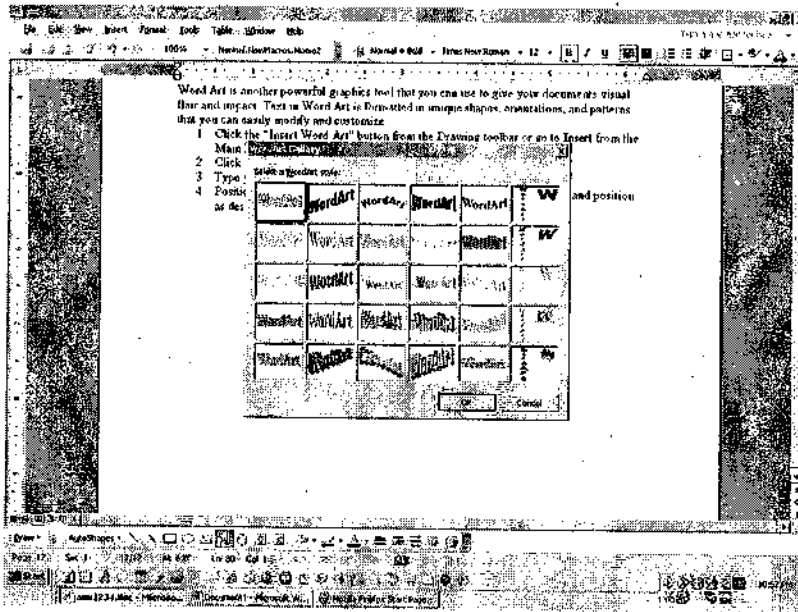
1. Click a shape on the Drawing toolbar.
2. Position the pointer over the shape so that it changes to a 4-way arrow.
3. Drag the white handles until you reach the desired size of your shape.
4. Click "AutoShapes" on the Drawing toolbar, Click one of the listed styles, and then click a desired shape.
5. When you click the shape, the pointer changes to +. Drag this pointer to draw the Auto shape.
6. With the shape selected, click the "Fill color" list on the Drawing toolbar, Click a color for fill color.
7. Click the "Line Color" for line color.
8. Click the "Line Style" button for line style.
9. When you want to add text to your documents as a graphic image, you can create a text box. A text box is a container into which you can place text and graphics.



Inserting Word Art

Word Art is another powerful graphics tool that you can use to give your documents visual flair and impact. Text in Word Art is formatted in unique shapes, orientations, and patterns that you can easily modify and customize.

1. Click the "Insert Word Art" button from the Drawing toolbar, or select "WordArt" from "Picture" submenu of "Insert" menu. The WordArt Gallery dialog box appears.



2. Click a style from The WordArt Gallery dialog box
3. Type your text in the Your Text here box, Then Click OK
4. Position the pointer over the text. Resize by dragging the white handles and position as desired.

3.11 Summary

- Word provides a lot of advanced features to facilitate the user to create well formatted documents.
- Mail Merge is a feature used for sending similar letters with minor differences to multiple persons at the same time. It can also be used to print envelopes, mailing lists.
- A macro is a series of steps that is grouped together as a single step and then executed when necessary. It speeds up tasks which are performed repetitively.
- Tables are a grid of rows and columns. It is useful when data has to be represented in tabular form.
- Table menu provides commands for creating and formatting tables, rows, columns, and cells, as well as sorting and calculation tools.
- Word provides with various file management capabilities which include opening documents, selecting more than one file simultaneously, Cycle between multiple open documents, search for a file, delete or rename a file.
- Word allows printing of the document if a hard copy is required. Print Preview allows you to see how your file looks before you print. This prevents a waste of paper and ink.
- A style is a set of pre-defined formatting instructions that you can use repeatedly throughout the document.

- Templates serve as a blue print for your documents. A Word template can contain formatting, styles, boilerplate text, headers, footers, macros, toolbars, and AutoText entries. They give documents a more consistent look and feel.
- Word provides a feature called OLE (Object Linking & Embedding), to facilitate the user to insert or link an object like images, charts, worksheets into your document.
- Word includes features like ClipArt, WordArt, Auto shapes to help the user add graphics & predefined symbols to their documents.
- Clip Art allows you to import pictures, sound, etc. in the document. It also helps you to add more clips from Internet or other sources.

3.12 Unit End Questions

1. Explain Mail Merge.
2. What is the difference between main document and data source?
3. Define a macro. How can you assign a shortcut key to your macro?
4. What is Print Preview?
5. How can you insert a table of 3 columns & two rows in your document?
6. Explain Templates.
7. What are the different ways of creating templates?
8. Why do we use styles?
9. Send a New Year party invitation to your ten friends. Write the steps followed by you to do this.
10. Define a macro to convert all the alphabets in the document to upper case.
11. Create a macro Address which inserts your address at insertion point.
12. Create a macro to copy the selected paragraph to the end of the document. Assign a shortcut key to it.
13. Find all files in c: drive and having extension “.doc”.
14. Open three documents simultaneously, as read-only.
15. Create a table for storing the marks of your friends of any three subjects.
16. Write a letter to a Computer Institute as a Manager of a bank, for having computer training for your employees. Save it as a template.
17. Create a new style for a paragraph as font Arial, size 10 point, justified alignment, double line spacing.
18. Insert an excel chart in your document.
19. Link a bitmap image file to your document
20. Using WordArt, create a title for your document.

Unit 4 : Introduction to Spreadsheets

Structure of the Unit

- 4.0 Objectives
- 4.1 Introduction
- 4.2 Excel
- 4.3 File Management in spreadsheet
- 4.4 Moving around in a worksheet
- 4.5 Entering Data
- 4.6 Spelling Check
- 4.7 Selecting Cells
- 4.8 Autofill Feature
- 4.9 Quick Data Entry
- 4.10 Autosum
- 4.11 AutoFormat
- 4.12 Summary
- 4.13 Unit End Questions

4.0 Objectives

In this unit, the student will learn about basics of spreadsheets, terminology, and its advantages. You will also learn about File management in spreadsheets, Moving around & entering data, Spell check & AutoCorrect, AutoFill feature, Quick data entry, Auto Sum & auto format etc.

4.1 Introduction

Word processors are indispensable when you are working with textual data, but it falls short when you have to operate upon numerical data. Spreadsheets are the right choice for numerical data processing and analysis.

A *spreadsheet* is a grid of rows and columns, similar to a paper ledger sheet, and is used to record and compare numerical or financial data. Originally, spreadsheets only existed in paper format. Now people associate this term with a software application that displays the numerical information in rows and columns. Spreadsheets can be used in any area that works with numbers and are commonly found in the accounting, budgeting, sales forecasting, financial analysis, and scientific fields. Spreadsheet provides powerful features to arrange & group numeric data, automatic recalculations, maintain complex relationship between set of data, depict data in graphical format. It also offers data analysis, modeling & forecasting, trend analysis tools. There are many spreadsheet programs available in the market like Excel, VisiCalc, Lotus1-2-3, etc. of which Microsoft Excel is the most popular. It is a part of MS Office Suite.

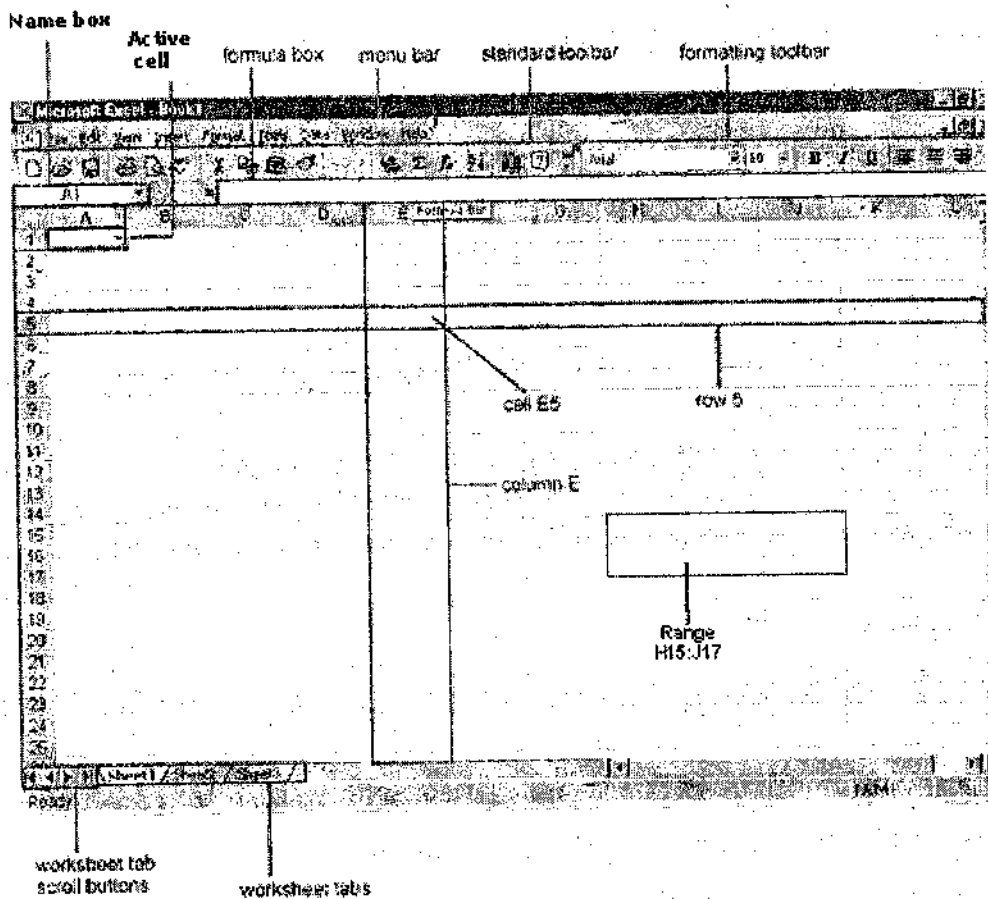
4.2 Excel

Microsoft Excel is an electronic spreadsheet program used for storing, organizing and manipulating data. It helps in creating complex spreadsheets. The type of data that Excel can use includes numbers, text and formulas. Excel allows you to create spreadsheets much like paper ledgers that can perform automatic calculations. It features calculation, graphing tools, pivot tables and macros.

Terminology

- *Workbook*: A workbook is an Excel file, which can hold many worksheets.
- *Worksheet*: A worksheet is a grid of columns and rows, used for entering data.
- *Rows & Columns*: The columns are assigned letters called column labels; and rows are given numbers called row numbers. These are displayed in gray buttons across the top and left side of the worksheet respectively. In excel there are 256 columns and 65,536 rows.

- **Cell:** A cell is an intersection of row & column. Data is entered in the cells.
- **Cell Address:** Each cell has a unique cell address, which consists of column label, followed by row number. Eg. A1, B3. The address of the current or active cell can be seen in the *Name box*. The address of the last cell is IV65536.
- **Active cell:** The currently selected cell is called active cell.
- **Range:** A rectangular block of contiguous cells is called range.
- **Formula Box/Bar:** This area displays the contents of the active cell. If a formula is entered, the cell contains the output & formula box displays the formula.
- **Worksheet tabs:** These contain the name of the individual sheets in the workbook. You can make a worksheet active by clicking on these tabs. Tab scrolling buttons are used to scroll between tab sheets. They are used only to view the tabs, not for selecting them.



Sample Worksheet

- **Toolbars:** There are two main toolbars:
 - **Standard Toolbar** - This toolbar is located just below the menu bar at the top of the screen and allows you to quickly access basic Excel commands like new, Open, Print, Cut, copy, paste, autosum, etc.
 - **Formatting Toolbar** - This toolbar is used to select fontface, font size, font style, such as, bold, Italics, or underline.

Advantages of Spreadsheets

The advantages of using spreadsheets are as follows:

- No manual calculations are required. Thus, the chances of errors are reduced.
- Automatic recalculations are performed when you can change numbers in a cell. If you change one number on a paper based spreadsheet, you have to do all the calculations that directly or indirectly use that number all over again.
- You can edit easily if you make a mistake. Also, you can easily modify row/column width by dragging at any time.
- You can automatically perform most simple to most complex mathematical calculations on the data you've entered, using functions.
- Data can be presented in graphical form. Also different formatting can be applied to it easily.
- It allows for easy organization of data in a format that is visually easy to follow.
- "What If" Analysis can be performed, which allow you to change one or more value, view the computed results, before the final decision is made.
- Basic data management facilities are available.
- Advanced data analysis & modeling tools are available.

4.3 File Management in Spreadsheet

A worksheet is a set of spreadsheets used to store numeric data. The worksheet data may be printed, graphed, sorted, and used in a variety of calculations.

Creating a Workbook

Select "New" from "File" menu & select "Blank Workbook", or Click the "New" button on Standard toolbar, or press Ctrl + N.

This will open a new Excel file named Book1. A workbook contains three worksheets, by default. You can enter data in any one of them. Each new workbook that you create is automatically named in a sequential manner as Book1, Book2, Book3 & so on. You can save these later with a meaningful name.

Saving the Workbook

If you wish to use the workbook, for future use, you need to save it. To save a file, follow these steps:

1. Select "Save As" from "File" menu. The Save As dialog box will appear.
2. Choose the drive & folder from "Save In" drop down box.
3. Give a meaningful name to your file in "Filename" box. In "Save as type" box, select "Microsoft Excel Workbook.xls".
4. Click Save button

Now, if you make changes & you want to save it again, select File! Save. Or you can click on save button on standard toolbar, or press Ctrl + S.

Quitting Excel

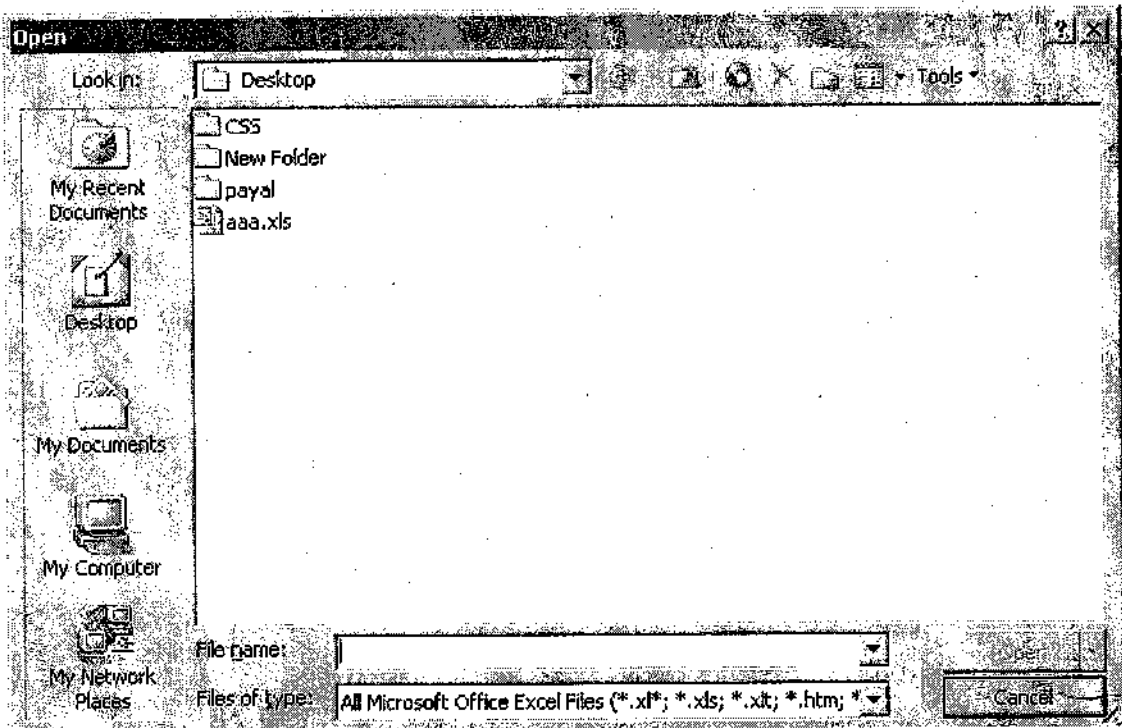
To quit Excel, take the following steps:

1. Select "Exit" from the "File" menu.

2. If the open workbook has not been saved after making changes to it, Excel asks you if you want to save the workbook.
3. Click “Yes” to save the workbook, otherwise click “No”. Clicking the “Cancel” command cancels the “Exit” command and returns you to the workbook.

Opening an Existing Workbook

If your worksheet is not open, Choose “Open” from “File” menu. The Open dialog box appears. Select the appropriate drive, folder, and filename. Then Click Open.



Open Dialog Box

Finding Workbooks

You can use the Open dialog box to search a file based upon some criteria. To do so, right click on the arrow near “Tools” option and select “Search”. This will open a search dialog box, where in you can give your search criteria like search text, search location or file type.

Closing a Workbook

You can close more than one workbook simultaneously. You can use “Close” option from “File” menu for closing the current workbook.

For closing all the open workbooks, press Shift & click upon File menu. Then, select “Close All” option.

Adding & Renaming a Worksheet

The worksheets in a workbook are accessible by clicking the worksheet tabs just above the status bar. By default, three worksheets are included in each workbook. To add a new worksheet, select “Worksheet” from “Insert” menu.

To rename the worksheet, right-click on the tab with the mouse and select “Rename” from the shortcut menu. Type a new meaningful name and press the Enter key.

Deleting a Worksheet

The worksheets in a workbook can be deleted by clicking the worksheet tabs just above the status bar. To delete the selected worksheet, right-click on the tab with the mouse and select "Delete" from the pop up menu. You can also delete the selected sheet by selecting "Delete Sheet" from the "Edit" menu.

4.4 Moving Around in a worksheet

You can move around in the worksheet using mouse or keyboard. You can also use the horizontal or vertical scrollbar, or drag the scroll box to navigate in the worksheet.

Click upon any cell in the worksheet makes that cell the active or current cell. The following table shows the various keys used to move the cell pointer:

Key	Moves the pointer to
Up arrow	One cell up or previous row
Down arrow	One cell down or next row
Right Arrow or Tab	One cell right or next column
Left Arrow or SHIFT+Tab	One cell left or previous column
Home	Beginning of row
CTRL+Home	Beginning of worksheet (cell A1)
CTRL+End	End of worksheet(last cell in the filled worksheet)
CTRL+arrow key	the edge of the current data region
CTRL+PageDown	next worksheet
PAGE DOWN	down one screen
PAGE UP	up one screen
ALT+PAGE DOWN	one screen to the right
ALT+PAGE UP	one screen to the left
CTRL+PAGE DOWN	the next sheet in the workbook
CTRL+PAGE UP	the previous sheet in the workbook

4.5 Entering Data

When you open a new workbook, the worksheets within it are blank. To enter data into any cell, make that cell active by selecting it. The insertion point appears. Type the data & press "Enter" key, or select any other cell to complete the entry. Due to some reason, if you wish to cancel the entry before its completion, press "Esc" key. When you are typing the entry, the characters appear in the formula bar as well as the active cell. Also "Enter" & "Cancel" button appear on the formula bar and mode on the status bar changes from "Ready" to "Enter".

A cell entry can contain either text or value or formula. Text value is a sequence of letters, numbers and special characters. It is also called *string* or *label*. Name, phone numbers, city, etc. are common examples of text entries. Values are numbers, dates and time.

Numeric entries can contain digits 0-9 and certain special characters like + - () E . , % and . Dates & Time are viewed by Excel as a value, starting from 1/1/1900, which was assigned the value of 1.

A formula is an expression, which has a value. Either you create that expression, or you can use the built-in formula called function. All formulas start with an equal sign. When you enter the formula in a cell and press Enter or move to another cell, you will see the results of the formula in the cell. The formula itself will appear on the formula bar.

Example: You want to create a grade sheet for BCA class of 5 students. Each student has three subjects. Also you wish to calculate the class average in each subject. Following worksheet can be created:

	A	B	C	D	E	F	G	H	I	
1	Grade Sheet for BCA					Text Entry				
2										
3	Name	Computer	Maths	English	Average					
4	Alok	98	87	70	85					
5	Bhavya	99	100	83	94	Formula				
6	Harsh	77	93	79	83					
7	Nitin	88	90	83	87					
8	Ramesh	69	89	78	78.66667					
9										
10	Class Average	86.2	91.8	78.6		Numeric entry				
11										

For entering text or number, you have to go to the corresponding cell & start typing directly. If you notice in the given figure, cell E5 contains a formula which can be seen in the formula bar. Its value can be seen in the cell.

Moving and Copying Cells

Once you have entered some text or value of formula in a cell, it can be copied or moved to another cell. For moving the cell contents to another cell, you can either select "Cut" option from "Edit" menu or click the Cut button on the standard toolbar. For copying the cell contents, select "Copy" option from "Edit" menu or click the Copy button on the standard toolbar. Then highlight the cell you want to paste the cut or copied content into and select "Paste" option from "Edit" menu from the menu bar or click the Paste button on the standard toolbar.

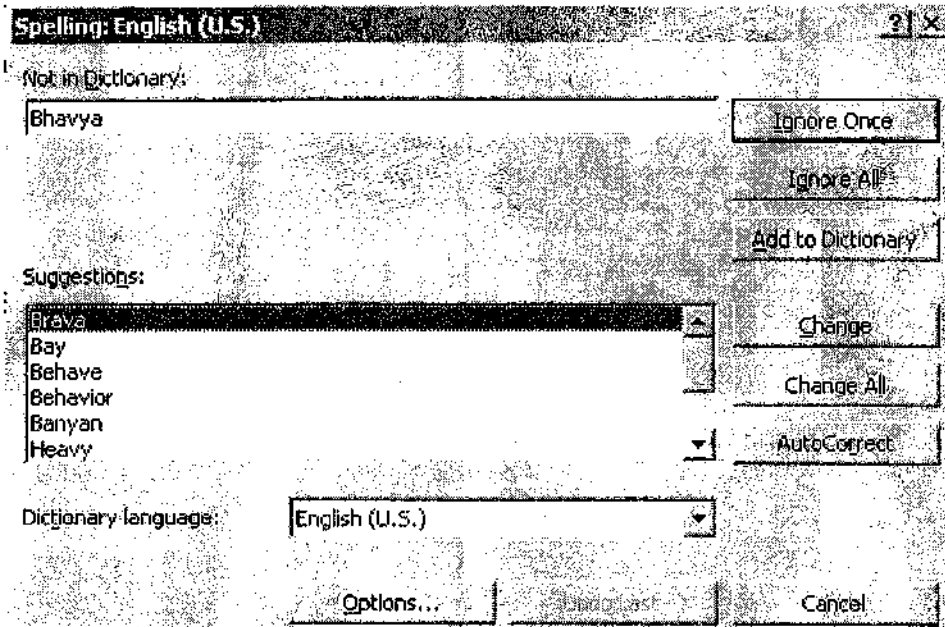
Alternatively, if you are moving the cell contents to only a short distance, the drag-and-drop method may be easier. Simply drag the highlighted border of the selected cell to the destination cell with the mouse.

4.6 Spelling Check

Excel provides a built-in spelling checker you can use to correct your spelling mistakes in the worksheet. This tool works in much the same way as the spelling checker does in Office applications. To run the spelling checker, follow these steps:

1. Select the worksheet or worksheets that you want to be included in the spelling check.

2. Choose "Spelling & Grammar" from the "Tools" menu, or press F7. The Spelling dialog box is displayed & potential errors are checked. There are buttons for you to respond to the suggestions. You can either ignore the suggestions made by Excel or replace the original word with any of the suggested word. You can also add new words to the dictionary, so that next time it does not give error on that word.



Spelling Dialog Box

If you don't want to spell check an entire worksheet; you can run the spelling checker on a range of cells, as well. To run the spelling checker on a range, do the following:

1. Select the cells you want to be checked.
2. Choose "Spelling & Grammar" from the "Tools" menu, or press F7. Respond to the spelling suggestions as appropriate.

Automatic Error Correction

Excel will fix mistakes for you as you type if they are part of the auto correct list. The purpose of AutoCorrect is to automatically change things you type, as you type them. For instance, mistakenly typed "teh" will automatically be replaced by "the". Also if you type any text & mistakenly make first two letters capitalised, then the second letter will automatically be converted to lower case, when you move to another cell. If you know you always misspell a certain word, you can force Excel to recognize that word and replace it with the proper one. Similarly, you can define short codes that can be automatically replaced with long words or phrases. To do so, select "AutoCorrect" from "Tools" menu. An AutoCorrect dialog box appears.

There are many features that can be checked at the top including the one for correcting two initial capitals as you type. If you're typing in sentences, the first letter will always be capitalised for you, and names of the days of the week will always become capitalised. There is a check mark "Replace text as you type" which is tick marked, hence the word "the" become corrected.

You can add new words to autocorrect list. To do so, follow these steps:

1. Select "Autocorrect" from "Tools" menu.

2. In the "Replace" area, type the misspelled text, ie.the word you typically misspell.
3. In the "With" textbox, add the text the way it should be spelled or the way you want it to be replaced with.
4. Click the "Add" button. The word's misspelling and correct spelling are added to the auto correct list.

4.7 Selecting Cells

Before a cell can be modified or formatted, it must first be selected (highlighted). Refer to the table below for selecting groups of cells.

Cells to Select	Mouse Action
One cell	Click once in the cell
Entire row	Click the row label
Entire column	Click the column label
Entire worksheet	Click the whole sheet button
Range	Drag mouse over the cells or hold down the SHIFT key while using the arrow keys

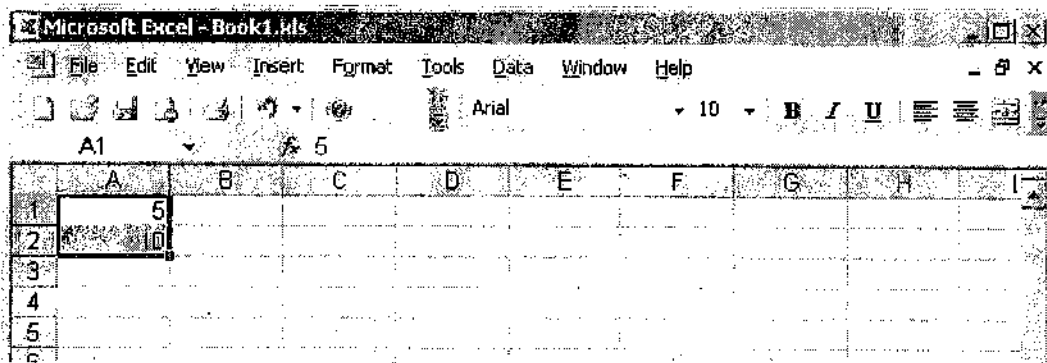
Editing Cell Entry

If you select a cell containing some content, you can just select that cell and type a new entry. This will replace the old entry. To edit the existing contents of a cell, double-click on the cell or click once and press F2. A cursor or insertion point appears in the cell. Now, you can modify the existing entry.

4.8 Autofill Feature

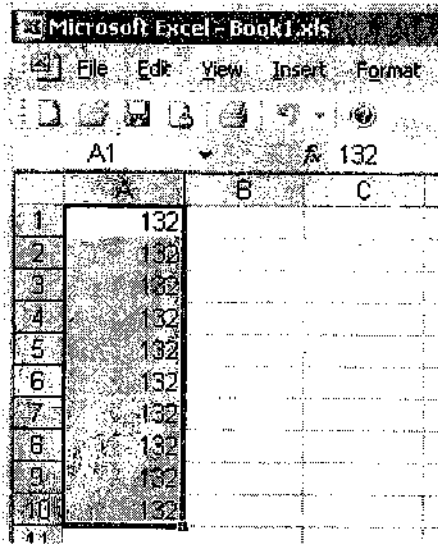
The Autofill feature allows you to quickly fill cells with repetitive or sequential data such as chronological dates or numbers, month names and repeated text. You can conveniently create series such as 1,2,3,4,5,..... or 3,5,7,9,.... or Marks1, Marks2, Marks3,...etc. Also an existing series can be extended further.

When you select a cell or a range, a small black box called "fill handle" appears at the lower right corner of the selection.



When you place the mouse pointer over the fill handle, the shape of the pointer changes to a black cross. By dragging the fill handle, you can copy contents to adjacent cells. To do so, follow these steps:

1. Type the beginning number or date of an incrementing series or the text that will be repeated into a cell.
2. Select the fill handle with the left mouse button and drag it down as many cells as you want to fill.
3. Release the mouse button.



Exercise: To copy the contents of cell A1 to range A2:A10 using Autofill

1. Select cell A1 & Type some number or text in this cell.
2. Place the mouse pointer over the fill handle & drag the fill handle to cell A10.
3. Release the mouse button. The same number/text will be copied to the selected range.

If you want to autofill number of rows with cells displaying the same number or date you must enter data to two adjacent cells in a column. Highlight the *two* cells and drag the handle of the selection with the mouse, downwards. Say, in cell A1 type 132, in cell B1 type "Test". Select A1: A2. Drag the fill handle up to cell B10 and see what happens.

Depending upon the initial selection, Excel decides whether to copy the contents of selected cells or create a series. If the initial selection is a single cell containing text or a number, then the contents are copied. If the initial selection is a single cell containing month name, week day or some label containing a number, then the series is extended. Following Table shows the resultant action of Autofill:

Initial Selection (content of cell B1)	Action (contents of cell B2, B3)
12	12, 12
Class	Class, Class
Class1	Class1, Class2
Sunday	Monday

Autofill to Extend a Series

You can also use fill handle to extend a series. If you select multiple cells, series will be extended. To do so, follow these steps:

1. Type the first two numbers of the series into two adjacent cells. Select both the cells.

2. Select the fill handle with the left mouse button and drag it down as many cells as you want to fill.
3. Release the mouse button.

Exercise: To extend a series 5, 10, 15, using Autofill

1. Select cell A1 & Type 5 in this cell.
2. Select cell A2 & Type 10 in this cell.
3. Place the mouse pointer over the fill handle & drag the fill handle to cell A10.
4. Release the mouse button. You can see the extended series in the figure.

If you want to copy these cells in the same sequence, press Ctrl & drag the fill handle. See what happens.

The screenshot shows a Microsoft Excel window titled 'Microsoft Excel - Book1.xls'. The menu bar includes File, Edit, View, Insert, Format, and Tools. The toolbar contains various icons for file operations and editing. The active cell is A1, containing the number 5. The spreadsheet grid shows columns A, B, and C, and rows 1 through 10. Column A contains the following values: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50. Columns B and C are empty.

	A	B	C
1	5		
2	10		
3	15		
4	20		
5	25		
6	30		
7	35		
8	40		
9	45		
10	50		

Alternating Text and Numbers with Autofill

The Autofill feature can also be used for alternating text or numbers. For example, to make a repeating list of the days of the week, type the seven days into seven adjacent cells in a column. Highlight the seven cells and drag down with the mouse.

Autofilling Functions

Autofill can also be used to copy functions. To do so, type a formula in the first cell & drag the fill handle down as many cells as you want to fill. Then release the mouse button.

Exercise: To use Autofill for copying functions.

Column A and column B each contain lists of numbers and column C contains the sums of columns A and B for each row.

1. Select cell C2 and type “=SUM(A2:B2)”.
2. Select cell C2 and drag the fill handle down to fill in the remaining cells. The autofill feature will automatically update the row numbers as shown below if the cells are reference relatively.

C2 = =SUM(A2:B2)				C11 = =SUM(A11:B11)			
	A	B	C		A	B	C
1	number 1	number 2	sum	1	number 1	number 2	sum
2	87	49	136	2	87	49	136
3	54	30		3	54	30	84
4	34	10		4	34	10	44
5	43	8		5	43	8	51
6	24	23		6	24	23	47
7	93	97		7	93	97	190

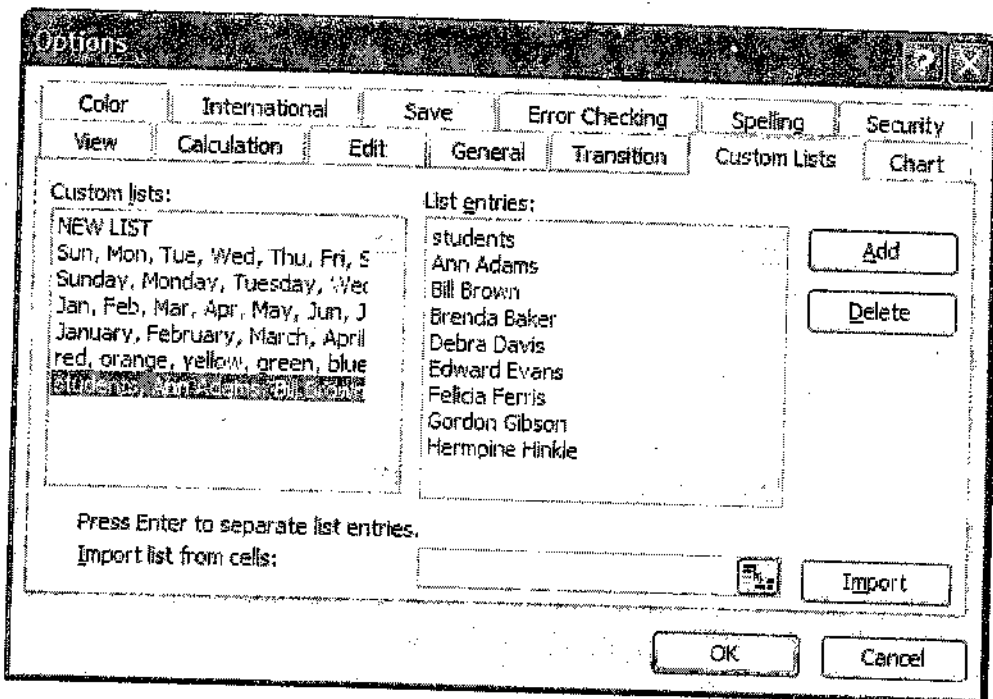
4.9 Quick Data Entry

There are plenty of features in Excel to enter data in a faster and smarter way than via the keyboard. One of these is the *Autofill* feature, which lets you enter days of the week or months of the year automatically, that was discussed earlier. This feature also helps in generating linear series. This is one way to speed up data entry, but it's not the only way. Here are some other techniques.

Custom Lists

As with the months of the year and days of the week, you can create your own custom fill lists. To do so:

1. Select "Options" from the "Tools" menu. The Options dialog box gets displayed.
2. Select the "Custom Lists" tab.
3. Select "New List" in the Custom Lists list.
4. In the List Entries portion of the dialog box, type the items in your fill series, in the order they should appear. For instance, you might type a list of department managers in alphabetic order. Press Enter at the end of each element.
5. When you are done, click the Add button.
6. Click OK to finish.



Creating Custom List

Drop Down List

You can create a drop-down list using the data validation feature in Excel. This list allows users to select the cell and then select from a list of pre-defined values for that cell. Once the user makes a selection and moves to a different cell, the arrow for the drop-down list disappears.

For example, let's say that you want to create a list of employee names. On a new worksheet, enter the employee names in any manner desired. Select the list and give it a name such as Employees. Now follow these steps:

1. Select the cell where you want the drop-down list to appear.
2. Choose Validation from the Data menu. The Data Validation dialog box is displayed. Select the Settings tab.
3. Using the Allow drop-down list, choose List.
4. Make sure the "In-Cell" Dropdown check box is selected.
5. In the Source box, enter =Employees. (This is the name you earlier gave to the employee list.)
6. Click OK.

Now, whenever someone selects the cell you used in step 1, they'll see a drop-down list arrow to the right of the cell. Clicking on the list provides a drop-down listing all the employees. The user can select one of the employees, but cannot enter a different name. When they move to a different cell, the drop-down list disappears, but the selected value remains visible.

Data Entry Forms

Excel offers a simple data entry form, which is a quick and easy way to enter data directly into cells. You'll find it invaluable if you wish to:

- start a new database table or to add new records to an existing one
- scroll through data records one at a time
- search for records containing specific information
- edit or delete individual records if necessary

To use the data entry and search form, you need to follow the convention of organizing your variables or attributes in the columns of the spreadsheet, and your records in the rows, as shown below

	A	B	C	D
1	First Name	Last Name	Gender	Age
2	Anu	Kapoor	F	11
3	Ankur	Sharma	M	12
4	Vishakha	Jain	F	12

To pull up the data entry and search form, first make sure to enter your variable labels in the first row, if they are not there already.

Select "Form" option from "Data" menu. A simple form gets displayed:



Click on the “New” button to enter a new record. You can navigate between variables by hitting the Tab key on your keyboard, or by holding the Alt key and typing the underlined letter for the variable shown on the form (e.g., type Alt+A to skip straight to the “Last Name” variable). It is very important to note that the data are not transferred from the form to your spreadsheet until you click the “New” button.

You can also use this form as a simple search tool by clicking the Criteria button. Then enter the data you wish to find in one or more fields and click the “Find Prev” or “Find Next” buttons to find each instance of the search information. To return to the data entry function of the form, click the Form button, which you’ll find in place of the Criteria button selected earlier.

4.10 AutoSum

Adding numbers is a common task on spreadsheets. The AutoSum function makes this one of the easiest tasks to accomplish. AutoSum function can be performed using AutoSum button, present on the standard toolbar. Totaling a group of columns or rows can be as easy as clicking a button. You can use the Autosum button to add the contents of a group of adjacent cells. To do this, Excel looks at the cells adjacent to the active cell, makes an assumption as to which cells you want to sum, and displays a formula based on its best determination about the range you want to sum. You can press the enter key to accept the formula, or you can select a different range of cells to change the range in the formula.

To use Autosum, follow these steps:

1. Select the cell where the you want the sum to appear. This cell should be outside the group of cells whose values is to be added.
2. Click the “Autosum” button  on the standard toolbar.
3. A sum function gets entered in the selected cell. Also a range of cells which are being added gets highlighted. You can change the rangr if you wish.
4. Press the “ENTER” key on the keyboard or click the green check mark button on the formula bar .

Exercise: To add the contents of cell A2 & B2 using Autosum

1. Select cell C2.
2. Press Autosum Button.
3. The range A2 through B2 gets selected.
4. Press “Enter” Key.

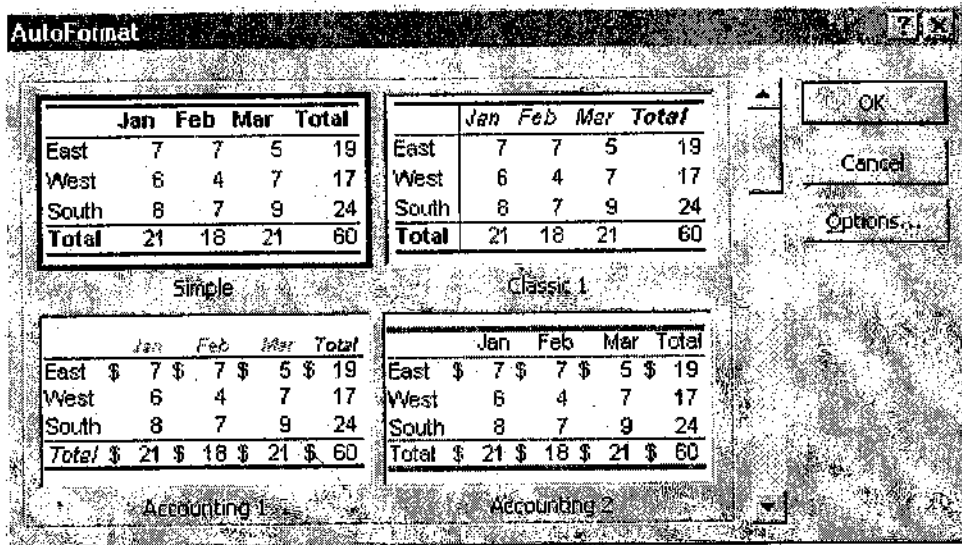
	A	B	C	D
1	number 1	number 2	sum	
2	67	49	=SUM(A2:B2)	
3	54	30		
4	34	10		

4.11 AutoFormat

To make the worksheet presentable, formatting is a must. At times formatting can be rather tedious, especially if your worksheet is large or presents complex information. Excel includes a very powerful formatting tool called AutoFormat to help you with your formatting tasks. This feature allows you to format data tables within your worksheet quickly and easily. Excel has many preset table formatting options which can be used to format an entire table, including setting all formatting attributes and row and column sizes.

To use autofORMAT, follow these steps:

1. Highlight the cells that will be formatted.
2. Choose "AutoFormat" from the "Format" menu. The AutoFormat dialog box is displayed.



AutoFormat Dialog Box

3. Select the format you want to apply to the table by clicking on it with the mouse. Use the scroll bar to view all of the formats available.
4. Click the "Options..." button to select the elements that the formatting will apply to.
5. Click on the OK button. Excel reformats your table to match the format selected by you.

4.12 Summary

- An electronic spreadsheet is similar to a ledger and can be used to solve large variety of problems related to data analysis and modeling.
- Spreadsheets can be used for business as well as scientific applications.
- A workbook is the file in which you work and save for later use. It contains worksheets.
- A worksheet is a grid of rows and columns. The intersection of row and column is called a Cell.

- The formula bar is used to enter or edit values & formulas. Name box tells you which cell is active.
- A workbook can be retrieved either by selecting Open command from the file menu or by clicking Open button on the standard toolbar.
- You can search a workbook using the Open dialog box.
- The worksheets can be inserted, deleted or renamed in the workbook.
- You can move around in the worksheet using mouse or keyboard.
- Cell entries can be either text or value or formula.
- Text is combination of letters, numbers and special characters.
- Numeric value contains numerals 0 through 9 & certain special characters.
- A formula always begins with an equal sign.
- You can copy or move cells to different parts of same worksheet or to another worksheet.
- Excel provides a built-in spelling checker you can use to correct your spelling mistakes in the worksheet.
- Excel will fix mistakes for you automatically, as you type if using the AutoCorrect feature.
- Before a cell can be modified or formatted, it must first be selected (highlighted).
- The Autofill feature allows you to quickly fill cells with repetitive or sequential data such as chronological dates or numbers, month names and repeated text. This is done using the fill handle.
- If the fill handle is dragged up or to the left of the selection, then the series is created in descending order.
- There are many features in Excel to enter data in a faster and smarter way than via the keyboard. These include AutoFill, Custom lists, Drop down lists and Data entry forms.
- The contents of a group of adjacent cells can be added easily on a click, using the Autosum button to add.
- A very powerful formatting tool called AutoFormat helps you to format data tables within your worksheet quickly and easily. Excel has many preset table formatting options which can be used to format an entire table.

4.13 Unit End Questions

1. What do you mean by a spreadsheet?
2. What are the advantages of using an electronic spreadsheet?
3. Differentiate between a workbook and a worksheet.
4. What are the components of an Excel window?
5. Explain the concept of file management in spreadsheets.
6. How can you rename a worksheet?
7. What type of data can be entered in a cell?
8. How can you check for the spelling errors in a worksheet?
9. What is the use of Autocorrect? Give a suitable example.

10. How can you create a series in Excel?
11. Explain the use of AutoFill.
12. How autofill can be used to copy functions?
13. What is the significance of AutoSum?
14. How can you select multiple columns in a worksheet?
15. Why do you need AutoFormat in spreadsheets?
16. Explain the data entry forms.
17. Create a worksheet for storing the sales record of a Car company for past 5 years. The company has three outlets in the city.
18. Create a worksheet to store the payroll data of ABC Company. Save the workbook as EMPLOYEE.XLS. Rename the worksheet as Payroll. The salary should be divided into different heads like Basic, HRA & DA.
19. Write the steps to search for a workbook named "BCA.xls" on C:\.
20. How will you make an entry "avrg" to be replaced automatically by "average"?
21. Create a series 1,4, 7,..... In Excel using autofill.
22. Open the workbook "Employee.xls". Insert a column "S.No." before the names of employees and number the employees in serial order. Use fill handle.
23. Open a new worksheet & write the names of month in a single row, using fill handle.
24. Use AutoSum to total the salary of each employee in the workbook "Employee.xls". Apply a format of your choice to this workbook.
25. Create a custom list containing names of your ten friends.

Unit 5: Formatting

Structure of the Unit

- 5.0 Objectives
- 5.1 Introduction to cell text
- 5.2 Text Editing
- 5.3 Copying Cell Contents
- 5.4 Copying and Pasting Cells
- 5.5 Cutting or Moving the Contents of Cells
- 5.6 Moving cells
- 5.7 Choosing a Default Font
- 5.8 Adjusting the Standard Column Width
- 5.9 Cell Alignment
- 5.10 Alternate Method: Alignment by Using the Formatting Toolbar
- 5.11 Adding Bold, Underline, and Italic
- 5.12 Alternate Method: Alignment by Using the Formatting Toolbar
- 5.13 Working with Long Text
- 5.14 Making Numeric Entries
- 5.15 Summary
- 5.16 Unit End Questions

5.0 Objectives

After going through this unit to will be able to :

- Text Editing, copy cells, moving cells
- Font settings, cell alignment, formatting cells
- Various type of entries in worksheet etc.

5.1 Introduction to cell text

A new worksheet is primarily made of cells that are patiently waiting for you to enter data. There are different types of values that can be entered in a cell.

To put a value in a cell, click that cell and type the value you want. After entering the value, you can:

- Press Enter to move to the cell under it
- Press Tab to move to the cell on the right side (unless you were on the most right cell of the column)
- Press Shift + Tab to move to the cell on the left side (unless you were on the most left cell of the column)
- Press the up, the right, the down, or the left arrow keys to move to the upper cell, the right cell (equivalent to pressing Tab), the down cell (equivalent to pressing Enter), or the left cell (equivalent to pressing Shift + Tab) cell of the current cell
- Click another cell

As mentioned above, if you enter a value in a cell and press Enter, you move focus to the cell under it or if you press Tab, you move focus to the cell on the right side. As an alternative, you can indicate the sequence of cells you want to follow so that, when you press Enter or Tab, the focus would not necessarily move to the right or the cell under but rather to the cell in the sequence of your choice. To do this:

- Randomly select the sequence of cells you want. In other words, click the first cell in your intended sequence, press and hold Ctrl, then click each cell in the desired order
- While still holding Ctrl, once again click the cell that will be the first, and release Ctrl Type the desired value in that first cell
- Press Enter or Tab
- Type the value in the next cell of the sequence
- Repeat steps
- When you have finished, either press one of the arrow keys or click a cell that is not in the sequence

In Microsoft Excel, you can enter a common value for the same cell address in different worksheets. To do this, first select the worksheets. Click the intended cell and type the desired value. If you type something, it goes into the active cell. If you click a cell and start typing, the new entry will replace the content of that cell, whether that cell had data or not, this could be advantageous or disastrous.

To prevent a cell from being edited by the user, you can protect it and lock its content.

Data you type in a cell can consist of any kinds of characters, letters, numbers, etc. Sometimes, a long text will look like covering more than one cell; unless you merge cells, the text you type goes into one cell regardless of the length of the text.

A cell can contain as many as 32767 characters.

Data that you type in a worksheet is in fact entered in cells, except when you are drawing. Unlike a traditional word processor, Microsoft Excel has a unique way of treating text and considering any data you type in a cell. Data entered in a cell is confined to that cell. If you type text that is longer than the cell's width, the content will display fine, giving the impression that the text is covering more than one cell or that the cell on the right side is no more available. Data you type is always in its cell. If you type anything in a cell, its content will take priority in displaying its content. Therefore the content of the left cell will appear cut. That's why you should be very familiar with the way a cell (any cell) displays its data, and how every cell relates to the others.

5.2 Text Editing

Editing cells content consists of deleting, replacing, altering, or adding something in them. You already know that if you click a cell and start typing, its content would be replaced with the new entry. If you want to add or subtract something to a cell's content:

- You can double-click it. This would put the cell in edit mode and you can then proceed
- Click a cell to give it focus and then press F2. This puts the cell in Edit mode; this time, the caret is at the end of the text in the cell; then you can proceed
- Click a cell, in the Formula bar, edit the text as you see fit

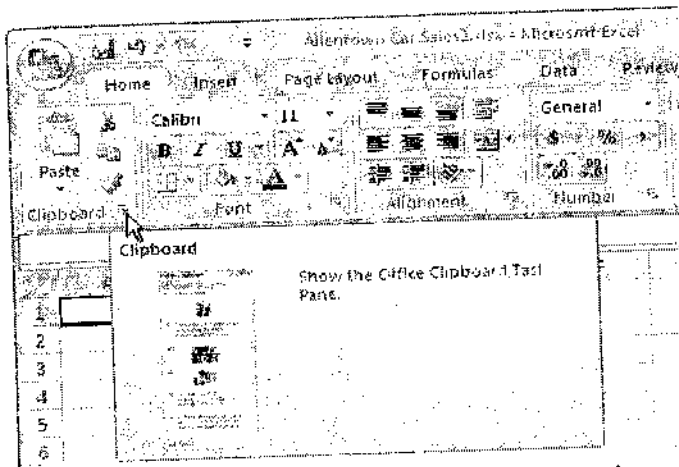
Whatever technique you use, when you have finished editing a cell, make sure you move its focus by pressing Tab, Enter, or clicking somewhere else. When you are in edit mode, the arrow keys are not working, and many actions are not available.

5.3 Copying Cell Contents

If you have done word processing before, you are probably familiar with techniques of copying and pasting text from one part of a document to another, or from one document to another. The same technical approaches are also available in Microsoft Excel.

You can copy the content of one or more cells and store the value(s) in the clipboard. In Microsoft Excel 97, you could store only one item at a time in the clipboard. If you cut or copied something, it would replace the content of the clipboard with the new selection. In Microsoft Excel 2000, the clipboard could contain up to twelve items. When the Clipboard toolbar was functional, you could select copied or cut items from its list of buttons. If you used more than 12 stored items, the toolbar functioned on a first-in first-out basis.

In Microsoft Office 2007, the clipboard is represented as a window. To display it, on the Ribbon, in the Home tab, and in the Clipboard section, you can click the more options



The Clipboard window can be moved to any location of your choice on the screen. You can also hide/close it if you don't need its services. To close it, you can click its Close button or you can click the more options button.

5.4 Copying and Pasting Cells

As we have seen we could copy one or more columns and put them to the clipboard. In reality, you would have copied the contents of the cells under the column header and paste the values of those cells to (an)other column(s). As a reminder, to copy the contents of the cells of a column to the clipboard:

- Right-click a column header and click Copy
- Click the column header. On the Ribbon, click Home. In the Clipboard section, click Copy

After copying a column, the values of all of its cells are available from the clipboard. To paste those cells to another column:

- Right-click the target column header and click Paste
- Click the column header. On the Ribbon, click Home. In the Clipboard section, click Paste

we saw how to copy a row and paste it somewhere. When you copy a row, you in fact copy the values of the cells on the right side of its row header. You can then paste the copied values to another row.

Instead of copying all the cells of a column or all of the cells of a row, you can copy only one or more cells to the clipboard:

To copy the content of a cell:

- Right-click that cell and click Copy. To paste, click the target cell and simply press Enter, or right-click the target cell and click Paste
- Click the cell. On the Ribbon, click Home. In the Clipboard section, click Copy. Click the target cell. To paste the content of the selected cell, click Paste
- Click the cell. Press and hold Ctrl. Position the mouse on one of its borders. The mouse cursor would be pointing to the top-left and accompanied by a + sign:

While holding Ctrl, drag to the target cell. When the target cell is surrounded, release the mouse and release Ctrl

To copy the contents of various cells, select the cells in a range:

- Right-click the selection and click Copy. Click the top-left cell of the target cell. To paste, simply press Enter, or right-click a targeted cell and click Paste

- On the Ribbon, click Home. In the Clipboard section, click Copy. Click the top-left cell or the target. To paste, in the Clipboard section of the Ribbon, click Paste

Press and hold Ctrl. Position the mouse on one of the borders of the selection. The mouse cursor would be pointing to the top-left and accompanied by a + sign. While holding Ctrl, drag the group in the desired direction. When the target cells are surrounded, release the mouse and release Ctrl.

5.5 Cutting or Moving the Contents of Cells

As we know saw how to move a column or a group of columns from one location to another. In Lesson 3, we saw how to move a row from one section of the worksheet up or down. Sometimes, instead of moving the whole column or the whole row, you may want to move only one particular cell or a group of cells. To move the content of a cell to the clipboard and paste it somewhere:

- Right-click the cell and click Cut. To paste the value of the cell somewhere, click the target cell and press Enter, or right-click the target cell and click Paste
- Click the cell. On the Ribbon, click Home. In the Clipboard section, click Cut. Click the target cell. To paste the cell, in the Clipboard section of the Ribbon, click Paste

When you move a column or a row, it gets removed from the previous location and carries its cells to the new location. An alternative is to move only a particular group of cells. To move the contents of a group of cells to the clipboard, select the cells:

- Right-click the group and click Cut. To paste the values of the cells somewhere, click a target cell and press Enter, or right-click a target cell and click Paste
- On the Ribbon, click Home. In the Clipboard section, click Cut. Click the target cell. To paste the cell, in the Clipboard section of the Ribbon, click Paste

5.6 Moving Cells

To move a cell, you ask Microsoft Excel to remove its content from that location to a new location of your choice. When you do this, only the content of the cell moves, leaving the previous location empty.

To move a cell, first click it to give it focus. Position the mouse on one of its borders the mouse cursor changes into a cross:

	A	B	C	D	E
1					
2		ROCKFORT TECHNICAL HIGH SCHOOL			
3					
4		First Name	Last Name	English	History
5		Roland	Becker	10.50	12.00
6		Chrissy	Groans	12.00	14.50
7		Robert	Farrell	16.00	15.50
8		Alexa	Schwitts	15.50	14.00
9					
10					
11					
12					

Click and hold your mouse down. Drag up, down, left or right to the target cell of your choice. A rectangular box that is the same size as the cell would guide you and assume the position of the mouse where the mouse is currently over:

	A	B	C	D	E	F
1						
2		ROCKFORT TECHNICAL HIGH SCHOOL				
3						
4		First Name	Last Name	English	History	Geograph
5		Roland	Becker	10.50	12.00	12.00
6		Chrissy	Groans	12.00	14.50	14.00
7		Robert	Farell	16.00	15.50	16.50
8		Alexa	Schwitts	15.50	14.00	16.00
9						
10						
11						
12						
13						

When the cell is positioned where you want, release the mouse. If you land on a cell that contains something already and that cell is allowed to receive a value (some cells can be "locked" so they cannot receive a value), you would receive a warning message box asking you to confirm that you really want to replace the value in the target cell:

	A	B	C	D	E	F	G	H
1								
2		ROCKFORT TECHNICAL HIGH SCHOOL						
3								
4		First Name	Last Name	English	History	Geograph	Math	Chem
5		Roland	Becker	10.50	12.00	12.00	16.50	16
6		Chrissy	Groans	12.00	14.50	14.00	12.75	12
7		Robert	Farell	16.00	15.50	16.50	14.50	14
8		Alexa	Schwitts	15.50	14.00	16.00	16.50	13
9								
10								
11								
12								
13								

Microsoft Office Excel

Do you want to replace the contents of the destination cells?

OK Cancel

If you click OK, the content of the target value would be replaced with that of the cell that was moved:

	A	B	C	D	E	F
1						
2		ROCKFORT TECHNICAL HIGH SCHOOL				
3						
4		First Name	Last Name	English	History	Geograph
5		Roland	Becker	10.50	12.00	12.00
6		Chrissy		12.00	14.50	14.00
7		Robert	Farell	16.00	Groans	16.50
8		Alexa	Schwitts	15.50	14.00	16.00
9						
10						

To move more than once cell, first select the cells in a range (they must be selected as a range). Position the mouse on the border of the selection until the mouse cursor turns into a cross. Click the drag in the direction of your choice. A guiding box that is the same size as the group would guide you. When you get to the new location, release the mouse.

5.7 Choosing a Default Font

Microsoft Excel enables you to choose a default font. The default font is the style of typeface that Excel will use unless you specify a different style. For the exercises in this lesson, you want your font to be set to Arial, Regular, and Size 10. To set your font to Arial, Regular, and Size 10:

1. Choose Format > Cells from the menu.
2. Choose the Font tab.
3. In the Font box, choose Arial.
4. In the Font Style box, choose Regular.
5. In the Size box, choose 10.
6. If there is no check mark in the Normal Font box, click to place a check mark there. Your selections are now the default.
7. Click OK.

5.8 Adjusting the Standard Column Width

When you open Microsoft Excel, the width of each cell is set to a default width. This width is called the standard column width. You need to change the standard column width to complete your exercises. To make the change, follow these steps:

1. Choose Format > Column > Standard Width from the menu. The Standard Width dialog box opens.
2. Type 25 in the Standard Column Width field. Click OK. The width of every cell on the worksheet should now be set to 25.
3. Move to cell A1.
4. Type Cathy.
5. Press Enter.

5.9 Cell Alignment

The name "Cathy" is aligned with the left side of the cell. You can change the cell alignment. Centering by Using the Menu

To center the name Cathy, follow these steps:

1. Move the cursor to cell A1.
2. Choose Format > Cells from the menu. The Format Cells dialog box opens.
3. Choose the Alignment tab.
4. Click to open the drop-down box associated with the Horizontal field. After the drop-down box is opened, click Center.
5. Click OK to close the dialog box. The name "Cathy" is centered.

Right-Alignment by Using the Menu

To right-align the name "Cathy," follow these steps:

1. Move the cursor to cell A1.
2. Choose Format > Cells from the menu. The Format Cells dialog box opens.
3. Choose the Alignment tab.
4. Click to open the drop-down box associated with the Horizontal field. After the drop down box opens, click Right (Indent).
5. Click OK to close the dialog box. The name "Cathy" is right-aligned.

Left-Aligning by Using the Menu

To left-align the name "Cathy," follow these steps:

1. Move the cursor to cell A1.
2. Choose Format > Cells from the menu. The Format Cells dialog box opens.
3. Choose the Alignment tab.
4. Click to open the drop-down box associated with the Horizontal field. After the drop-down box opens, click Left (Indent).
5. Click OK to close the dialog box. The name "Cathy" is left-aligned.

5.10 Alternate Method: Alignment by Using the Formatting Toolbar

Using the Formatting toolbar, you can quickly perform tasks. You can use the Formatting toolbar to change alignment.

Centering by Using the Toolbar

To center the name "Cathy," follow these steps:

1. Move the cursor to cell A1. the Center icon, which is located on the Formatting toolbar.

The red circle designates the Align Center icon.

Right-Aligning by Using the Toolbar

You can right-align the name "Cathy" by following these steps:

1. Move the cursor to cell A1.
2. Click the Align Right icon, which is located on the Formatting toolbar.

The red circle designates the Align Right icon.

Left-Aligning by Using the Toolbar

You can left-align the name "Cathy" by following these steps:

1. Move the cursor to cell A1.
2. Click the Align Left icon, which is located on the Formatting toolbar.

The red circle designates the Align Left icon.

5.11 Adding Bold, Underline, and Italic

You can bold, underline, or italicize text in Microsoft Excel. You can also combine these features - in other words, you can bold, underline, and italicize a single piece of text.

In the exercises that follow, you will learn three different methods for bolding, italicizing, or underlining text in Microsoft Excel. You will learn to bold, italicize, and underline by using the menu, the icons, and the shortcut keys.

Adding Bold by Using the Menu

1. Type Bold in cell A2.
2. Click the check mark located on the Formula bar. Clicking on the check mark is similar to pressing Enter.
3. Choose Format > Cells from the menu. The Format Cells dialog box opens.
4. Choose the Font tab.
5. Click Bold in the Font Style box.
6. Click OK. The word "Bold" should now be bolded.

Adding Italic by Using the Menu

1. Type Italic in cell B2.
2. Click the check mark located on the Formula bar. Clicking on the check mark is similar to pressing Enter.
3. Choose Format > Cells from the menu. The Format Cells dialog box opens.
4. Click Italic in the Font style box.
5. Click OK. The word "Italic" is italicized.

Adding Underline by Using the Menu

Microsoft Excel provides several types on underlines. The exercise that follows illustrates some of them.

Single Underline

1. Type Underline in cell C2.
2. Click the check mark located on the Formula bar. Clicking on the check mark is similar to pressing Enter.
3. Choose Format > Cells from the menu. The Format Cells dialog box opens.
4. Click to open the drop-down menu associated with the Underline box.
5. Click Single.
6. Click OK. The cell entry now has a single underline.

Double Underline

1. Type Underline in cell D2.
2. Click the check mark located on the Formula bar.
3. Choose Format > Cells from the menu. The Format Cells dialog box opens.

4. Click to open the drop-down menu associated with the Underline field.
5. Click Double.
6. Click OK. The cell entry now has a double underline.

Single Accounting

1. Type Underline in cell E2.
2. Click the check mark located on the Formula bar.
3. Choose Format > Cells from the menu. The Format Cells dialog box will open.
4. Click to open the drop-down menu associated with the Underline field.
5. Click Single Accounting.
6. Click OK. The cell entry now has a single accounting underline.

Double Accounting

1. Type Underline in cell F2.
2. Click the check mark located on the Formula bar.
3. Choose Format > Cells from the menu. The Format Cells dialog box will open.
4. Click to open the drop-down menu associated with the Underline field.
5. Click Double Accounting.
6. Click OK. The cell entry now has a double accounting underline.

Adding Bold, Underline, and Italic by Using the Menu

1. Move the cursor to cell G3.
2. Type All three.
3. Click the check mark located on the Formula bar.
4. Choose Format > Cells from the menu. The Format Cells dialog box opens.
5. Choose the Font tab.
6. Click Bold Italic in the Font Style box.
7. Click to open the drop-down menu associated with the Underline field. Then click Single.
8. Click OK. The words "All three" are now bolded, italicized, and underlined.

Removing Bold and Italics by Using the Menu

1. Highlight cells A2 to B2. Place your cursor in cell B2. Press the F8 key. Press the right arrow key once.
2. Choose Format > Cells from the menu. The Format Cells dialog box opens.
3. Click Regular in the Font style box.
4. Click OK. Cell A2 is no longer bolded. Cell B2 is no longer italicized.

Removing an Underline by Using the Menu

1. Move to cell C2.

2. Choose **Format > Cells** from the menu. The Format Cells dialog box opens.
3. Click to open the drop-down menu associated with the Underline field. Then click **None**.
4. Click **OK**. The underdelined is removed.

Alternate Method: Adding Bold by Using the Icon

1. Type **Bold** in cell A3.
2. Click the check mark located on the Formula bar.
3. Click the **Bold** icon, which is on the Formatting toolbar.
4. Click again on the **Bold** icon if you wish to remove the bolding.

Alternate Method: Adding Italic by Using the Icon

1. Type **Italic** in cell B3.
2. Click the check mark located on the Formula bar.
3. Click the **Italic** icon, which is on the Formatting toolbar.
4. Click again on the **Italic** icon if you wish to remove the italics.

Alternate Method: Adding Underline by Using the Icon

1. Type **Underline** in cell C3.
2. Click the check mark located on the Formula bar.
3. Click the **Underline** icon, which is on the Formatting toolbar.
4. Click again on the **Underline** icon if you wish to remove the underline.

Alternate Method: Adding Bold, Underline, and Italic by Using Icons

1. Type **All Three** in cell D3.
2. Click the check mark located on the Formula bar.
3. Click the **Bold** icon.
4. Click the **Italic** icon.
5. Click the **Underline** icon.

Alternate Method: Adding Bold by Using Shortcut Keys

1. Type **Bold** in cell A4.
2. Click the check mark located on the Formula bar.
3. Hold down the **Ctrl** key while pressing "**b**" (**Ctrl-b**).
4. Press **Ctrl-b** again if you wish to remove the bolding.

Alternate Method: Adding Italic by Using Shortcut Keys

1. Type **Italic** in cell B4.
2. Click the check mark located on the Formula bar.
3. Hold down the **Ctrl** key while pressing "**i**" (**Ctrl-i**).

4. Press Ctrl-i again if you wish to remove the italic formatting.

Alternate Method: Adding Underline by Using Shortcut Keys

1. Type Underline in cell C4.
2. Click the check mark located on the Formula bar.
3. Hold down the Ctrl key while pressing "u" (Ctrl-u).
4. Press Ctrl-u again, if you wish to remove the underline.

Alternate Method: Adding Bold, Underline, and Italic by Using Shortcut Keys

1. Type All three in cell D4.
2. Click the check mark located on the Formula bar.
3. Hold down the Ctrl key while pressing "b" (Ctrl-b).
4. Hold down the Ctrl key while pressing "i" (Ctrl-i).
5. Hold down the Ctrl key while pressing "u" (Ctrl-u).

5.12 Alternate Method: Alignment by Using the Formatting Toolbar

You can change the Font, Font Size, and Font Color of the data you enter.

Changing the Font

1. Type Times New Roman in cell A5.
2. Click the check mark located on the Formula bar.
3. Choose Format > Cells from the menu. The Format Cells dialog box opens.
4. Choose the Font tab. All of the Fonts listed in the Font box are available to you.
5. Find and click Times New Roman in the Font box.
6. Click OK. The font changes from Arial to Times New Roman.

Changing the Font Size

1. Place the cursor in cell A5.
2. Choose Format > Cells from the menu. The Format Cells dialog box opens.
3. Choose the Font tab.
4. Click 16 in the Size box.
5. Click OK. The font size changes to 16.

Changing the Font Color

1. Place the cursor in cell A5.
2. Choose Format > Cells from the menu. The Format Cells dialog box opens.
3. Choose the Font tab.
4. Click to open the drop-down menu associated with the color field.
5. Click Blue.

6. Click OK. The font color changes to blue.

Alternate Method: Changing the Font Color by Using the Icon

1. Place the cursor in cell A5.
2. Click the down arrow next to the Font Color icon.
3. Click on Red. Your font color changes to red.

5.13 Working with Long Text

Whenever you type text that is too long to fit into a cell, Microsoft Excel attempts to display all the text. It left-aligns the text regardless of the alignment that has been assigned to it, and it borrows space from the blank cells to the right. However, a long text entry will never write over cells that already contain entries—instead, the cells that contain entries cut off the long text. Do the following exercise to see how this works.

1. Move the cursor to cell A6.
2. Type Now is the time for all good men to go to the aid of their army.
3. Press Enter. Everything that does not fit into cell A6 spills over into the adjacent cell.
4. Move the cursor to cell B6.
5. Type TEST.
6. Press Enter. The entry in cell A6 is cut off.
7. Move the cursor to cell A6.
8. Look at the Formula bar. The text is still in the cell.

Changing a Single Column Width

Earlier you increased the column width of every column on the worksheet. You can also increase individual column widths. If you increase the column width, you will be able to see the long text.

1. Make sure the cursor is anywhere under column A.
2. Choose Format > Column > Width from the menu. The column width dialog box opens.
3. Type 55 in the Column Width field.
4. Click OK.

Column A is set to a width of 55. You should now be able to see all of the text.

Alternate Method: Changing a Single Column Width by Dragging

You can also change the column width with the cursor.

1. Place the cursor on the line between the B and C column headings. The cursor should look like the one displayed here, with two arrows.
2. Move your mouse to the right while holding down the left mouse button. The width indicator appears on the screen.
3. Release the left mouse button when the width indicator shows approximately 40.

Moving to a New Worksheet

In Microsoft Excel, each workbook is made up of several worksheets. Before moving to the next

topic, move to a new worksheet.

1. Click Sheet 2 in the lower left corner of the screen.

Setting the Enter Key Direction

In Microsoft Excel, you can specify which direction the cursor moves when you press the Enter key. You can have the cursor move up, down, left, right, or not at all. You will now make sure the cursor is set to move down when you press the Enter key.

1. Choose Tools > Options from the menu. The Options dialog box opens.
2. Choose the Edit tab.
3. Make sure there is a check mark in the "Move Selection after Enter" box.
 4. If Down is not selected, click to open the Direction drop-down box. Click Down.
5. Click OK.

5.14 Making Numeric Entries

In Microsoft Excel, you can enter numbers and mathematical formulas into cells. When a number is entered into a cell, you can perform mathematical calculations such as addition, subtraction, multiplication, and division. When entering a mathematical formula, precede the formula with an equal sign. Use the following to indicate the type of calculation you wish to perform:

+Addition

- Subtraction

* Multiplication

/Division

^Exponential

5.15 Summary

- A new worksheet is primarily made of cells that are patiently waiting for you to enter data. There are different types of values that can be entered in a cell.
- A cell can contain as many as 32767 characters.
- Editing cells content consists of deleting, replacing, altering, or adding something in them.
- Formatting tool bar can be used to perform all type of formatting in a worksheet

5.16 Unit End Questions

1. Write steps for making a cell bold italic and underline.
2. How you will change alignment of a cell entry.
3. How you will set a standard column width.
4. How you will edit a text in a cell.

Unit 6: Formulas and Functions

Structure of the Unit

6.0 Objectives

6.1 Formulas and Functions

- Formulas
- Linking worksheets
- Relative, absolute, and mixed referencing
- Basic functions
- Function Wizard
- Autosum
- Short cut keys

6.2 Summary

6.3 Unit End Questions

6.0 Objectives

After going through this unit you will be able to :

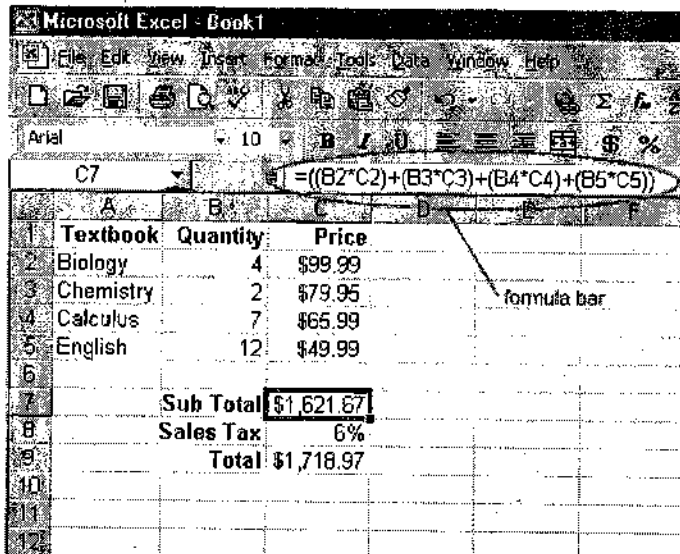
- Enter formula in the worksheet, linking worksheet
- Various cell referencing i.e. Relative ,absolute and mixed
- Basic function etc

6.1 Formulas and Functions

The feature of a spreadsheet program such as Excel is that it allows you to create mathematical formulas and execute functions. Otherwise, it is not much more than a large table for displaying text.

Formulas

Formulas are entered in the worksheet cell and must begin with an equal sign "=". The formula then includes the addresses of the cells whose values will be manipulated with appropriate operands placed in between. After the formula is typed into the cell, the calculation executes immediately and the formula itself is visible in the formula bar. See the example below to view the formula for calculating the sub total for a number of textbooks. The formula multiplies the quantity and price of each textbook and adds the subtotal for each book.



Adding Numbers

There are several ways to do this. Each method has its advantages and disadvantages.

To do this, begin by moving your cursor to cell C9 and clicking on cell C9.

Always move to the cell where you want the answer to be located.

Type-in method

We want to add the three numbers in cells C6, C7 and C8. To use this method type-in (using the keys on the keyboard) the following in cell C9:

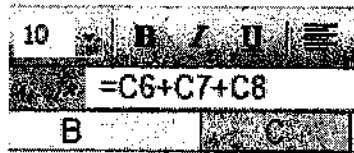
$$= C6 + C7 + C8$$

4			
5	INCOME		
6		Parents	300
7		Job	50
8		Investments	150
9		Total	$=C6+C7+C8$
10			

4			
5	INCOME		
6		Parents	300
7		Job	50
8		Investments	150
9		Total	500
10			

Your spreadsheet should look like the image to the right as you are typing in this equation. Note: you don't have to use capital letters - we only did this because they are easier to "see" in the tutorial.

Now - press the Enter key. Then, click on cell C9 again. The total of these cells will now appear in C9.



When you have completed typing your equation, you will see this formula in the area below the menu bar. Change the number in cell C6 to 500 (and press Enter). See how the total **AUTOMATICALLY** recalculates!!!

Whenever a number is entered in a cell the entire spreadsheet will automatically recalculate.

Something happened here. Notice how you typed in an (equal sign) = before the cell location. If you had simply typed in C6 + C7 + C8, Excel would have thought this entry was a word (text) and this entry would have shown as you typed it.

Try this if you want. Any time you "create" an error in Excel, you can simply re-type or edit the formula to correct the error.

The Type in Method is really easy if you have a few numbers and can see their cell locations on the screen. If you have a lot of cells in the formula, which are on several screens, this is not such a great method. The next method will work a lot better for numbers "all over the place."

Subtraction, Multiplication, and Division

You can put in a (minus) - for subtraction, (asterisk) * for multiplication, and (slash) / for division. As you become more capable we'll, build some nifty formulas - using these features.

Point Method

Move to cell C9 again and click-on it. We'll now add the numbers a second way. Press the Delete key on the keyboard to delete the current formula.

First, press the = and then POINT (move) the cursor over cell C6 using the mouse, tap the left mouse button on cell C6 (you will see a marquee box go around the cell). Now tap a + and move cursor to C7, tap the left mouse button, and press another + and move the cursor to C8 and press the left mouse button (notice how as you " + and point " the addition formula is being built in cell C9), now press Enter. The same formula can be built using the arrow movement keys on the keyboard (except that you don't have to click-on each cell as the cell is marked - as you move the arrows).

Parents	300
Job	50
Investments	150
Total	=C6+C7+C8

Notice, as you are entering the cell addresses, that as you place another + in the formula, that the cursor "returns" to cell C9. Also notice, as you point to each cell that it is highlighted by a "marquee box." This "tells" you what cell you've pointed to. Pretty neat!

This method is good when you need to move to numbers that are spread out all over the place. Some people like it best and use it all the time it's your choice.

Linking Worksheets

You may want to use the value from a cell in another worksheet within the same workbook in a

formula. For example, the value of cell A1 in the current worksheet and cell A2 in the second worksheet can be added using the format "sheetname!celladdress". The formula for this example would be "=A1+Sheet2!A2" where the value of cell A1 in the current worksheet is added to the value of cell A2 in the worksheet named "Sheet2".

Relative, Absolute, and Mixed Referencing

Calling cells by just their column and row labels (such as "A1") is called **relative referencing**. When a formula contains relative referencing and it is copied from one cell to another, Excel does not create an exact copy of the formula. It will change cell addresses relative to the row and column they are moved to. For example, if a simple addition formula in cell C1 "=(A1+B1)" is copied to cell C2, the formula would change to "=(A2+B2)" to reflect the new row. To prevent this change, cells must be called by **absolute referencing** and this is accomplished by placing dollar signs "\$" within the cell addresses in the formula.

As per the previous example, the formula in cell C1 would read "=(A\$1+\$B\$1)" if the value of cell C2 should be the sum of cells A1 and B1. Both the column and row of both cells are absolute and will not change when copied. **Mixed referencing** can also be used where only the row or column fixed. For example, in the formula "=(A\$1+\$B2)", the row of cell A1 is fixed and the column of cell B2 is fixed.

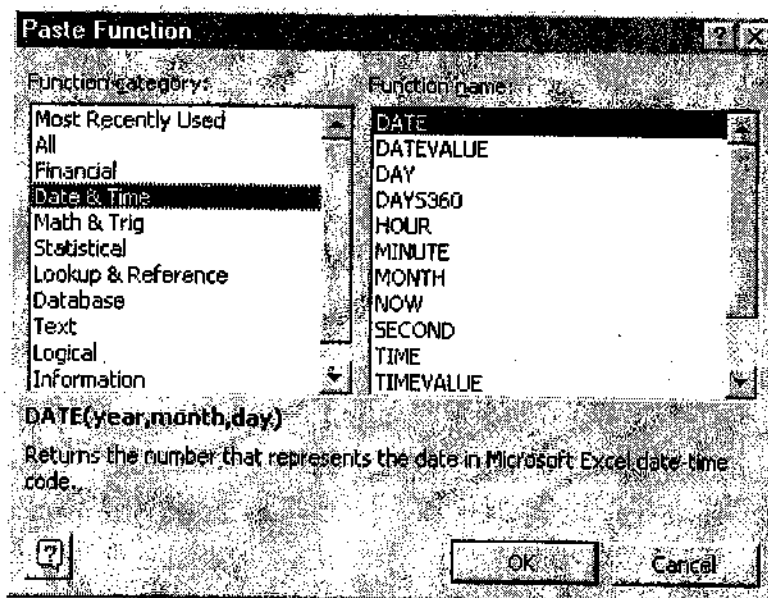
Basic Functions

Functions can be a more efficient way of performing mathematical operations than formulas. For example, if you wanted to add the values of cells D1 through D10, you would type the formula "D1+D2+D3+D4+D5+D6+D7+D8+D9+D10". A shorter way would be to use the SUM function and simply type "=SUM(D1:D10)".

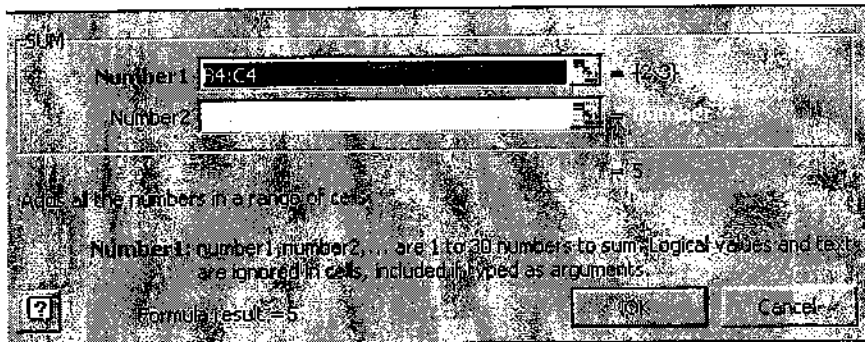
Function Wizard

View all functions available in Excel by using the Function Wizard.

- Activate the cell where the function will be placed and click the Function Wizard button on the standard toolbar.
- From the Paste Function dialog box, browse through the functions by clicking in the Function category menu on the left and select the function from the Function name choices on the right. As each function name is highlighted a description and example of use is provided below the two boxes.



- Click OK to select a function.
- The next window allows you to choose the cells that will be included in the function. In the example below, cells B4 and C4 were automatically selected for the sum function by Excel. The cell values {2, 3} are located to the right of the Number 1 field where the cell addresses are listed. If another set of cells, such as B5 and C5, needed to be added to the function, those cells would be added in the format "B5:C5" to the Number 2 field.



- Click OK when all the cells for the function have been selected.

Autosum

Use the Autosum function to add the contents of a cluster of adjacent cells.

- Select the cell that the sum will appear in that is outside the cluster of cells whose values will be added. Cell C2 was used in this example.
- Click the Autosum button (Greek letter sigma) on the standard toolbar.
- Highlight the group of cells that will be summed (cells A2 through B2 in this example).
- Press the ENTER key on the keyboard or click the green check mark button on the formula bar.

	A	B	C	D
1	number 1	number 2	sum	
2	87	49	=SUM(A2:B2)	
3	54	30		
4	34	10		

MS Excel - Useful Shortcut Keys

Shortcut key	Operation	Result
Ctrl+A	Select All	None
Ctrl+B	Bold	Format, Cells, Font, Font Style, Bold
Ctrl+C	Copy	Edit, Copy
Ctrl+D	Fill Down	Edit, Fill, Down
Ctrl+F	Find	Edit, Find
Ctrl+G	Goto	Edit, Goto
Ctrl+H	Replace	Edit, Replace
Ctrl+I	Italic	Format, Cells, Font, Font Style, Italic
Ctrl+K	Insert Hyperlink	Insert, Hyperlink

Ctrl+N	New Workbook	File, New
Ctrl+O	Open	File, Open
Ctrl+P	Print	File, Print
Ctrl+R	Fill Right	Edit, Fill Right
Ctrl+S	Save	File, Save
Ctrl+U	Underline	Format, Cells, Font, Underline, Single
Ctrl+V	Paste	Edit, Paste
Ctrl+W	Close	File, Close
Ctrl+X	Cut	Edit, Cut
Ctrl+Y	Repeat	Edit, Repeat
Ctrl+Z	Undo	Edit, Undo
F1	Help	Help, Contents and Index
F2	Edit	None
F3	Paste Name	Insert, Name, Paste
F4	Repeat last action	Edit, Repeat. Works while not in Edit mode.
F4	While typing a formula, switch between absolute/relative refs	None
F5	Goto	Edit, Goto
F6	Next Pane	None
F7	Spell check	Tools, Spelling
F8	Extend mode	None
F9	Recalculate all workbooks	Tools, Options, Calculation, Calc, Now
F10	Activate Menubar	N/A
F11	New Chart	Insert, Chart
F12	Save As	File, Save As
Ctrl+:	Insert Current Time	None
Ctrl+;	Insert Current Date	None
Ctrl+''	Copy Value from Cell Above	Edit, Paste Special, Value
Ctrl+'	Copy Formula from	Edit, Copy Cell Above
Shift	Hold down shift for additional	none functions in Excel's menu
Shift+F1	What's This? Help,	What's This?
Shift+F2	Edit cell comment	Insert, Edit Comments
Shift+F3	Paste function into formula	Insert, Function
Shift+F4	Find Next	Edit, Find, Find Next
Shift+F5	Find	Edit, Find, Find Next
Shift+F6	Previous Pane	None
Shift+F8	Add to selection	None
Shift+F9	Calculate active worksheet	Calc Sheet

Shift+F10	Display shortcut menu	None
Shift+F11	New worksheet	Insert, Worksheet
Shift+F12	Save	File, Save
Ctrl+F3	Define name	Insert, Names, Define
Ctrl+F4	Close	File, Close
Ctrl+F5	XL, Restore window size	Restore
Ctrl+F6	Next workbook window	Window, ...
Shift+Ctrl+F6	Previous workbook window	Window, ...
Ctrl+F7	Move window XL,	Move
Ctrl+I	Format	cells dialog box Format, Cells
Ctrl+B	Bold	Format, Cells, Font, Font Style, Bold
Ctrl+I	Italic	Format, Cells, Font, Font Style, Italic
Ctrl+U	Underline	Format, Cells, Font, Font Style, Underline
Ctrl+5	Strikethrough	Format, Cells, Font, Effects, Strikethrough
Ctrl+6	Show/Hide objects	Tools, Options, View, Objects, Show All/Hide
Ctrl+7	Show/Hide Standard toolbar	View, Toolbars, Standard
Ctrl+8	Toggle Outline symbols	None
Ctrl+9	Hide rows	Format, Row, Hide
Ctrl+0	Hide columns	Format, Column, Hide
Ctrl+Shift+(Unhide rows	Format, Row, Unhide
Ctrl+Shift+)	Unhide columns	Format, Column, Unhide
Alt or F10	Activate the menu	None
Ctrl+Tab	In toolbar: next toolbar	None
Shift+Ctrl+Tab	In toolbar: previous toolbar	None
Shift+Ctrl+Tab	In a workbook: activate previous workbook	None
Shift+Tab	Previous tool	None
Shift+Ctrl+F	Font Drop Down List	Format, Cells, Font
Shift+Ctrl+F+F	Font tab of Format Cell	Dialog box Format, Cells, Font
Shift+Ctrl+P	Point size Drop Down List	Format, Cells, Font

Shortcut keys with CTRL combination

Key Description

CTRL+(Unhides any hidden rows within the selection.
CTRL+)	Unhides any hidden columns within the selection.
CTRL+&	Applies the outline border to the selected cells.
CTRL+_	Removes the outline border from the selected cells.
CTRL+~	Applies the General number format.
CTRL+U	Applies or removes underlining.

CTRL+V	Inserts the contents of the Clipboard at the insertion point and replaces any selection. Available only after you cut or copied an object, text, or cell contents.
CTRL+W	Closes the selected workbook window.
CTRL+X	Cuts the selected cells.
CTRL+Y	Repeats the last command or action, if possible.
CTRL+Z	Uses the Undo command to reverse the last command or to delete the last entry you typed.
CTRL+SHIFT+Z	uses the Undo or Redo command to reverse or restore the last automatic correction when AutoCorrect Smart Tags are displayed.

Function keys

F1	Displays the Help task pane.
CTRL+F1	closes and reopens the current task pane.
ALT+F1	creates a chart of the data in the current range.
ALT+SHIFT+F1	inserts a new worksheet.
F2	Edits the active cell and positions the insertion point at the end of the cell contents. It also moves the insertion point into the Formula Bar when editing in a cell is turned off.
SHIFT+F2	edits a cell comment.
F3	Pastes a defined name into a formula.
SHIFT+F3	displays the Insert Function dialog box.
F4	Repeats the last command or action, if possible.
CTRL+F4	closes the selected workbook window.
F5	Displays the Go To dialog box.
CTRL+F5	restores the window size of the selected workbook window.
F6	Switches to the next pane in a worksheet that has been split (Window menu, Split command).
SHIFT+F6	switches to the previous pane in a worksheet that has been split.
CTRL+F6	switches to the next workbook window when more than one workbook window is open.

Note: When the task pane is visible, F6 and SHIFT+F6 include that pane when switching between panes.

F7	Displays the Spelling dialog box to check spelling in the active worksheet or selected range.
CTRL+F7	performs the Move command on the workbook window when it is not maximized. Use the arrow keys to move the window, and when finished press ESC.
F8	Turns extend mode on or off. In extend mode, EXT appears in the status

	line, and the arrow keys extend the selection.
SHIFT+F8	enables you to add a non-adjacent cell or range to a selection of cells by using the arrow keys.
CTRL+F8	performs the Size command (on the Control menu for the workbook window) when a workbook is not maximized.
ALT+F8	displays the Macro dialog box to run, edit, or delete a macro.
F9	Calculates all worksheets in all open workbooks.
F9	followed by ENTER (or followed by CTRL+SHIFT+ENTER for array formulas) calculates the selected a portion of a formula and replaces the selected portion with the calculated value.
SHIFT+F9	calculates the active worksheet.
CTRL+ALT+F9	calculates all worksheets in all open workbooks, regardless of whether they have changed since the last calculation.
CTRL+ALT+SHIFT+F9	rechecks dependent formulas, and then calculates all cells in all open workbooks, including cells not marked as needing to be calculated.
CTRL+F9	minimizes a workbook window to an icon.
F10	Selects the menu bar or closes an open menu and submenu at the same time.
SHIFT+F10	displays the shortcut menu for a selected item.
ALT+SHIFT+F10	displays the menu or message for a smart tag. If more than one smart tag is present, it switches to the next smart tag and displays its menu or message.
CTRL+F10	maximizes or restores the selected workbook window.
F11	Creates a chart of the data in the current range.
SHIFT+F11	inserts a new worksheet.
ALT+F11	opens the Visual Basic Editor, in which you can create a macro by using Visual Basic for Applications (VBA).
ALT+SHIFT+F11	opens the Microsoft Script Editor, where you can add text, edit HTML tags, and modify any script code.
F12	Displays the Save As dialog box.

Other useful shortcut keys

ARROW KEYS	Move one cell up, down, left, or right in a worksheet.
CTRL+ARROW KEY	moves to the edge of the current data region (data region: A range of cells that contains data and that is bounded by empty cells or datasheet borders.) in a worksheet.
SHIFT+ARROW KEY	extends the selection of cells by one cell.
CTRL+SHIFT+ARROW KEY	extends the selection of cells to the last nonblank cell in the same column or row as the active cell.
LEFT ARROW or RIGHT ARROW	selects the menu to the left or right when a menu is visible.

DOWN ARROW or UP ARROW	<p>When a submenu is open, these arrow keys switch between the main menu and the submenu.</p> <p>selects the next or previous command when a menu or submenu is open.</p>
ALT+DOWN ARROW	<p>In a dialog box, arrow keys move between options in an open drop-down list, or between options in a group of options.</p>
BACKSPACE	<p>Deletes one character to the left in the Formula Bar.</p>
DELETE	<p>Also clears the content of the active cell.</p> <p>Removes the cell contents (data and formulas) from selected cells without affecting cell formats or comments.</p> <p>In cell editing mode, it deletes the character to the right of the insertion point.</p>
END	<p>Moves to the cell in the lower-right corner of the window when SCROLL LOCK is turned on.</p> <p>Also selects the last command on the menu when a menu or submenu is visible.</p>
CTRL+END	<p>moves to the last cell on a worksheet, in the lowest used row of the rightmost used column.</p>
CTRL+SHIFT+END	<p>extends the selection of cells to the last used cell on the worksheet (lower-right corner).</p>
ENTER	<p>Completes a cell entry from the cell or the Formula Bar, and selects the cell below (by default).</p> <p>In a data form, it moves to the first field in the next record.</p> <p>Opens a selected menu (press F10 to activate the menu bar) or performs the action for a selected command.</p> <p>In a dialog box, it performs the action for the default command button in the dialog box (the button with the bold outline, often the OK button).</p>
ALT+ENTER	<p>starts a new line in the same cell.</p>
CTRL+ENTER	<p>fills the selected cell range with the current entry.</p>
SHIFT+ENTER	<p>completes a cell entry and selects the cell above.</p>
ESC	<p>Cancels an entry in the cell or Formula Bar.</p> <p>It also closes an open menu or submenu, dialog box, or message window.</p>
HOME	<p>Moves to the beginning of a row in a worksheet.</p> <p>Moves to the cell in the upper-left corner of the window when SCROLL LOCK is turned on.</p>

CTRL+HOME	Selects the first command on the menu when a menu or submenu is visible.
CTRL+SHIFT+HOME	moves to the beginning of a worksheet.
PAGE DOWN	extends the selection of cells to the beginning of the worksheet.
ALT+PAGE DOWN	Moves one screen down in a worksheet.
CTRL+PAGE DOWN	moves one screen to the right in a worksheet.
CTRL+SHIFT+PAGE DOWN	moves to the next sheet in a workbook.
PAGE UP	selects the current and next sheet in a workbook.
ALT+PAGE UP	Moves one screen up in a worksheet.
CTRL+PAGE UP	moves one screen to the left in a worksheet.
CTRL+SHIFT+PAGE UP	moves to the previous sheet in a workbook.
SPACEBAR	selects the current and previous sheet in a workbook.
CTRL+SPACEBAR	In a dialog box, performs the action for the selected button, or selects or clears a check box.
SHIFT+SPACEBAR	selects an entire column in a worksheet.
CTRL+SHIFT+SPACEBAR	selects an entire row in a worksheet.
	selects the entire worksheet.
	If the worksheet contains data, CTRL+SHIFT+SPACEBAR selects the current region. Pressing CTRL+SHIFT+SPACEBAR a second time selects the entire worksheet.
	When an object is selected, CTRL+SHIFT+SPACEBAR selects all objects on a worksheet.
ALT+SPACEBAR	displays the Control menu for the Excel window.
TAB	Moves one cell to the right in a worksheet.
	Moves between unlocked cells in a protected worksheet.
	Moves to the next option or option group in a dialog box.
SHIFT+TAB	moves to the previous cell in a worksheet or the previous option in a dialog box.
CTRL+TAB	switches to the next tab in dialog box.
CTRL+SHIFT+TAB	switches to the previous tab in a dialog box.

6.2 Summary

- Formulas are entered in the worksheet cell and must begin with an equal sign "=". The formula then includes the addresses of the cells whose values will be manipulated with appropriate operands placed in between.

- There are three types of referencing relative, fixed and mixed.

6.3 Unit End Questions

1. What is formula, explain?
2. What is function?
3. Explain various function of MS-Excel.
4. Explain following functions:
 - (a) SUM
 - (b) MIN
 - (c) MAX
 - (d) COUNT
 - (e) AVERAGE

Unit 7: Advanced features of Spreadsheet

Structure of the Unit

- 7.0 Objectives
- 7.1 **Sorting and Filling**
 - 7.1.1 Basic ascending and descending sorts
 - 7.1.2 Complex sorts
 - 7.1.3 Autofill
 - 7.1.4 Alternating text and numbers with Autofill
 - 7.1.5 Autofilling functions
- 7.2 **Graphics**
 - 7.2.1 Adding clip art
 - 7.2.2 Add an image from a file
 - 7.2.3 Editing a graphic
 - 7.2.4 AutoShapes
- 7.3 **Charts**
 - 7.3.1 Chart Wizard
 - 7.3.2 Resizing a chart
 - 7.3.3 Moving a chart
 - 7.3.4 Chart formatting toolbar
 - 7.3.5 Copy a chart to Microsoft Word
- 7.4 **Page Properties and Printing**
 - 7.4.1 Page breaks
 - 7.4.2 Page orientation
 - 7.4.3 Margins
 - 7.4.4 Headers, footers, and page numbers
 - 7.4.5 Print Preview
 - 7.4.6 Print
- 7.5 **Keyboard Shortcuts**
- 7.6 **Summary**
- 7.7 **Unit end Questions**

7.0 Objectives

After completing this unit you will be able to-

- Work on Data sorting and filtering
- Work with graphics in MS Excel
- Work with charts in MS Excel

7.1 Sorting and Filling

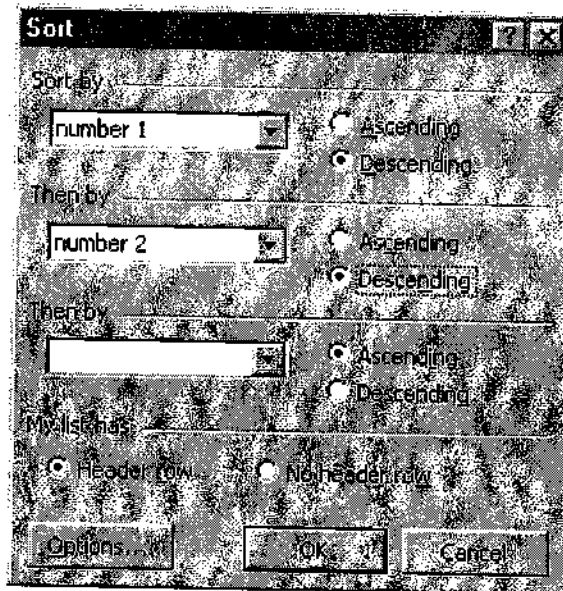
7.1.1 Basic ascending and descending Sorts

To execute a basic descending or ascending sort based on one column, highlight the cells that will be sorted and click the Sort Ascending (A-Z) button or Sort Descending (Z-A) button on the standard toolbar.

7.1.2 Complex Sorts

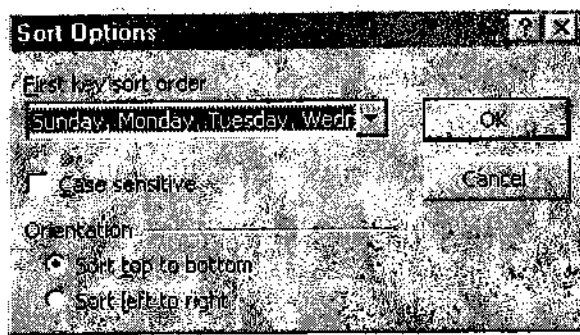
To sort by multiple columns, follow these steps:

- Highlight the cells, rows, or columns that will be sorted.
- Select Data|Sort from the menu bar.
- From the Sort dialog box, select the first column for sorting from the Sort By drop-down menu and choose either ascending or descending.
- Select the second column and, if necessary, the third sort column from the Then By drop-down menus.



If the cells you highlighted included the text headings in the first row, mark My list has...Header row and the first row will remain at the top of the worksheet.

- Click the Options button for special non-alphabetic or numeric sorts such as months of the year and days of the week.



- Click OK to execute the sort.

7.1.3 Autofill

The Autofill feature allows you to quickly fill cells with repetitive or sequential data such as chronological dates or numbers, and repeated text.

- Type the beginning number or date of an incrementing series or the text that will be repeated into a cell.
- Select the handle at the bottom, right corner of the cell with the left mouse button and drag it down as many cells as you want to fill.
- Release the mouse button.

If you want to autofill a column with cells displaying the same number or date you must enter identical data to two adjacent cells in a column. Highlight the two cells and drag the handle of the selection with the mouse.

7.1.4 Alternating Text and Numbers with Autofill

The Autofill feature can also be used for alternating text or numbers. For example, to make a repeating list of the days of the week, type the seven days into seven adjacent cells in a column. Highlight the seven cells and drag down with the mouse.

7.1.5 Autofilling Functions

Autofill can also be used to copy functions. In the example below, column A and column B each contain lists of numbers and column C contains the sums of columns A and B for each row. The function in cell C2 would be "`=SUM(A2:B2)`". This function can then be copied to the remaining cells of column C by activating cell C2 and dragging the handle down to fill in the remaining cells. The autofill feature will automatically update the row numbers as shown below if the cells are references relatively.

	C2	=SUM(A2:B2)		
	A	B	C	D
1	number 1	number 2	sum	
2	87	49	136	
3	54	30		
4	34	10		
5	43	8		
6	24	23		
7	93	97		
8	40	32		
9	59	30		
10	82	87		
11	39	57		

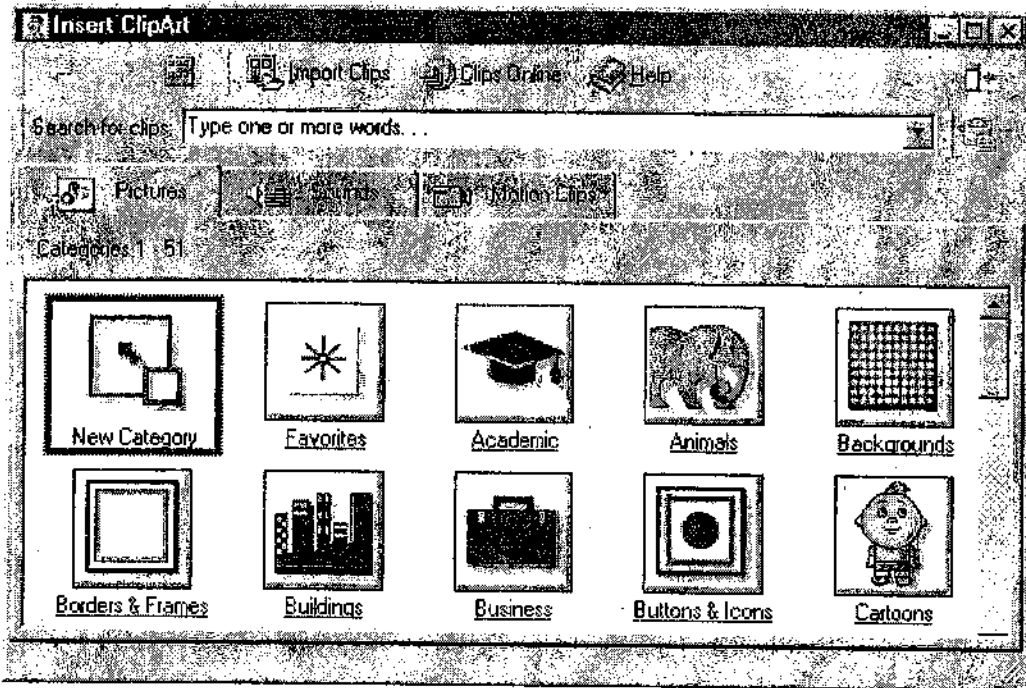
	C11	=SUM(A11:B11)		
	A	B	C	D
1	number 1	number 2	sum	
2	87	49	136	
3	54	30	84	
4	34	10	44	
5	43	8	51	
6	24	23	47	
7	93	97	190	
8	40	32	72	
9	59	30	89	
10	82	87	169	
11	39	57	96	

7.2 Graphics

7.2.1 Adding Clip Art

To add a clip art image to the worksheet, follow these steps:

- Select Insert|Picture|Clip Art from the menu bar.

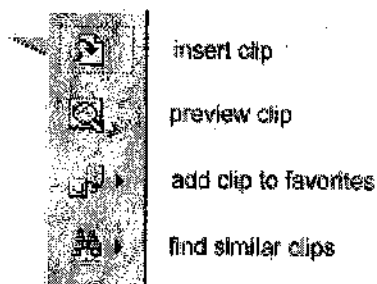


- To find an image, click in the white box following Search for clips. Delete the words "Type one or more words. . ." and enter keywords describing the image you want to use.

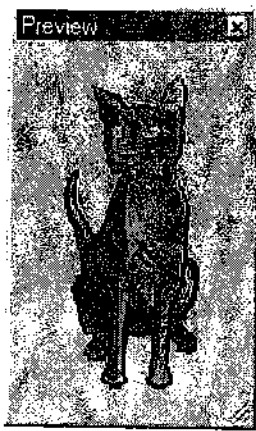
OR

Click one of the category icons.

- Click once on the image you want to add to the worksheet and the following popup menu will appear:



- Insert Clip to add the image to the worksheet.
- Preview Clip to view the image full-size before adding it to the worksheet. Drag the bottom, right corner of the preview window to resize the image and click the "x" close button to end the preview.



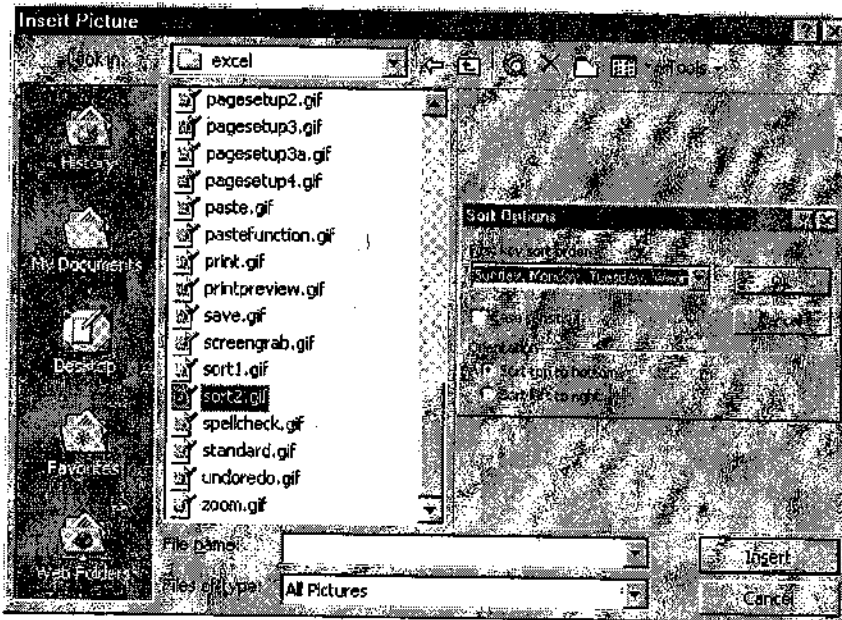
- Add Clip to Favorites will add the selected image to your favorites directory that can be chosen from the Insert ClipArt dialog box.
- Find Similar Clips will retrieve images similar to the one you have chosen.
- Continue selecting images to add to the worksheet and click the Close button in the top, right corner of the Insert ClipArt window to stop adding clip art to the worksheet.

7.2.2 Add An Image from a File

Follow these steps to add a photo or graphic from an existing file:

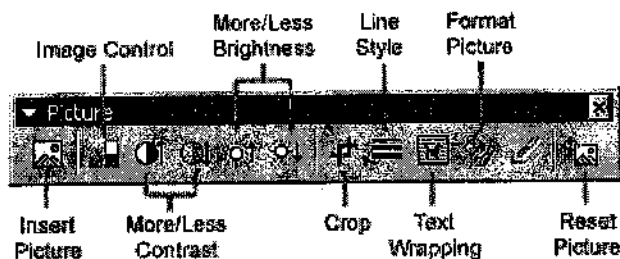
Select Insert|Picture|From File on the menu bar.

- Click the down arrow button on the right of the Look in: window to find the image on your computer.
- Highlight the file name from the list and click the Insert button.



7.2.3 Editing A Graphic

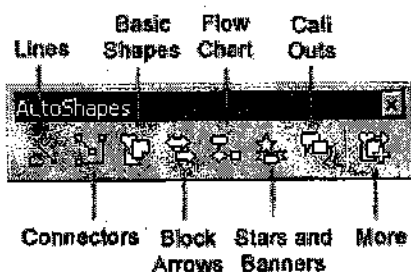
Activate the image you wish to edit by clicking on it once with the mouse. Nine handles will appear around the graphic. Click and drag these handles to resize the image. The handles on the corners will resize proportionally while the handles on the straight lines will stretch the image. More picture effects can be changed using the Picture toolbar. The Picture toolbar should appear when you click on the image. Otherwise, select View|Toolbars|Picture from the menu bar to activate it.



- Insert Picture will display the image selection window and allows you to change the image.
- Image Control allows to to make the image gray scale, black and white, or a watermark.
- More/Less Contrast modifies the contrast between the colors of the image.
- More/Less Brightness will darken or brighten the image.
- Click Crop and drag the handles on the activated image to delete outer portions of the image.
- Line Style will add a variety of borders to the graphic.
- Text Wrapping will modify the way the worksheet text wraps around the graphic.
- Format Picture displays all the image properties in a separate window.
- Reset Picture will delete all the modifications made to the image.

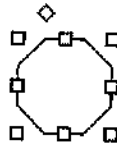
7.2.4 AutoShapes

The AutoShapes toolbar will allow you to draw a number of geometrical shapes, arrows, flow chart elements, stars, and more on the worksheet. Activate the AutoShapes toolbar by selecting Insert|Picture|AutoShapes or View|Toolbars| AutoShapes from the menu bar. Click the button on the toolbar to view the options for drawing the shape.



- Lines - After clicking the Lines button on the AutoShapes toolbar, draw a straight line, arrow, or double-ended arrow from the first row of options by clicking the respective button. Click in the worksheet where you would like the line to begin and click again where it should end. To draw a curved line or freeform shape, select curved lines from the menu (first and second buttons of second row), click in the worksheet where the line should appear, and click the mouse every time a curve should begin. End creating the graphic by clicking on the starting end or pressing the ESC key. To scribble, click the last button in the second row, click the mouse in the worksheet and hold down the left button while you draw the design. Let go of the mouse button to stop drawing.
- Connectors - Draw these lines to connect flow chart elements.
- Basic Shapes - Click the Basic Shapes button on the AutoShapes toolbar to select from many two- and three-dimensional shapes, icons, braces, and brackets. Use the drag-and-drop method to draw the shape in the worksheet. When the shape has been made, it can be resized using the

open box handles and other adjustments specific to each shape can be modified using the yellow diamond handles.



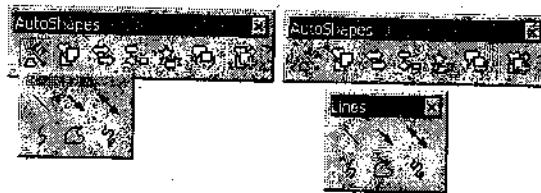
- **Block Arrows** - Select Block Arrows to choose from many types of two- and three-dimensional arrows. Drag-and-drop the arrow in the worksheet and use the open box and yellow diamond handles to adjust the arrowheads. Each AutoShape can also be rotated by first clicking the

Free Rotate button on the drawing toolbar . Click and drag the green handles around the image to rotate it. The tree image below was created from an arrow rotated 90 degrees.



- **Flow Chart** - Choose from the flow chart menu to add flow chart elements to the worksheet and use the line menu to draw connections between the elements.
- **Stars and Banners** - Click the button to select stars, bursts, banners, and scrolls.
- **Call Outs** - Select from the speech and thought bubbles, and line call outs. Enter the call out text in the text box that is made.
- **More AutoShapes** - Click this button to choose from a list of clip art categories.

Each of the submenus on the AutoShapes toolbar can become a separate toolbar. Just click and drag the gray bar across the top of the submenus off of the toolbar and it will become a separate floating toolbar.



7.3 Charts

Charts allow you to present data entered into the worksheet in a visual format using a variety of graph types. Before you can make a chart you must first enter data into a worksheet. This page explains how you can create simple charts from the data.

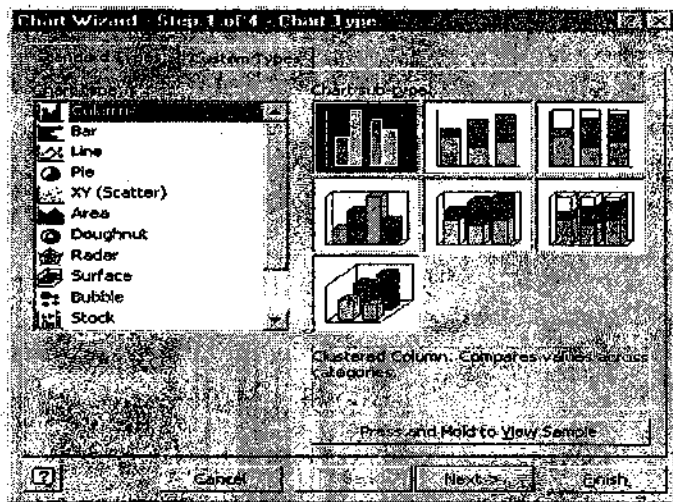
7.3.1 Chart Wizard

The Chart Wizard brings you through the process of creating a chart by displaying a series of dialog boxes.

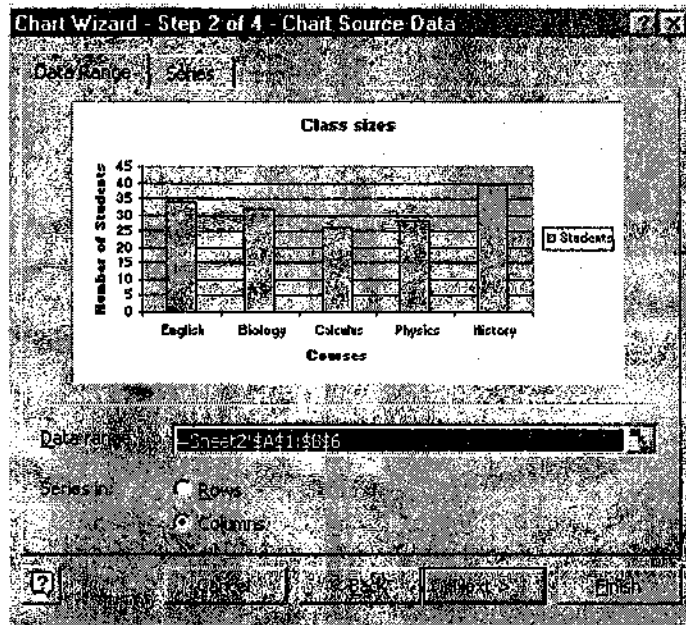
- Enter the data into the worksheet and highlight all the cells that will be included in the chart including headers.

	A	B	C
1		Students	
2	English		34
3	Biology		32
4	Calculus		28
5	Physics		28
6	History		39
7			

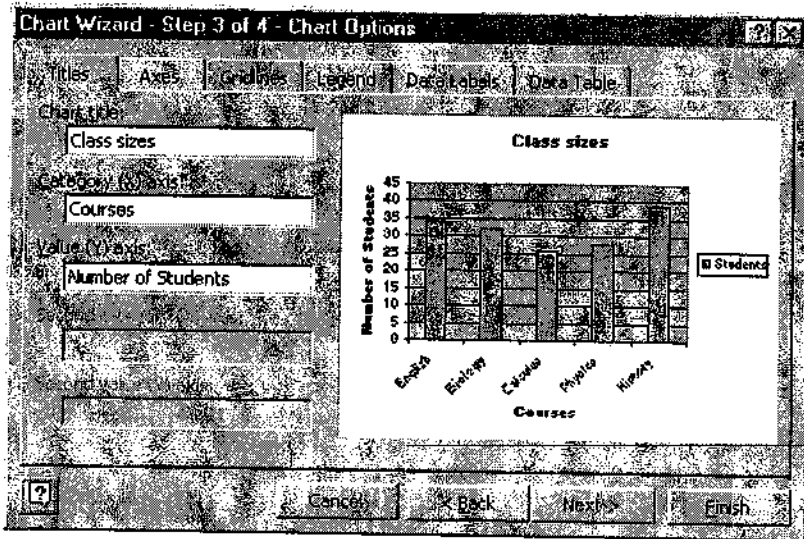
- Click the Chart Wizard button on the standard toolbar to view the first Chart Wizard dialog box.
- Chart Type - Choose the Chart type and the Chart subtype if necessary. Click Next.



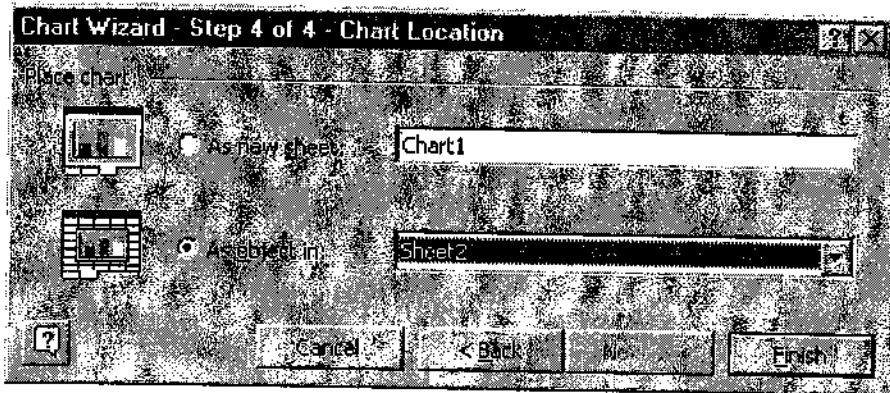
- Chart Source Data - Select the data range (if different from the area highlighted in step 1) and click Next.



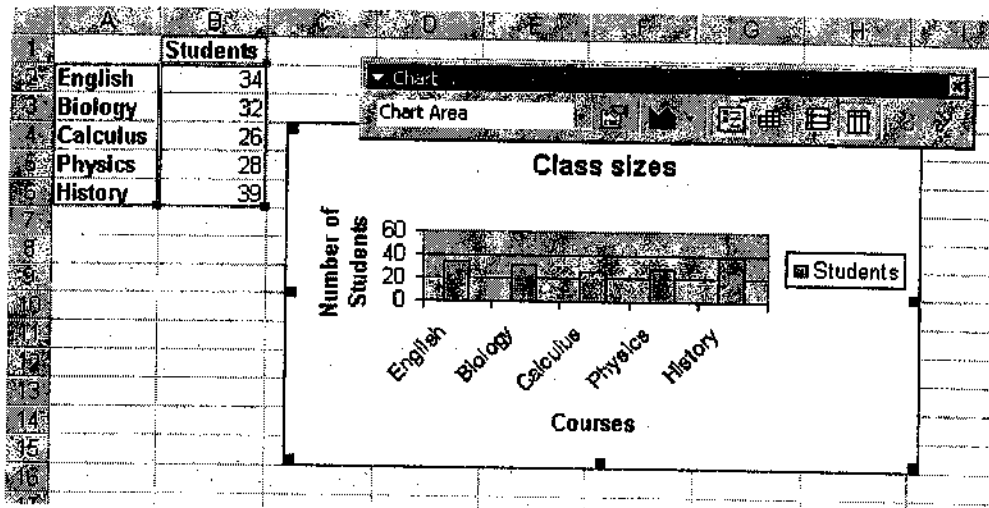
- Chart Options - Enter the name of the chart and titles for the X- and Y-axes. Other options for the axes, grid lines, legend, data labels, and data table can be changed by clicking on the tabs. Press Next to move to the next set of options.



- Chart Location - Click As new sheet if the chart should be placed on a new, blank worksheet or select As object in if the chart should be embedded in an existing sheet and select the worksheet from the drop-down menu.



Click Finish to create the chart.



7.3.2 Resizing the Chart

To resize the chart, click on its border and drag any of the nine black handles to change the size. Handles on the corners will resize the chart proportionally while handles along the lines will stretch the chart.

7.3.3 Moving the Chart

Select the border of the chart, hold down the left mouse button, and drag the chart to a new location. Elements within the chart such as the title and labels may also be moved within the chart. Click on the element to activate it, and use the mouse to drag the element to move it.

7.3.4 Chart Formatting Toolbar

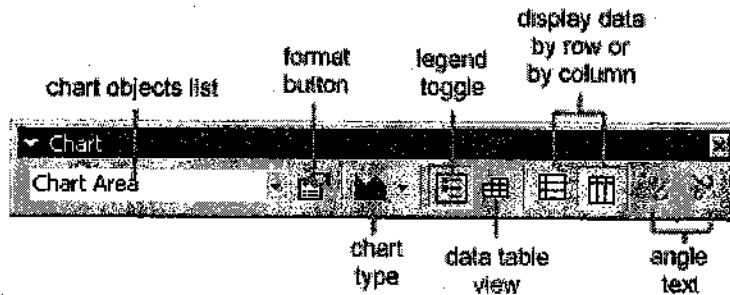


Chart Objects List - To select an object on the chart to format, click the object on the chart or select the object from the Chart Objects List and click the Format button. A window containing the properties of that object will then appear to make formatting changes.

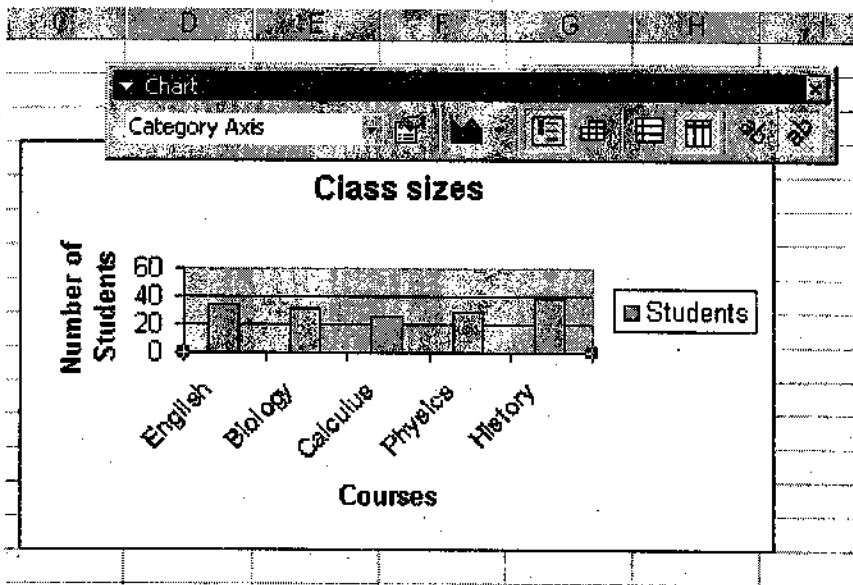
Chart Type - Click the arrow head on the chart type button to select a different type of chart.

Legend Toggle - Show or hide the chart legend by clicking this toggle button.

Data Table view - Display the data table instead of the chart by clicking the Data Table toggle button.

Display Data by Column or Row - Charts the data by Columns or rows according to the data sheet.

Angle Text - Select the category or value axis and click the Angle Downward or Angle Upward button to angle the the selected by +/- 45 degrees.



7.3.5 Copying the Chart to Microsoft Word

A finished chart can be copied into a Microsoft Word document. Select the chart and click Copy. Open the destination document in Word and click Paste.

7.4 Page Properties and Printing

7.4.1 Page Breaks

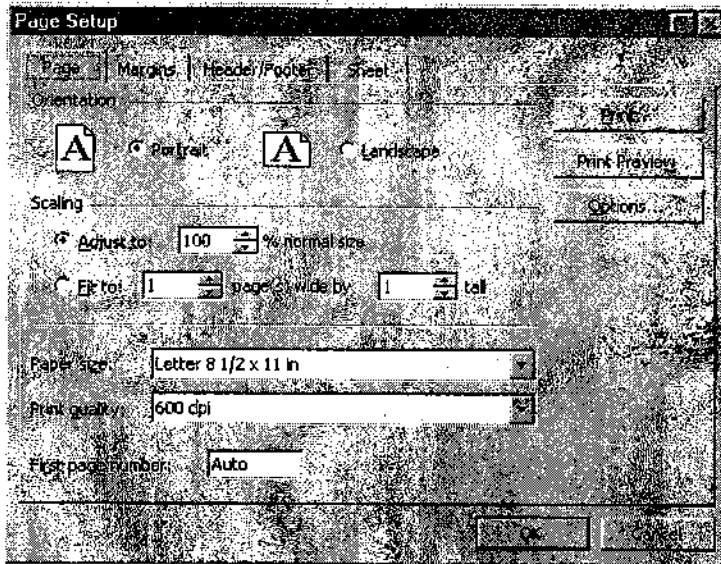
To set page breaks within the worksheet, select the row you want to appear just below the page break by clicking the row's label. Then choose Insert|Page Break from the menu bar. You may need to click the double down arrow at the bottom of the menu list to view this option.

Page Setup

Select File|Page Setup from the menu bar to format the page, set margins, and add headers and footers.

7.4.2 Page Orientation

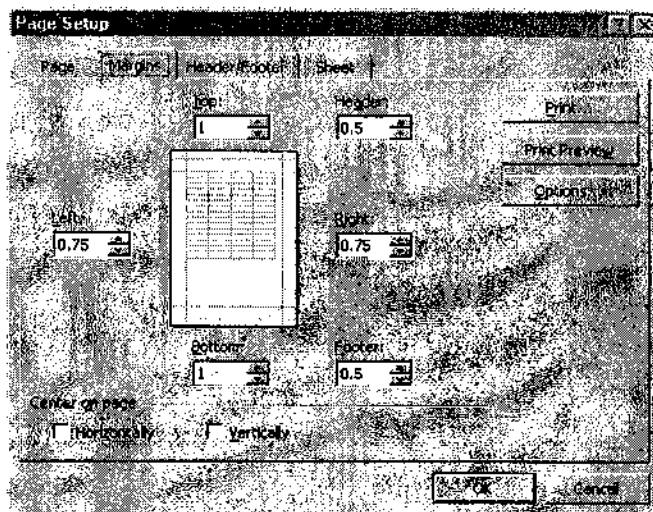
Select the Orientation under the Page tab in the Page Setup window to make the page Landscape or Portrait. The size of the worksheet on the page can also be formatting under Scaling. To force a worksheet to print only one page wide so all the columns appear on the same page, select Fit to 1 page(s) wide.



7.4.3 Margins

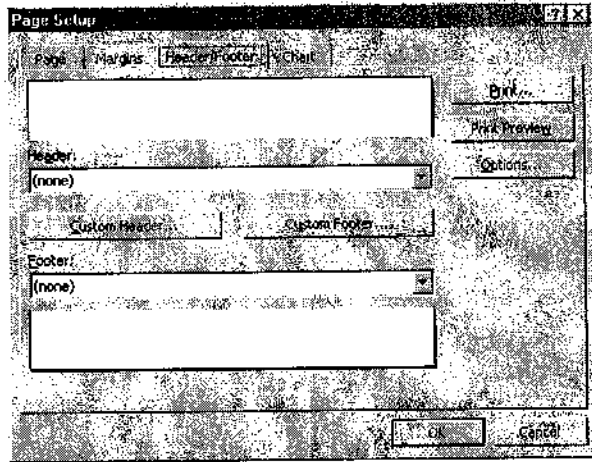
Change the top, bottom, left, and right margins under the Margins tab.

Enter values in the header and footer fields to indicate how far from the edge of the page this text should appear. Check the boxes for centering horizontally or vertically on the page.

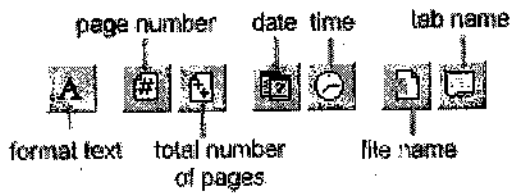


7.4.4 Header/Footer

Add preset headers and footers to the page by clicking the drop-down menus under the Header/Footer tab.



To modify a preset header or footer, or to make your own, click the Custom Header and Custom Footer buttons. A new window will open allowing you to enter text in the left, center, or right on the page.



Format Text : Click this button after highlighting the text to change the font, size, and style.

Page Number : Insert the page number of each page.

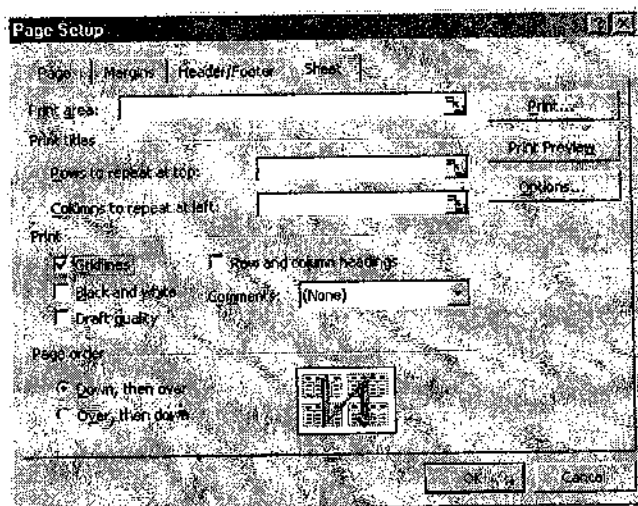
Total Number of Pages : Use this feature along with the page number to create strings such as "page 1 of 15".

Date : Add the current date.

Time : Add the current time.

File Name : Add the name of the workbook file.

Tab Name : Add the name of the worksheet's tab.



- **Sheet**

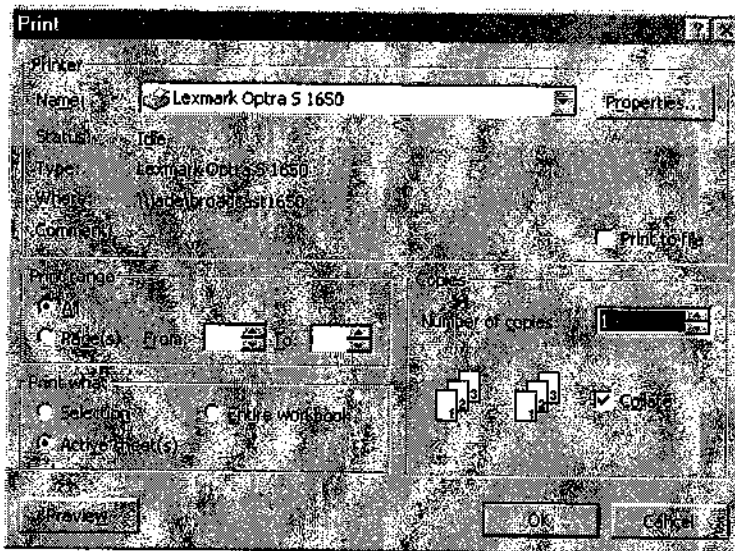
Check Gridlines if you want the gridlines dividing the cells to be printed on the page. If the worksheet is several pages long and only the first page includes titles for the columns, select Rows to repeat at top to choose a title row that will be printed at the top of each page.

7.4.5 Print Preview

Select File|Print Preview from the menu bar to view how the worksheet will print. Click the Next and Previous buttons at the top of the window to display the pages and click the Zoom button to view the pages closer. Make page layout modifications needed by clicking the Page Setup button. Click Close to return to the worksheet or Print to continue printing.

7.4.6 Print

To print the worksheet, select File|Print from the menu bar.



- **Print Range** - Select either all pages or a range of pages to print.
- **Print What** - Select selection of cells highlighted on the worksheet, the active worksheet, or all the worksheets in the entire workbook.
- **Copies** - Choose the number of copies that should be printed. Check the Collate box if the pages should remain in order.

Click OK to print.

7.5 Keyboard Shortcuts

Keyboard shortcuts can save time and the effort of switching from the keyboard to the mouse to execute simple commands. Print this list of Excel keyboard shortcuts and keep it by your computer for a quick reference.

Note: A plus sign indicates that the keys need to be pressed at the same time.

Action	Keystroke
--------	-----------

Document actions	
Open a file	CTRL+O
New file	CTRL+N
Save As	F12
Save	CTRL+S
Print	CTRL+P
Find	CTRL+F
Replace	CTRL+H
Go to	F5

Cursor Movement	
One cell up	up arrow
One cell down	down arrow
One cell right	Tab
One cell left	SHIFT+Tab
Top of worksheet (cell A1)	CTRL+Home
End of worksheet (last cell with data)	CTRL+End
End of row	Home
End of column	CTRL+left arrow
Move to next worksheet	CTRL+PageDown

Formulas	
Apply AutoSum	ALT+=
Current date	CTRL+;
Current time	CTRL+:
Spelling	F7
Help	F1
Macros	ALT+F8

Action	Keystroke
--------	-----------

Selecting Cells	
All cells left of current cell	SHIFT+left arrow
All cells right of current cell	SHIFT+right arrow
Entire column	CTRL+Spacebar
Entire row	SHIFT+Spacebar
Entire worksheet	CTRL+A

Text Style	
Bold	CTRL+B
Italics	CTRL+I
Underline	CTRL+U
Strikethrough	CTRL+5

Formatting	
Edit active cell	F2
Format as currency with 2 decimal places	SHIFT+CTRL+\$
Format as percent with no decimal places	SHIFT+CTRL+%
Cut	CTRL+X
Copy	CTRL+C
Paste	CTRL+V
Undo	CTRL+Z
Redo	CTRL+Y
Format cells dialog box	CTRL+1

7.6 Summary

- The AutoShapes toolbar will allow you to draw a number of geometrical shapes, arrows, flow chart elements, stars, and more on the worksheet.
- Charts allow you to present data entered into the worksheet in a visual format using a variety of graph types. Before you can make a chart you must first enter data into a worksheet. This page explains how you can create simple charts from the data.
- To set page breaks within the worksheet, select the row you want to appear just below the page break by clicking the row's label. Then choose Insert|Page Break from the menu bar.

7.7 Unit end Questions

1. Write the step for creating MS Excel Charts.
2. How you will print selected data in Ms Excel?
3. What do you mean by page break?
4. What is page orientation?
5. What is pie chart?
6. Explain sorting in Ms Excel
7. Explain various options available at the time of page setup.

Unit 8: Presentation package

Structure of the Unit

- 8.0 Objectives
- 8.1 Introduction to MS Power Point
- 8.2 Getting Started
 - 8.2.1 AutoContent Wizard
 - 8.2.2 Create a presentation from a template
 - 8.2.3 Blank Presentation
 - 8.2.4 Open an existing presentation
 - 8.2.5 AutoLayout
 - 8.2.6 Views
- 8.3 Working with Slides
 - 8.3.1 Insert a new slide
 - 8.3.2 Applying a design template
 - 8.3.3 Changing slide layouts
 - 8.3.4 Reordering slides
 - 8.3.5 Hide slides
 - 8.3.6 Create a custom slide show
 - 8.3.7 Edit a custom slide show
- 8.4 Adding Content
 - 8.4.1 Bulleted lists
 - 8.4.2 Numbered lists
 - 8.4.3 Resizing a text box
 - 8.4.4 Text box properties
 - 8.4.5 Delete a text box
 - 8.4.6 Adding notes
 - 8.4.7 Video and Audio
- 8.5 Summary
- 8.6 Unit End Questions

8.0 Objectives

After completing this unit you will be able to -

- Define What is Power Point, create Power point Presentation
- types of power presentaion, open,save close presentation.
- Screen layout, insert slide, slide layout, hide slide
- create and edit custom slide show, text add and edit etc.

8.1 Introduction to Power Point

Power Point is presentation software that can help you to quickly create effective 'slide based' presentations. The presentation consists of a number of slides. Each slide can have text and graphics. The program can help you to create the following types of presentations.

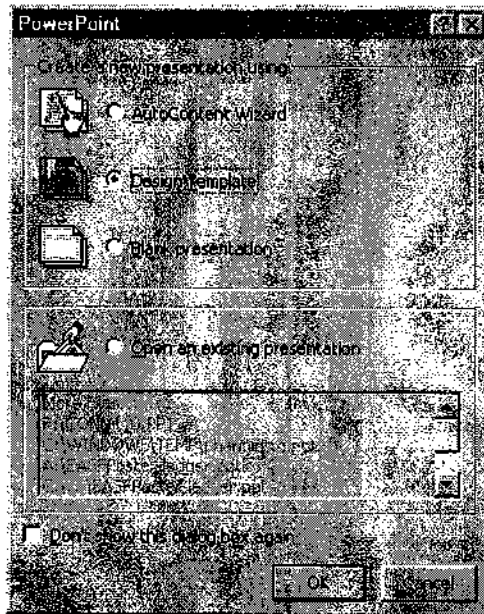
1. Black-and-white transparencies for the overhead projector
2. Colour transparencies for the overhead projector
3. 35mm slides for the slide projector.
4. Video slide show on the computer screen or network
5. A self-running slide show at a trade show kiosk.
6. Printed handouts.
7. Detailed speaker's notes
8. Printed outline of the presentation.

To help you to quickly create a presentation, it comes equipped with an AutoContent wizard. This wizard can help you quickly create an empty presentation with suitable slides for common presentations, such as selling a product, company meeting, financial overview, project overview, training, re-orting progress, etc. Then you can fill the slides created by the wizard with suitable text and graphics. For creating other presentations that are not covered by the wizard, PowerPoint comes with a number of sample slides. Depending on the type of slide you want to include in the presentation, you can choose an appropriate slide. For instance, if you need to show the organization chart slide, you can choose the organization chart slide. Then you can fill details in the slide. Similarly, if you want to show a chart, you can pick up the chart slide. PowerPoint helps you to enter and edit details in the slides you choose. It also allows you to easily format text and other graphics used in slides, and to change the order of the slides or to insert and delete slides in the presentation.

After you have created the slides that you want to include in your presentation, you can either print the slides or run the slide show on the computer screen. In the slide show, PowerPoint shows the slides on the computer screen just as you would get on a slide projector. You can advance to the next slide manually or automatically after a specified time. While showing the presentation on the computer screen, you can use an electronic pointer or pen to highlight any point in the slide,

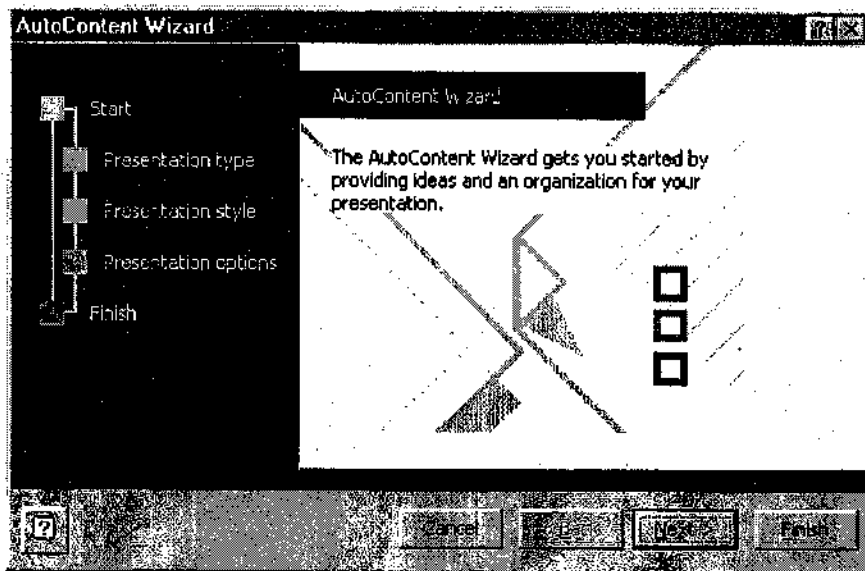
8.2 Getting Started

Open Power Point and you will be prompted by a dialog box with four choices. If Power Point is already open or this box does not appear, select File|New from the menu bar.



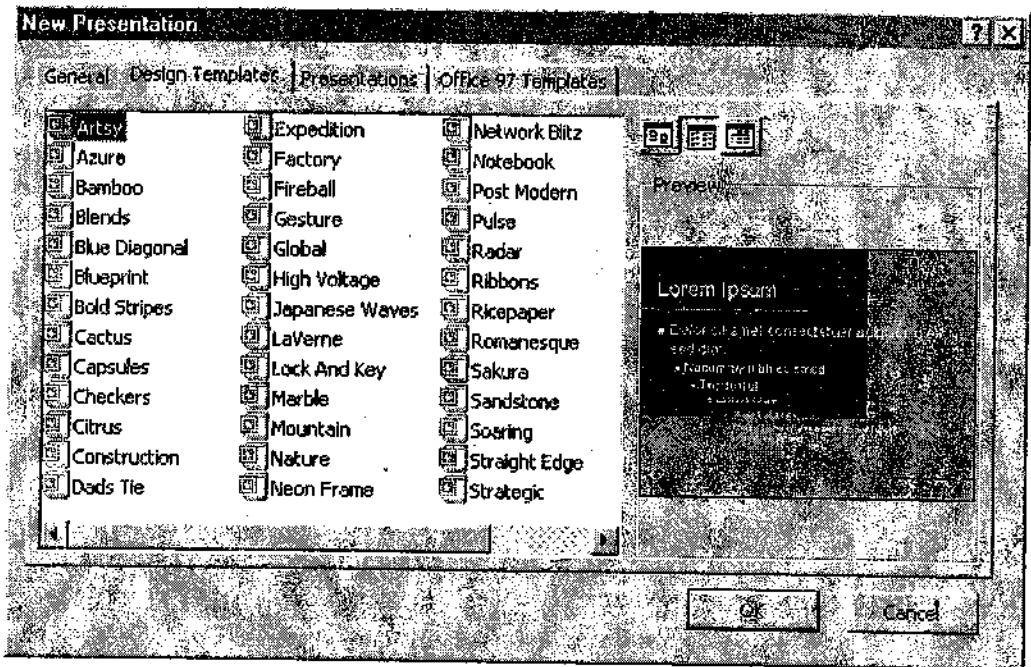
8.2.1 AutoContent Wizard

The AutoContent Wizard provides templates and ideas for a variety of presentation types. Page through the wizard by clicking the Next button on the bottom of each page after making necessary choices.



8.2.2 Design Template

Power Point provides many templates with different backgrounds and text formatting to begin your presentation. Preview each design by highlighting the template name on the list. Press OK after you have chosen the design.

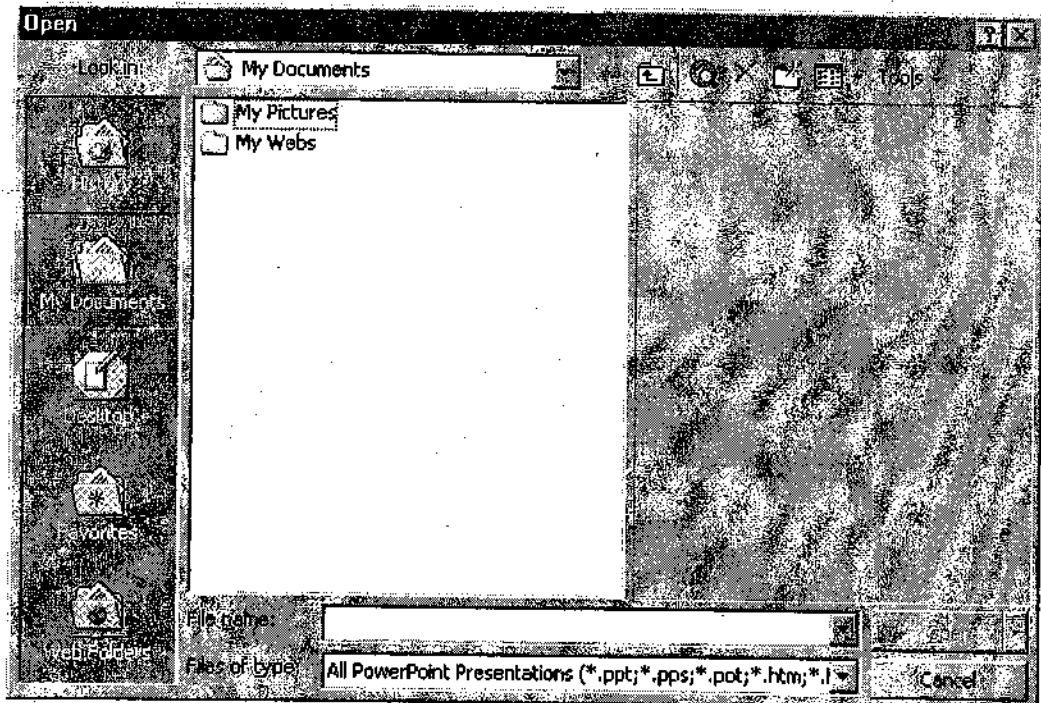


8.2.3 Blank Presentation

Select Blank Presentation to build the presentation from scratch with no preset graphics or formatting.

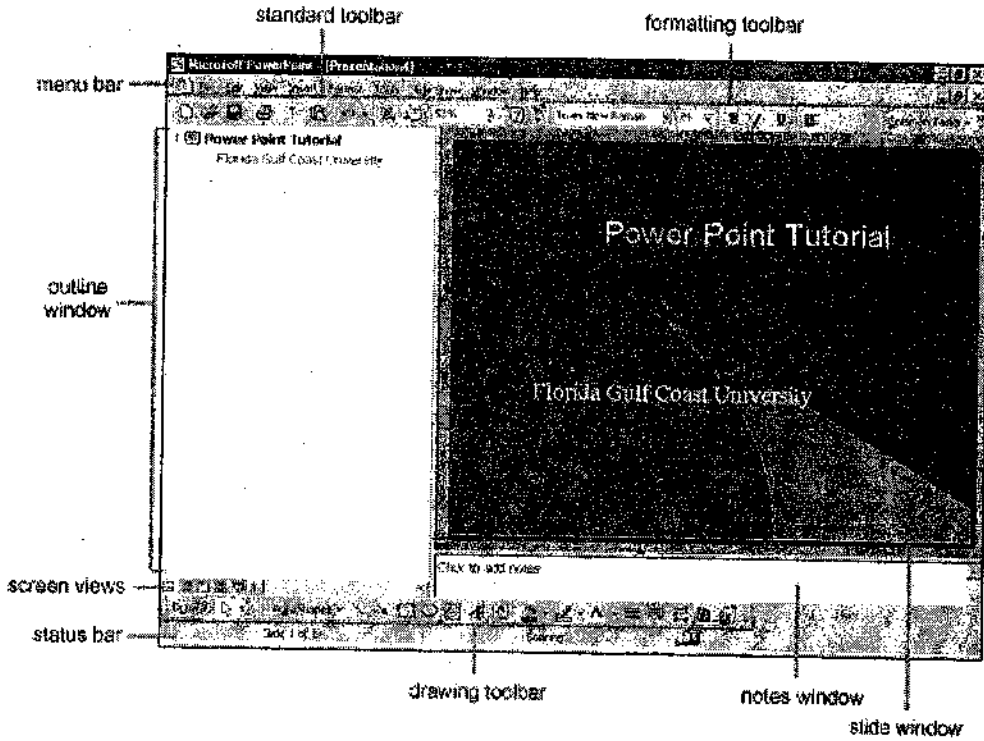
8.2.4 Open an Existing Presentation

Select this option to open a Power Point presentation that already exists. Select the folder the file is located in from the Look in: drop-down menu and highlight the file on the list. Click Open to open the presentation.



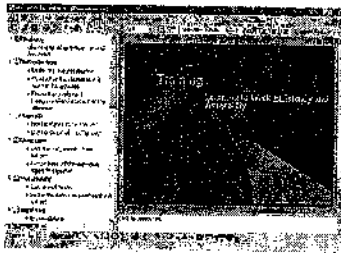
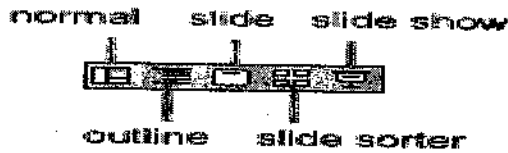
8.2.5 AutoLayout

After selecting the presentation type, you will be prompted to choose the layout of the new slide. These layouts include bulleted lists, graphs, and/or images. Click on each thumbnail image and a description will be printed in the message box. Highlight the layout you want and click OK.

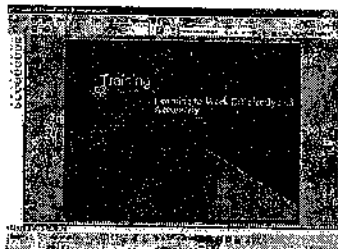


8.2.6 Views

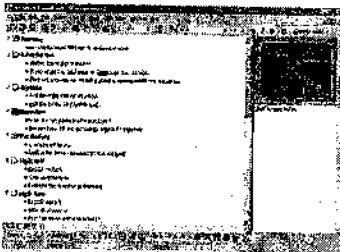
Power Point gives you four screen layouts for constructing your presentation in addition to the Slide Show. You can select the page view by clicking the buttons just above the formatting toolbar and the bottom of the page.



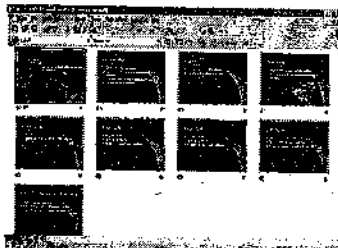
Normal View
This screen is split into three sections showing the presentation outline on the left, the slide in the main window, and notes at the bottom.



Slide View
The slide view displays each slide on the screen and is helpful for adding images, formatting text, and adding background styles.



Outline View
The presentation outline is displayed on the majority of the screen with small windows for the slide and notes. This view is recommended for editing text.



Slide Sorter View
A small image of each slide is displayed in Slide Sorter view. Slides can easily be ordered and sorted from this screen.

Click the Slide Show button to view the full-screen slide show.

8.3 Working with Slides

8.3.1 Insert a New Slide

Follow these steps to insert a new slide into the presentation:

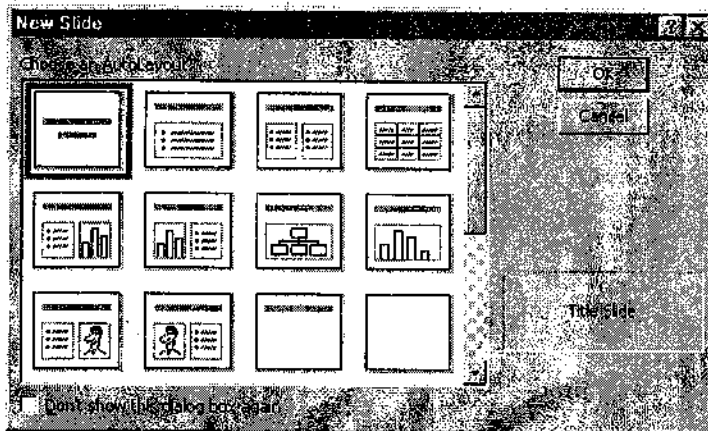
- In the Outline window, select the slide you want the new slide to appear after by clicking the slide's number.
- Select Insert|New Slide from the menu bar or click the new slide button on the standard toolbar.
- Choose the page layout from the window and press OK.

8.3.2 Applying a Design Template

To add a design template or changing the existing one, selection Format|Design Template from the menu bar. Select the template and click Apply.

8.3.3 Changing Slide Layouts

To change the layout template of the slide select Format|Slide Layout from the menu bar. Select one of the layout thumbnail images and click Apply.



8.3.4 Reordering Slides

To reorder a slide in Slide Sorter View, simply click on the slide you wish to move and drag it to the new location. In Normal or Outline View, click the slide icon beside the number of the slide you want to move and drag the icon to a new location.

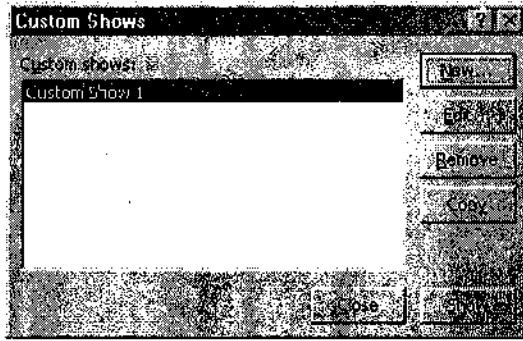
8.3.5 Hide Slides

If you do not want a slide to appear during the slide show, but do not want to delete the slide as it may be used later, the slide can be hidden by selecting Slide Show|Hide Slide from the menu bar. To add the slide back to the slide show, select Slide Show|Hide Slide again.

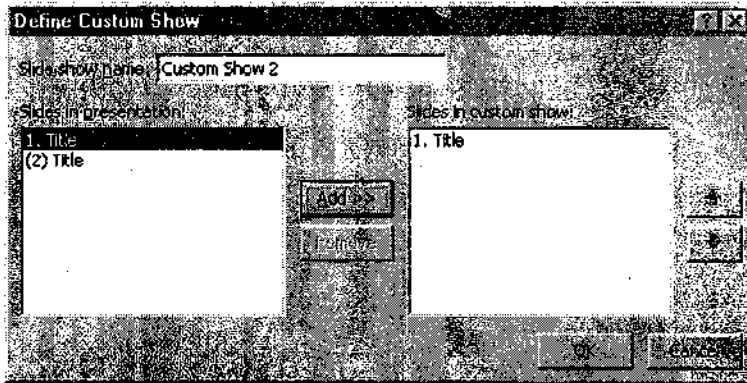
8.3.6 Create a Custom Slide Show

The Custom Slide Show feature allows you to select the slides you want to display in the slide show if not all the slides should be used.

- Select Slide Show|Custom Slide Show from the menu bar.



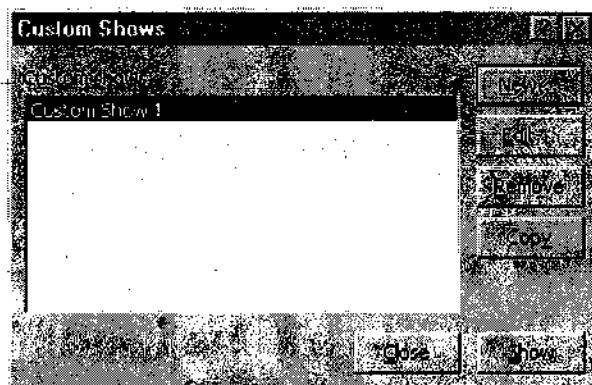
- Click the New... button in the Custom Shows window.
- In the Define Custom Show window, type a name for the slide in the Slide show name field.



Add slides to the custom show by highlighting them in the Slides in presentation window and clicking the Add >> button. Those slides will then appear in the Slides in custom show window.

- To remove slides from the custom show, highlight their names in the Slides in custom show window and click the Remove button.
- To reorder slides in the custom show, highlight the slide that should be moved and click the up and down arrows to change its order in the show.
- Click OK when finished.
- Click the Show button on the Custom Shows window to preview the custom slide show and click Close to exit.

8.3.7 Edit a Custom Slide Show



- Select Slide Show/Custom Slide Show from the menu bar.
- Edit the show by highlighting the name in the Custom shows box and clicking the Edit... button.
- To delete a show, highlight the name and click Remove.

- Create a copy of a show by clicking the Copy button. The copy can then be renamed by clicking the Edit... button.
- Click the Show button to preview the custom slide show and click Close to exit.

8.4 Adding Content

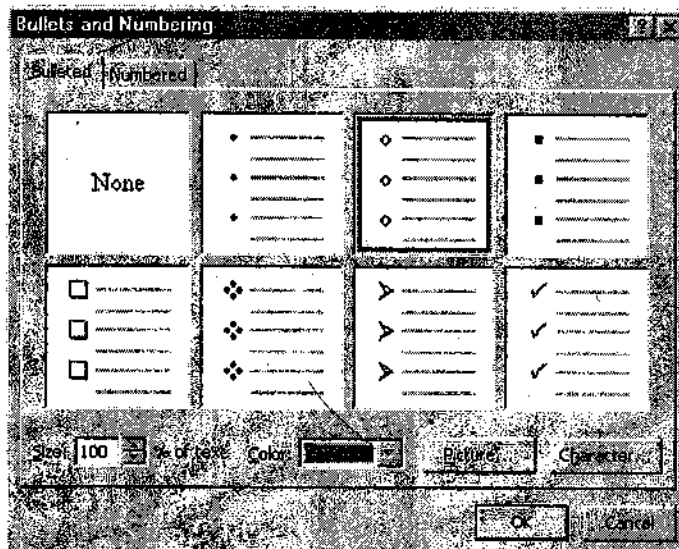
8.4.1 Bulleted Lists

Bulleted lists allow you to clearly display the main points of your presentation on slides. The text boxes on design templates already include bulleted lists. Click the place holder on the slide to begin adding text and press the ENTER key to return to the next line and add a new bulleted item. To go to the next line without adding another bullet, hold down the SHIFT key while pressing ENTER.

Bulleted List from a Text Box

If you are not creating a bulleted list from an existing placeholder on a design template, or if you would like to add an additional bulleted list, follow these steps to create a new list:

- In slide view, create a text box by selecting Insert|Text Box from the menu bar.
- "Draw" the text box on the slide by holding down the left mouse button while you move the mouse until the box is the size you want it.
- Choose Format|Bullets and Numbering from the menu bar.



Change the Size of the bullet by changing the percentage in relation to the text.

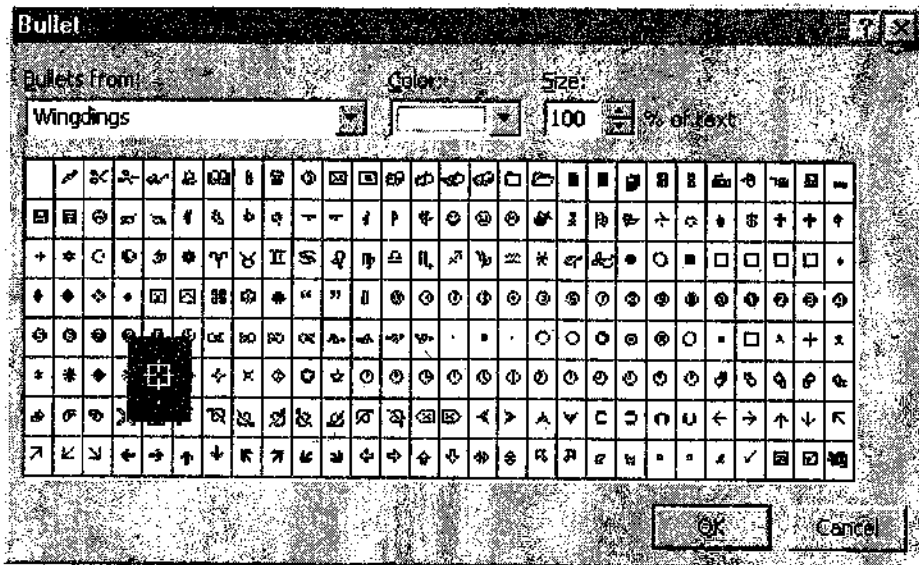
- Choose a color for the bullet from the Color menu. Click More Colors for a larger selection.
- Select one of the seven bullet types shown and click OK.

OR

Click the Picture button to view the Picture Bullet window. Select one of the bullets and click OK.

OR

Click the Character button to select any character from the fonts on the computer. Select a symbol font such as Wingdings or Webdings from the Bullets from drop-down menu for the best selection of icons. Click on the characters in the grid to see them larger. Click OK when you have chosen the bullet you want to use.



- Click OK on the Bullets and Numbering window and use the same methods described in the "Bulleted Lists on Design Templates" to enter text into the bulleted list.

Bulleted Lists and New Slides from an Outline

In Normal or Outline view, text can easily be entered in the outline window and new slides are automatically added. Follow the steps below to become familiar with adding slide content in outline view:

- Next to the Slide 1 icon, type the title of the slide. The text you type beside the slide icons will be the large-type titles on each slide.
- Press ENTER to type the next line. This will automatically create a new slide. To create a bulleted list for the first slide, press the TAB key on the More Buttons menu accessible by clicking the "triple arrow" button at the end of the formatting toolbar.

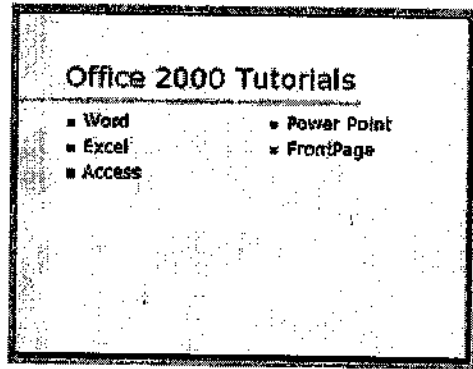
OR

Press ALT+SHIFT+Right Arrow to demote the selection to a bulleted list item.

- Continue entering text for the bulleted list, pressing ENTER at the end of each line to create a new bullet.
- Create a multilevel list by executing the demote action again to create a bulleted sublist. Press the promote button on the More Buttons menu or press ALT+SHIFT+Left Arrow to return to the original list.
- Create a new slide by executing the promote action until a new slide icon appears.
- Continue creating new slides and bulleted lists by using the demote and promote actions until the presentation is completed. Use the formatting instructions below to format the lists.

If there is more than one bulleted list on the slide, the lists will be designated by numbers enclosed in black boxes. The example below shows the slide created from the outline on the left. The bulleted list on the left side of the slide is labeled list "1" on the outline and the list on the right is labeled list "2". When typing the outline, begin typing in the new list by pressing CTRL+ENTER. In this example, CTRL+ENTER was pressed after typing "Access".

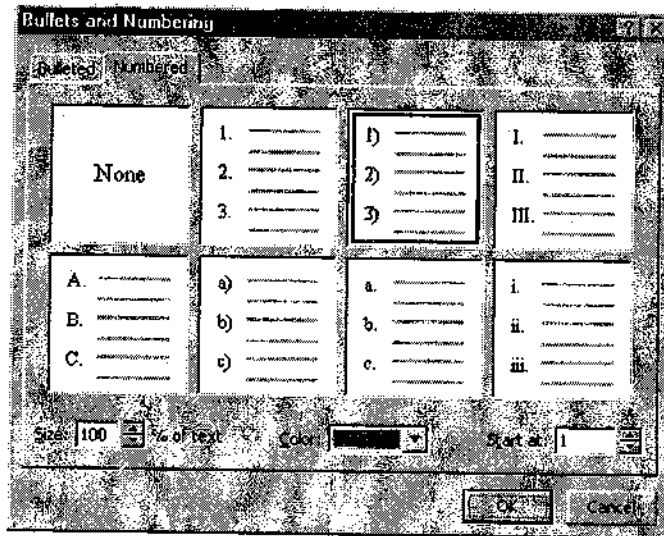
- 1 Title
- 2 Office 2000 Tutorials
 - 1 • Word
 - Excel
 - Access
 - 2 • Power Point
 - FrontPage
- 3 Getting Started
 - 1 *



8.4.2 Numbered List

Follow these steps to create a numbered list:

- Create a text box.
- With the text box selected, choose Format|Bullets and Numbering from the menu bar.
- Click the Numbered tab at the top of the Bullets and Numbering window.



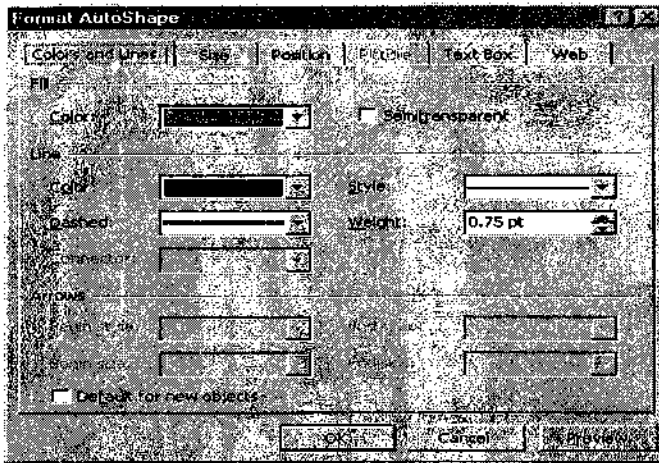
- Change the size of the numbers by changing the percentage in relation to the text.
- Choose a color for the numbers from the Color menu. Click More Colors for a larger selection.
- Change the Start at value if the numbers should not begin with 1.
- Select one of the the seven list types shown and click OK.

8.4.3 Resizing a Text Box

Select a text box by clicking on it with the mouse. A border with nine handles will appear around the text box. The four handles on the corners will resize the length and the width of the box at once while the handles on the sides will resize only in one direction. Click one of the handles and drag it with the mouse. Release the mouse button when it is the size you want it to be. Move the text box by clicking and dragging the thick, dotted border with the mouse.

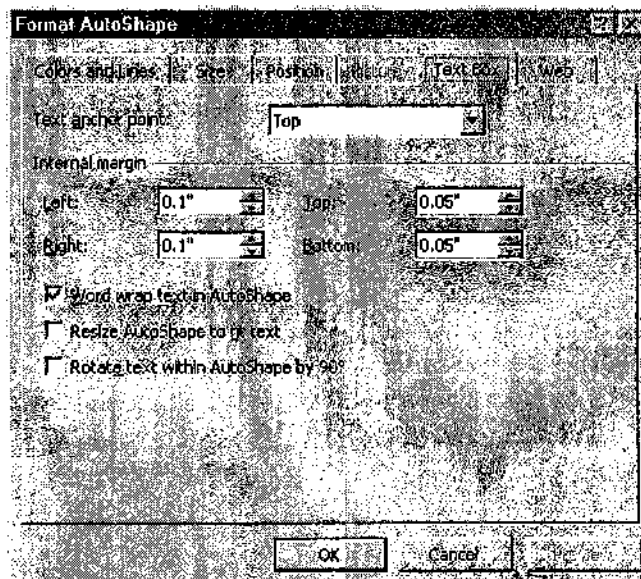
8.4.4 Text Box Properties

Change the colors, borders, and backgrounds of a text box from the Format AutoShape dialog box.



Activate the textbox by clicking on it and select Format\Colors and Lines from the menu bar.

- Under the Colors and Lines tab, select a Fill color that will fill the background of the text box. Check the Semitransparent box if you want the slide background to show through the color.
- Select a Line color that will surround the box as well as a Style or Weight for the thickness of the line and a Dashed property if the line should not be solid.
- Click the Text Box tab.



- Change the Text anchor point to reposition the text within the text box.
- Set Internal margins to the distance the text should be to the text box edges.
- Click OK to add the changes to the text box.

8.4.5 Delete a Text Box

To delete a text box from a template, simply click the border of the text box and press the DELETE key on the keyboard.

8.4.6 Adding Notes

From Normal View, notes can be added to the slide. These notes will not be seen on your presentation,

but they can be printed out on paper along with the slide the notes refer to by selecting Print What: Notes Pages on the Print menu.



8.4.7 Video and Audio

To add a video to your presentation select Insert|Movies and Sounds|Movie from File or to insert an animation from Microsoft's gallery choose Insert|Movies and Sounds|Movie from Gallery. Select the video file and click OK.

To add sound to your presentation select Insert|Movies and Sounds|Sound from Gallery or Sound from File. Select a sound file and click OK.

8.5 Summary

- Power Point is presentation software that can help you to quickly create effective 'slide based' presentations. The presentation consists of a number of slides.
- The AutoContent Wizard provides templates and ideas for a variety of presentation types.
- Power Point provides many templates with different backgrounds and text formatting to begin your presentation. Preview each design by highlighting the template name on the list.
- To reorder a slide in Slide Sorter View, simply click on the slide you wish to move and drag it to the new location. In Normal or Outline View, click the slide icon beside the number of the slide you want to move and drag the icon to a new location.
- The Custom Slide Show feature allows you to select the slides you want to display in the slide show if not all the slides should be used.
- To add sound to your presentation select Insert|Movies and Sounds|Sound from Gallery or Sound from File. Select a sound file and click OK.

To add a video to your presentation select Insert|Movies and Sounds|Movie from File or to insert an animation from Microsoft's gallery choose Insert|Movies and Sounds|Movie from Gallery. Select the video file and click OK.

8.6 Unit End Questions

1. What is Power point? Explain.
2. What is the use of auto content wizard?
3. How you will hide a slide?
4. How will you change line space in Text?
5. Write steps for changing properties of text box.

Unit 9: Presentation Package Cont..

Structure of the Unit

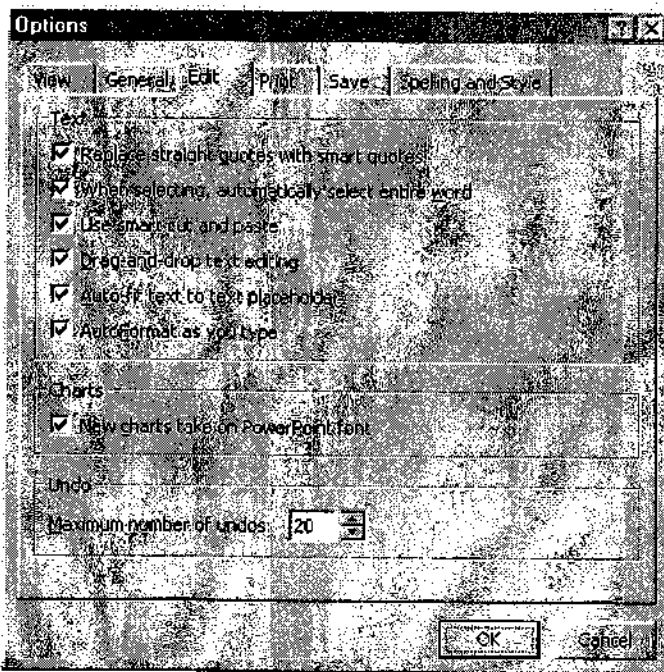
- 9.1 Working with Text**
 - 9.1.1 Adding text
 - 9.1.2 Editing options
 - 9.1.3 Formatting text
 - 9.1.4 Replace fonts
 - 9.1.5 Line spacing
 - 9.1.6 Change case
 - 9.1.7 Spelling check
- 9.2 Changing Colors**
 - 9.2.1 Color schemes
 - 9.2.2 Backgrounds
- 9.3 Graphics**
 - 9.3.1 Adding clip art
 - 9.3.2 Adding an image from a file
 - 9.3.3 Editing a graphic
 - 9.3.4 AutoShapes
 - 9.3.5 WordArt
- 9.4 Slide Effects**
 - 9.4.1 Action buttons
 - 9.4.2 Slide animation
 - 9.4.3 Animation preview
 - 9.4.4 Slide transitions
 - 9.4.5 Slide show options
- 9.5 Master Slides**
 - 9.5.1 Slide master
 - 9.5.2 Header and footer
 - 9.5.3 Slide numbers
 - 9.5.4 Date and time
- 9.6 Saving and Printing**
 - 9.6.1 Save as a web page

- 9.6.2 Page setup
- 9.6.3 Print
- 9.7 Keyboard shortcuts Tips
 - 9.7.1 Design tips
 - 9.7.2 Presentation basics
- 9.8 Summary
- 9.9 Unit end Questions

9.1 Working with Text

9.1.1 Adding Text

If the slide layout includes text boxes, simply click on the text box to add text. To add a text box to the slide, select **Insert|Text Box** from the menu bar and draw the text box with the mouse. Set text editing options by selecting **Tools|Options** from the menu bar and clicking the **Edit** tab.

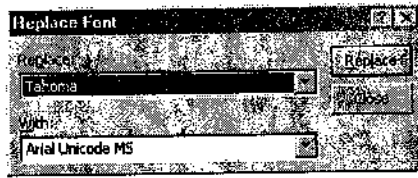


9.1.2 Formatting Text

Select the text that will be formatted by highlighting the text either on the outline or on the slide. Choose **Format|Font** from the menu bar or right-click on the highlighted selection and select **Font** from the popup shortcut menu or. Select a font face, size, style, effect, and color from the **Font** dialog box. Click the **Preview** button to see how the changes will appear on the slide before making a decision.

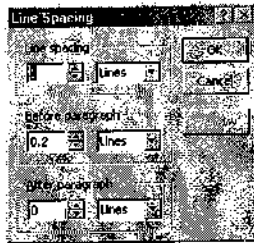
9.1.3 Replace Fonts

Design templates have a preset font that you may want to change or you may want to change the font used on for the entire presentation for a number of reasons. This can be accomplished quickly using the **Replace Fonts** feature. Select **Format|Replace Font** from the menu bar. Choose the font you want to **Replace** from the first drop-down menu and the font it should be replaced **With** from the second menu, and click the **Replace** button.



9.1.4 Line Spacing

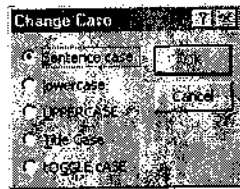
Change the amount of space between lines in a text box by selecting Format|Line Spacing from the menu bar.



- Line spacing - Select the amount of vertical space between lines. A value of "1" is equal to single spacing and "2" is double spacing. Values between and above these numbers are valid as well.
- Before paragraph and After paragraph - This value will determine the amount of vertical space before and after each paragraph in a text box.

9.1.5 Change Case

Change the case of the characters in a paragraph by selecting Format|Change Case from the menu bar without having to retype the text.

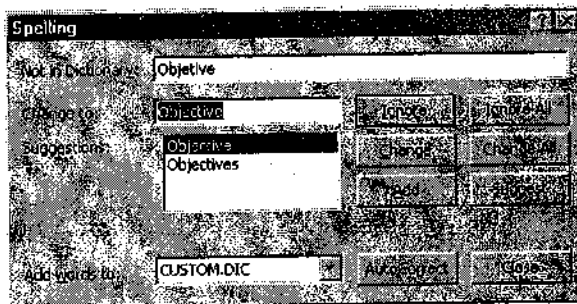


Sentence case - Capitalizes the first letter of the first word in each sentence.

- **Lowercase and Uppercase** - Changes the case of all the letters.
- **Title case** - Capitalizes the first letter of every word and reduces the rest to lowercase.
- **Toggle case** - The opposite of Title case, it makes the first letter of every word lowercase and capitalizes the remaining letters.

9.1.6 Spell Check

Correct the spelling in the presentation by selecting Tools|Spelling from the menu bar or by pressing the F7 key on the keyboard.

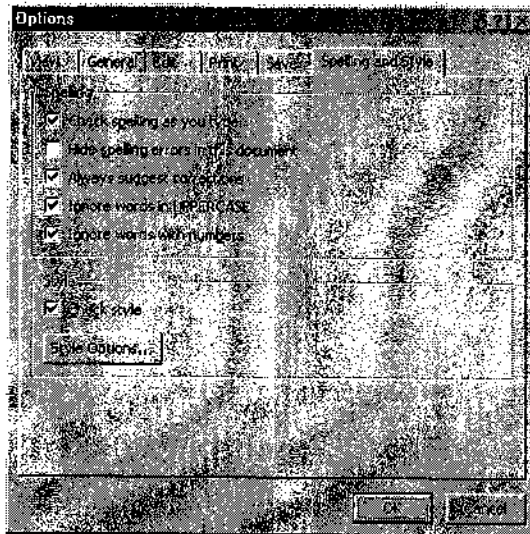


- The spell checker will prompt you to make corrections of the first word that is spelled wrong.
- If the word is spelled correctly, click Ignore or Ignore All if the same word appears several times during the presentation. If this word will appear in many presentations (such as your name), click Add to add the word to the dictionary and you won't be prompted by a misspelling again.
- If the word is spelled wrong, highlight one of the the Suggestions or type your own revision in the Change to box. Click Change to correct this occurrence of the word or Change All to correct all occurrences of the word in the presentation.
- Click Close to abort the spelling check early.
- When the spell checker has read through the entire presentation, you will be prompted by a window telling you that the spelling check is complete. Click OK.



9.1.7 Spelling Options

Select Tools|Options from the menu bar and click the Spelling and Style tab.



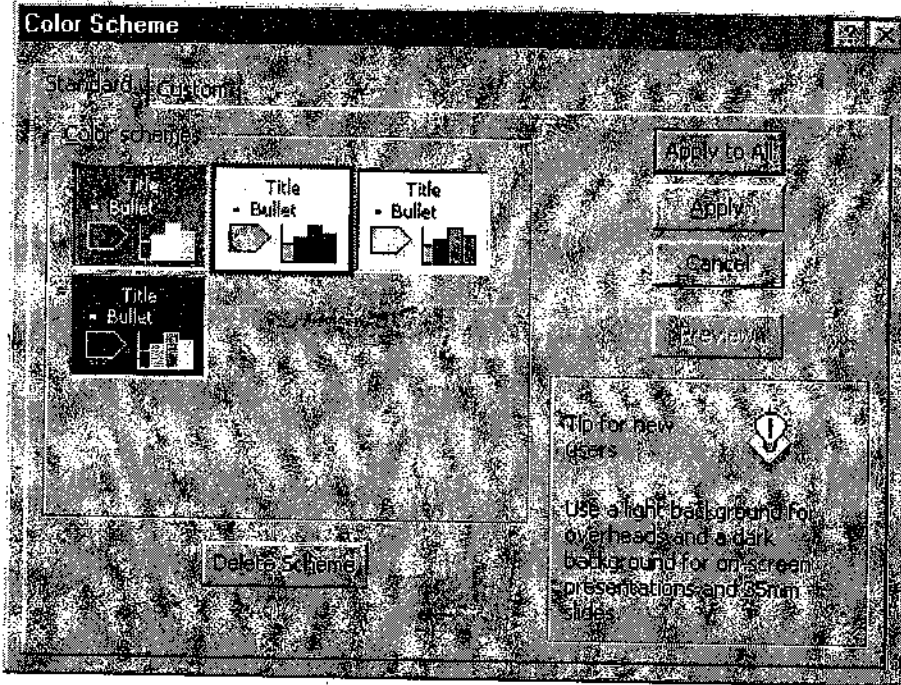
- Check spelling as you type - If this box is checked, Power Point will check the spelling of every word as you type. Misspelled words will be underlined with wavy red lines.
- Hide spelling errors in this document - Check this box to remove the wavy red lines from words that are spelled wrong.
- Always suggest corrections - If this box is checked, suggestions for misspelled words will appear when you activate the spell checker.
- Ignore words in UPPERCASE - Power Point recommends that you don't type slide titles in all uppercase letters so it will treat words like this and other all-uppercase acronyms as misspelled. Check this box to ignore this suggestion and acronyms that are typically typed in all caps.
- Ignore words with numbers - Check to ignore words that are combinations of letters and numbers.

9.2 Changing Colors

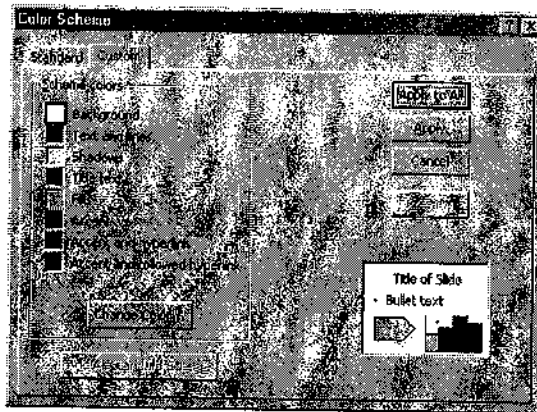
The colors of predesigned slide templates can be changed and a color scheme can be added to blank presentations. This page explains how to add color schemes and background images to slides.

9.2.1 Color Schemes

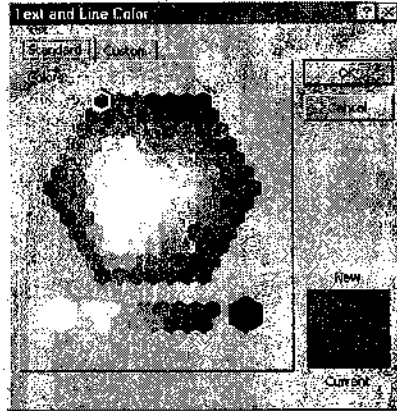
- Select Format|Slide Color Scheme from the menu bar.
- Click one of the preset color scheme thumbnail images in the Color schemes box.



- Click the Preview button to see how the scheme will appear on the slide.
- To make changes to the color scheme, click the Custom tab on the dialog box.



- Change the colors of the slide elements by selecting the color swatch beside the name of the element and clicking the Change color button.
- Highlight one of the colors from the Text and Line Color window or select the Custom tab to view more color choices and click OK when finished.

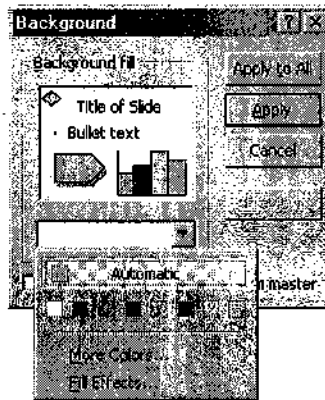


- When you have finished all color formatting, click **Apply to All** to apply the color scheme to all the slides in the presentation or **Apply** to add the scheme only to the current slide.

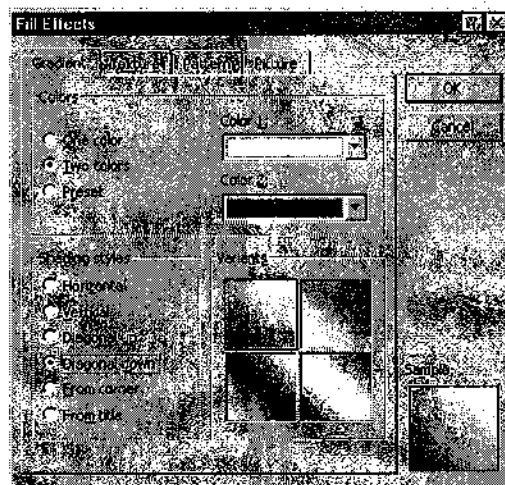
9.2.2 Backgrounds

Follow these steps to add background colors and patterns to a slide:

- Select **Format|Background** from the menu bar.

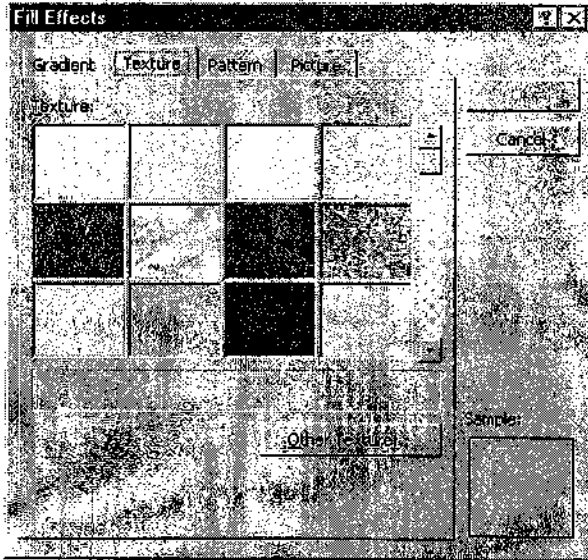


- Select a color from the drop-down menu below the **Background fill** preview or choose **More Colors...** for a larger selection.
- Select **Fill Effects** from the drop-down menu to add gradients, texture, patterns, or a picture to the background.



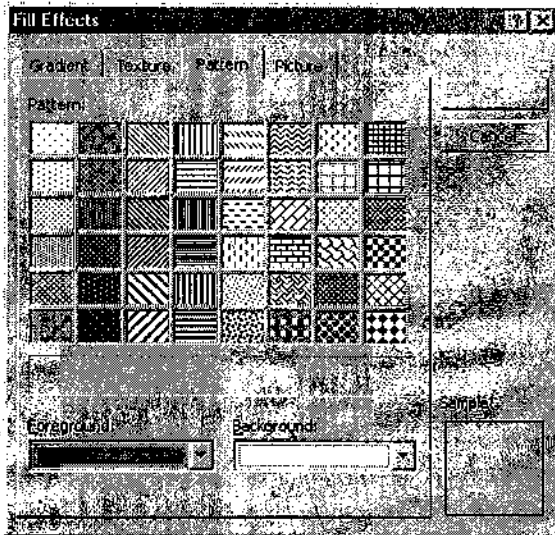
- **Gradient tab**

- (1) Select One color if the color chosen will fade into the background and select the color from the Color 1 drop-down menu. Choose Two colors if the gradient will use two colors and select those colors from the Color 1 and Color 2 drop-down menus. Preset provides a selection of color combinations. Select one from the Preset colors drop-down menu.
- (2) Select the type of gradient from Shading styles.
- (3) Click one of the four Variants of the styles chosen.



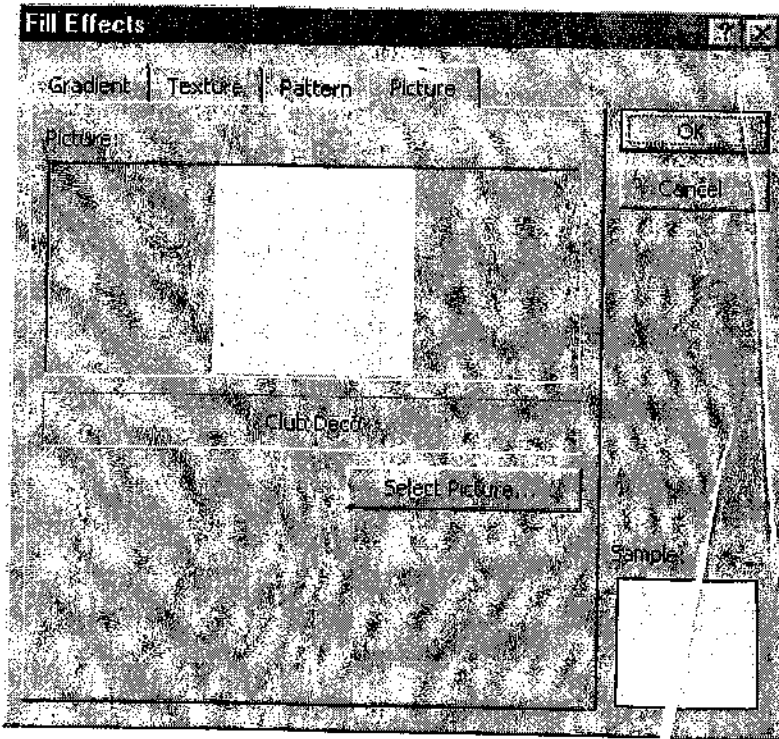
- **Texture tab**

From the Texture window, select a repeating background by scrolling through the thumbnail images or click Other Texture... to select an image from a file.



- **Pattern tab**

Select a two-tone pattern by clicking one of the pattern swatches and selecting the Foreground and Background colors.

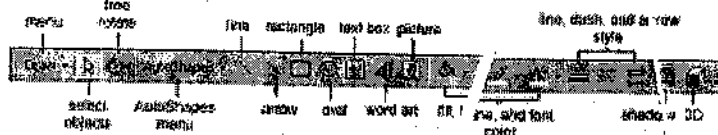


- **Picture tab**

- (1) Click the Select Picture button to choose a picture from a file. After the picture is selected, a preview and description will be shown in this window.
- (2) Click OK to apply the changes made from the Fill Effects window.
- (3) Click Apply to All to add the changes to every slide or apply to make changes only to the current slide.

9.3 Graphics

The Drawing Toolbar provides many commands for creating and editing graphics. The toolbar is located at the bottom of the Power Point screen or it can be activated by selecting View|Toolbars|Drawing from the menu bar.

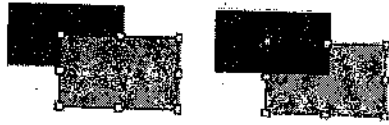


Menu

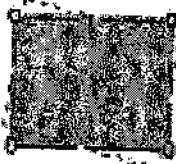
- ☞ **Grouping** - Images can be grouped together so they become one image and can be moved together or the same formatting changes can be applied to both at once. Select all the images that will be grouped by holding down the SHIFT key and clicking once on each image. Then select Group from the Draw menu. The images can be ungrouped by selecting Ungroup from the same menu. The rectangles in the image to the left are separate images with their own sets of handles and they are grouped together in the image to the right:



- ☞ Order - The order of overlapping images can be changed using this feature. In the example of two rectangles below, the green rectangle is selected and the Send Backward command was used to move the image below the blue rectangle. Send Backward and Bring Forward will move elements by one layer. Send to Back and Bring to Front move the elements to the back or top of a series of several overlapping graphics.



- ☞ Nudge - Use the nudge actions to move an object slightly in one direction.
- Align or Distribute - Select a group of objects and choose one of the the commands from the Align or Distribute menu to change the position of the objects in relation to one another.
- ☞ Rotate or Flip - Rotate an object 90 degrees or flip the object over its x- or y-axis.
- ☞ Select objects - Deactivate all drawing functions.
- ☞ Free rotate - This button will place green handles on certain objects so they can be arbitrarily rotated. Click and drag the handles to rotate the objects.



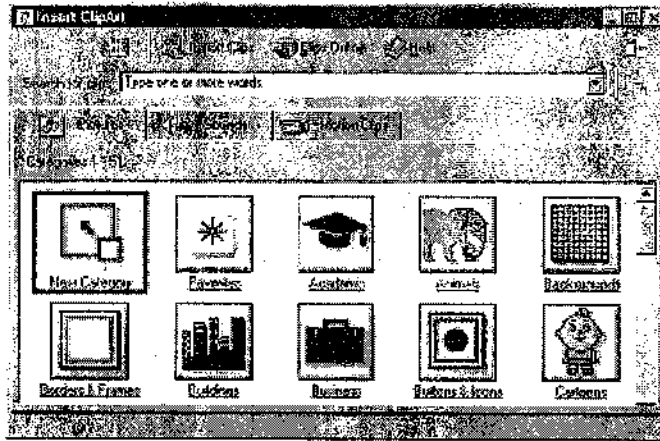
- ☞ AutoShapes menu - Click the small down arrow to the right of the "AutoShapes" text to select a shape. [more...]
- ☞ Line and Arrow - Click and drag the mouse on the slide to add lines. Hold down the SHIFT key to draw a straight line. Use the end points of the completed line to stretch and reposition the line.
- ☞ Rectangle and Oval - Click and drag the mouse on the slide to add rectangles and ovals. Hold down the SHIFT key to add squares and circles.
- ☞ Text box - Click to draw a text box on the slide.
- ☞ Word art - Click to add WordArt. [More]
- ☞ Picture - Click to add a clip art image to the slide.
- ☞ Fill color - Choose a fill color for rectangles, ovals, and clip art.
- ☞ Line color - Select a border color for shapes and pictures.
- ☞ Font color - Highlight text on the slide and click the small down arrow next to the Font color icon to select a color.
- ☞ Line style - Highlight a line or arrow that has been drawn and click this button to select a thickness or style for the line.
- ☞ Dash style - Highlight a line or arrow and select a dash style.
- ☞ Arrow style - Change the arrow head style for an existing arrow or change a line to an arrow.
- ☞ Shadow - Select a text box to add shadow to text or choose any other object on the slide to add a drop shadow.

3D - Add a three-dimensional effect to text and other objects.

9.3.1 Adding Clip Art

To add a clip art image to a slide, follow these steps:

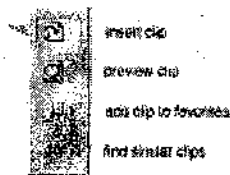
- Select Insert|Picture|Clip Art from the menu bar or click the Picture button on the Drawing toolbar.



- To find an image, click in the white box following Search for clips and enter keywords describing the image you want to find.

OR

- Click one of the category icons.
- Click once on the image to want to add to the slide and a selection bar will appear.
- Click once on the image you want to add to the slide and the following popup menu will appear:



- Insert Clip to add the image to the slide.

Preview Clip to view the image full-size before adding it to the slide. Drag the bottom, right corner of the preview window to resize the image and click the "x" close button to end the preview.

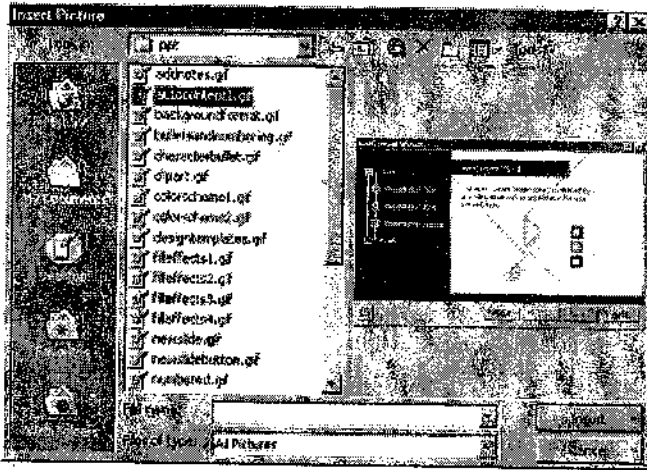


- Add Clip to Favorites will add the selected image to your favorites directory that can be chosen from the Insert ClipArt dialog box.
- Find Similar Clips will retrieve images similar to the one you have chosen.
- Click the Close button in the top, right corner of the Insert Clip window to stop adding clip art to the slide.

9.3.2 Adding An Image from a File

To add a photo or graphic from a file:

- Select Insert|Picture|From File from the menu bar.
- Click the down arrow button on the right side of the Look in: window to find the image on your computer.
- Highlight the file name from the list and click the Insert button.

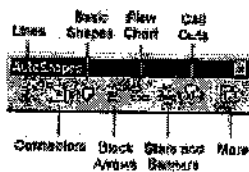


9.3.3 Editing A Graphic

Activate the image you wish to edit by clicking on it once with the mouse. Several handles will appear around the graphic. Click and drag these handles to resize the image. The handles on the corners will resize proportionally while the handles on the straight lines will stretch the image. More picture effects can be changed using the Picture toolbar.

9.3.4 Auto Shapes

The AutoShapes toolbar allows you to draw a number of geometrical shapes, arrows, flow chart elements, stars, and other graphics on a slide. Activate the AutoShapes toolbar by selecting Insert|Picture|AutoShapes or View|Toolbars|AutoShapes from the menu bar. Click the buttons on the toolbar to view the options for drawing each shape.



- Lines - After clicking the Lines button on the AutoShapes toolbar, draw a straight line, arrow, or double-ended arrow from the first row of options by clicking the respective button. Click in the slide where you would like the line to begin and click again where it should end. To draw a curved line or freeform shape, select curved lines from the menu (first and second buttons of second row), click in the slide where the line should appear, and click the mouse every time a curve should begin. To scribble, click the last button in the second row, click the mouse in the slide and hold down the left button while you draw the design. Let go off the mouse button to stop drawing.
- Connectors - Draw these lines to connect flow chart elements.
- Basic Shapes - Click the Basic Shapes button on the AutoShapes toolbar to select from many two- and three-dimensional shapes, icons, braces, and brackets. Use the drag-and-drop method

to draw the shape in the slide. When the shape has been made, it can be resized.

- Open box handles and other adjustments specific to each shape can be modified using the yellow diamond handles.



- Block Arrows - Select Block Arrows to choose from many types of two- and three-dimensional arrows. Drag-and-drop the arrow in the slide and use the open box and yellow diamond handles to adjust the arrowheads. Each AutoShape can also be rotated by first clicking the Free Rotate button on the drawing toolbar. Click and drag the green handles around the image to rotate it. The tree image below was created from an arrow rotated 90 degrees.



- Flow Chart - Choose from the flow chart menu to add flow chart elements to the slide and use the line menu to draw connections between the elements.
- Stars and Banners - Click the button to select stars, bursts, banners, and scrolls.
- Call Outs - Select from the speech and thought bubbles, and line call outs. Enter the call out text in the text box that is made.
- More AutoShapes - Click the More button to choose from a list of clip art categories.

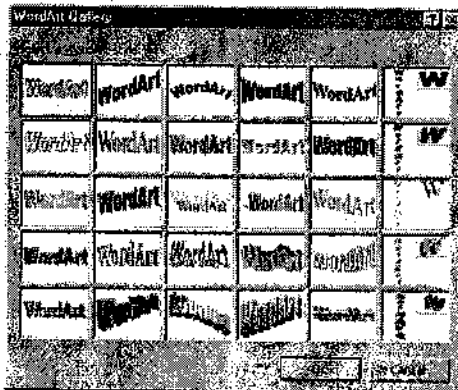
Each of the submenus on the AutoShapes toolbar can become a separate toolbar. Just click and drag the gray bar across the top of the submenus off of the toolbar and it will become a separate floating toolbar.



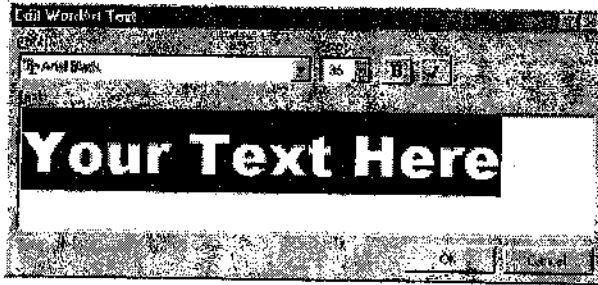
9.3.5 WordArt

Add headlines in striking colors and shapes to your presentation using Word Art.

- Select Insert|Picture|WordArt from the menu bar or click the Word Art button on the Drawing toolbar.
- Choose a Word Art style from the listing and click OK.



- Enter the text in the Edit WordArt Text box and choose the font, size, and style for the text. Click OK.



- Use the white box handles around the word art to resize it on the slide.
- Drag the yellow diamond handle to change the shape of the text. To revert back to no shape, double-click the diamond.

9.4 Slide Effects

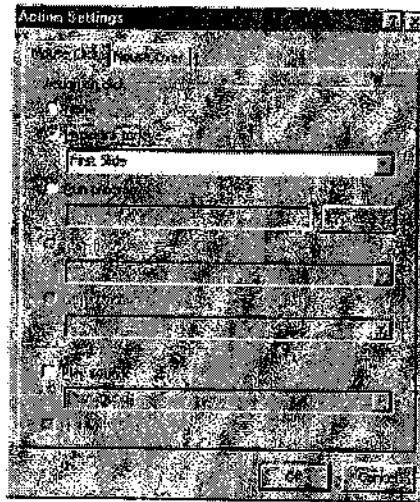
9.4.1 Action Buttons

Use the action button toolbar to add functioning buttons to slides in a presentation.

- Select Slide Show|Action Buttons from the menu bar. Click the bar across the top of the button menu and drag it off the menu so it becomes a floating toolbar.



- Click one of the button faces and draw the button on the slide using the mouse. The action settings menu will then appear.



- Set the actions under either the Mouse Click or Mouse Over tabs. Actions specified for Mouse Click will execute when the button is clicked on the slide while actions for Mouse Over will occur when the mouse pointer hovers over the button.
- Select an action for the button by choosing a Hyperlink to destination.

If you want a sound to be played when the button is clicked, check the Play sound box and choose a sound from the drop-down menu.

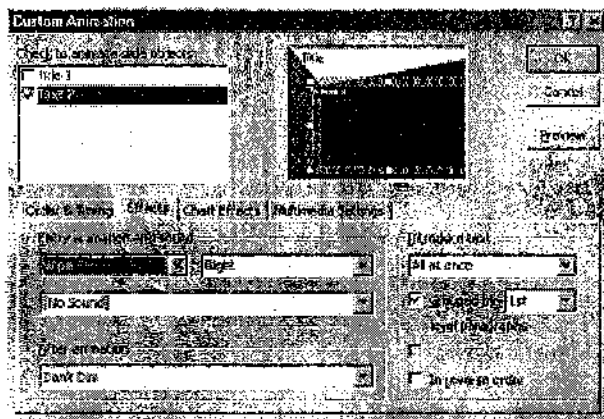
- Click OK when finished.



- The button on the slide can be resized using the white box handles and the depth of the button can be changed by dragging the yellow diamond.

9.4.2 Slide Animation

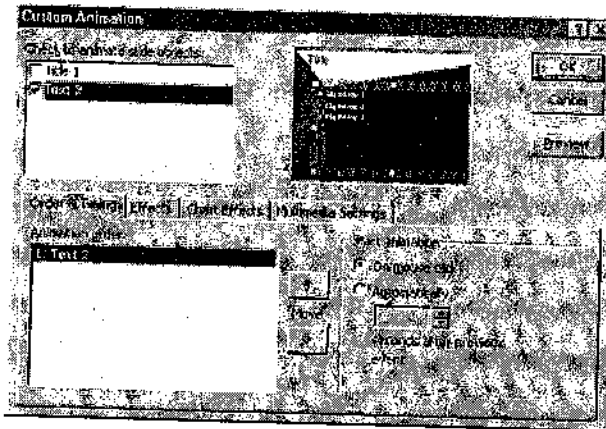
Several animations for slide objects are available through the drop-down menus on the menu bar. First, select the text box or graphic that will be animated. Select Slide Show|Preset Animation and choose from one of the options. To select a different animation or turn the animation off, select the appropriate choice from the same menu. For more options, follow the procedure below:



- Select Slide Show|Custom Animation from the menu bar.
- Select the object on the slide that will be animated from the Check to animate slide objects list.
- Under the Effects tab, select the animation type (or select "No Effect" to turn an animation off) and direction from the drop-down menus and select a sound if you wish.
- Select an After animation effect if the text should change colors after the animation executes.

Color palette - Select one of the color swatches or click More Colors for a larger selection. The text will change to the selected color when the mouse is clicked during the slide show.

- Don't Dim - This option erases all After Animation effects.
- Hide After Animation - Text will be immediately erased after the animation is completed.
- Hide on Next Mouse click - The text will be erased when the mouse is clicked.
- Choose the style of displaying the text under the Introduce text section. The drop-down menu provides options for displaying the characters for each bulleted item. Select "All at once" for the text to appear immediately, "by Word" for the text to appear one word at a time, or "by Letter" for a typewriter effect that displays one letter at a time.
- Click the Order & Timing tab to alter the order that the objects appear on the slide. Highlight the object in the Animation order box and click the Move arrows to move the object's position within the animation sequence. Under Start animation, choose "On mouse click" to activate the animation by clicking the mouse or "Automatically" for the animation to execute after a set number of seconds.



- Click the Preview button at any time to preview the animation on the slide and click OK when finished.

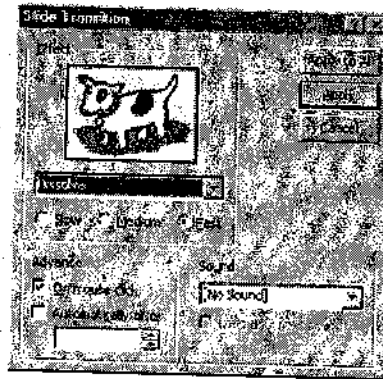
9.4.3 Animation Preview

Select Slide Show|Animation Preview from the menu bar to view the Animation Preview window. Click anywhere within this window with the mouse to preview the animations that have been set. To hide the window, click the x close button in the top, right corner.



9.4.4 Slide Transitions

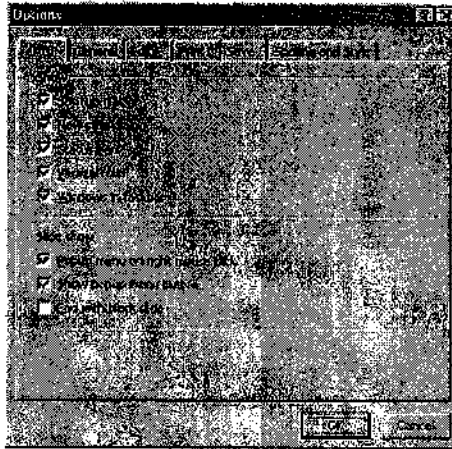
Add transition effects when changing slides by following these steps:



- Select Slide Show|Slide Transition from the menu bar.
- From the effect section, choose a transition from the drop-down menu and notice the preview after the transition is selected. Select a speed for the transition as well.
- Under Advance, check "On mouse click" for the slide transition to occur by clicking the mouse or using keystrokes or check "Automatically after" and a number of seconds if the transition should occur automatically.
- Select a Sound if necessary and check the Loop until next sound if it should keep repeating until the next sound is played
- Click Apply to All if the transition effects should be added to every slide or Apply if the effects should be added only to the current slide.

9.4.5 Slide Show Options

Select Tools|Options and click the View tab to choose from several more slide show options.



- **Popup menu on right mouse click** - Check this box if you want to be able to access the shortcut menu during a presentation.
- **Show popup menu button** - Check this box to activate the menu button that appears in the bottom, left corner of the screen during a presentation.



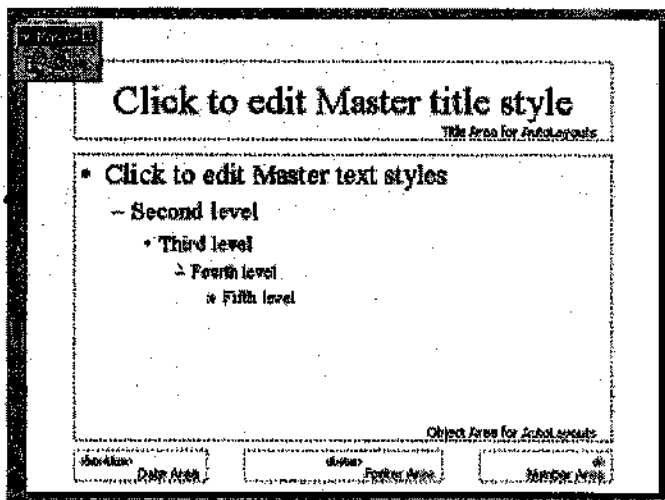
- **End with black slide** - Insert a blank, black slide to the end of the presentation.

9.5 Master Slides

9.5.1 Slide Master

Change the style of all slides in the presentation by changing the properties on the Slide Master. Each Design Template has its own Slide Master that can be altered. If you create slides from scratch, a consistent style can be added to the presentation by formatting the Slide Master.

- Select View|Master|Slide Master from the menu bar.



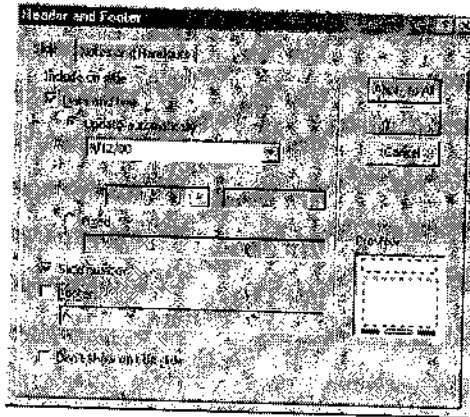
- Format the master slide just as you would format a regular slide by formatting text, formatting lists, adding background patterns and effects, and setting footers.

- Click the Close button on the Master toolbar to quit editing the master slide and return to the presentation.

9.5.2 Headers and Footers

Add the date and time, slide numbers, and other footer text to the master slide from the Header and Footer window.

Select View|Header and Footer... from the menu bar.



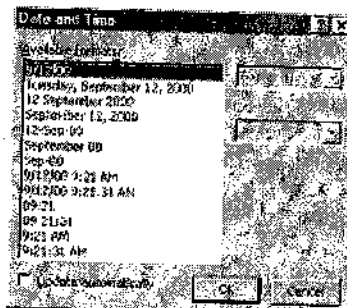
- Check the Date and time box to add this feature to the slide. Select Update automatically to always display the current date and time or click Fixed and enter a date that will not change in the text field provided.
- Check the Slide number box to add this feature to the slides.
- Click the Footer box and add other text to the footer area of the slide.
- Check the Don't show on title slide box to hide these features on the title slide of the presentation.
- Click the Notes and Handouts tab to make the same changes to notes and handouts pages.
- Click Apply to All to add the changes to every slide or Apply to add only to the current slide.

9.5.3 Slide Numbers

To add the slide numbers in a fixed position on the slide, use the Header and Footer window detailed above. The slide number can otherwise be added anywhere on the slide by placing the cursor where the slide number should appear and selecting Insert|Slide Number from the menu bar. The text of the slide number can be formatted just as regular text style is changed.

9.5.4 Date and Time

A date and/or time can also be added using the Header and Footer window or anywhere else on the slide. Place the cursor where the date and time should appear on the slide and select Insert|Date and Time from the menu bar. Select a format from the Available formats box and click Update automatically if this feature should always be updated to reflect the current date and time. Click OK to finish.



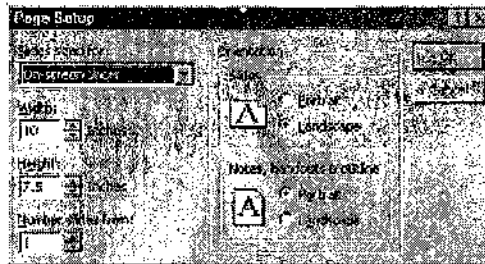
9.6 SAVING AND PRINTING

9.6.1 Save as Web Page

Presentations can be saved by selecting File|Save from the menu bar. However, if you want to post Power Point presentations on the Internet, you may want to save them as web pages so students and other visitors to your web site can view the presentation even if they do not have Power Point installed on their computers. Select File|Save As Web Page from the menu bar. Choose your web page directory on the network from the Look in: drop-down menu and name the file in the File name: box. Click Save to save the presentation in web format.

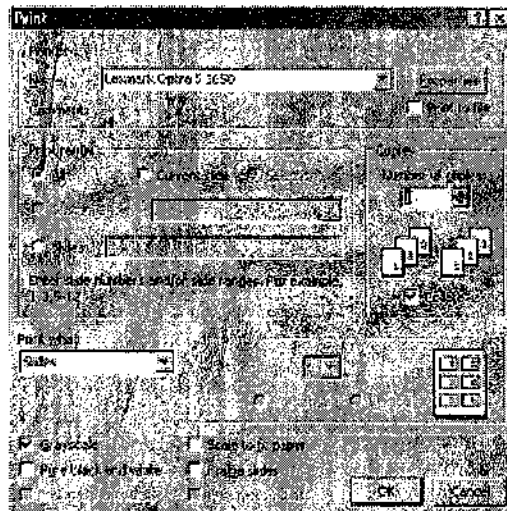
9.6.2 Page Setup

Select File|Page Setup from the menu bar to access options for printing the presentation slides. Select the format the printed slides will be used for from the Slides sized for drop-down menu or enter a specific print size using the Width and Height boxes. Select the page orientation for the slides and for other print material from the presentation in the Orientation section.



9.6.3 Print

Select File|Print from the menu bar to print the presentation.



- **Print range** - Select All to print all the slides in the presentation, Current slide to print only the current slide, or enter slide numbers in the Slides field to print only certain slides.
- **Copies** - Enter the number of copies of each slide specified in Print range and check the Collate box if necessary.

Print What

- Slides prints a full-page slide on each page.
- Handouts prints as many slides as you designate on each page.

- Notes Page prints one slide with that slide's notes on each page
- Outline view prints the outline of the presentation
- Click OK to print.

9.7 Keyboard Shortcuts

Keyboard shortcuts can save time and the effort of switching from the keyboard to the mouse to execute simple commands. Print this list of Power Point keyboard shortcuts and keep it by your computer for a quick reference.

Note: A plus sign indicates that the keys need to be pressed at the same time.

Action	Keystroke	Action	Keystroke
Document actions		Formatting	
Open a presentation	CTRL+O	Select all	CTRL+A
New presentation	CTRL+N	Copy	CTRL+C
Save As	F12	Cut	CTRL+X
Save	CTRL+S	Paste	CTRL+V
Print	CTRL+P	Undo	CTRL+Z
Help	F1	Redo	CTRL+Y
Presentation actions		Bold	CTRL+B
Begin slide show	F5	Italics	CTRL+I
Next slide.	ENTER or Down arrow key	Underline	CTRL+U
Previous slide	BACKSPACE or Up arrow key	Left justified	CTRL+L
Activate pen tool	CTRL+P	Center justified	CTRL+E
Erase pen strokes	E	Right justified	CTRL+R
Deactivate pen tool	CTRL+A	Promote list item	ALT+SHIFT+Left arrow
Show/Hide black screen	B	Demote list item	ALT+SHIFT+Right arrow or TAB
Show/Hide white screen	W	Editing	
Show/Hide pointer & button	A	Find	CTRL+F
End slide show	ESC	Replace	CTRL+H
		Insert hyperlink	CTRL+K
		New slide	CTRL+M
		Spell checker	F7
		Macros	ALT+F8

Run the slide show and press the F1 key to view all keyboard shortcuts applicable when running a slide show.

9.7.1 Design Tips

- Use contrasting colors for the text and the background so the text will be easy to read.
- Use font size large enough to be seen from the back of the room where the presentation will be held. A font size of 24-point or larger is recommended.
- Use short phrases and sentences to convey your message.
- Use simple slide transitions. Too many different transitions will distract your audience from the subject of the presentation.
- Avoid cluttering the slides with too much text or graphics. Your audience should hear what you have to say and not be distracted by a busy screen.

- Keep text simple and easy to read by not using many different text effects such as bold, italics, underlining, larger font size for emphasis within a sentence, or a different font all on the same slide.

9.7.2 Presentation Basics

- Begin the slide show by clicking the Slide Show button on the bottom of the screen.
- Move to the next slide by pressing the SPACE BAR, ENTER, PAGE DOWN, or right arrow keys or by clicking the left mouse button.
- Go back to the previous slide by pressing BACKSPACE, PAGE UP, or the left arrow key.
- To end the slideshow before it is complete press ESC on the keyboard.
- A open tool is available for drawing on the screen with the mouse. Press CTRL+P or click the right mouse button at any time and a popup window will appear. Choose Pen and the pointer will change to a pen that allows you to draw freehand on the screen using the mouse. Press the E key to erase all pen strokes. Press CTRL+A to disable the pen feature and revert the pen back to a pointer arrow.
- If you would like to use the pen to draw on a blank screen during a presentation, press the B or W keys, or select Screen/Black Screen from the popup menu and the screen will turn black. Press B or W again or choose Next from the popup menu to return to the presentation when you are finished drawing.
- To hide the pointer and button from the screen press the A key.
- Be sure to preview the slide show using a projector if one will be used during the presentation. Words or graphics that are close to the edge of the screen may be cut off by the projector.

9.8 Summary

- Spell Check Correct the spelling in the presentation by selecting Tools|Spelling from the menu bar or by pressing the F7 key on the keyboard.
- The colors of predesigned slide templates can be changed and a color scheme can be added to blank presentations.
- The Drawing Toolbar provides many commands for creating and editing graphics. The toolbar is located at the bottom of the Power Point screen or it can be activated by selecting View|Toolbars|Drawing from the menu bar.
- The AutoShapes toolbar allows you to draw a number of geometrical shapes, arrows, flow chart elements, stars, and other graphics on a slide.
- Date and/or time can also be added using the Header and Footer window or anywhere else on the slide. Place the cursor where the date and time should appear on the slide and select Insert|Date and Time from the menu bar.
- A open tool is available for drawing on the screen with the mouse. Press CTRL+P or click the right mouse button at any time and a popup window will appear. Choose Pen and the pointer will change to a pen that allows you to draw freehand on the screen using the mouse. Press the E key to erase all pen strokes. Press CTRL+A to disable the pen feature and revert the pen back to a pointer arrow.

9.9 Unit end Questions

1. What is master slide?
2. What is color scheme?
3. What do you mean by auto shape?
4. How you will check spelling in your presentation?
5. What is auto shape tools?
6. What is slide sorting view why is use usefull?

Unit : 10 Microsoft Office Outlook

Structure of the Unit

- 10.0 Objectives
- 10.1 Introduction
 - 10.1.1 Getting Help
- 10.2 Exploring the Microsoft Outlook
- 10.3 Different Features & Views in Outlook
 - 10.3.1 The Outlook Window
 - 10.3.2 Drop-Down Menus
 - 10.3.3 Navigation Pane
 - 10.3.4 Folder Pane
 - 10.3.5 Reading Pane
 - 10.3.6 Toolbars
 - 10.3.7 Outlook Today
- 10.4 Calendars in Outlook
 - 10.4.1 Calendar Views
 - 10.4.2 Understanding Calendar Items
 - 10.4.2.1 Appointment
 - 10.4.2.2 Meeting
 - 10.4.2.3 Event
 - 10.4.3 Scheduling Calendar Items
 - 10.4.3.1 Schedule an Appointment
 - 10.4.3.2 Schedule a Recurring Appointment
 - 10.4.3.3 Schedule a Meeting
 - 10.4.3.4 Schedule an Event
 - 10.4.4 Editing Calendar Items
 - 10.4.5 Deleting Calendar Items
 - 10.4.6 Adding Holidays
- 10.5 Contacts in Outlook
 - 10.5.1 Contacts Views
 - 10.5.2 Creation of a Contact
 - 10.5.2.1 Create a Contact with Information

10.5.2.2 Create a Contact by Opening e-mail address

10.5.2.3 Create a Contact from the Same company

10.5.2.4 Create a Distribution List

10.5.3 Deleting a Contact

10.5.4 How to Add a Picture to a Contact

10.6 Using Tasks

10.6.1 Task Views

10.6.2 Creating Tasks

10.7 Using Notes

10.7.1 Creating a Note

10.7.2 Deleting a Note

10.8 Summary

10.9 Glossary

10.10 Further Readings

10.11 Answers to Self Learning Exercises

10.12 Unit End Questions

10.0 Objectives

After reading this unit you will be able to understand :

- Configuring Microsoft Outlook
- Different views & features in Outlook
- The uses of Calendars in Outlook
- Scheduling an Appointment, Meeting & Event
- Creation and deletion of Contacts
- The working of Tasks in Outlook
- Creation and Deletion of Notes

10.1 Introduction

In this unit, we will discuss a number of the basic procedures used in creating, editing, sending and receiving Outlook mail messages. In addition to it, we will also introduce other features essential to managing Outlook mail messages.

Microsoft Office Outlook is a desktop information management program that helps you manage e-mail, appointments, contacts and tasks, as well as track activities, open and view documents and share information.

Microsoft Outlook has many more features than are mentioned in this chapter. The best way to learn and discover these features is to experiment and search the online Help file. When you hold the

mouse pointer over an icon, a brief description of the icon appears. The same will occur on Outlook Web Access, if you are using a relatively recent version of MSIE or Netscape.

The first thing you will notice here that if you have worked with previous versions of Outlook, is the new, more colorful look. It incorporates several features designed to make Outlook easier to use such as the Navigation Pane. This feature replaces the Outlook Bar from earlier versions of Outlook and provides centralized navigation. For a full list of changes from Outlook 2000 to Outlook 2003, press <F1> and type "What is new in Outlook 2003" in the search box.

10.1.1 Getting Help

If you face some problems using Microsoft Outlook 2003, you can get help from several online sources such as:

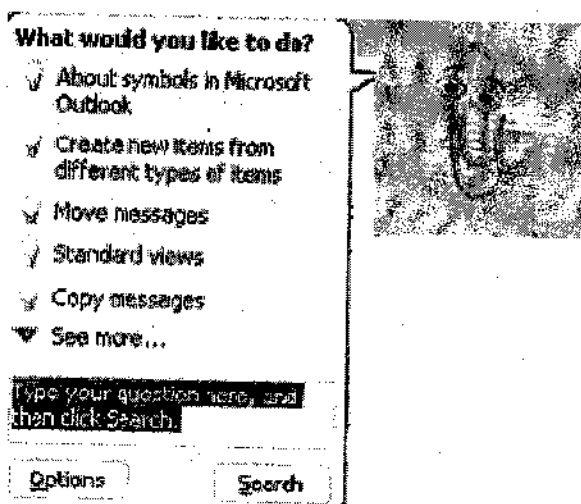
- Office Assistant
- Help Contents and Index
- Microsoft Web Site

Office Assistant

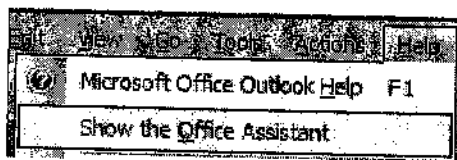
When you need to ask a question, you can ask the Office Assistant. You can also set the Office Assistant to automatically provide tips and help while you work. The Office Assistant works with all the Office Programs, and can be customised to meet your work style.

When you load Outlook first time, you may see the Office Assistant (A paper clip or assistant you choose) may appear.

You can click-on the various choices to view the material, or if you do not want to view the material now, you can click the RIGHT Mouse button on the Assistant and then click on Hide and the Assistant will be disappeared.



If you want to use the Office Assistant for help at anytime, you can click-on Help in the Menu Bar and then click-on Show the Office Assistant, which is displayed as in a figure below:



Help Contents and Index

The Office Assistant searches the Help Contents and Index of Microsoft Office Outlook. If you would like to look for information without using the Office Assistant, you must turn off the Office Assistant using following steps :

1. Make sure the Office Assistant is appearing on the screen. If it is not there, click on Help, and then click on Show the Office Assistant.
2. Click the Office Assistant. Then a help dialog box appears:
3. Click the Options button. Then the Office Assistant options appear.
4. Unmark the option to Use the Office Assistant and then click on OK button. Then the Office Assistant will be disappeared.

Now when you want to look for a general topic or browse through Help's table of contents, you can use Help Contents and Index. To access Help Contents and Index, click the Help pull down menu and click Microsoft Outlook Help.

Microsoft Web Site

Microsoft maintains a section of their web site for Outlook users. The web pages contain tips, tools, patches, and articles. You can obtain help to access the Microsoft Outlook web site :

<http://support.microsoft.com>

Note: Left mouse button

In this unit, whenever we indicate that you need to click a mouse button, it means to click the left mouse button – unless we indicate that you should click the right mouse button. So, always move the cursor over the 'place' we indicate and 'click left' unless we tell you otherwise.

10.2 EXPLORING Microsoft OUTLOOK

Launching Microsoft Outlook:

1. Click on the Start button.
2. Click on Programs.
3. Click on Microsoft Office.
4. Click on Microsoft Office Outlook. OR

You can also double-click on the Microsoft Office Outlook icon on the Windows desktop.

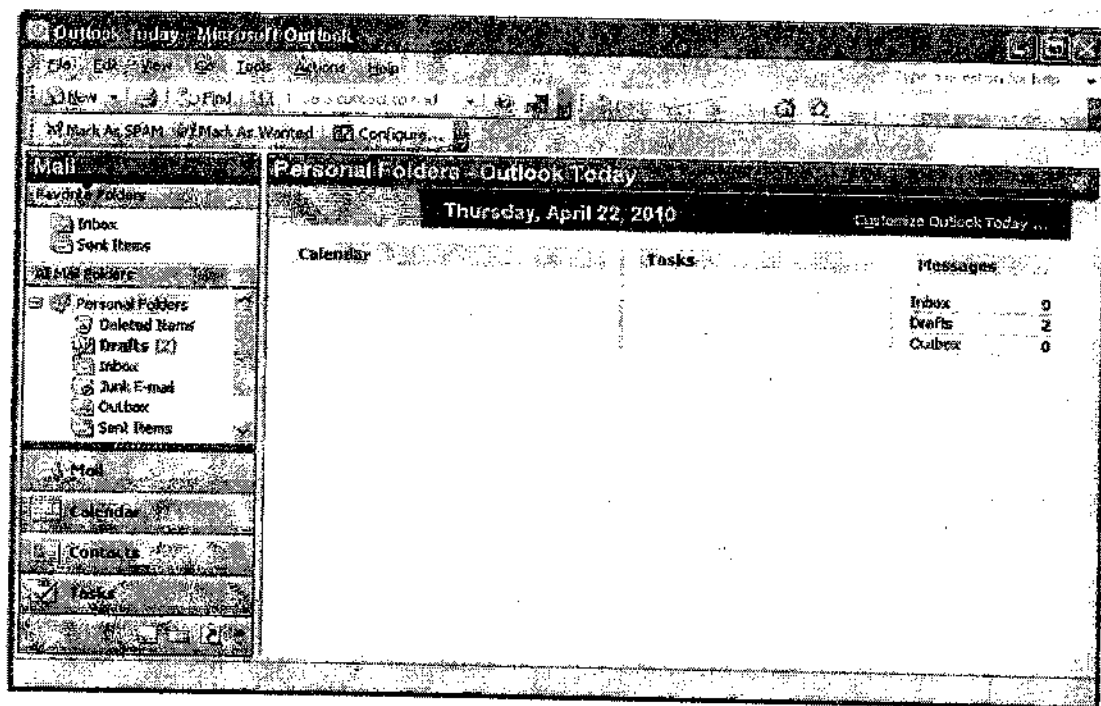


10.3 Different Features & Views in Outlook:

10.3.1 The Outlook Window

Microsoft Outlook consists of several different user interfaces that you interact with to perform various tasks. You can work with the program's default settings or you can customize them to better suit your own needs. The Outlook environment is the screens and layout use to work. You can work with the Outlook default environment or customise it to suit your needs.

All sections of Outlook contain a standard toolbar, located beneath the title bar. This toolbar contains most of your basic functions, and can be customized to contain any button combinations you setup. When you start Outlook, a screen similar to the following will be appeared, which is shown in a figure below:

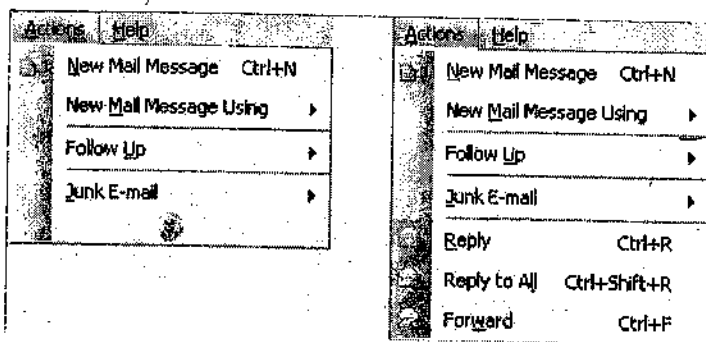


10.3.2 Drop-down Menus

Outlook offers drop-down menus that help you perform tasks. Outlook keeps track of which drop-down menu items you use and how often you use them. The most commonly used drop-down menu items are listed in the initial view of that menu. If you do not use a command for an extended time, it will be removed from that particular menu (but can be accessed via small arrows at the bottom of the drop-down menu).

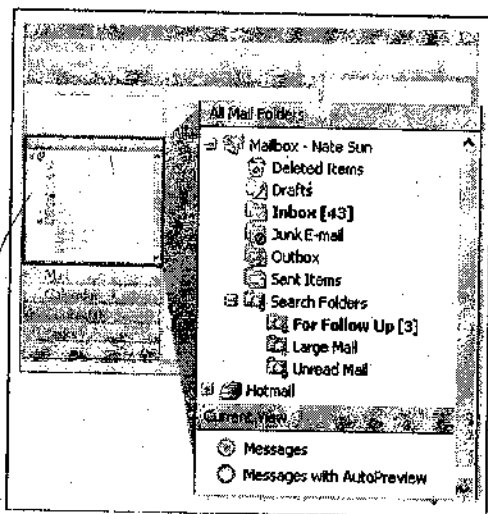
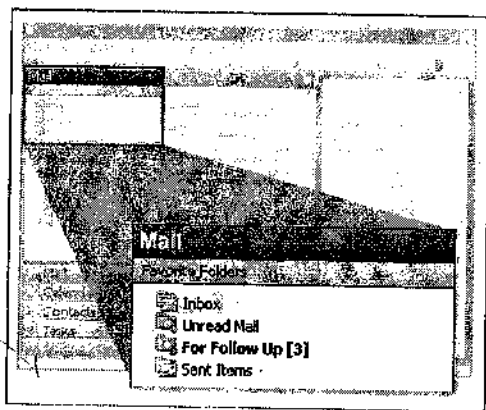
10.3.2.1 Drop-Down Menu Arrows

Arrows are used to indicate that there are more options than currently displayed. To view items missing from a drop-down menu, click the arrow or simply hold the cursor over the arrow for a few seconds and the menu will automatically expand to show all of the commands available:



10.3.3 Navigation Pane

The new Navigation Pane in Microsoft Outlook allows you easy access to your Mail, Calendar, Contacts, Tasks, Notes, Folder List and Shortcuts with large buttons that you click to open each folder. Favorite Folders and Search Folders are displayed at the top of the Navigation Pane. You can customise your shortcuts by adding groups and shortcuts to folders. Groups (for example Outlook shortcuts) hold folders, while folders (for example, Inbox) hold items like an email message. Not all of the large buttons are shown by default. You can show more or less buttons in the button tray by using the menu after clicking Configure buttons, which is shown in a figure below.



Some of the useful features of the Navigation Pane are described here :

Mailbox – ‘your name’ - Outlook Today displays a summary of tasks and appointments you have pending for today, as well as the number of unread messages in your Inbox folder.

Calendar – is where appointments and meetings are entered. You may configure an appointment to display a dialog box (a reminder) when it is almost time for your appointment. By default the Calendar is only accessible to you. However, it can be set up to allow other users to view or edit your calendar. You will learn more about the Calendars in this chapter.

Contacts – allow you to record general information about a person. The Contacts folder is stored on the Exchange Server where it can be accessed from Outlook Web Access. Here you will learn about the use of Contacts in detail.

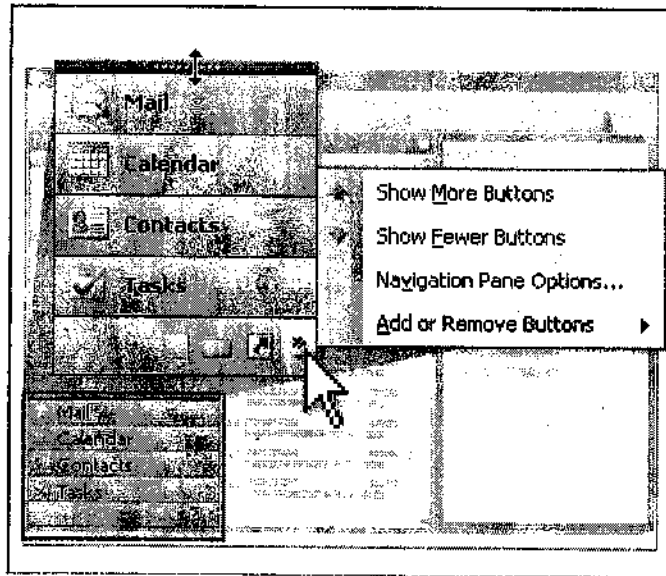
Tasks – is where you store your “To Do” list. As each task item is completed, the item is grayed out and crossed out but still appears on the list.

Notes – allow you to leave notes to yourself, ala a Post-It-Note. Most users prefer to use the Task list to send themselves notes as well as take advantage of the “reminder” feature. In this unit on you will learn these concepts in detail.

To Add or Remove a Button

If you want to add a button to the Shortcut buttons in the Navigation Pane, you just follow these steps:

1. Click the Configure button >> A shortcut menu appears. Which is shown in a figure below:



2. Click Show More Buttons to display the other buttons or click Show Fewer Buttons to remove the button. You can also click the Add or Remove Buttons option to remove or add a specific button in a list.

Add or Remove a Group from the Shortcut buttons

To remove a group from Shortcut buttons, you just use the following steps:

1. Click the Shortcut button in the Navigation Pane. A list of Shortcuts will be appeared.
2. Click Add New Group.

A New Group window appears, highlight the text to rename it.

3. To remove a group, right-click the group and choose Remove Group.
4. A prompt appears asking you if you want to remove the group, click Yes. Then the group will disappear from the Navigation Pane.

Folders on the Navigation Pane are shortcuts to folders that already exist in Outlook. For example, to add a new folder for messages to your Navigation Pane, you first need to create the folder in Outlook or My Computer. Then you should add a shortcut to that folder on your Outlook Bar.

Adding a Mail Folder to Favorite Folders

When you add a folder to Favorite Folders in the Mail pane, within the Navigation Pane, the folder stays in its original location but also adds the folder in the Favorite Folders this provides quick and easy access to the folder. Only mail folders can be added to Favorite Folders.

To add a mail folder to Favorite Folders

1. From the Mail Pane, click and drag whichever folder into the Favorite Folders.
2. The folder appears in Favorite Folders, move it to another location within Favorite folders by dragging.

Add a Shortcut to a Folder

To add a shortcut to a folder, you should use the following steps:

1. Click the shortcut button of the Navigation Pane. Click the group that will contain the new folder. The shortcuts display.
2. Right-click the group, a shortcut menu appears. Click Add New Shortcut. The Add to Navigation window appears.
3. Select a folder to add as a shortcut in your group by clicking it. Click Ok. The Shortcut appears in the Outlook Shortcuts view.

Add a Web Page Shortcut to the Navigation Pane

To add a web page shortcut to the Navigation Pane, you have to perform the following steps:

1. If the web page is not already a shortcut in your Favorites Folder, go to the web page in Internet Explore and choose Add to Favorites from the Favourites menu.
2. Open My Computer, double click Drive C:, and then open \Documents and Settings\user\Favourites, where user is your logon account name.
3. In the Navigation Pane, open the shortcut group where you want to add the new shortcut.
4. Drag the shortcut's icon from the Favorites folder or the desktop to the Navigation Pane. Drop it on the name of the shortcut group where you want it placed.
5. If you want to rename the shortcut, right-click it and choose Rename Shortcut from the Pop-up menu. You can click the new shortcut to open a web page in the Outlook Window.

Remove a Shortcut to a Folder

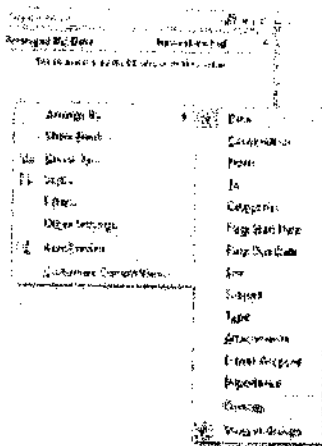
If you want to remove a shortcut to a folder, you should use the following steps:

1. Right-click the folder you want to remove. A shortcut menu appears.
2. Click Delete Shortcut.
3. Click Yes. Then the shortcut to the folder will be disappeared from the Navigation Pane.

10.3.4 Folder Pane

Generally the Folder Pane displays the contents of the opened folder. When the Inbox folder is opened, then it displays mail from that day at the top, followed by the previous days, weeks, month, and then anything else under the description older. The Inbox displays a multi-line layout showing your messages in the format with four fields (From, Subject, Date, and Icon) and are normally displayed in a vertical column.

This is the default folder when Outlook is opened. It is the folder where all incoming mail is deposited, unless otherwise redirected by mail filters. This section of the screen is also referred to as the Preview Pane. When Outlook screen appears, you will be in the Inbox where the mail you receive is located. The Inbox screen almost looks something like the image shown below :




10.3.5 Reading Pane


The Reading Pane replaces the Preview Pane in past versions of MS Outlook and will allow you to read the entire contents of an email without opening the email. With any view you can display the Reading Pane. To display the Reading Pane, go to the View menu and select Reading Pane and choose Right, Bottom or Off.


10.3.6 Toolbars


The standard Outlook toolbar of Microsoft Outlook allows quick access to many Outlook features. The folder you are viewing determines which buttons are on the toolbar. If you are viewing the Inbox, you will see the email buttons, but if you are in the Calendar, you will see the appointment buttons. The following list describes the buttons which are always present on the toolbar:


 **New** | New Item : It is used to create a new item, such as an email message or appointment.


 **Print** : It is used to Print the current item.

 **Move to Folder** : It is used to display a drop-down list of places to move the selected items.

 **Delete** : This button is used to send the selected item to the deleted Items folder.

 **Find** | Find: It is used to search for an Outlook item by keyword.


 **Organize** | Organize: This button is used to allow you to choose different options for displaying items.

 **Microsoft Outlook Help**: It is used to display the Office Assistant or Help Toolbar buttons do not automatically change with use; instead, they must be manually configured if customization is desired.

10.3.7 Outlook Today

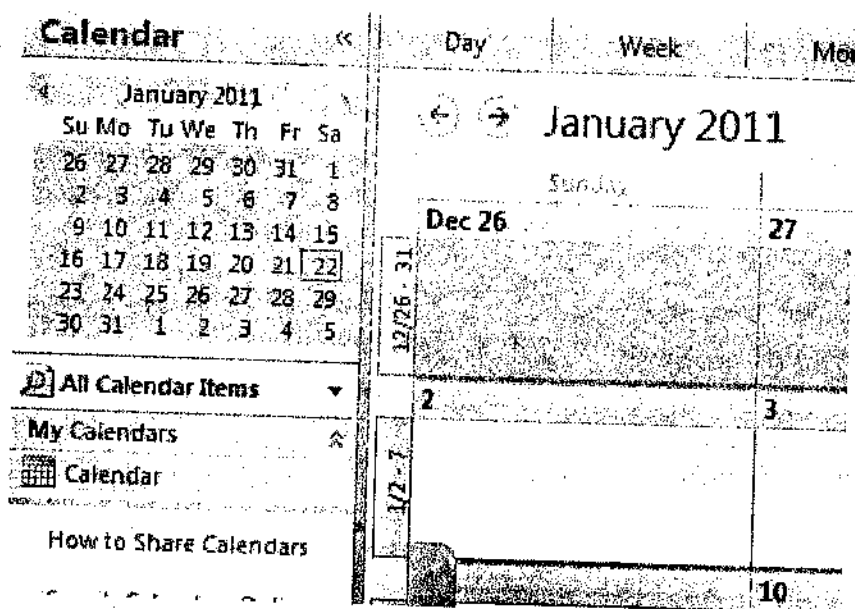
The Outlook Today page shows a preview of your appointments, a list of your tasks, and how many new email messages you have for the current day. You can also quickly find a contact by using the Find Contact box.

You can customise how Outlook Today looks and functions using these steps:

1. Click Shortcuts on the Go menu. In the Navigation Pane, click Outlook Today. The Outlook Today page appears.
2. Click the Customize Outlook Today... button . The Customize Outlook Today page appears.
3. Select the options you would like to use in Outlook Today and then click Save Changes to save your changes or Cancel to exit without saving. The Outlook Today page reappears.

10.4 Calendar in Outlook

The calendar is also an important feature of MS Outlook. The Calendar in Microsoft Outlook helps you manage your time through appointments, meetings, and events. Outlook can even remind you of upcoming items. To access your calendar, click Calendar on the Navigation Pane shortcut. The Calendar appears in the Navigation Pane, is shown in a figure below:



10.4.1 Calendar Views

As with the Inbox, you can view the Calendar in many ways. Each view, except Day/Week/Month, shows attachments, subject, start and end times, recurrence information, location, and categories. You can expand the view of the Date Navigator by placing the cursor over the line separating the Date Navigator and Expanded Calendar or between the Date Navigator and the My Calendars bar. You will get a double-sided arrow and you can now click and drag to expand the Date Navigator View. To change your view, go to the Tools menu and click Organize. A new screen section appears. Click > Using Views. In the Change your view box, select one of the following views :

Day/Week/Month– Appointments, events and meetings for one or more days or weeks or for a month. Also includes a list of tasks. This view looks like a paper calendar or planner.

Day/Week/Month with Auto Preview– with same as the Day/Week/Month view, except the first lines of the text appear in items.

Active Appointments— A list of all appointments and meetings beginning today and going into the future and details about them.

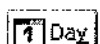
Events— A list of all events and details about them.

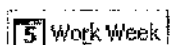
Annual Events— A list of events that happen once a year and details about them.


Recurring Appointments— A list of recurring appointments and details about them.

By Category— A list of all Calendar items grouped by category and details about them.

To change the Day/Week/Month calendar display, click one of the buttons described below:

 **Day** | Displays one day of the calendar and the Navigation Bar with Date Navigator.

 **Work Week** | Displays one work week (Mon-Fri) and the Navigation Bar with Date Navigator.

 **Week** | Displays one week of the calendar and the Navigation Bar with Date Navigator.

10.4.2 Understanding Calendar Items

You can schedule three types of activities into your calendar: appointments, meetings, and events.

10.4.2.1 Appointment

An appointment is an activity that you block time for in your calendar that does not involve inviting other people. Appointments can have reminders attached to them. You can schedule recurring appointments.

10.4.2.2 Meeting

A meeting is an appointment to which you invite other people. When you create a meeting, you identify the people to invite and pick a meeting time. Responses to your meeting request appear in your Inbox. You can also add people to an existing meeting, reschedule a meeting, or schedule a recurring meeting. To create an online meeting, such as a Net -Meeting, check, this is an Online Meeting check box on the Appointment tab of your meeting request.

10.4.2.3 Event

An event is an activity that lasts 24 hours or longer. Examples include a trade show, the olympics, a vacation, or a seminar. An annual event, such as a birthday or anniversary, occurs yearly on a specific date, while an event occurs once and can last for one day or several days. Events and annual events do not occupy blocks of time in calendar; instead, they appear in banners. An all-day appointment shows time as busy, while an event or annual event shows time as free when viewed by others.

10.4.3 Scheduling Calendar Items

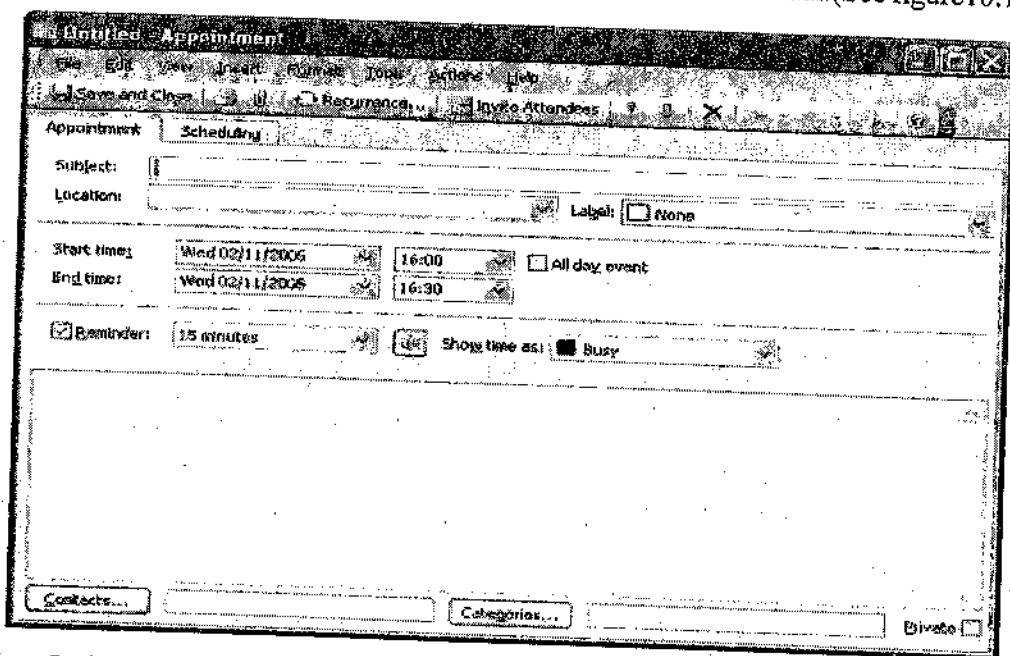
There are several ways to schedule a calendar item. If you want to create your calendar item, you should follow the instructions below:

10.4.3.1 Create (or Schedule) an Appointment

To create or schedule an appointment use the following steps:

1. Click the **New Appointment** button.
2. In the **Subject** box, type a description.
3. In the **Location** box, type the location.

4. Type **start and end times**. When you select start and end times, you can take advantage of Autodate functionality and type text such as 'next Tuesday' or 'noon' instead of typing a date or time.
5. Select other options you want.
6. Click Save and Close. Then the appointment appears on the calendar. (See figure 10.11)



7. Note: In Calendar, you can also create an appointment by selecting a block of time, right-clicking, and then clicking New Appointment on the shortcut menu.

10.4.3.2 Create (or Schedule) a Recurring Appointment

You should use the steps mentioned below to create a recurring appointment:

1. Make sure you are in the calendar.
2. From the Actions menu, click New Recurring Appointment.

OR

Double-click an empty space on the Calendar screen.

3. Type start and end times.
4. Click the recurrence pattern (Daily, Weekly, Monthly, or Yearly) at which the appointment recurs, and then select options for the recurrence pattern.
5. Click OK. A new window appears.
6. In the Subject box, type a description.
7. In the Location box, type the location.
8. Select other options you want, and type information in the open space.
9. Click Save and Close.

The appointment appears on the calendar.

10.4.3.3 Create (or Schedule) a Meeting

When you schedule a meeting, Outlook sends the people on your list an email message asking if they can come. Use the following steps:

1. Make sure you are in the Calendar.
2. Click Actions and then click Plan a Meeting.
3. To invite attendees and resources, click Add Others. Select a name from the list. If you need to invite people not listed, click New . . . to add them. For each name typed, click Required, Optional, or Resources. Click Ok.
4. Choose the start and end times for the meeting.
5. Click Make Meeting.
6. In the Subject box, type a description.
7. If you do not schedule a room, type the location in the Location box.
8. Select other options you want.
9. If the meeting is recurring, click the Actions menu and then click Recurrence. Select the recurrence pattern and range of recurrence options you want. Click Ok.
10. Click Send.

The appointment appears on the calendar and Outlook sends an email invitation to each person.

10.4.3.4 Create (or Schedule) an Event

To schedule an event :

You should use the steps mentioned below to schedule an event:

1. Make sure you are in the calendar.
2. On the Actions menu, click New All Day Event.
3. In the Subject box, type a description.
4. In the Location box, type the location.

5. Select other options you want.

6. Click Save and Close.

The event appears on your calendar.

10.4.4 Editing Calendar Items

If you want to change the item, after the creation of a calendar item. There is an easy way to change an appointment; you just do double-click the appointment in the calendar. Then the item opens for you to make changes.

Outlook allows you to drag items around the calendar. For example, to move an appointment to a new day, click the appointment in your calendar, hold down the mouse button to drag it to a new day, and release the mouse button. The appointment moves to the new day. Experiment dragging items in the calendar when you need to make changes.

10.4.5 Deleting Calendar Items

When you no longer want to keep a calendar item, you should highlight the item then click the Delete button. This moves the item to your Deleted Items folder. At this point, you could go to your deleted Items folder and recover the item.

If you would like to permanently remove the item, you must highlight the item in the deleted Items folder, and click the Delete button. Or you can remove everything in the deleted Items folder by right-clicking the folder and clicking Empty 'Deleted Items' folder.

10.4.6 Adding Holidays

You can automatically add the holidays for a particular country to the calendar. These holidays are set up as recurring events in your calendar.

To add holidays to your Calendar, you should use the following steps:

1. On the Tools menu, click Options, and then click the Calendar Options button.
2. Click Add Holidays.
3. Check the check box next to the country with the holidays you want to add to your Calendar, and click Ok. Then the holidays will be appeared on your calendar.

Self Learning Exercise

Fill in the blanks :

- (a) is the default folder when Outlook is opened.
- (b) located to the right of the Inbox, it is opened by default when Outlook opens.
- (c) is where messages from your Inbox go when you delete them.
- (d) window shows a preview of your appointments, a list of your tasks and how many new e-mail messages you have for the current day.
- (e) contains the e-mail messages you started to compose but have not yet sent.

I. State 'True'/'False' :

- (a) Microsoft Office Outlook is a desktop information manager.
- (b) An appointment is an activity that you block time for in your calendar that does not involve inviting other people.

- (c) The new navigation pane allows you easy access to your mail, calendar, contacts, tasks.
- (d) The new item tool bar creates a new item, such as an e-mail message or appointment.
- (e) Calendar is not a powerful tool for keeping track of your appointments.

10.5 Contacts in Outlook

A contact is a person or organization you correspond with. You can store information about contacts such as job titles, phone numbers, addresses, email addresses, and notes. Each contact is like a business card that you keep in a file. To access the contact list, click Contacts on the Navigation Pane.

The Contacts folder is used to create a personal address book. There are many ways to add names to your Contacts folder. We will describe three of the more popular procedures in this chapter.

The contact list works with other areas so that you can easily access it any time you need information about your contacts.

For example, you can look up names and addresses in your contact list or merge contacts with a form letter in Word.

10.5.1 Contacts Views

When you change your contacts view, from the menu bar Click>Tools and then choose Organize from the drop-down list. A new screen snapshot appears. Then click>Using Views. In the Change your view box, select one of the following views :

Address Cards – On individual cards with one mailing address and business and home phone numbers.

Detailed Address Cards – On individual cards with business and home addresses, phone numbers, and additional details.

Phone List – In a list with company name, business phone number, business fax number, and home phone number.

By Category – In a list grouped by categories and sorted by the names the contacts are filled under within each category.

By Company – In a list grouped by company with job title, company name, department, business phone number, and business fax number.

By Location – In a list grouped by country with company name, state, country and phone numbers.

By Follow-up Flag – In a list grouped by flag. Also shows the due date for follow-up action for the flag.

10.5.2 Creation of a Contact →

When you create a contact, you type all new information or start with a copy of information from an existing contact from the same company.

10.5.2.1 Create a Contact with New Information –

To create a contact with new information, follow these steps:

1. Click Contacts on the Navigation Pane.
2. Click the New Contact button.

Then a blank contact form will be appeared, that is shown in figure below :

3. In the Full Name box, type a name for the contact.
4. Type the information you want to include for the contact. To select an email address, use the Address button.
5. Click Save and Close.

Then the outlook saves the new contact.

10.5.2.2 Create a Contact by opening and right-clicking an e-mail address

To create a contact from the same company as another contact, you should follow these steps :

1. Open the e-mail by double-clicking it.
2. Right click the name of the sender in the e-mail. A shortcut list will be appeared.
3. Choose the option Add to Outlook Contacts. A Contact listing appears for that person.
4. Type the information you want to include for the contact.
5. Click Save and Close. Then the Outlook saves the new contact.

10.5.2.3 Create a Contact from the Same Company as another Contact

To create a contact from the same company as another contact :

1. Select an existing contact from the same company as the contact you want to create.
2. From the Actions menu, click New Contact from Same Company.
3. In the Full Name box, type a name for the contact.
4. Type the information you want to include for the contact.
5. Click Save and Close. Then the Outlook saves the new contact.

10.5.2.4 Create a Distribution List

To create a list for a group of people you should perform these following steps :

1. While viewing your contacts folder, from the File menu, click New, and then click Distribution List. Then the Untitled-Distribution List window will be displayed.
2. In the Name text box, type the name for the list of people.
3. Click the Select Members button. Then the select Members window displays.
4. Select a person you would like to include in your list. Then click the members button. The person adds to the box on the right of the window.
5. Repeat step-4 until everyone you need on the list.
6. Click OK. Then the Select Members Window will be displayed.
7. Click Save and Close. Then the distribution list will be appeared in your Contacts.

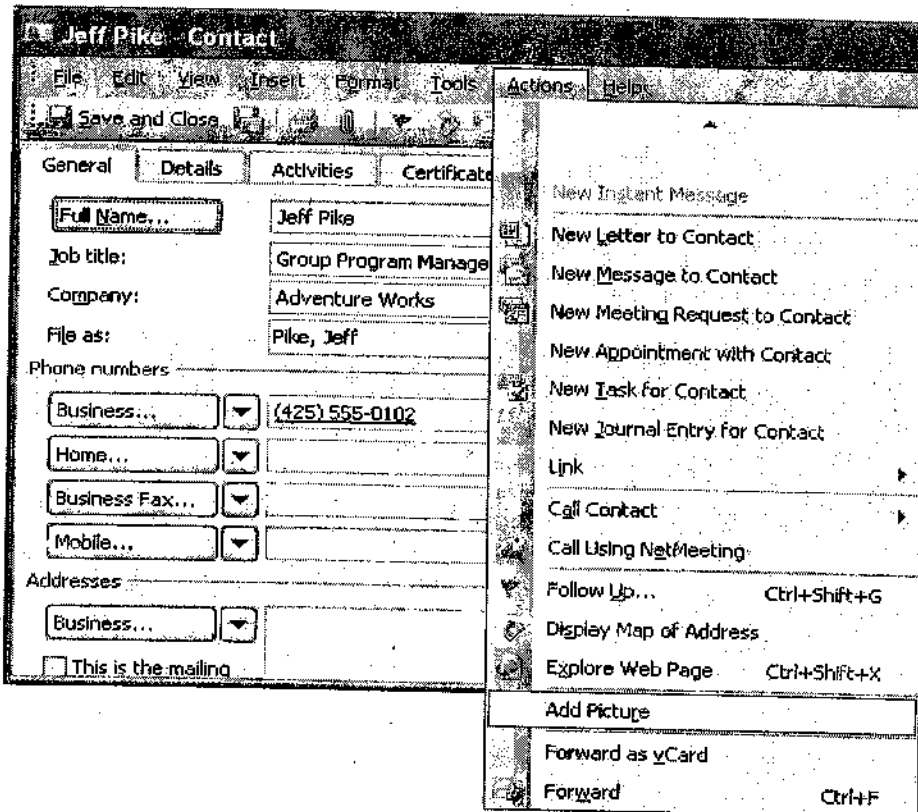
10.5.3 Deleting a List or Contact

To remove a list or contact, do the following things :

1. In your Contacts Folder, highlight the contact you wish to delete by clicking it once.
2. Click the Delete button. Then the item is removed from your Contacts Folder.

10.5.4 How to add a picture to a Contact

The pictures can also be inserted or added directly into a contact in MS Outlook, which means that users can associate a face with the name and other information in the contact. Which is referred in a figure below:

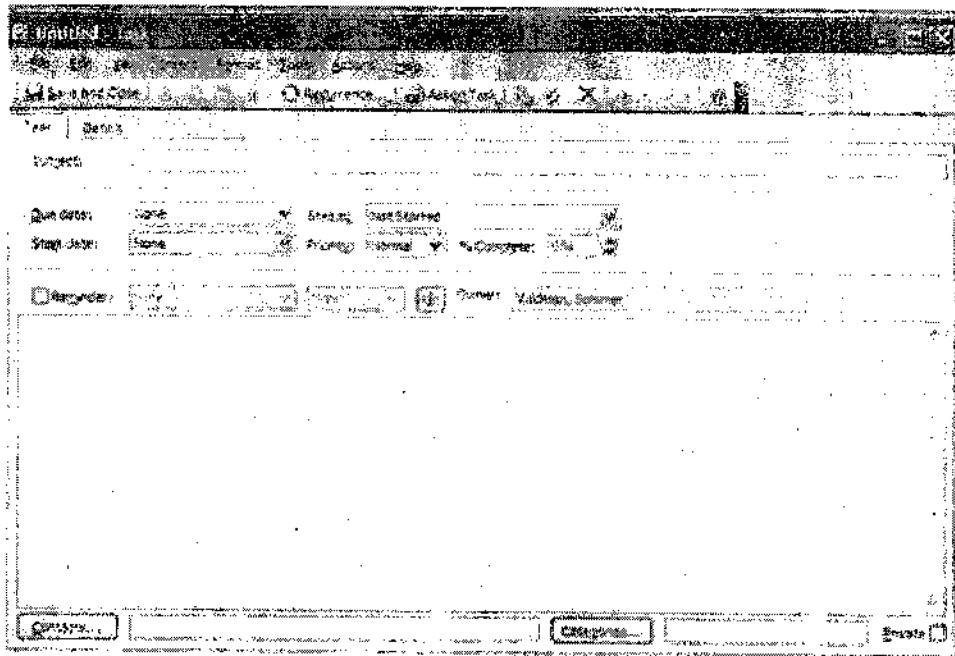


The picture can be inserted to a contact using these steps:

1. In Contacts, create or open a contact.
2. On the Actions menu, click Add Picture.

10.6 Using Tasks

We know that the Outlook Tasks helps you manage your various duties and projects. You can use it to record your tasks, set priorities, and due dates. To access your task list, click Tasks in the Navigation Pane. Task properties dialog box is displayed in a figure below :



10.6.1 Tasks Views

If you have several tasks in MS Outlook, then you want to see all of them in a special format.

To change your view, click Organize. A new screen section will be displayed.

Now, click Using Views.

So, there are many views in the change your view box, select one of the following views:

Simple List – In a list with only a few details so you can see at a glance the tasks that are complete.

Detailed List – In a list that shows many details about each task, including priority and percentage complete.

Active Tasks – In a list that shows only incomplete tasks (including ones that are overdue).

Next Seven Days – In a list that shows only the tasks that are due in the next seven days.

Overdue Tasks – In a list that shows only the tasks that are overdue.

By Category – In a list, grouped by category and sorted by due date within each category.

Assignment – In a list that shows only the tasks that have been assigned to others, sorted by task owner and due date.

By Person Responsible – In a list, grouped by task owner and sorted by due date for each task owner.

Completed Tasks – In a list that shows only the tasks which have been marked complete.

Task Timeline – Represented by icons arranged in chronological order by start date on a timeline. Tasks without start dates are arranged by due date.

10.6.2 Creating Tasks

To create a simple task, type task information into the space labelled Click here to add a new Task and press Enter key. You can also drag an appointment or message onto Tasks in the Navigation Pane to create a task. Or, you can perform the following steps :

1. Click Tasks on the Outlook Bar.
2. Click the New Task button . Then an empty task will be displayed.
3. Type a task name in the Subject box.
4. Select the options you want.
5. If the new task is recurring, click the Recurrence button .

Then a new window will be displayed. Select the options you want and click on Ok button.

6. Click Save and Close. Now the Outlook adds the new task to the task list.

10.7 Using Notes

In this section, you will learn about the Notes. Microsoft Outlook can create electronic versions of sticky notes. All notes are conveniently kept in your Notes folder.

10.7.1 Creating a Note

To create a note, use the following steps :

1. Click Notes in the Navigation Pane. Then the Notes screen will be appeared in the Reading pane.
2. Click the New Note button. Then a blank note will be appeared with your cursor waiting for information.
3. Type the information for the note. This information is saved automatically.
4. Click the Close button. Now, the Outlook will save the note in the notes folder.

You may want to keep a note open on your desktop. Double-click the note you want. Even when you close or minimize Outlook, the note will stay open until you close it.

10.7.2. Deleting a Note

To delete a note, use the following steps:

1. Notes in the Navigation Pane. Then the Notes screen will be displayed in the Reading pane.
2. Click the note you want to delete. The note is highlighted.
3. Press the Delete key. Now, the note will be removed from the Notes folder.

Self Learning Exercise

I. Fill in the blanks :

- (i) folder is a default folder that is located in the favorite folders section.
- (ii) The improved Personal Folders File (*.pst) stores up toof data by default.
- (iii) helps you manage your various duties and projects.

- (iv) is designed to help with data-file management activities such as archiving and copying between mailboxes.
- (v) allows you to create a group of addresses to which you frequently send email.

II. State 'True/'False' :

- (vi) The New Mail Desktop does not alert fades in subtly with the name, subject, and a short text preview.
- (vii) Tasks help you manage your various duties and projects.
- (viii) Attachments are not files that are sent via an e-mail message.
- (ix) Microsoft Outlook has many options for you to organize your e-mail messages.
- (x) A meeting is similar to an appointment.

10.8 Summary

In this unit we have discussed a number of the basic procedures used in creating, editing, sending and receiving Outlook mail messages. In addition to it, we have also introduced other features essential to managing Outlook mail messages. As you know that Microsoft Outlook is application software that allows users to keep track of their email, their appointments, their tasks, and notes. It is basically an electronic form of a daily planner.

The new look of Outlook helps users organize information to increase productivity and get the information they need. Outlook also helps users block the information they do not require and protect against the misuse and unwanted distribution of key company information.

Contact feature of Outlook is a powerful tool for managing and using information about people. It goes way beyond the basic address book to store just about any kind of information about a person you can imagine. What's more, it makes it easy to find and use that information in various ways. Many people find contacts to be one of Outlook's most useful tools.

Outlook's Calendar is also a powerful and flexible tool for keeping track of your appointments and other time commitments. Much more than a simple date book, the Outlook Calendar can do things such as remind you of an upcoming appointment.

Outlook provides some powerful tools for keeping track of your tasks. Although a task does not have a specific period of time associated with it (unlike an appointment), it can have a due date. By listing your tasks and optionally reminding you of when they are due, Outlook can greatly reduce the chance that you'll forget to do something important. Outlook even lets you assign tasks to other people and track their progress, a truly valuable tool for a manager or team leader.

10.9 Glossary

Menu Bar : New, Send, Reply, Reply to All, Forward, Find, Delete, etc.

Outlook Shortcut Bar : Switches to different windows in Outlook program, such as Inbox, Calendar, Contacts, Tasks, Notes, Deleted Items.

Folder List Pane : Similar to Outlook Shortcut Bar but includes Personal and Public Folders.

Preview Pane : (Optional) Displays contents of selected email message.

Unread Mail : Unread e-mail messages, regardless of their folder location, are shown in the Unread Mail search folder.

Outlook Mail : It is a tool in Microsoft Outlook that allows you to read and send email.

For Follow Up: his folder provides a virtual to-do list of all messages that have a Quick Flag applied.

Large Mail: This folder assists with mailbox cleanup by showing the largest email messages from the entire Inbox.

AutoUpdate: Microsoft is committed to providing periodic updates of the Junk E-mail Filter so that it continues to be effective.

Junk E-mail Filter: The Junk E-mail Filter feature is on by default, and the protection level is set to Low, which is designed to catch the most obvious junk e-mail messages. Any message that Junk E-mail Filter catches is moved to a special Junk E-mail folder, where users can retrieve or review it at a later time. Outlook 2003 can also be set to delete junk e-mail messages permanently.

10.10 Further Readings

- Microsoft Office 2003 for Windows; S. Sangman
- Microsoft Office 2003 Suite - A Comprehensive Approach, McGraw Hill
- Microsoft Office 2003 Bible by Edward Willet
- Mastering Microsoft Office 2003 Professional Edition by Gini Courter
- Mastering Microsoft Office 2003 for everyone - Sanjay Saxena : TMH

10.11 Answers to Self Learning Exercises

I. Fill in the blanks :

- (a) Inbox
- (b) The Reading pane
- (c) Deleted Items
- (d) The Outlook Today
- (e) The Drafts folder

II. True/False :

- (a) True
- (b) True
- (c) True
- (d) True
- (e) False

I. Fill in the blanks :

- (f) The For Follow Up
- (g) 20 GB
- (h) Tasks
- (i) The folder list
- (j) The Personal Distribution List

II. True/False :

- (f) False
- (g) True
- (h) False
- (i) True
- (j) False

10.12 Unit End Questions

1. What is an Email Client?
2. What are the different views in Outlook? Explain in brief.
3. What is a contact? How would you create a contact in Outlook?
4. What are the steps required to create an appointment?
5. Write short note on:
 - (a) Inbox
 - (b) Address Book
 - (c) Navigation pane
 - (d) Calendar
 - (e) Tasks

Shortcut Keys	
• Mail	CTRL+1
• Calendar	CTRL+2
• Contacts	CTRL+3
• Tasks	CTRL+4
• Notes	CTRL+5
• Folder List	CTRL+6
• Shortcuts	CTRL+7
• Folder	CTRL+Y

Unit 11 : E-Mail

Structure of the Unit

- 11.0 Objectives
- 11.1 Introduction
- 11.2 Word Processor as an E-mail Editor
- 11.3 Using E-mail in Outlook
 - 11.3.1 Setting-Up an E-Mail Account
- 11.4 Auto-Signature
- 11.5 Sending E-mail
 - 11.5.1 Additional e-mail Options
- 11.6 Spell Checking
- 11.7 Mail Filters
- 11.8 Message Options
 - 11.8.1 Sending Attachments
 - 11.8.2 Receiving Message
 - 11.8.3 Replying Message
 - 11.8.4 Forwarding Message
- 11.9 Flag E-mail for Follow-up
- 11.10 Personal Address Books
- 11.11 Distribution Lists
- 11.12 Creating Personal Folders
 - 11.12.1 Moving Mail to a Personal Folder
 - 11.12.2 Managing Sent E-mail
- 11.13 Deleting Unwanted Messages
- 11.14 Printing a Message
- 11.15 Out of Office Assistant
- 11.16 Summary
- 11.17 Glossary
- 11.18 Further Readings
- 11.19 Answers to Self Learning Exercises
- 11.20 Unit End Questions

11.0 Objectives

- After reading this unit you will be able to understand the following concepts:
- Word Processor as an E-mail Editor
- Setting-Up an E-Mail Account
- Personal Address Book
- AutoSignature and the Spellchecker
- Creating Personal Folders
- Sending Messages
- Receiving Messages
- Replying to a Message
- Closing to a Message
- Saving a Draft Message
- Deleting Messages
- Printing Messages

11.1 Introduction

In this unit, we will discuss one of the important features of Outlook is sending and receiving e-mail. You can easily read e-mail in many views. You can also send, forward, and reply to e-mail, the use of address book, and print your e-mail.

To access your email, you can either use the Inbox in the Navigation pane or you can use the My Shortcuts bar. The Inbox folder on both bars accesses the same information, but the My Shortcuts bar has access to other items, such as Sent Items.

This unit gives you how to work with the items, folders and data files to keep your Outlook information organized, accessible, and backed up. It tells you that Outlook has an overwhelming number of e-mail options. Fortunately, most options can be left with their default settings and changed only when you have a specific reason to do so. As you become more familiar with Outlook, you gain a better understanding of how to set options to maximize your convenience and productivity.

Outlook's e-mail features are sophisticated and comprehensive. Underneath all that power, however, are the fundamental tasks of composing, sending, and reading messages. This unit explains the basics of composing and sending e-mail messages.

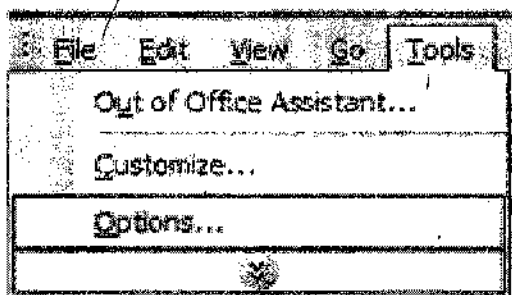
When Microsoft Outlook receives an e-mail message, it places in the Inbox folder by default, messages are sorted by the time and date they were received. You can see that the sender, the subject, the time and date received, and the message size are displayed.

Sometimes, when you send a message, you would like to be reminded to follow up on the message—for example, to make sure that you have received a reply. You can flag a message for follow up and, optionally have Outlook remind you.

11.2 Word Processor as an E-mail Editor

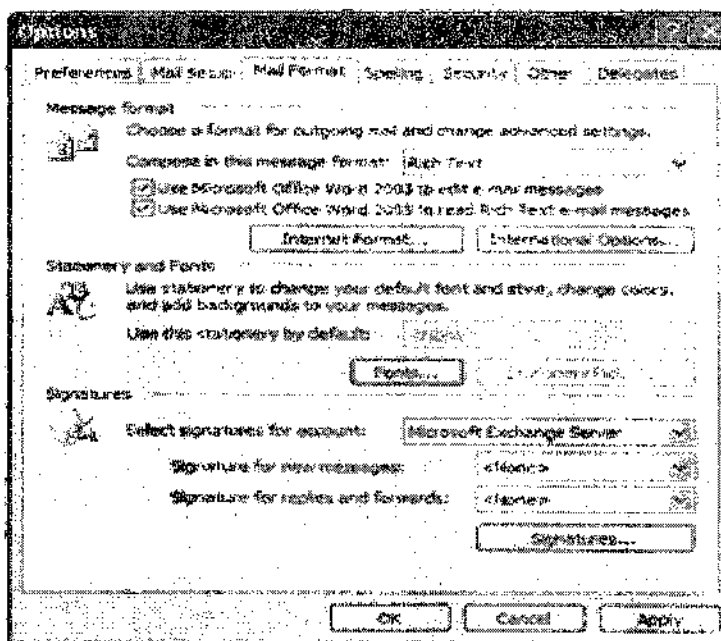
You can use Microsoft Word (also known as Word processor), if you have it installed on your computer, as your e-mail editor, if you need. To activate Microsoft Word, make sure that you are in the

Inbox, Sent Items or Deleted Items screen. Then click on the **Tools** in the Menu Bar, click on **Options** in the drop down menu that appears. Which is shown in a figure below :



Options Menu Screen

When the Options menu screen appears, click on the **Mail Format** tab, which is displayed in a figure below :



Mail Format Tab

If you are using word processor as an editor (including all word processing features), in the Options menu screen that appears, click-in the boxes to the left of use Microsoft Word to edit e-mail messages and use Microsoft Word to read Rich Text e-mail messages.

Then click on the **Apply** button and then click on the **OK** button. The next time when you will create a new e-mail, or reply or forward an email you will see a little message appear that indicates that word processor is being loaded as your editor. At the top of the screen you will see additional, new toolbars for using word processor. When you are typing your e-mail message you will have all of the power that is inherent in Microsoft Word 2003.

11.3 Using E-mail in Outlook

Before you can send and receive e-mail messages using Microsoft Outlook, *you must set up at least one e-mail account, providing Outlook with the information, it needs to connect to your online e-mail account.*

Therefore, you can compose, send and receive messages from there. Microsoft Outlook provides a lot of tools for creating and organizing your messages, as well as options for customizing how it works with your messages. This unit will help you to learn the basics for all of those actions in Microsoft Outlook.

11.3.1 Setting-Up an E-Mail Account

When you are using the Microsoft Outlook to send and receive e-mail, you must set up an e-mail account. You can have more than one account, so, you should follow the same steps for each one. There are two ways to do this job :

First, your account must be set-up on the server or at your ISP. This is not done in Outlook. If your account is at your workplace, it will likely have been set-up by an IT person and he/she will have provided you with the required information such as your e-mail address and password. If you are setting up a home or small business account, you should do this yourself. The details depend on your ISP, so I can not provide instructions, but as part of the process you will either specify or be given your e-mail address and password.

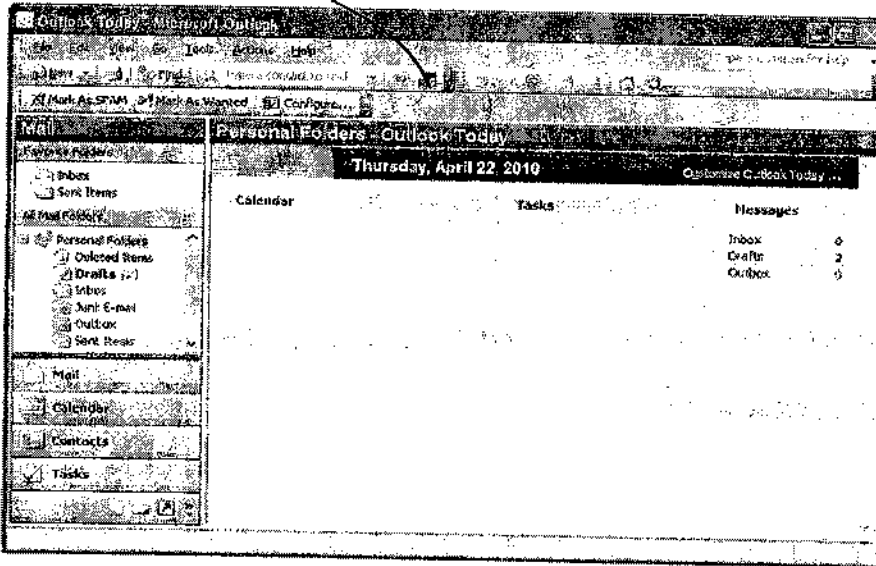
Second, you must set-up your account in Microsoft Outlook. This process provides Outlook with the information, such as your e-mail address and password, which it needs to connect to your e-mail server and send and receive messages.

The minimum information you need is your e-mail address and your password. You may also need to know the addresses for your organization's or ISP's e-mail server. The URL looks like a web page address and will be something like *mail.hosting.com*. Some mail accounts require two addresses, one for incoming mail and another for outgoing mail.

You should perform the following steps to setting-up an e-mail account --

Step-1

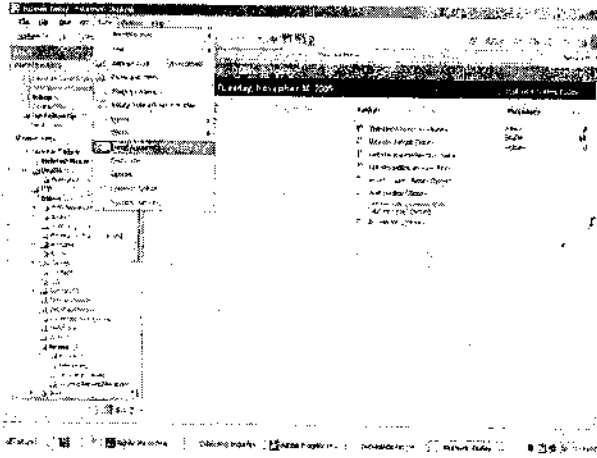
When you open Microsoft Outlook, a screen similar to the one shown below is appeared (The screen settings may differ depending on your settings).



The Outlook Window

Step-2

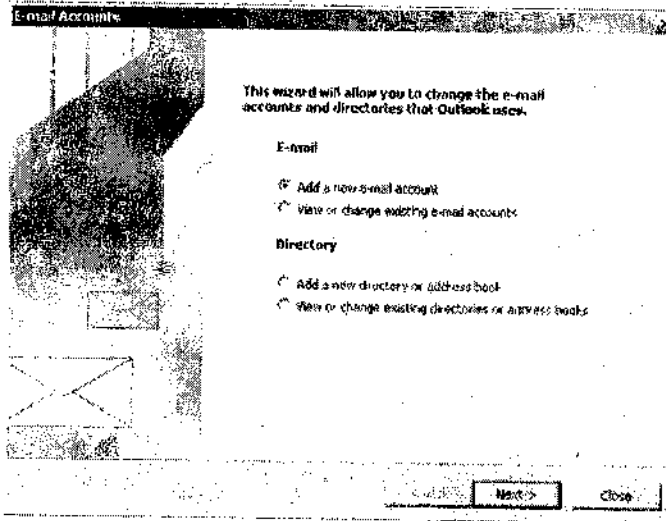
Go to the 'Tools' menu and click on "E-mail Accounts..."



Tools & E-mail Accounts Option

Step-3

When the **E-mail Accounts** window appears, Select **Add a new e-mail account** then click **Next** button.



E-mail Accounts Window

STEP-4

On the choose a **Server Type** screen select **POP3** and then click **Next** button.

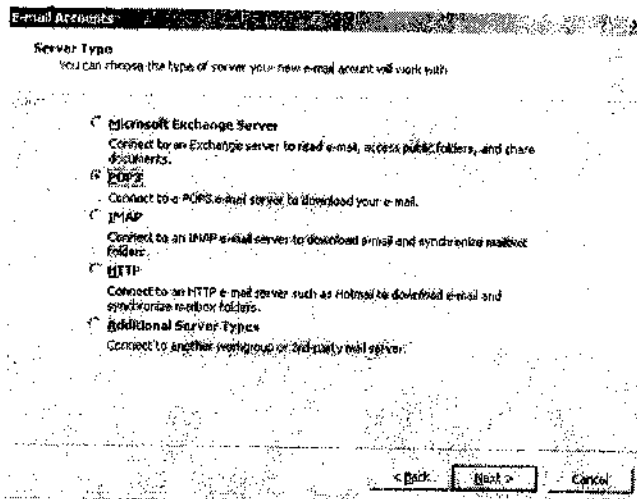


Figure 11.6: Server Type screen

Step- 5

The Internet e-mail settings window requires you to enter all your e-mail account information (you have all this information available in the welcome email sent to you during order processing)

Your Name : The name you want to appear on all e-mails you send out.

E-mail Address: The e-mail address you wish to configure. (i.e. test@yourdomain.com)

User Name : Your complete e-mail id. (i.e. test@yourdomain.com)

(Note: - You must enter your complete email id here along with your web site or domain name)

Password : Enter your email account password here.

Incoming Mail Server (POP3) : Your web site domain name or IP address. (i.e. yourdomain.com)

Outgoing Mail Server (SMTP) : Your web site domain name or IP address. (i.e. yourdomain.com)

Once you have filled out the details, please click on **More Settings.....**

Internet E-mail Setting (POP3)

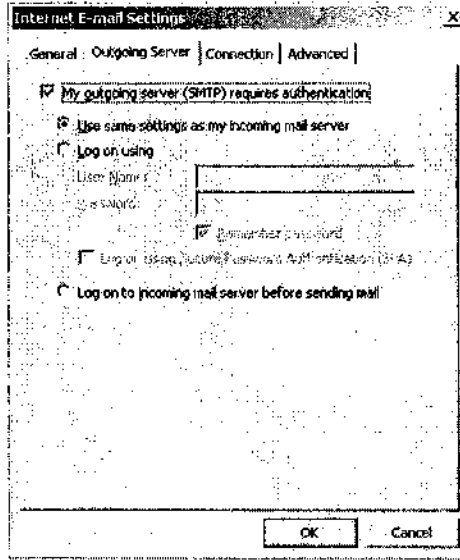
Step-6

In this window, click on the **General** Tab and type the name into first blank field which you would like to refer to this account. This name is displayed in the 'from e-mail id' field when you send an e-mail.

Internet E-mail Settings

Step-7

Now, click on the **Outgoing Server** tab and ensure that the check box 'My Outgoing Server (SMTP) requires authentication' is selected. You also need to select the option 'Use same settings as my incoming mail server'.

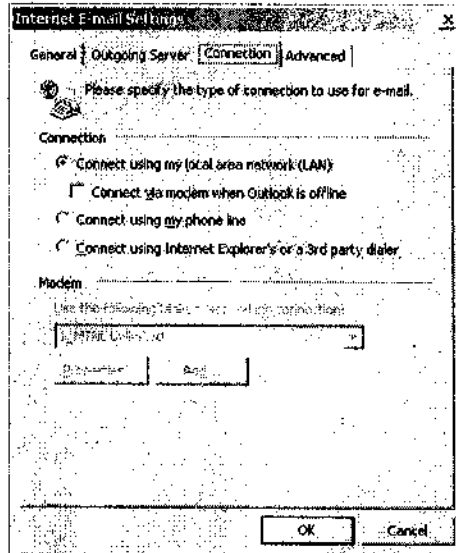


Outgoing Server tab dialog box

Then, click on the **Connection** tab.

Step-8

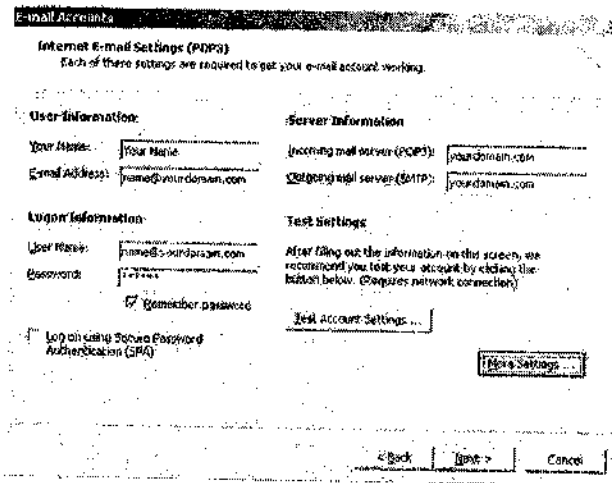
On the **Connection** tab, select the type of your Internet connection. Then Click on the **OK** button.



Connection Tab

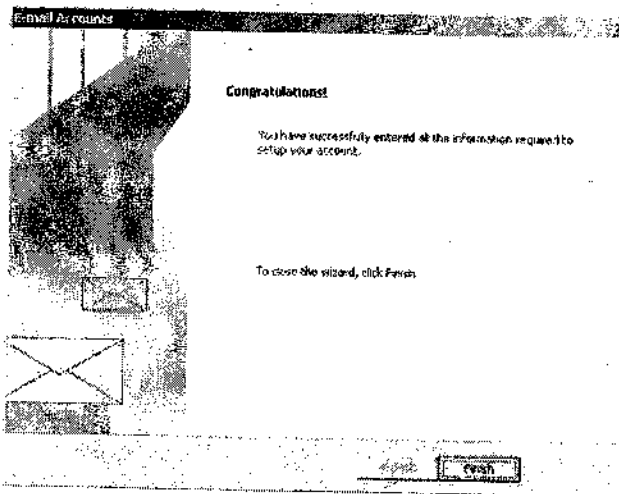
Step-9

Click on **Next** button to proceed.



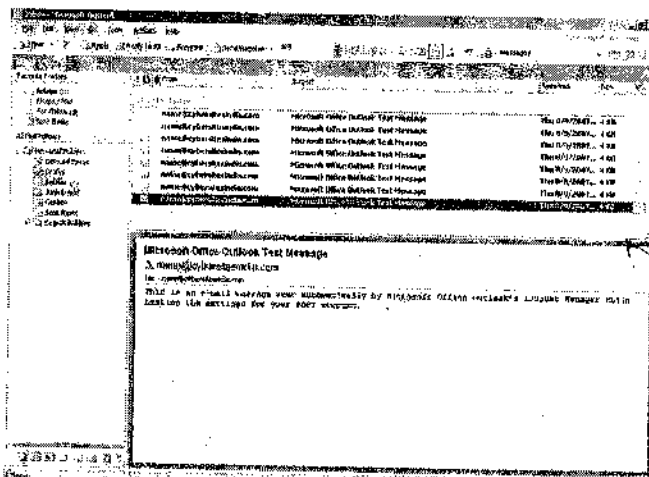
Step-10

You should end up at this window, **Congratulations!**. You have successfully configured your e-mail account under Microsoft Outlook. Finally click **Finish** button to proceed.



Finish option

Now, Microsoft Outlook 2003 has been configured to access and download e-mail onto your computer, you should now make sure you are connected to the internet and then click the send/receive button or press the **F9** key to check your e-mail. Then the following window screen is displayed :



E-mail configured window

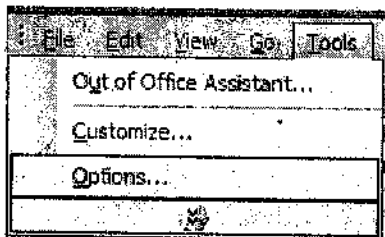
11.4 Auto-Signature

This is an important feature of Microsoft Outlook which allows you to place a **designed signature** at the end of your e-mail messages. You will need to be in one of the main areas of Outlook to create a signature (Inbox, Sent Items & Deleted Items etc.).

Generally, We can say a signature file contains text that is automatically added to the end of outgoing e-mail messages. Microsoft Outlook allows you to add a signature block to all your outgoing mail messages or to new messages only.

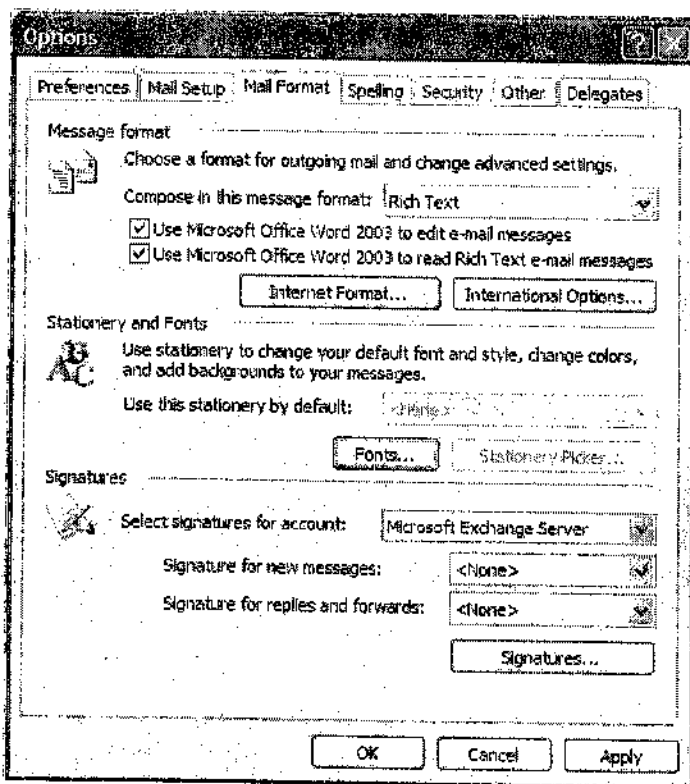
To create a signature file you should perform the following given steps:

1. Select **Tools>>Options** from the Outlook menu. When the drop down menu appears, **click on Options**.



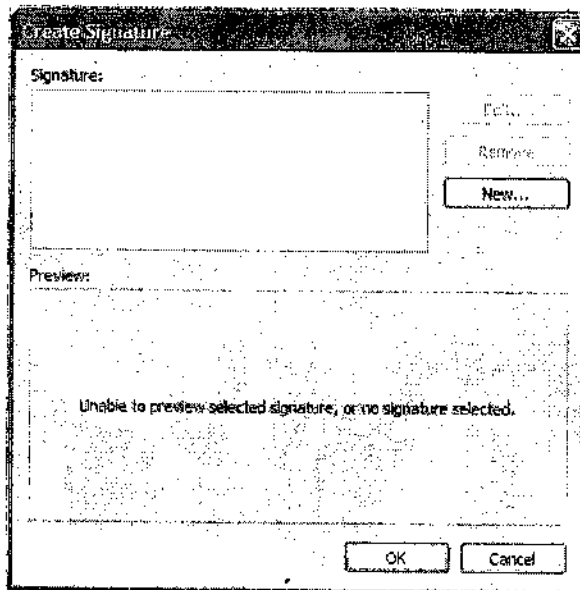
Tools Options screen

The Options menu screen is appeared, which is shown in a figure below:



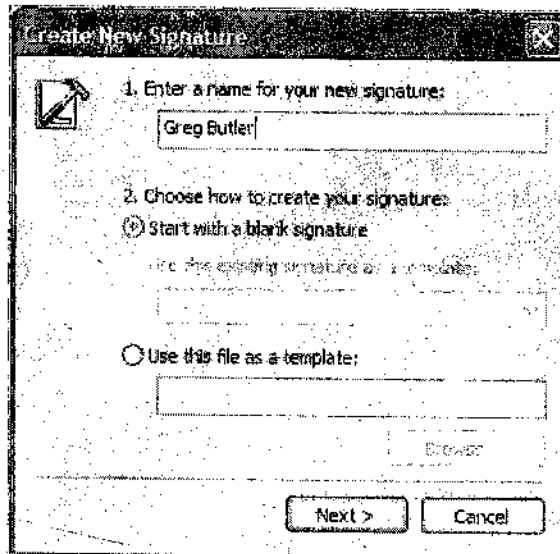
The Options menu screen

2. Click the **Mail Format** tab.
3. Now, Click the **Signatures** button and then click **New**.



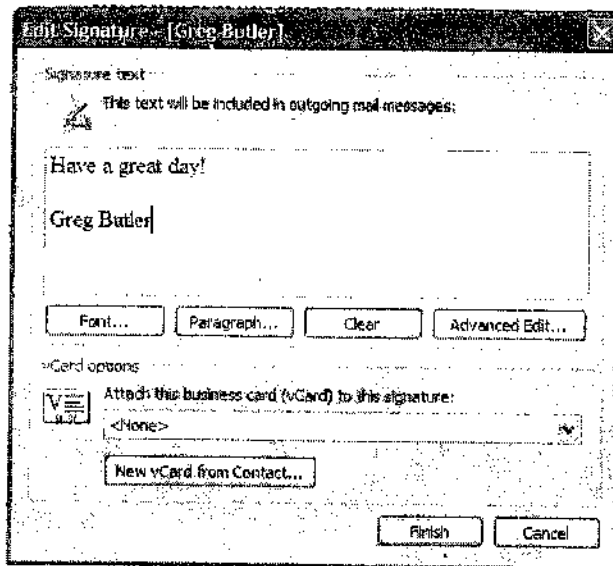
Create Signature Menu screen

4. In the Create New Signature box, type a name for your signature file, then click on the Next button.



Create New Signature Screen

5. In the **Edit Signature** box, type your name and any additional text i.e. your department and extension number as you would like it to display in outgoing e-mail messages.
6. When you have done, click **Finish** button and then click **OK**.



The Edit Signature

When you create a new message, reply to one, or forward one, you will see that your **signature** is *automatically added at the end of the message*.

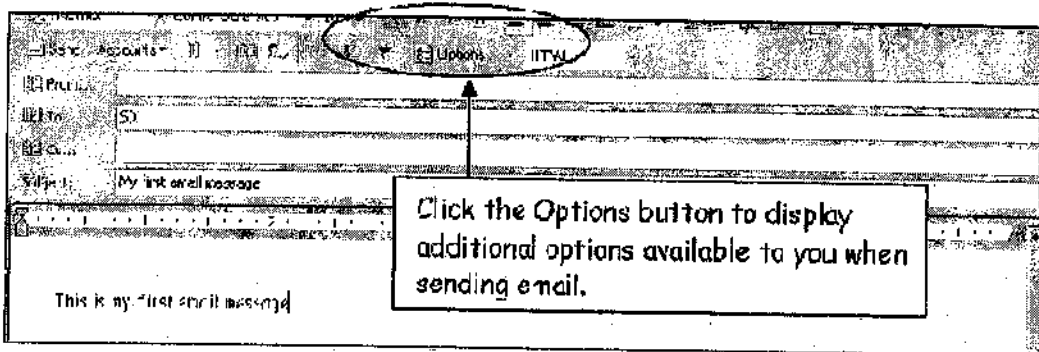
If you want to edit your signature or create a new one follow the process above, and choose the logical buttons to Edit, Remove, or Create a New signature. When you are satisfied with your signature, then Click **OK** button.

Note: Selecting Clear will erase all the text in the Signature text box.

11.5 Sending E-mail

When you are in the **Inbox**, then click **New** button on the Outlook toolbar, or select **File>>New>>Mail Message** from the Outlook menu. A blank message form will display. Complete the message form as follows:

1. Click the **To** button to display the global address list and/or your personal address book to select recipients from. Once you have selected a recipient from the Name box, click the **To** button to move the name to the Message Recipients box. Continue to select recipients in this manner. You may also select the names of individuals you want to carbon copy (cc) or blind carbon copy (bcc) at this screen. When you are done, click **OK** button.
2. Type a brief description of your e-mail message in the Subject line, then click in the large message body box and type your message. Click send when you are done.



Additional Options

11.5.1 Additional e-mail Options:

If you want to receive a notification when your email is delivered and/or read by the recipient, do this prior to sending the email:

Click the **Options** button on the message screen, and then select the desired option, then click **OK** button.

You can also alert the recipient as to the importance/sensitivity of your email by selecting the appropriate setting from the drop down lists. Then your mail will be flagged accordingly.

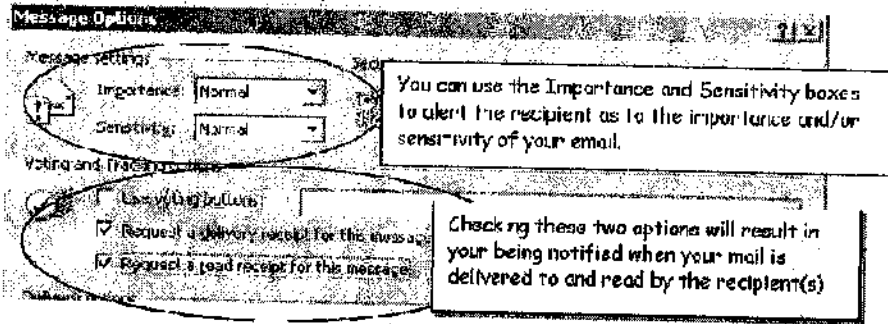


Figure 11.20: Additional Message Options

11.6 Spell Checking

The spell checking can be performed in two ways: Manually & Automatically.

To manually spell check a message, press **F7** key or select **Tools>Check Spelling**.

To automatically spell check all outgoing messages, from the Inbox Toolbar (see the figure below), select **Tools>>Options**. Select the **Spelling** tab and select **>>Always check spelling before sending**.



Inbox Toolbar

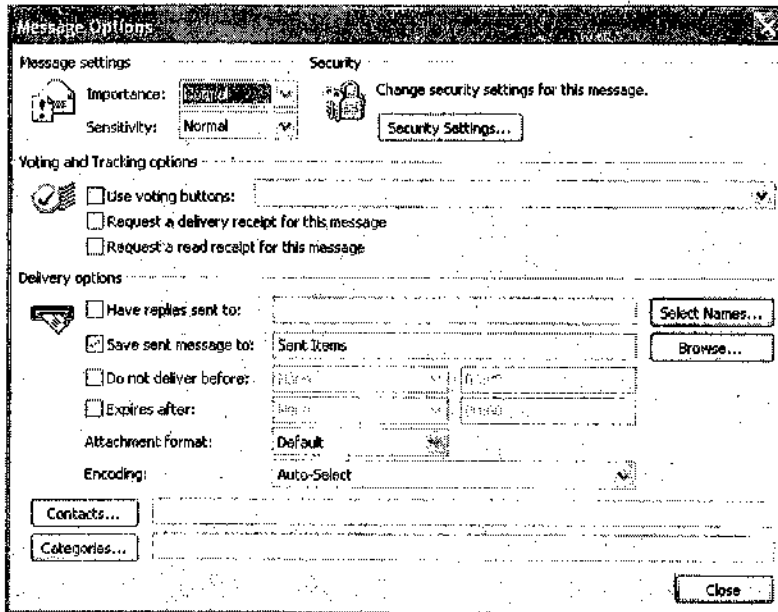
11.7 Mail Filters

Microsoft Outlook has built-in junk e-mail (aka spam) and adult junk e-mail filters. You should review suspected junk e-mail before deleting it in case you receive a legitimate e-mail with the keyword(s) the spam filter is looking for.

To change your junk e-mail settings select the **Tools>>Options** from the Inbox Toolbar. Under the **Preferences** tab select **Junk E-Mail** from the **E-mail** section. Finally, choose your level of protection and then Click **Apply**.

11.8 Message Options

If you want to receive a notification, when your e-mail is delivered and or read by the recipient(s), do this prior to sending the e-mail. Click the **Options** button on the message screen and then select the desired options and click **OK** button.

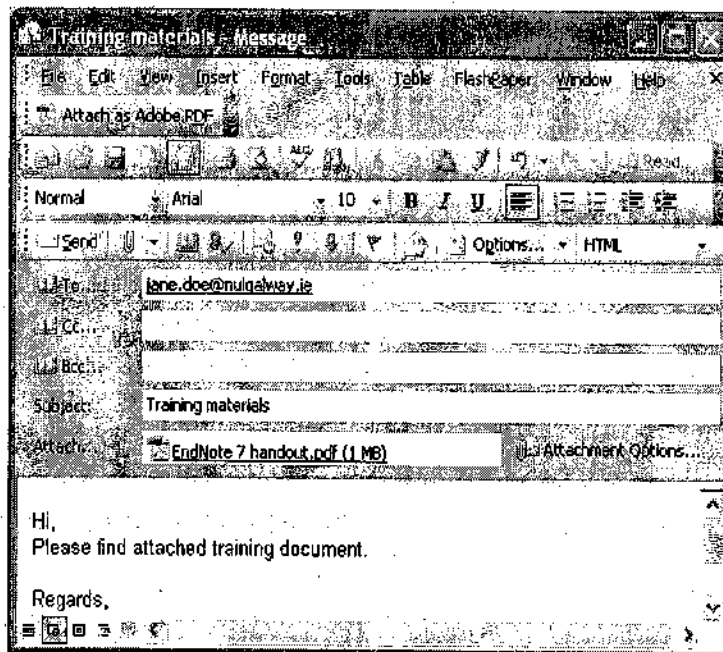


Message Options

You can alert the recipient as to the Importance of your message by selecting the appropriate setting from the drop-down lists. Your e-mail will be flagged accordingly.

11.8.1 Sending Attachments

If you want to send a file with your e-mail, click the **Insert File** button on the message screen. The **Insert File** button resembles a paper clip. **Browse** to the file you want to attach. Once you have located the file you want to send, select it and click **Insert**. The file name will display in the **Attach** field of the e-mail.



Attachment Options

11.8.2 Receiving Message

As you know that the incoming e-mails or messages are stored in the **Inbox**. In Microsoft Outlook, you do not need to refresh your mailbox to see if you have new mail – it will appear automatically. Messages or e-mails that you have not yet read are displayed in bold font. Also the e-mails or messages that you have

not yet read can be accessed through the **Unread Mail** folder. To read a message, **double-click** on the message.

11.8.3 Replying Message

If you wish to reply an open e-mail message, click the **Reply** button on the toolbar. The original sender will automatically be put in the **To :** line of the response, and you can add whatever text you want to the response before you send it.

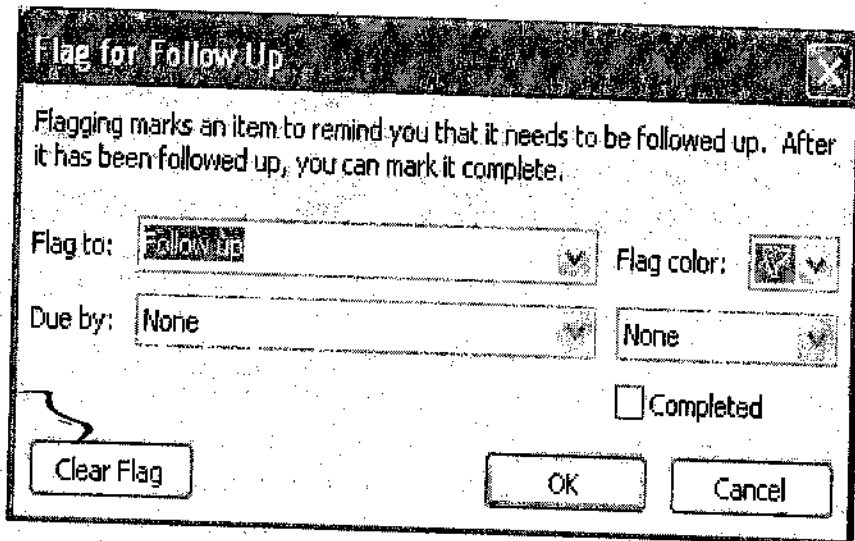
There is also a **Reply To All** button that allows you to reply to **all** recipients of the original e-mail, including those which have carbon copied and blind carbon copied.

11.8.4 Forwarding Message

If you want to forward a message or an e-mail to another individual, then you should use the click on the **Forward** button. The e-mail will be displayed in a new window and you must type or select the e-mail address of the desired recipient, type a message of your own if appropriate, and then click the **Send** button.

11.9 Flag e-mail for Follow-up

You can place a flag on e-mail as a way to remind yourself that additional action needs to be taken. To flag an e-mail for follow-up, right click the **e-mail message** in your Inbox and select **Followup**, then select the colour flag you would like to use. You can also click **Add Reminder** to enter additional follow-up options. Which is displayed in a figure below:

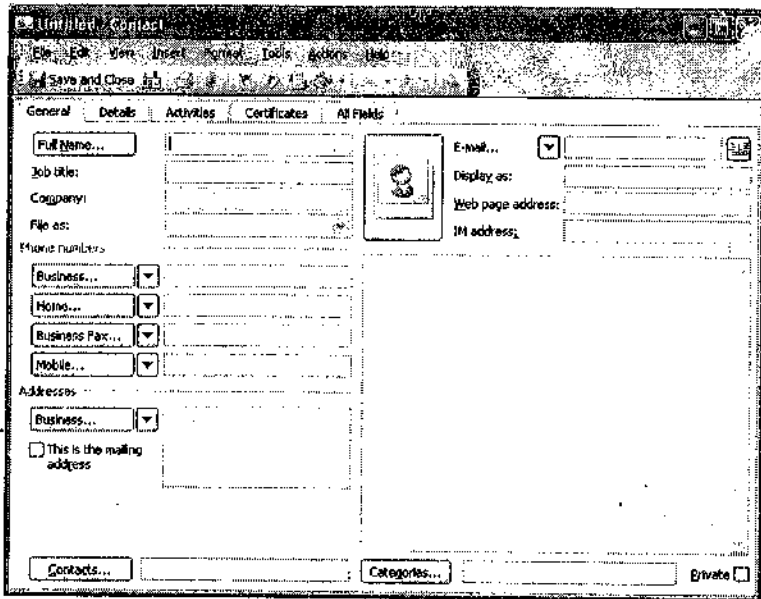


Flag for Follow up

11.10 Personal Address Books

If you want to store frequently used e-mail addresses in a Personal Address Book. The easiest way to do this is using **Contacts**. The following steps should be used. They are as follows :

1. From the Menu, select **File>>New>>Contact**. Then the Contact dialog box will be appeared :



Contact Dialog Box

2. Type the **name of the contact** and the **e-mail address** (or click the Address Book icon next to the e-mail address field to select a name from the global address list.)
3. Any other information you enter is optional. When you have done, then click **Save and Close**.
4. To select a **Contact** in a new e-mail message, click the **To** button in the message, then select **Contacts** from the Show Names in... field of the dialog box.

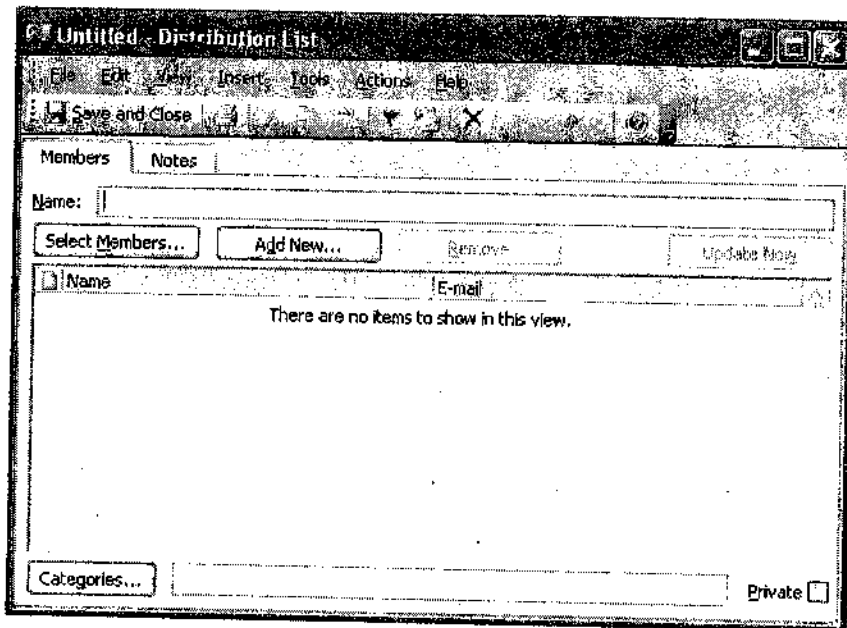
Note: If the Contact list does not display as an address book :

1. Click the **Contacts** icon at the bottom of the Navigation pane.
2. When the **Contacts** screen appears, right click **Contacts** under **My Contacts** and select **Properties**.
3. Select the Outlook Address Book tab and make sure that show. This Folder as an e-mail Address Book is checked.

11.11 Distribution Lists

Distribution lists simplify the process of sending e-mail to groups. For example, if you frequently e-mail everyone in your department, you can create a distribution list for your department.

1. With the Inbox displayed, select **File>>New>>Distribution List**.
2. Then the Distribution List dialog box will display. Now, you should type a name for the Distribution list in the Name field.
3. Click **Select Members** to select members from the Global Address List or your Personal Address Book.



Distribution list Window

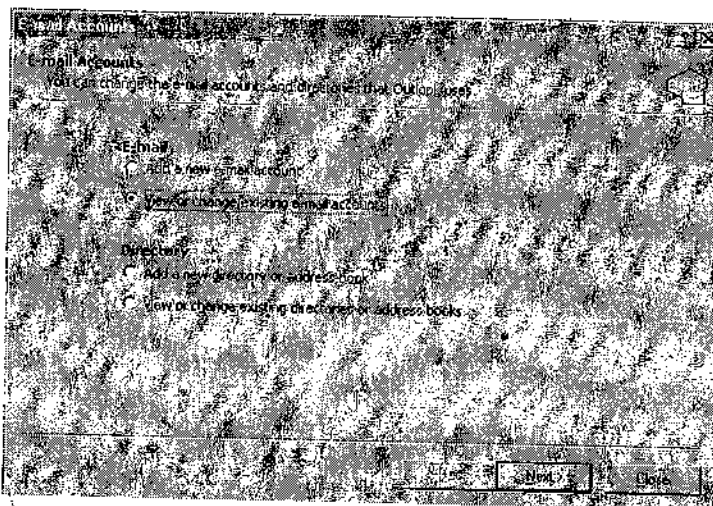
4. Once the address list displays, click on the name of an individual you wish to add to the distribution list, then click the **Members** button. To select multiple names, hold down the **Ctrl** key while selecting names.
5. If the individual is not on the global address list, you can click **Add New** in the Distribution List dialog box. Clicking **Add New** displays a dialog box in which you type the display name and e-mail address of the individual you are adding to the distribution list.
6. Click **Save and Close** when you are done.

We know that the distribution lists are stored in the Contacts folder. To use a distribution list when sending e-mail, click **To** button on the e-mail message screen, then select **Contacts** from the '**Show Names from the**' field in the Select Names dialog box.

Click on the name of your distribution list, then click **To** button, and then click **OK** button.

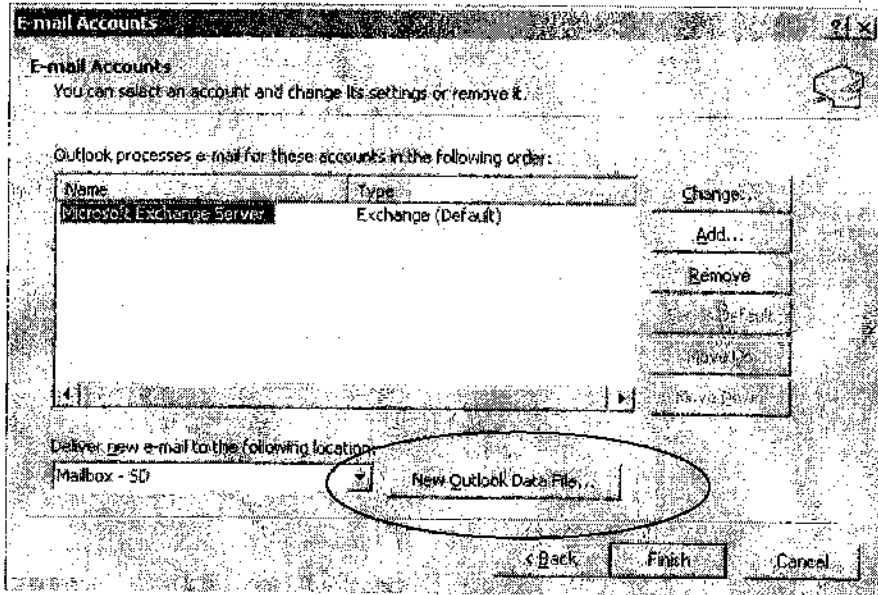
11.12 Creating Personal Folders

In the **Inbox** menu, select **Tools>>E-mail Accounts**, View or change existing e-mail accounts. Click **Next**.



E-mail Accounts Window

Now, click on **New Outlook Data File** button.



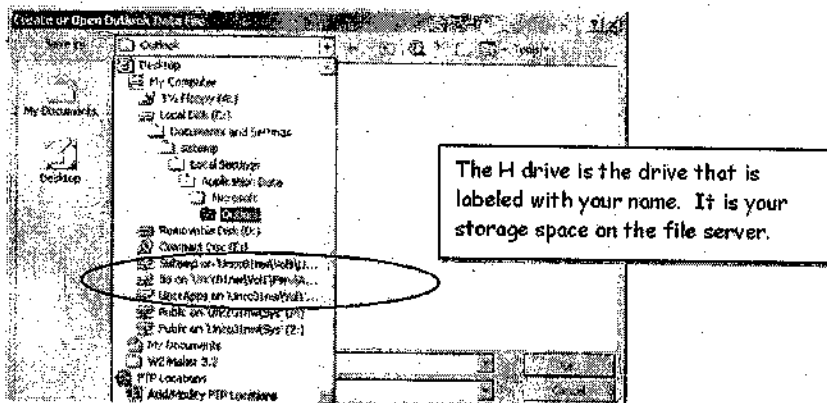
New Outlook Data File

Select either Office Outlook Personal Folders File(pst) or **Outlook 97-2002** Personal Folders File (pst) then click **OK** button.

In this next dialog box, you will select the location for your personal folders. Personal folders should be stored in **H:\Exchange** or **H:\Outlook** so that you can access them from any computer that you logon to.

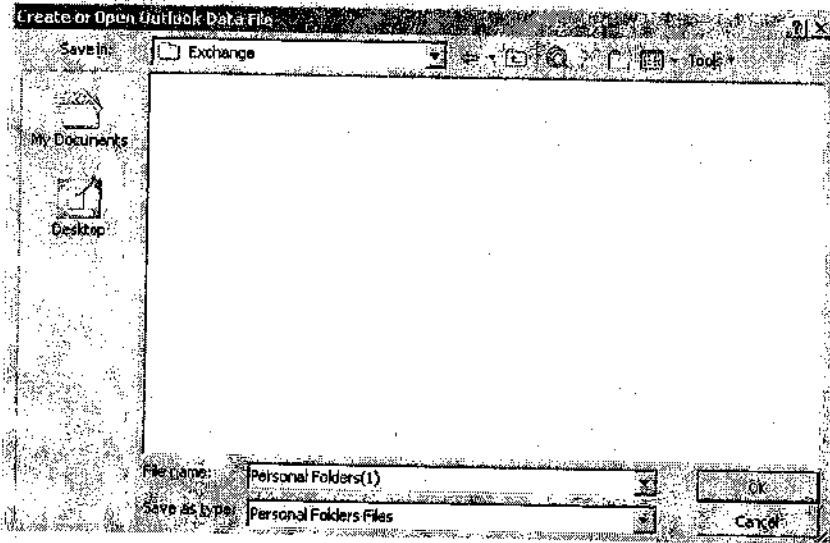
Now you should follow these instructions to complete this dialog box :

Click the triangle next to '**Outlook**' in the Save box. From the drop down list that displays, **select the H drive**.



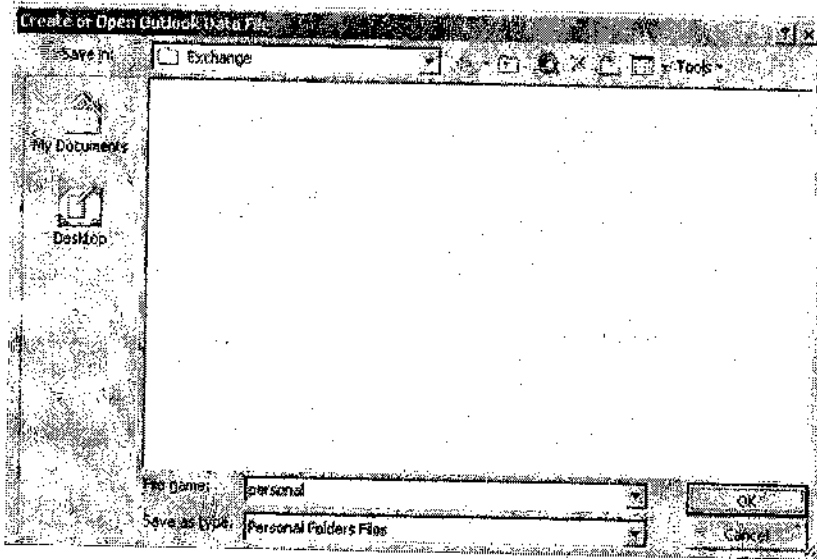
Dialog Box

Once you have already selected the **H:\drive**, double click the Exchange (or Outlook) folder to bring up the following dialog box.



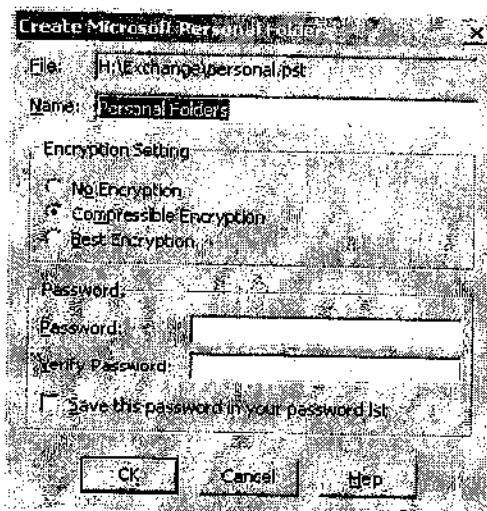
Create or open Outlook data file

In the File Name box, you should type a name for your personal folders, then click on **OK** button.



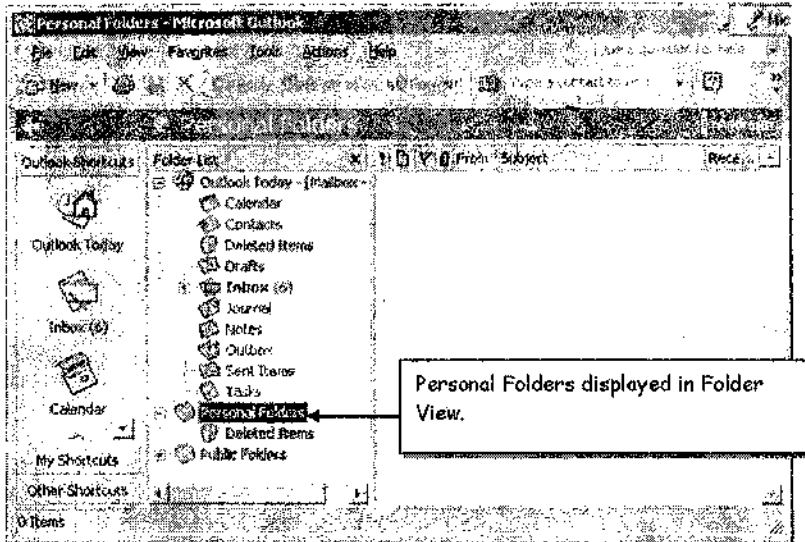
Create or Open Outlook data file

Click **OK** button at the next dialog box will be displayed.



Create Personal Folder

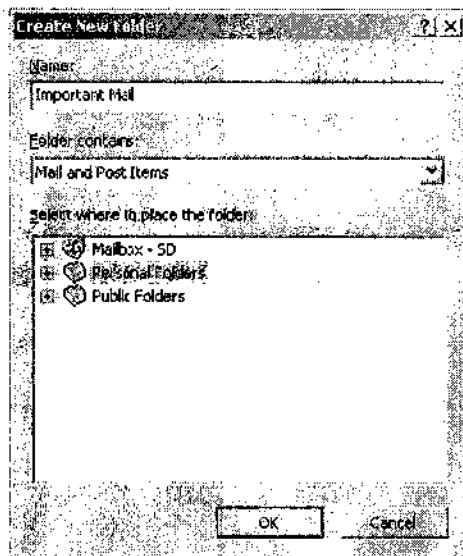
You are returned to the E-mail Accounts Screen. Click the **Finish** button. Your Personal Folders will now display in your Folder List.



Personal folder in folder view

Once you have created Personal Folders, you may create subfolders to categorize your mail. To create a subfolder, right click on '**Personal Folders**' and from the shortcut menu, select '**New Folder**'.

In the Create New Folder dialog box, name the folder. Make sure the folder contains box indicates **Mail and Post Items**, and that **Personal Folders** is selected in the 'Select Where to Place the Folder' box. Then click on **OK** button.



Create New Folder dialog box

11.12.1 Moving Mail to a Personal Folder

1. To move mail to a personal folder, select the message(s) you want to move. You may **Shift+Click** to select a group of consecutive messages, or **Ctrl+Click** to select multiple messages that are not consecutive.
2. With the message(s) selected, **right click** and select **Move to Folder** from the shortcut menu.
3. Select the appropriate personal folder from the list of folders that displays in the Move Items dialog box.

Note: You can also select the messages and drag them to the appropriate personal folder.

11.12.2 Managing Sent E-mail

Sometimes if you want to read or forward a message you have already sent. To access your Sent Items, click the **My Shortcuts bar** in the Navigation Pane.

Sent Items

The Sent Items folder contains all of the items, e-mail, appointments, meeting requests, etc., you have sent to other people. To view items you have sent, click the **Sent Items Folder**. The items list to the right in the Folder Pane.

Outbox

The Outbox folder contains all of the items that are pending, but you could not see sent yet. This feature only works when you are using Outlook in an **Offline Mode**. On campus, Outlook is configured so that all messages are sent immediately. Therefore, no messages will be listed in the Outbox.

Drafts

The Drafts folder contains the messages you started to compose but have not sent yet. To complete an unfinished message, click the **Drafts Folder**. Then open, complete and send the message.

11.13 Deleting Unwanted Messages

If you do n't want to keep the message, you can **click on the 'X' button**, in the button bar, to send the message to a 'Delete folder'.

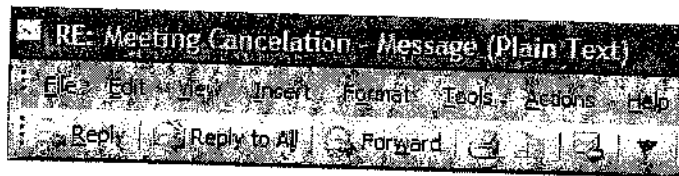
Note: This is NOT the 'X' button in the upper right corner of the screen. If you do click on the **upper right corner 'X'**, it will simply **close** the message and **return** you to the Inbox etc. When you **delete** a message in the **Inbox**, it is sent to the **Deleted Items** folder to be '**really deleted**' or **recovered** later.



Deleting Message

11.14 Printing a Message

If you need a **printed copy** of the message or e-mail you can **Click on the Printer** button in the button bar.



Printing Message

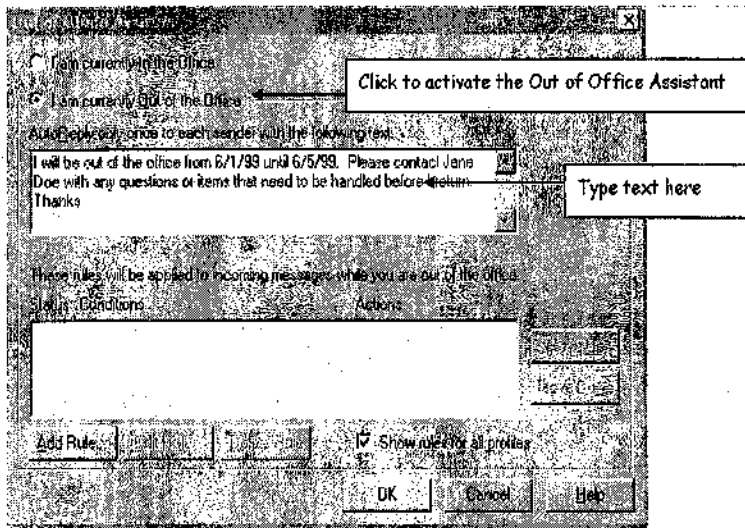
OR

You can also click on **File** in the **Menu Bar** and then click on **Print** option.

11.15 Out of Office Assistant

If you plan to be out of the Office for a day or longer, you can use the Out of Office Assistant to automatically generate replies to any email you receive, while you are gone. **In the Inbox Menu**, select

Tools>>Out of Office Assistant. Complete the dialog box and click **OK** button when you have done. Microsoft Outlook will automatically send the response you indicate for as long as **'I am currently Out of the Office'** is selected when you return to the Office, follow the above steps and click **'I am currently In the Office'** to deactivate the Out of Office Assistant.



Out of Assistant

Self Learning Exercise

Q1. Fill in the blanks

- (a) Incoming email messages are stored in the.....
- (b) contains text that is automatically added to the end of outgoing email messages.
- (c) allow you to move mail from the email server to your computer, thereby reducing the chances of exceeding your mailbox's storage capacity.
- (d) By clicking on the allows you to forward the e-mail to another individual.
- (e) simplify the process of sending e-mail to groups.

Q2. State 'True'/'False':

- (a) Email can not be grouped in a variety of ways, such as date, conversation, sender etc. (b) If you plan to be out of the office for a day or longer, you can use the Out of Office Assistant to automatically generate replies to any e-mail you receive while you are gone.
- (c) The messages that you have not yet read can not be accessed through the unread mail folder.
- (d) Attaching a file does not send a file with your email to the recipients.
- (e) The Sent Items folder contains all of the items, email, appointments, meeting requests.

Q3. What is an address book?

Q4. What grouping arrangements are available?

Q5. How can I cut down on spam and junk mail I receive?

11.16 Summary

This unit explained the fundamentals of setting up your e-mail account and sending and receiving e-mail messages. It also covered sending attachments, dealing with attachments that you receive, and using the Inbox. Outlook data consists of items such as e-mail messages, appointments, and contacts. These items are organized into folders that are, in most cases, specialized to hold a single type of item. Folders in turn are stored in a Personal Folders file that also contains your account information and other Outlook settings.

11.17 Glossary

Toolbar : allows quick access to many of the features available in Microsoft Outlook.

Mailbox icons : visually describe the status of your mail.

Information Viewer : your e-mail messages are displayed to the right inside it.

Spell checking : The spell checking is done by pressing <F7> key manually.

Signature : allows you to automatically add text to the emails you send.

Personal Address Books : are used to store e-mail addresses.

Distribution Lists : is the process of sending e-mail to groups.

Personal folders : allow you to move mail from the e-mail server to your computer.

Sent Items folder : contains all of the items, email, appointments, meeting requests.

Outbox folder : contains all of the items that are pending, but you could not see sent yet.

Drafts folder : contains the messages you started to compose but have not sent yet.

11.18 Further Readings

- Microsoft Office 2003 for Windows; S. Sangman
- Microsoft Office 2003 Suite - A Comprehensive Approach, McGraw Hill
- Microsoft Office 2003 Bible by Edward Willet
- Mastering Microsoft Office 2003 Professional Edition by Gini Courter
- Mastering Microsoft Office 2003 for everyone - Sanjay Saxena : TMH

11.19 Answers to Self Learning Exercise

1. Fill in the blanks :

- (a) Inbox
- (b) A signature file
- (c) Personal folders
- (d) Forward button
- (e) The distribution lists

2. State 'True'/'False' :

- (a) False
- (b) True

- (c) False
- (d) False
- (e) True

3. Outlook has multiple address books. The contacts list stores your own list of addresses and distribution lists that will be maintained on the server. The Global Address list contains all users and distribution lists on your Exchange server.
4. Email messages can be sorted by various categories—Date, Conversation, From, To, Size, Subject and several others.
5. Outlook has a junk mail filter that must be turned on. When you first install Outlook, you are prompted to activate the junk mail filter, but you can setup junk mail by following the instructions below:

From the **Tools** menu click on **Options** and click on Preferences tab if it is not already selected.

From the preferences tab Click on the **Junk Mail** button.

You must now just select to use Low, High, or filter all but ones you note. Starting with Low is a good idea, just to see how well initially filtering goes.

11.20 Unit End Questions

1. Explain the role of word processor as an e-mail editor in brief?
2. Write the common steps to setup an e-mail account?
3. What is the purpose of personal address book in Outlook?
4. What is an auto-signature? How would you create a signature file?
5. Expand the following terms –
 - (a) SMTP
 - (b) POP3
 - (c) ISP
 - (d) TCP/IP
 - (e) BCC and Cc

Unit 12 : Data Base Package

Structure of the Unit

- 12.0 Objective
- 12.1 Introduction
- 12.2 Understanding Databases
 - 12.2.1 Access concepts and Terms
- 12.3 Creating Database
- 12.4 Creating Tables
- 12.5 Primary Key
- 12.6 Reference Key adding
- 12.7 Editing and Viewing data
 - 12.7.1 Editing records
 - 12.7.2 Deleting records
 - 12.7.3 Adding and deleting columns
 - 12.7.4 Resizing rows and columns
 - 12.7.5 Freezing columns
 - 12.7.6 Hiding columns
 - 12.7.7 Finding data in a table
 - 12.7.8 Replace
 - 12.7.9 Check spelling and Autocorrect
 - 12.7.10 Print a Datasheet
- 12.8 Sorting and Filtering
- 12.9 Summary
- 12.10 Unit end questions
- 12.11 References

12.0 Objective

After studying this unit, you will learn -

- Introduction of Databases
- How to create Database
- How to create tables
- Primary key

- Reference key
- Editing and viewing data
- Sorting and filtering data

12.1 Introduction

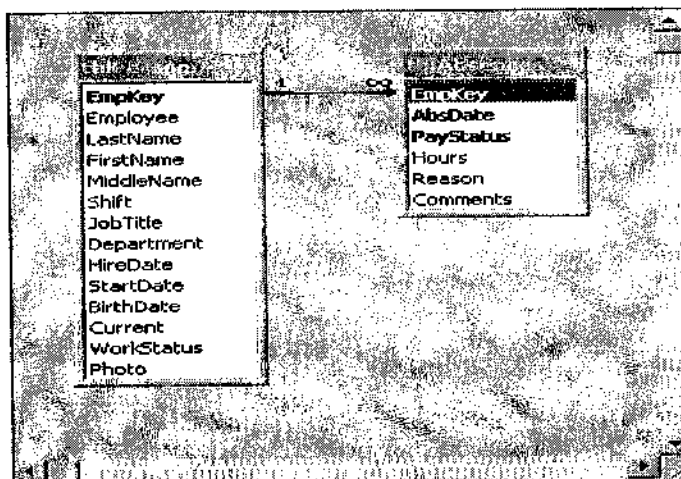
A database consists of an organized collection of data for one or more multiple uses. One way of classifying databases involves the type of content, for example: bibliographic, full-text, numeric, image. Other classification methods start from examining database models or database architectures. Other models such as the hierarchical model and the network model use a more explicit representation of relationships.

We'll take a look in this module at how this database management system can help you to collect, find and use mountains of data. You can create a database in either Access or Excel. **Microsoft Office Access**, previously known as **Microsoft Access**, is a pseudo relational database management system from Microsoft that combines the relational Microsoft Jet Database Engine with a graphical user interface and software-development tools.

We illustrate the construction process with MS-Access is that it is a widely available tool. Anybody who has Microsoft Office with MS-Word, also has Access and the programming language Visual Basic behind Access.

Access is referred to as a relational database system for two reasons:

1. Data is organized into tables which are also called relations. This is because each table has a subject (i.e. tblPersonnel for employees) and every field in a given table is supposed to be directly related to the subject of the table. If you look at the design of the Personnel table, you will see that each of the fields is a piece of information that pertains to a given employee. You also won't see more than one address for an employee or more than one job title.
2. Tables can be linked or related to each other. In the sample database, this is demonstrated by the link between tblPersonnel and tblAbsences. Since there can and likely will be more than one absence for each employee, the absence information is placed in a separate table and the two tables are linked by a number assigned to the employee. This eliminates the duplicate entry of information such as the employee name and department. This, in turn, reduces the size of the database and the possibility of data entry error and corruption.



12.2 Understanding Databases

Databases consist of software-based “containers” that are structured to collect and store information so users can retrieve, add, update or remove such information in an automatic fashion. Database programs are designed for users so that they can add or delete any information needed. The structure of a database is tabular, consisting of rows and columns of information.

MS-Access is also a good illustration of many principles that exist on other platforms too, for instance a relational database, a Graphical User Interface (GUI), event handling, and an object-oriented programming language. MS-Access contains all of these parts – cooperating reasonably smoothly.

Access is an interactive, relational database management system. A database is an organized collection of data stored in categories that are accessible in a logical or practical manner. Relational databases enable data to be stored in multiple tables linked together via data indexes. This makes working with the data faster and easier. Once entered into the database, the data may be manipulated or viewed in various ways such as by sorting or by specially set-up queries and reports.

12.2.1 Access Concepts and Terms

Microsoft has its own take on certain standard DBMS terms, and has added a few new terms to the database world. The basic features of Microsoft Access are as follows:

- a) **Database** : A database is simply a collection of useful data. A phone book is an example of database. Access databases include such “objects” as tables, queries, forms, and more. In relational databases such as Access, data is stored in tables made up of one or more fields (Access calls a column a field). The data stored in each column must be of a single data type such as Character, Number or Date. A collection of values from each column of a table is called a record or a row in the table.

Different tables can have the same column in common. This feature is used to explicitly specify a relationship between two tables. Values appearing in column A in one table are shared with another table

- b) **Tables** : Tables are the main units of data storage in a database. A table is a collection of data about a specific topic; it is made up of one or more fields.
- c) **Field** : A field is a column in a table and defines a data type for a set of values in a table. For example, a mailing list table might include fields for first name, last name, address, city, state, zip code, and telephone number.
- d) **Record** : A record in a row in a table and is a set of values defined by fields. In a mailing list table, each record would contain the data for one person as specified by the intersecting fields.
- e) **Data Type** : Data types are the properties of each field. A field only has one data type, such as Character, Number or Date.
- f) **Primary Key** : A primary key is a value that can be used to identify a unique record in a table.
- g) **Design view** : It provides the tools for creating fields in a table.
- h) **Datasheet view** : It allows you to update, edit, and delete information from a table.

12.3 Creating Database

In Microsoft Access a database consists of one single file. The file contains all the tables of the database, the relationships (the crow’s feet), queries (computed tables), forms (user windows), and many other things. As a systems developer you will design tables and user windows. As a user you will enter data into the tables (usually through user windows) and get data out of the tables, for instance through the same windows or through printed reports. In Access it is very easy to switch between the developer role and the

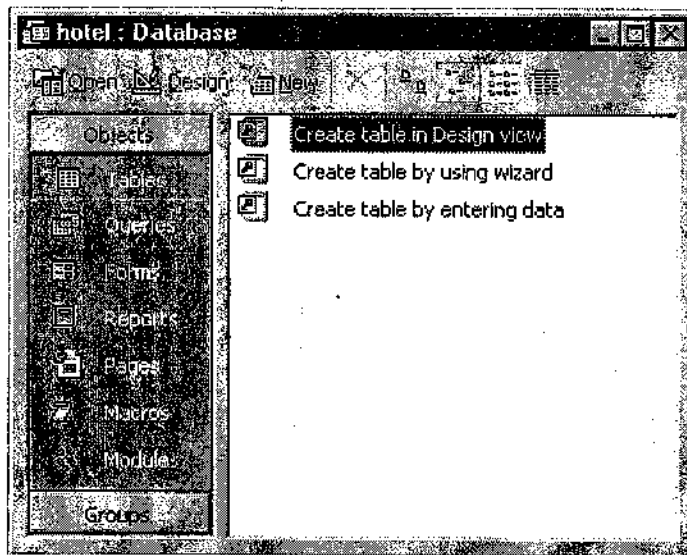
user role. As a developer you will typically design some tables, then switch to the user role to enter data into them, then switch back to the developer role to change the design, design more tables, etc. Access can to a large extent restructure the data that already is in the database so that it matches the new table design.

Create the database

1. Locate the Access program. Depending on the way the system is set up, you may find it under Programs-> Microsoft Access or Programs -> Microsoft Office -> Microsoft Access.
2. In Access 97 and 2000: Open Access and ask for a "blank" database.

In Access 2003: Open Access and click the New icon (under the File menu). Then click Blank database in the help area to the far right.

3. Access now asks where to store the new database. Select the folder you want and give the database the name hotel (or hotel.mdb).



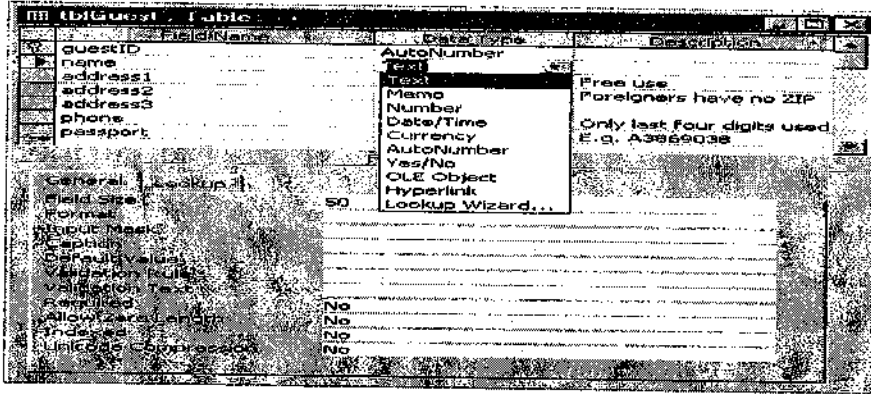
The above screen now shows the database window. We have selected the Tables tab, but there are no tables or other things in the database as yet. However, you see three icons that can create tables for you. When you have created a table, it will appear in the table window and you can then Open it and enter data into it, or you can Design it, i.e. change the definition of it. (In Access 97 the database window looks like a traditional tab form. There are no create-icons, but function buttons for the same purpose).

12.4 Creating Tables

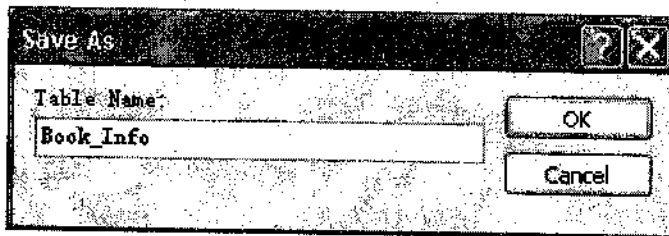
In Access, *tables* are collections of similar data. For instance, if you ran a videotape rental store, you might have an Access table that collects information about each tape you own (title, running length, date purchased and so on). You might also have a different table that collects customer's names and phone numbers, membership numbers, addresses and so on. There might be yet another table where you keep information about which customer has reserved which tape for which night, and so on. With Access, all of these tables would be organized differently, and contain mostly different information; but they'd all be in the same database file.

1. By clicking the **Table** tab on the left hand side, you will find Access provides three ways to create a table for which there are icons in the Database window.
 - **Create Table in Design view** will allow you to create the fields of the table. It allows you to define the fields in the table before adding any data to the datasheet. This is the most common way of creating a table and is explained in detail below.

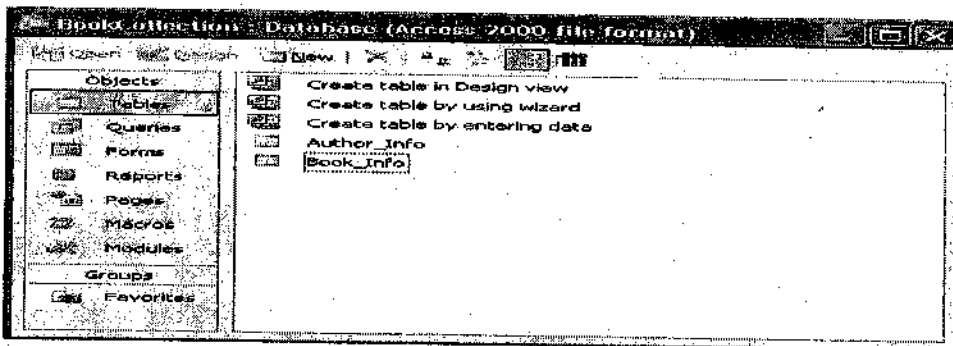
- **Create table by using wizard** will step you through the creation of a table.
 - **Create table by entering data** will give you a blank datasheet with unlabelled columns that looks much like an Excel worksheet.
2. Double clicking on Create table in Design view displays the Table Design screen where you define fields for your table. The screen is divided into two parts: a top pane for entering the field name, data type, and an option description of the field and a bottom pane for specifying field properties.



3. Every table consists of fields. For each field, specify the name of the field, the type of data, and any description needed to determine what data the field contains. Pressing the Tab key moves the cursor from one column to the next in the Table Design screen. You can select the data type from the drop-down list in the Data Type column.
4. As a final step, the table must be saved. Pull down the File Menu to choose Save. A dialogue box will pop up where the name of the new table should be specified. Access gives a default name such as "Table1" or "Table2." Simply type over this default name with the name of the table. For this example, name the table "Book_Info", then click OK.



5. At this point, the new table has been created and saved. Switch back to the Access main screen by pulling down the File menu and choosing Close. This will close the Design View for the table and display the Access main screen. Notice that the new Book_Info table appears below the Table tab.



In Access, there are number of fields in table which are used to define the characteristics of particular information

- a) **Field Names :** Field names can be up to 64 characters long, and include spaces and numbers. Simply click in the first empty field name box and type a unique , meaningful field name.
- b) **Data Types and Properties :** Access offers eight data types for its fields, and each type offers a variety of options called properties. It is important to understand what the different types and properties do; and when to make which choices. For example, although postal zip codes are numbers, you will probably not want to put them in a numeric field. Same goes for telephone numbers, social security numbers etc. You can choose a field's data type by clicking on the little arrow in the current field's Data Type column. This display a list, from which you choose an appropriate type.

Once you've chosen a fields *data type*, its *property* list is displayed in the bottom half of the dialog box. Different data types offer different properties. Properties let you specify things like the maximum length of entries, how the entries will be formatted, whether an entry is required or not, and so on.

- 1) **Text Fields :** Text is the default data type. you use the text data type when you need to store words, obviously. But it is also a good type to use for fields that will contain part numbers, Social Security numbers, or zip codes.

Text fields can be indexed, so that Access can find pieces of it quite quickly. Unfortunately, a text field can not contain more than 255 characters ; for longer text entries, you must use the memo data type.

There are ten possible Text field properties, Which are:

- **Field size**
 - **Format**
 - **Input Mask**
 - **Caption**
 - **Default value**
 - **Validation rule**
 - **Validation Text**
 - **Required**
 - **Allow Zero length**
 - **Indexed**
 - **Unicode compression**
- i) **Field Size :** The Field Size of a Text field can be anything between 1 and 255 characters. Smaller sizes save disk space, but you shouldn't make the setting too small unless disk space is at a premium.
 - ii) **Format :** The format property forces entries to appear according to the characteristics you specify. For instance, to force all text to upper case, regardless of how it is entered, you can place a >(greater than sign) in the space next to Format. Conversely, a <(less than sign) forces all text to lower case.
 - iii) **Input Mask :** Input Mask provide things like parenthesis around area codes in telephone numbers; time and date formats, etc. The Input Mask Wizard can help you to pick and experiment with

predefined masks. The wizard will launch when you click on the small button at the right edge of the Input Mask property box.

- iv) **Caption** : The Caption property lets you specify replacement text for the name of the field as it appears on screen. Captions thus have the same effect as labels. For instance, if you have a field named "Postal Code" you might want the onscreen caption or label to read "ZIP Code." Type the desired label in the space for the caption property.
 - v) **Default value**: This property lets you specify a value that will be automatically entered into the field whenever you create a new record. For instance, if you want the word "Member" to appear in the field you would type *Member* in the space for default value. Although the default entry will then appear automatically whenever a user is entering new records, the user can edit, replace, or delete it.
 - vi) **Validation rule** : This property lets you specify error checks. For instance, if an entry must be at least 12 characters long, you can create an expression here to check for this.
 - vii) **Validation Text**: You can place desired error message here, like "Oops! Part numbers are always 12 characters in length." When an entry violates rule, the error message text will appear on screen.
 - viii) **Required** : You can use this Yes/No field to tell Access if an entry is required in the field you are designing. You can change the setting here by clicking on the space next to required and then picking Yes or No from the drop-down list.
 - ix) **Allow Zero length** : We know that there is a difference between "nothing" and "I don't know". Sometimes, when entering data, users leave a field empty because there is no data for that particular field in that particular record. Other times users leave a field empty because they don't know the correct data to enter. For example, when entering data in an employee database, you might leave a particular field empty for one employee- say a field for Assigned Parking Space- either because she does not have an assigned space or because you don't know her parking space number. So the difference between "None" and "I don't know" is frequently distinguished as follows:
 - a) For "None", the user enters a zero length, or null, character by typing two double quote marks with no spaces between them("").
 - b) For "I don't know," the user simply skips the field.
 - x) **Indexed** : You can use this Yes/No field to tell Access if a field is to be indexed for speedy lookups. You can change the setting here by clicking on the space next to Indexed and then picking Yes or No from the drop-down list. You can also choose to permit or prohibit duplicate records.
 - xi) **Unicode compression** : This is a concern because Unicode employs two bytes per character, which for western character sets includes the normal ASCII value as the low order byte and zero for the high-order byte. This would make text fields twice as large as in older versions of Jet.Access, for no useful reason for many users.
- 2) **Memo Fields** : A field of the Memo data type can hold up to 64,000 characters. However, it can't be indexed, so use it only for data that will exceed 255 characters per entry. Other than maximum character counts and the fact that it does not offer an Input mask property, the Memo fields property options are identical to those of the Text field.
- 3) **Number Fields** : The number data type should be used:
- a. When you are collecting data to be used for computations.
 - b. When you want to require someone to enter only numbers.
 - c. When you want to format entries with things like decimal places and currency symbols.

Number field properties affect both the precision of numbers and their appearance.

The following fields belong to the Number field format:

- i) **Field size:** The table that follows summarizes the available Field size choices and their specifications. Some field sizes use more disk space than others, with a resulting increase in precision:

FIELD SIZE	DESCRIPTION
Double	(The default) stores numbers with 15 digits of precision.
Single	Stores numbers with 7 digits of precision.
Byte	Use 1 byte to store whole numbers from 0 to 255.
Integer	Uses 2 bytes to store whole numbers(no fraction)
Long Integer	Uses 4 bytes to store whole numbers(no fraction)

- ii) **Format :** The format property lets you choose the on-screen and printed appearance of numbers. This does not change the internal precision of the numbers, thus it does not affect things like storage and computations. There is a drop-down list that lets you see and pick the desired formats, which include commas, currency symbols, scientific notation etc.
- iii) **Decimal Places:** This property tells Access how to display numbers. For example, with the Format set to fixed, if you enter 1.123 in a field and the Decimal Place option is set to 1, Access will only display 1.1. This does not affect the precision of data or computations the way choosing a Field Size does. Leave the default Auto setting, type a number from 0 to 15, or pick a number from the available drop-down list.
- iv) **Input Mask:** This is a great setting for controlling data entry. Whenever a user moves to a field with an input mask, Access places a template inside the field to guide the user in entering the data. For a short date like the format used in tblPersonnel, the user would see something like this:

	HireDate	StartDate	BirthDate	Is
+	8/10/2004	/ /	6/1/1967	
+	8/10/2004	8/11/2004	4/8/1968	
+	8/10/2004	8/11/2004	4/8/1968	
+	8/10/2004	8/11/2004	5/17/1961	

Access also uses the input mask to create a password field where all characters entered are displayed as "*" as they're typed. As with the Format setting, you can select from pre-defined masks based on the data type or you can create your own. Form fields will inherit masks from the table fields they are based on.

NOTE: The other number properties(Caption, Default Value, Validation Text, Validation Rule, Required and Indexed) are identical to those previously described under "Text Fields."

- 4) **Date/Time Fields :** The Date/Time data type lets you enter dates and times in a variety of formats. Available Date/Time properties include many you will recognize from earlier field types :

- 1) Format
- 2) Input Mask
- 3) Caption
- 4) Default value

5) Validation rule

6) Validation Text

7) Required

8) Indexed

- 5) **Currency:** Use the currency data type when you want to store information about money. The options listed are based on the international settings found in your Windows Control Panel. Standard American currency options include General Numbers, numbers with dollar signs, etc., but you'll probably want to leave it at the default setting (which provides dollar signs, commas, and two decimal places). If you want you can create your own custom settings.

You can specify a decimal position in the Decimal places section of the field Properties list. It includes these fields:

1) Format

2) Decimal Places

3) Input Mask

4) Caption

5) Default value

6) Validation rule

7) Validation Text

8) Required

9) Indexed

To choose a specific decimal setting, either type the desired number of decimal places to replace the default setting auto, or click on the drop-down list to see the options available. The rest of the Currency field properties (Caption, Default value, etc.) work as you'd expect.

- 6) **Counter Fields:** To have Access automatically number each record as you add them, use the Counter data type. Many users define the Primary key field as a counter field.

Counter field properties include Format, Caption, and Indexed. Normally you'll leave them alone, except perhaps for the Caption property.

- 7) **Yes/No Field :** Use the Yes/No data type when you want to give users a field with only two entry choices, like Yes or No, On or Off, or True or False, or perhaps Male or Female, Paid or Unpaid- in short, any either/or value you want. You can specify a default answer (like No).

In addition, you can specify a caption for the field if you don't want to use the field name as a caption. Validation rules are possible.

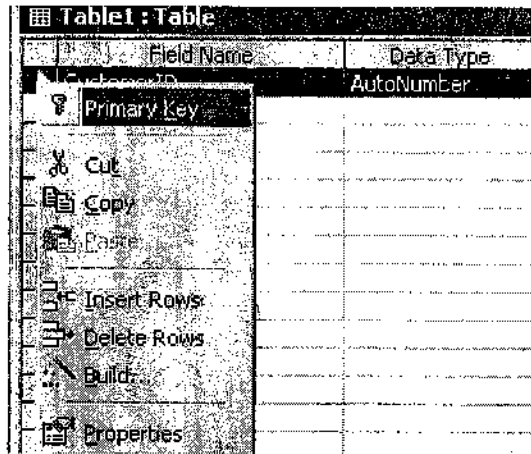
- 8) **OLE Object Field :** Finally, you can define a field as an OLE Object field. This makes it possible to round up and use OLE objects like video clips, audio clips, graphs, etc

12.5 Primary Key

Access needs a unique way to identify each record in you tables. To do this either you or Access must create what is called a *primary key*. There can only be one primary key in a table, but primary key can use multiple fields.

A Primary key field is a field that is used uniquely to identify each record. The field can be used by Access to manipulate data more efficiently. You do not have to specify a key. If you wish to use one, you can choose an existing field or, if you answer yes to the prompt for Access to create a Primary key. If you let Access automatically create the primary key for you, Access will add a Counter field that will assign a unique number to each new record that you create. If you wish, you sometimes rename this field and use it for additional purposes. Access will create an extra field containing an ID number for each case.

1. Each table in your database should have a “primary key.” A primary key is a field that uniquely identifies each record in the database. In a database of book collection, there might be two books with the same author so author is not a good primary key. However, every book has a unique “call number”, so “call number” would be a good choice for a primary key. To set the primary key for your table, highlight the key field and choose **Primary Key** from the Edit menu.



2. When the primary key is set, you should find a little key icon next to the field name on the left side. Note: To remove a primary key, simply repeat this procedure to toggle the primary key off.

Field Name	Data Type	Description
Call Number	Text	
Title	Text	
Author	Text	
Year	Date/Time	
Subject	Text	

Primary Key can be defined as:

- The Primary Key uniquely identifies a record within a table.
- The Primary Key establishes a relationship between two tables.
- The Primary Key is usually an auto-generated number.
- Example: “ContactType ID” is the primary key in the Contact Types table.

12.6 Reference Key adding

A foreign key is a field (or several fields) that refer to something unique in another table - usually the primary key. Be careful here. The foreign key and the primary key must have the same type. However, when the primary key is an AutoNumber, the foreign key must be a long integer.

Foreign Key can be defined as:

- The Foreign Key is a field from one table placed into another table.
- The Foreign Key facilitates a relationship between two tables.

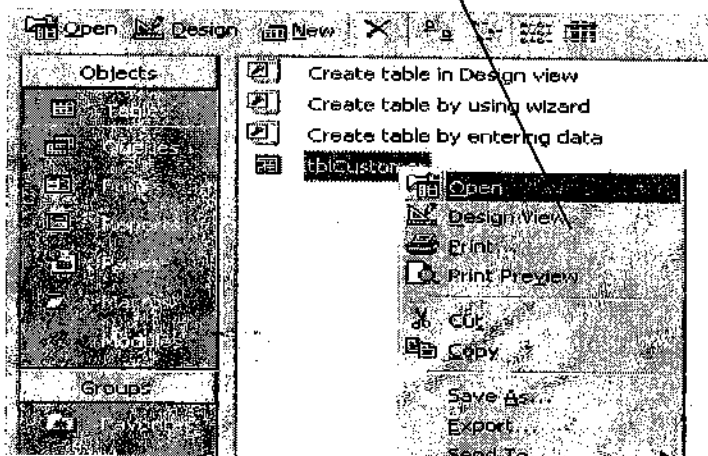
Example: "ContactType ID" is the foreign key in the Contacts table

Customer ID	Customer name	RegionCode	Contact person
1	Sam's Stock Pot	C	Sam Wong
2	Loonie Mart #107	K	Bill Williams
3	Rosch Dry Goods Inc.	K	Alice McRorie
4	Gadgets "R" Us	C	Leslie Cranfield-Jones
5	The Chef's Assistant	N	Andre Oulette
*	(AutoNumber)		

RegionCode	Region
C	Central
E	East
K	Key Accounts
N	North
S	South
W	West
*	

12.7 Editing and viewing data

You could open the table and add records in this fashion if you choose. At the database window right click the table and select 'open'



You will then see a table view or what is termed as a datasheet view of your table.

CustomerID	FirstName	LastName	Address1	Address2	Address3	Tel	Email	Web
*	(AutoNumber)							

Add new records to the table in datasheet view by typing in the record beside the asterisk (*) that marks the new record. You can also click the new record button at the bottom of the datasheet to skip to the last empty record.

12.7.1 Editing Records

To edit records, simply place the cursor in the record that is to be edited and make the necessary changes. Use the arrow keys to move through the record grid. The previous, next, first, and last record buttons at the bottom of the datasheet are helpful in maneuvering through the datasheet.

12.7.2 Deleting Records

Delete a record on a datasheet by placing the cursor in any field of the record row and select Edit>Delete Record from the menu bar or click the Delete Record button on the datasheet toolbar.

12.7.3 Adding and Deleting Columns

Although it is best to add new fields (displayed as columns in the datasheet) in design view because more options are available, they can also be quickly added in datasheet view. Highlight the column that the new column should appear to the left of by clicking its label at the top of the datasheet and select **Insert|Column** from the menu bar.

Entire columns can be deleted by placing the cursor in the column and selecting **Edit|Delete Column** from the menu bar.

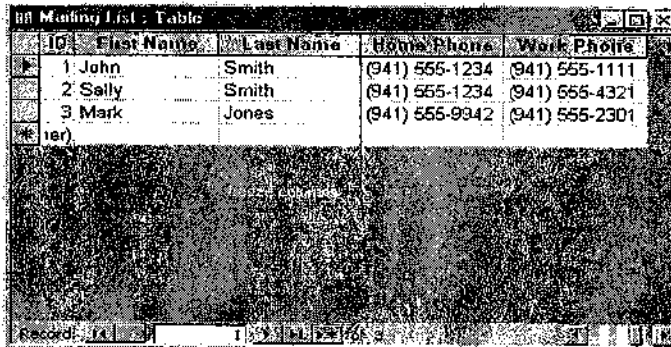
12.7.4 Resizing Rows and Columns

The height of rows on a datasheet can be changed by dragging the gray sizing line between row labels up and down with the mouse. By changing the height on one row, the height of all rows in the datasheet will be changed to the new value.

Column width can be changed in a similar way by dragging the sizing line between columns. Double click on the line to have the column automatically fit to the longest value of the column. Unlike rows, columns on a datasheet can be different widths. More exact values can be assigned by selecting **Format|Row Height** or **Format|Column Width** from the menu bar.

12.7.5 Freezing Columns

Similar to freezing panes in Excel, columns on an Access table can be frozen. This is helpful if the datasheet has many columns and relevant data would otherwise not appear on the screen at the same time. Freeze a column by placing the cursor in any record in the column and select **Format|Freeze Columns** from the menu bar. Select the same option to unfreeze a single column or select **Format|Unfreeze all Columns**.

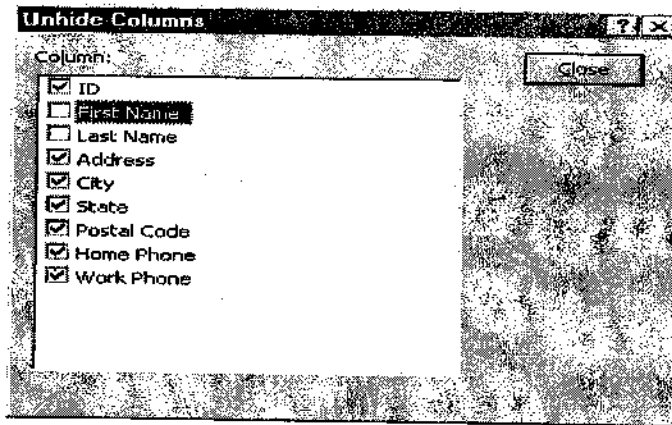


ID	First Name	Last Name	Home Phone	Work Phone
1	John	Smith	(941) 555-1234	(941) 555-1111
2	Sally	Smith	(941) 555-1234	(941) 555-4321
3	Mark	Jones	(941) 555-9342	(941) 555-2301

12.7.6 Hiding Columns

Columns can also be hidden from view on the datasheet although they will not be deleted from the database. To hide a column, place the cursor in any record in the column or highlight multiple adjacent columns by clicking and dragging the mouse along the column headers, and select **Format|Hide Columns** from the menu bar.

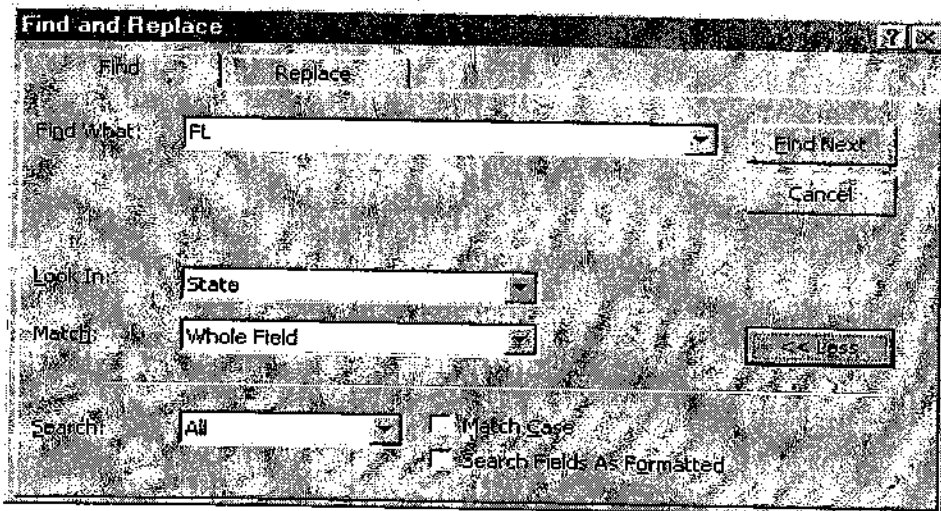
To show columns that have been hidden, select **Format|Unhide Columns** from the menu bar. A window displaying all of the fields in the table will be listed with check boxes beside each field name. Check the boxes beside all fields that should be visible on the data table and click the **Close** button.



12.7.7 Finding Data in a Table

Data in a datasheet can be quickly located by using the Find command.

- Open the table in datasheet view.
- Place the cursor in any record in the field that you want to search and select Edit|Find... from the menu bar.
- Enter the value criteria in the Find What: box.
- From the Look In: drop-down menu, define the area of the search by selecting the entire table or just the field in the table you placed your cursor in during step 2.
- Select the matching criteria from Match: to and click the More >> button for additional search parameters.
- When all of the search criteria is set, click the Find Next button. If more than one record meets the criteria, keep clicking Find Next until you reach the correct record.

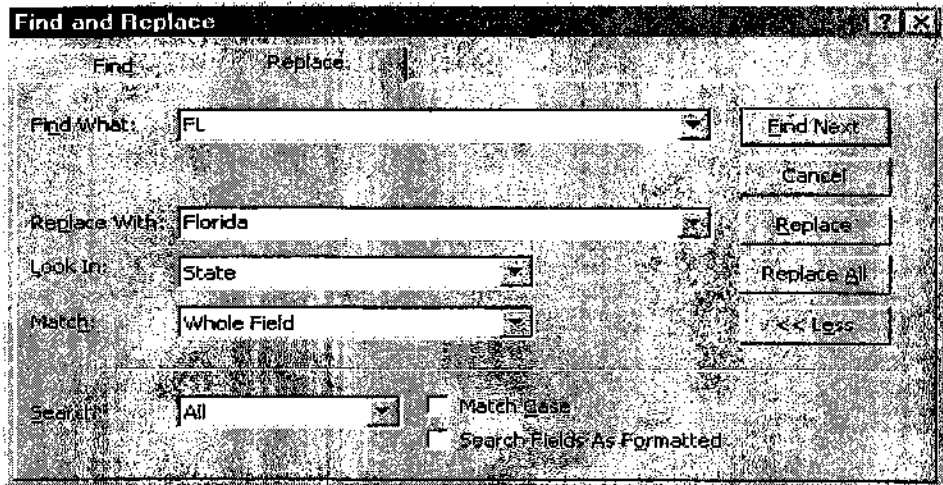


12.7.8 Replace

The replace function allows you to quickly replace a single occurrence of data with a new value or to replace all occurrences in the entire table.

- Select Edit|Replace... from the menu bar (or click the Replace tab if the Find window is already open).
- Follow the steps described in the Find procedure for searching for the data that should be replaced and type the new value of the data in the Replace With: box.

- Click the Find Next button to step through occurrences of the data in the table and click the Replace button to make single replacements. Click Replace All to change all occurrences of the data in one step.



12.7.9 Check Spelling and AutoCorrect

The spell checker can be used to flag spelling errors in text and menu fields in a datasheet. Select Tools|Spelling from the menu bar to activate the spell checker and make corrections just as you would using Word or Excel. The AutoCorrect feature can automatically correct common spelling errors such as two INITIAL CAPITALS, capitalizing the first letter of the first word of a sentence, and anything you define. Select Tools|AutoCorrect to set these features.

12.7.10 Print a Datasheet

Datasheets can be printed by clicking the Print button on the toolbar or select File|Print to set more printing options.

12.8 Sorting and Filtering

Sorting and filtering allow you to view records in a table in a different way either by reordering all of the records in the table or view only those records in a table that meet certain criteria that you specify.

Sorting

By default, Access displays the table data in the order in which it was entered. You can sort an entire table by opening it and using the Sort option from the Records menu. You can choose an ascending or descending sort. You can also use the Filter window to produce a sorted listing of filtered records by clicking on the Sort Cell in the Filter window and choosing the required sort from the drop down menu.



You may want to view the records in a table in a different order than they appear such as sorting by a date or in alphabetical order, for example. Follow these steps to execute a simple sort of records in a table based on the values of one field:

1. In table view, place the cursor in the column that you want to sort by.
2. Select Records|Sort|Sort Ascending or Records|Sort|Sort Descending from the menu bar or click the Sort Ascending or Sort Descending buttons on the toolbar.

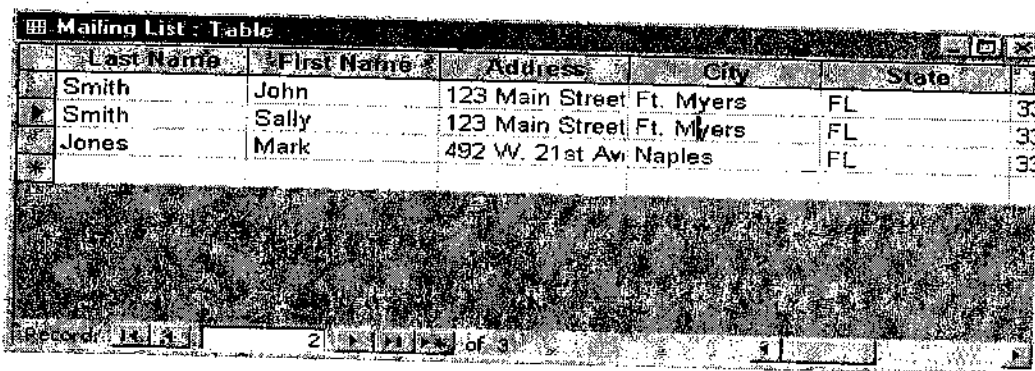
To sort by more than one column (such as sorting by date and then sorting records with the same date alphabetically), highlight the columns by clicking and dragging the mouse over the field labels and select one of the sort methods stated above.

Filtering

Using Find will only display one occurrence of a search value at a time. To find all records with a field containing a certain value, use a filter.


1) Filter by Selection

This feature will filter records that contain identical data values in a given field such as filtering out all of the records that have the value "Smith" in a name field. To Filter by Selection, place the cursor in the field that you want to filter the other records by and click the Filter by Selection button on the toolbar or select Records|Filter|Filter By Selection from the menu bar. In the example below, the cursor is placed in the City field of the second record that displays the value "Ft. Myers" so the filtered table will show only the records where the city is Ft. Myers.



Last Name	First Name	Address	City	State
Smith	John	123 Main Street	Ft. Myers	FL
Smith	Sally	123 Main Street	Ft. Myers	FL
Jones	Mark	492 W. 21st Av	Naples	FL

2) Filter by Form

If the table is large, it may be difficult to find the record that contains the value you would like to filter by so using Filter by Form may be advantageous instead. This method creates a blank version of the table with drop-down menus for each field that each contain the values found in the records of that field. Under the default Look for tab of the Filter by Form window, click in the field to enter the filter criteria. To specify an alternate criteria if records may contain one of two specified values, click the Or tab at the bottom of the window and select another criteria from the drop-down menu. More Or tabs will appear after one criteria is set to allow you to add more alternate criteria for the filter. After you have selected all of the criteria you want to filter, click the Apply Filter button  on the toolbar.



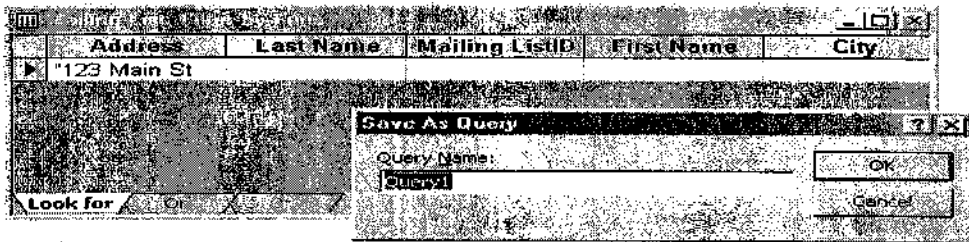
Address	Last Name	Mailing ListID	First Name	City
123 Main St				

The following methods can be used to select records based on the record selected by that do not have exactly the same value. Type these formats into the field where the drop-down menu appears instead of selecting an absolute value.

Filter by Form	
Format	Explanation
Like "*Street"	Selects all records that end with "Street"
<="G"	Selects all records that begin with the letters A through G
>1/1/00	Selects all dates since 1/1/00
<> 0	Selects all records not equal to zero

3) Saving A Filter

The filtered contents of a table can be saved as a query by selecting File|Save As Query from the menu bar. Enter a name for the query and click OK. The query is now saved within the database.

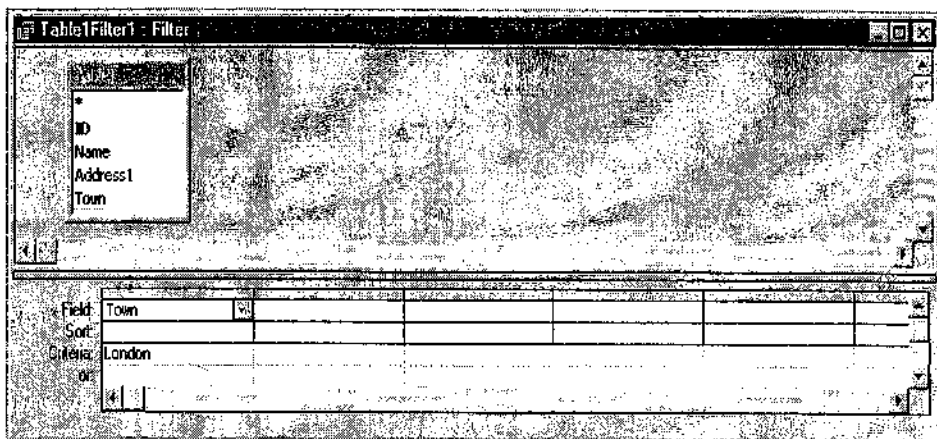


4) Remove a Filter

To view all records in a table again, click the depressed Apply Filter toggle button on the toolbar. To perform several filters and sort functions at the same time use the advanced filter option:

- Open the table from the database window.
- Choose Advanced Filter/Sort from the Filter option in the Records menu. This will open a Filter window in which you can define the records you want to see.
- Click on the required field listed in the upper part of the window and drag it down to the first Field cell in the lower part of the Filter window. Or double click on it to copy it automatically.
- Specify search criteria by typing the required value in the first Criteria cell.
- To apply the filter, choose Apply Filter/Sort from the Filter menu. The required records will be displayed in a datasheet view.

For example, if you wanted to see all the records of people from an address database living in London and there was a field in the table called Town, place the Town field in the Field cell then type 'London' in the criteria cell. The Filter window would like this:



Remember that you can specify any number of fields using this method.

12.9 Summary

This process of organizing data in Access or any other type of database is called data normalization. A normalized database follows a set of rules known as Normal Forms. While I've provided a practical example of this process, Microsoft's support site also offers a couple of very good articles which detail the rules of normalization and provide more examples.

12.10 Unit End Questions

1. Define the use of Relational database. Also explain the role of MS ACCESS in Microsoft windows 2000.
2. What are the advantages of MS Access Database.
3. How to create a Database in MS Access?
4. What is the procedure to create a table in MS Access.
5. What is the difference between Primary and Foreign Key. Explain with suitable example.
6. How does Sorting method work in Databases? Explain with an application.
7. What does Filtering mean? And how it can be implemented on databases?
8. Define the functions of different data types for different Fields.
9. How to edit data in existing Databases ?
10. What is the difference between MS Excel and MS Access in Microsoft Windows.

12.11 REFERENCES

1. <http://www.fgcu.edu/support/office2000/access/filtersort.html>
2. http://www.katsueydesignworks.com/tutorials_databases.htm
3. <http://cisnet.baruch.cuny.edu/holowczak/classes/2200/access/accessall.html>
4. [http://msdn.microsoft.com/en-us/library/aa662945\(office.11\).aspx](http://msdn.microsoft.com/en-us/library/aa662945(office.11).aspx)
5. <http://www.oneil.com.au/pc/access/UsingMicrosoftAccess4-FormsReports.pdf>

Unit 13 : Query in Data Base Package

Structure of the Unit

- 13.0 Objective
- 13.1 Introduction
- 13.2 Understanding Query
 - 13.2.1 Design view
 - 13.2.2 Create a Query
 - 13.2.3 Entering criteria
 - 13.2.4 Sorting data in a Query
- 13.3 Join Query
- 13.4 Relationship
- 13.5 Query
 - 13.5.1 Select Query
 - 13.5.2 Action Queries
 - 13.5.2.1 Update Query
 - 13.5.2.2 Delete Query
 - 13.5.2.3 Append Query
 - 13.5.2.4 Make table Query
- 13.6 Crosstab Query
- 13.7 SQL view of queries
- 13.8 Summary
- 13.9 Unit End questions
- 13.10 References

13.0 Objective

After studying this unit, you will learn-

- Introduction of Query
- How to create Query
- Use of Join query
- Relationship Query
- Function of Action Query

- Use of Crosstab query
- Sql view of Query

13.1 Introduction

As tables grow in size they can have hundreds of thousands of records, which makes it impossible for the user to pick out specific records from that table. Queries were designed to combat this problem. With a query you can apply a filter to the table's data, so that you only get the information that you want.

Access offers the ability to answer questions. The answer to these questions, and many more are found in the database, and Access can find the answers quickly. When you pose a question to Access, the question is called a query. A query is simply a question represented in a way that Access can understand.

You use queries to view, change, and analyze data in different ways. You can also use them as the source of records for forms and reports. The most common type of query is a select query. A select query retrieves data from one or more tables using criteria you specify, and then displays it in the order you want.

Note: Making changes to a query record or deleting a record in a query will affect the same record in the related table.

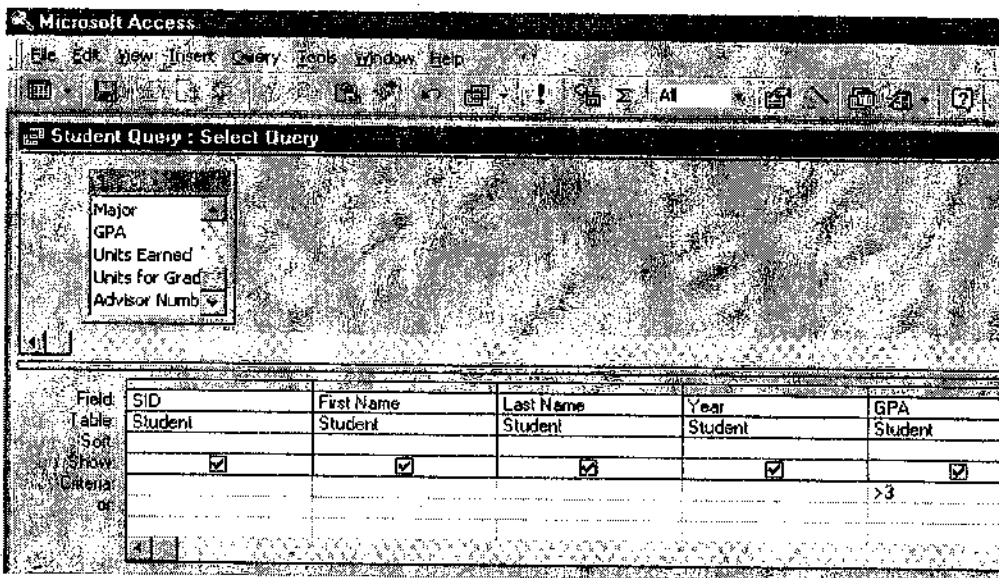
13.2 Understanding Query

After Tables, Queries are perhaps the most important component in a database. Queries are used to retrieve information from a database. Once again, a telephone directory can be used for an example of a query.

When you look up a phone number in a phone directory, you use query techniques. You might begin by looking for names that begin with J. Then you might narrow it down to listings with the last name Johnson. The criteria for your query is Last Name = Johnson. If there are still too many results, you may add additional criteria to narrow down the results. E.g. Initials, Suburb, street address. Eventually, your criteria will narrow down the results until you have the result you are after.

13.2.1 Design View

The design grid is used to setup a query in Design view.



There are two sections in design view:

- The top section is where the table or query will be displayed from which you are basing your new query. Inside each table or query window will be listed the field names.
- The bottom section is where the field names are moved to set up the criteria or other options to base the query on.
- In the bottom section, each row will consist of a row heading to describe its purpose. You will find the following:

– **Field** for the field name. Calculations can also be made in this cell to display the result based on an expression. (See the Calculated Fields section for examples.)

– **Table** for the table or query name.

– **Sort** for sorting the query by ascending or descending.

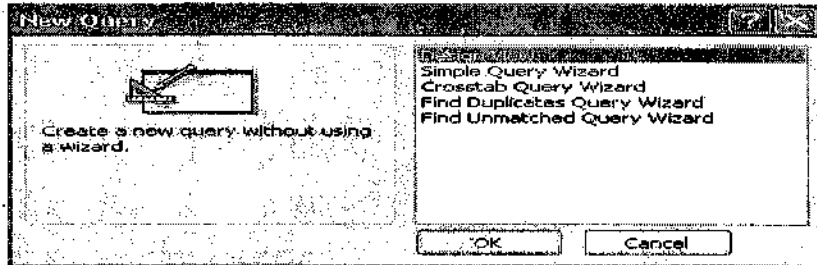
– **Show** to select whether the data in that field is displayed or not.

– **Criteria** to enter the criteria for the query.

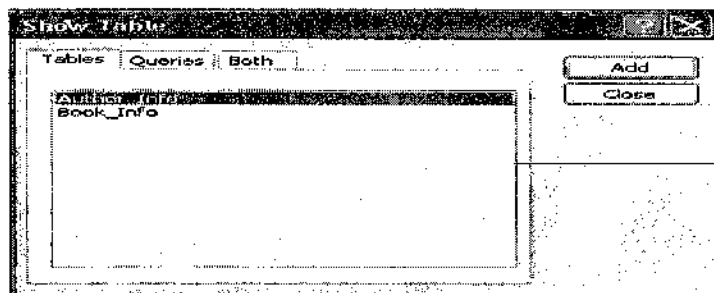
By going into the View menu and clicking **Totals**, the Totals row heading will be added to the design grid. Click the drop-down arrow to display the results of a calculation in a field, based on a predefined calculation such as, sum, average, count, minimum, maximum, standard deviation, or variance. You choose total calculation for each field if you want to calculate.

13.2.2 Create a Query

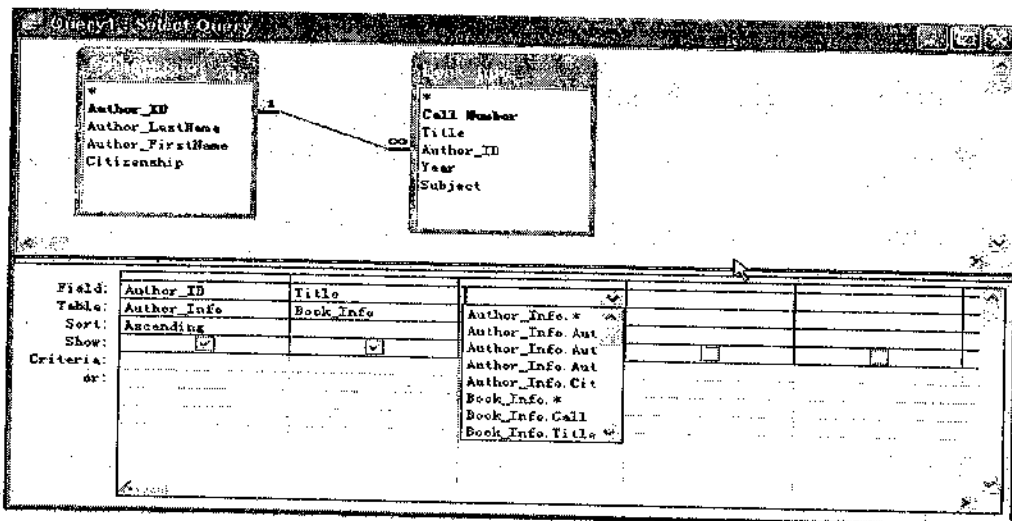
1. To construct a query, Click on the New button in the database window as shown below. Choose Design View, click OK.



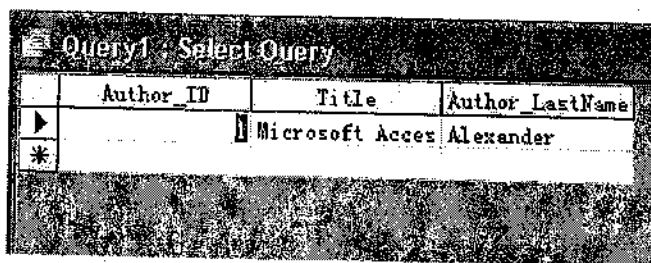
2. In the Show Table dialog box as shown below, you will be asked to choose a table/tables for the query. Select the tables you want to query and click Add.



3. Add fields from the tables to the new query by double-clicking the field name in the table boxes or selecting the field from the Field and Table drop-down menus on the query form. Specify sort orders if necessary.



4. Enter the criteria for the query in the Criteria field. The Expression Builder can also be used to assist in writing the expressions in the Criteria field.
5. After you have selected all of the fields and tables, click the Run button on the toolbar to execute the query. Figure shows the query result, records that match the criteria you set.



6. Choose Save from the File menu to save a query for later execution.
7. To see the results of the query, i.e. run the query, click the Run button on the toolbar.

13.2.3 Entering Criteria

To enter criteria, enter them on the Criteria row in the design grid below the field name to which the criterion applies.

Query Wildcards and Expression Operators	
Wildcard / Operator	Explanation
? Street	The question mark is a wildcard that takes the place of a single letter.
43th *	The asterisk is the wildcard that represents a number of characters.
<100	Value less than 100
>= 1	Value greater than or equal to 1
<> "FL"	Not equal to (all states besides Florida)
Between 1 and 10	Numbers between 1 and 10
Is Null Is Not Null	Finds records with no value or all records that have a value
Like "a*"	All words beginning with "a"
>0 And <=10	All numbers greater than 0 and less than 10
"Bob" Or "Jane"	Values are Bob or Jane

- 1) **Text:** To use text data in criteria, simply type the text in the Criteria row below the corresponding field name. For example, to indicate that the student's Last Name is 'Jones', you would type Jones in the Criteria row below the Last Name field.
- 2) **Wildcards:** Two special wildcards are available. The first of the two wildcards, the asterisk (*), represents any collection of characters. For example in the Last Name field criteria, typing Sm*, means any last name that starts with Sm followed by any collection of characters. The other wildcard symbol is the question mark (?) which represent any single character. For example, T?m, could be Tim or Tom.
- 3) **Numeric Data:** To enter a number in a criterion, type the number without any dollar signs or commas.
- 4) **Comparison Operators:** If you want a result other than an exact match, you must enter the appropriate comparison operator. The comparison operator are > (greater than), < (less than), >= (greater than or equal to), <= (less than or equal to), and NOT (not equal to).

Using Compound Criteria

To query with more than one criteria you must use a compound criteria. Two types of compound criteria exist.

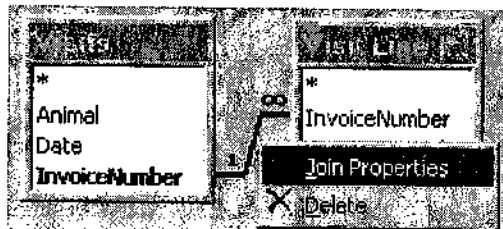
- a) In an AND criterion, each individual criteria must be true in order for the compound criteria to be true. For example you would use an AND criterion to find students that are Freshman AND who are Economics majors. To combine criteria with AND, place the criteria on the same line.
- b) In an OR criterion, is true if either individual criteria is true. For example you would use an OR criterion to find students that are Freshman OR who are Economics majors. To combine criteria with OR, the criteria must go on separate lines in the Criteria area.

13.2.4 Sorting Data in a Query

To order records in the answer to a query in a particular way, you sort the records. The field or fields on which the records are sorted is called the sort key. To sort the results of the query, you must specify the sort order in the Sort line of the design grid below the field that is to be sorted. If you specify more than one field to sort, the field sorted on the left will be sorted first and the one on the right will be sorted next.

13.3 JOIN QUERY

Joins dictate how two tables or queries relate to each other. Click on the join line with the right mouse button to access the Join Properties.



1. Select Join Type to display the join properties dialog box, and then choose one of the following options to define how the tables will be joined and select OK.

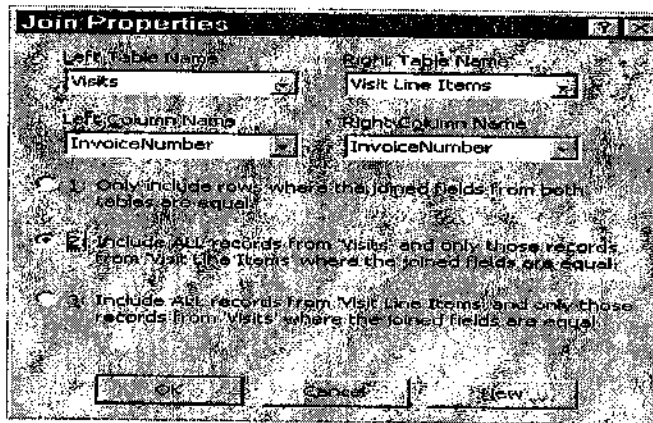
- a) Option 1, the default, creates an equi join(also called an inner join), in which the records that contain equal values in two tables are added to the dynaset.
- b) Option 2 creates a left outer join, in which all the records on the left side of the LEFT JOIN statement in a query are added to the dynaset, regardless of whether corresponding fields in the table on the right contain matching values. The records that contain matching values from the right table are combines in the dynaset with the records from the left table.
- c) Option 3 creates a right outer join, in which all the records on the right side of the RIGHT JOIN statement in a query are added to the dynaset, regardless of whether corresponding fields in the table on the left contain matching values. The records that contain matching values from the left table are combined in the dynaset with the records from the right table.

Inner Joins

An Inner Join displays only the records from table one that have matching records in table two.

Outer Joins

An outer join will display all the fields from one table and any matching fields in the second table. There are two types of Outer Joins, Left and Right.



Cartesian Product Query

A Cartesian Product Query or Cross Product Query creates a list of every possible combination of two tables or queries that do not have a join.

The cartesian product of two relations is a join that is not restricted by any criteria, resulting in every tuple of the first relation being matched with every tuple of the second relation. The cartesian product is implemented in SQL as the CROSS JOIN join operator.

Note: If tables in a query aren't joined to one another, either directly or indirectly, Microsoft Access doesn't know which records are associated with which, so it displays every combination of records (called a "cross-product" or "Cartesian product") between the two tables.

tblShape		tblColor	
WidgetShape		WidgetColor	
circle		beige	
octagon		black	
pentagon		blue	
rectangle		brown	
square		green	
triangle		gray	
*		magenta	
		orange	
		pink	
		purple	
		red	
		sandy	
		turquoise	
		violet	
		white	
		yellow	
		*	

The output of above two tables after applying Cartesian product is as follows:

Query1 : Select Query	
WidgetShape	WidgetColor
circle	beige
circle	black
circle	blue
circle	brown
circle	green
circle	gray
circle	magenta
circle	orange
circle	pink
circle	purple
circle	red
circle	sandy
circle	turquoise
circle	violet
circle	white
circle	yellow
octagon	beige
octagon	black
octagon	blue
octagon	brown
octagon	green

13.4 RELATIONSHIP

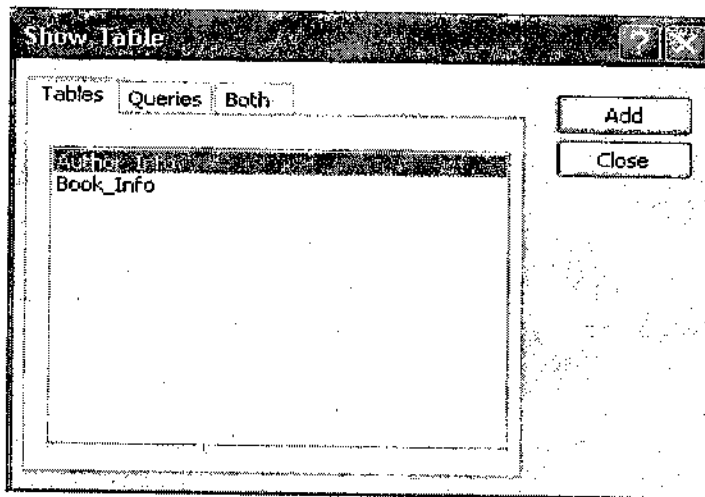
After you've set up different tables for each subject in your database, you need a way of telling Microsoft Access how to bring that information back together again. The first step in this process is to define relationships between your tables. After you've done that, you can create queries, forms, and reports to display information from several tables at once.

The kind of relationship that Microsoft Access depends on how the related fields are defined:

- A **one-to-many** relationship is created if only one of the related fields is a primary key or has a unique index. A one-to-many relationship requires that a record in one table can have many matching records in a second table, but a record in the second table must have only one matching record in the first table. For example, suppose there is a products table and an order table. There will only be one product id for each item in the product table, but there can many orders for that one product in the order table.
- A **one-to-one** relationship is created if both of the related fields are primary keys or have unique indexes. a one-to-one relationship requires that there be only one matching record in each table. For example, the SSN of an employee in a fund raising table must match only one employee record in the employee table.
- A **many-to-many** relationship is really two one-to-many relationships with a third table whose primary key consists of two fields - the foreign keys from the two other tables. a many-to-many relationship allows for a multitude of matching records in both tables involved. For example, there can be many teachers in the teacher table who have many students in the student table and vice-versa. In reality, this type of relationship actually involves three tables, the third of which is a joint table that carries the primary key from both tables. For example, the teacherID and the studentID could be the primary keys of each table.

Relationship between tables

1. Close any tables you have open. You can't create or modify relationships between open tables.
 2. If you haven't already done so, switch to the Database window.
 3. Click Relationships on the toolbar.
 4. If your database doesn't have any relationships defined, the Add Tables/Queries box will automatically be displayed. If you need to add the tables you want to relate and the Add Table dialog box isn't displayed, click Show Table on the toolbar. If the tables you want to relate are already displayed, skip to step 6.
 5. Double-click the names of the tables you want to relate, and then close the Add Tables/Queries dialog box.
 6. Drag the field that you want to relate from one table to the related field in the other table. In most cases, you drag the primary key field (which is displayed in bold text) from one table to a similar field (often with the same name) called the foreign key in the other table. The related fields don't have to have the same names, but they must have the same data type (with two exceptions) and contain the same kind of information. In addition, when the matching fields are Number fields, they must have the same Field Size property setting.
 7. The Relationships dialog box is displayed. Check the field names displayed in the two columns to ensure they are correct. You can change them if necessary.
 8. Click the Create button to create the relationship.
 9. When you close the Relationships window, Microsoft Access asks if you want to save the layout.
- Whether you save the layout or not, the relationships you create are saved in the database.



Referential Integrity

Referential integrity is a system of rules that Access uses to ensure that relationships between records in related tables are valid, and that you don't accidentally delete or change related data. You can set referential integrity when all of the following conditions are met:

- The matching field from the primary table is a primary key or has a unique index. A unique index is an index defined by setting a field's Indexed property to Yes (No Duplicates). A unique index will not allow duplicate entries in the indexed field. Setting a field as the primary key automatically designates the field as a unique index.

- The related fields have the same data type. There are two exceptions. An AutoNumber field can be related to a Number field with a FieldSize property setting of Long Integer, and an AutoNumber field with a FieldSize property setting of Replication ID can be related to a Number field with a FieldSize property setting of Replication ID.
- Both tables belong to the same Microsoft Access database. If the tables are linked tables, they must be tables in Microsoft Access format, and you must open the database in which they are stored to set referential integrity. Referential integrity can't be enforced for linked tables from databases in other formats.

When referential integrity is enforced, you must observe the following rules:

- You can't enter a value in the foreign key field of the related table that doesn't exist in the primary key of the primary table. However, you can enter a Null value in the foreign key, specifying that the records are unrelated.
 - For example, you can't have an order that is assigned to a customer that doesn't exist, but you can have an order that is assigned to no one by entering a Null value in the CustomerID field.
- You can't delete a record from a primary table if matching records exist in a related table.
 - For example, you can't delete an employee record from the Employees table if there are orders assigned to the employee in the Orders table.
- You can't change a primary key value in the primary table, if that record has related records.
 - For example, you can't change an employee's ID in the Employees table if there are orders assigned to that employee in the Orders table. If you want to enforce these rules for a relationship, select the Enforce Referential Integrity check box when you create the relationship. If referential integrity is enforced and you break one of the rules with related tables, Access displays a message and doesn't allow the change.

You can override the restrictions against deleting or changing related records and still preserve referential integrity by setting the Cascade Update Related Fields and Cascade Delete Related Records check boxes.

- When the Cascade Update Related Fields check box is set, changing a primary key value in the primary table automatically updates the matching value in all related records.
- When the Cascade Delete Related Records check box is set, deleting a record in the primary table deletes any related records in the related table.

13.5 QUERY

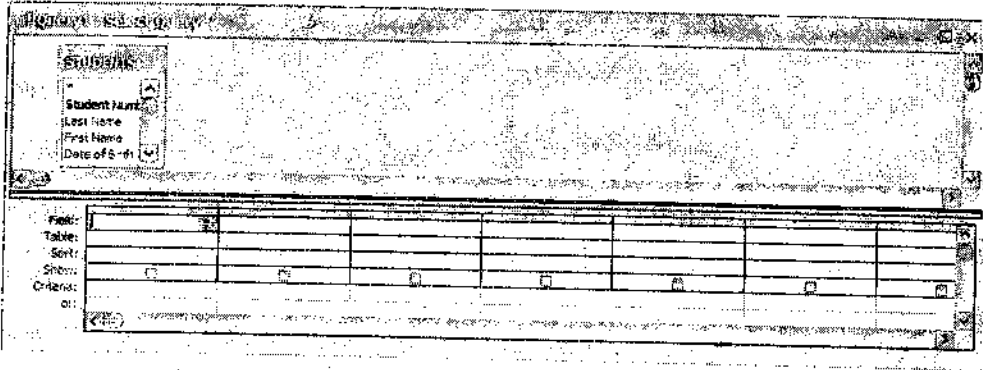
When you query a database on a computer, you use the same techniques. A query is a set of rules for finding information in a database. Queries in a database use the Structured Query Language (SQL – often pronounced “sequel”). In Access, however, it is not necessary to learn Access to create queries, as queries can be created using the much simpler Query by Example (QBE) window. The most common variety of query is the Select query, where the query is used to select certain information from the database according to criteria you specify.

13.5.1 Select Query

To ask a question about data in a database, we design a query that tells Microsoft Access what data to retrieve. The most commonly used queries are called Select Query. With Select queries, we can view, analyze, or make changes to the data. We can view data from a single table or from multiple tables. When a Select query is run, Microsoft Access collects the retrieved data in a Dynaset. A Dynaset is a dynamic view of the data from one or more tables.

Creating a standard select query involves the following steps:

1. Choose which table(s) the information will be coming from (information can also come from existing queries).
2. Choose which fields will be included in the query output.
3. Specify the criteria for the type of query.
4. Run the query / view the results.



13.5.2 Action Queries

By default, queries are SELECT queries which means they select data but they do not alter it. ACTION queries are another type of query which do alter data in some way.

Note : It is strongly recommended that before performing an action query that you back up your table. You can not undo an action query!

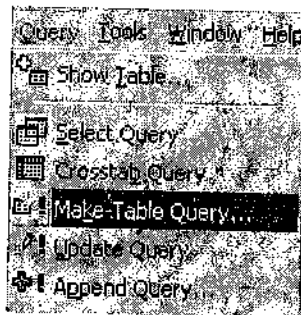
There are several types of action queries:

13.5.2.1 Make Table Query

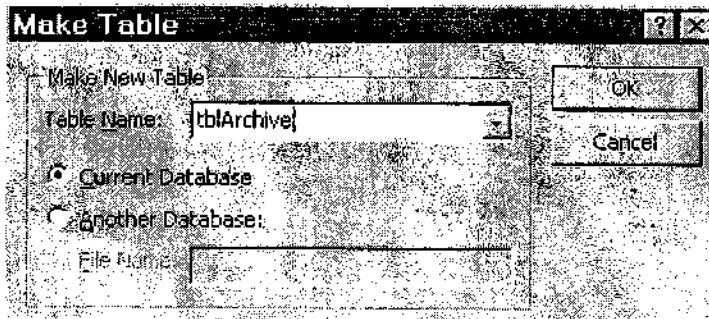
A Make Table Query creates a new table copying data from an existing table based on criteria. The newly created table can be saved to the currently opened database or exported to another database. Note that the data in the new table does not inherit the field properties including the primary key from the original table, which needs to be set manually.

To create an Make Table Query, first create a simple query with the criteria desired. Check the query to verify it is pulling the desired records. Note that you can include any columns desired in the new table but because we will be using this table in a later exercise, we will place all of the columns in the new table.

From the menu choose Query, Make Table Query.

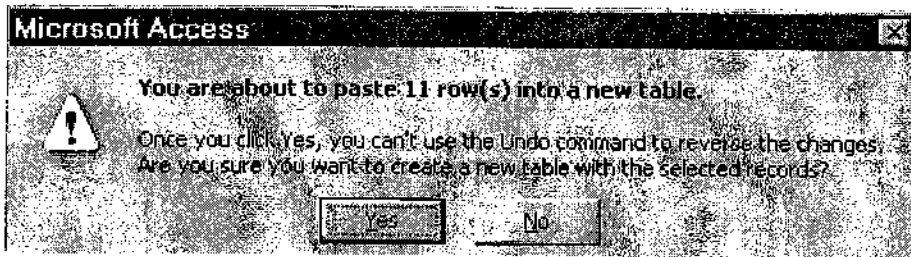


A dialog box will appear. Enter the name of the table to be created.



To run the make table query: from the design view, choose the run button on the toolbar from a closed query, open the query.

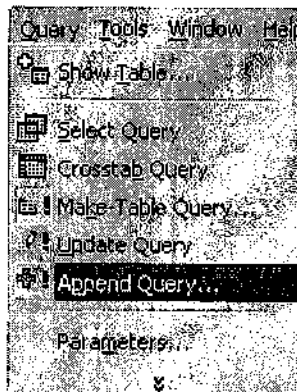
A message will appear indicating that the query will create a new table and the number of rows in the table.



13.5.2.2 Append Query

We use an Append Action query to insert records from one or more source tables into a single target table. An Append Query adds records to a table copying data from an existing table based on criteria. To create an Append Query, first create a simple query with the criteria desired. Check the query to verify it is pulling the desired records. Append queries are also useful when we want to append fields based on criteria or even when some of the fields do not exist in the other table.

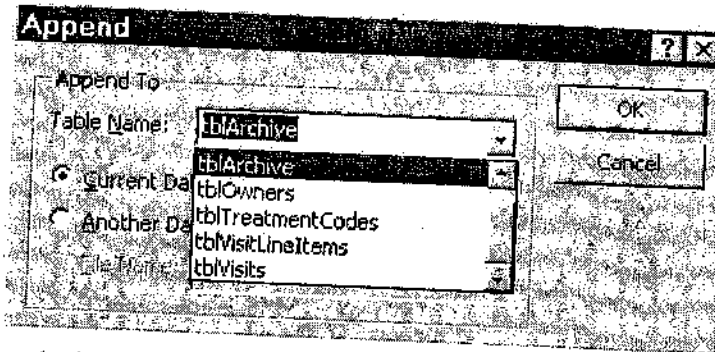
From the menu choose Query, Append Query.



The table being appended to should always be backed up prior to executing the append.

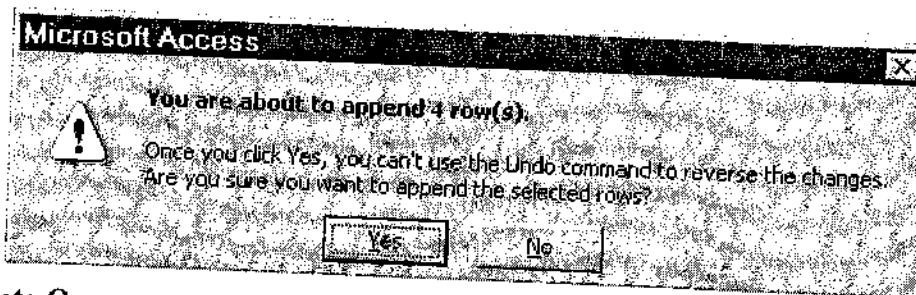
- The query is based upon the table where data is being appended (copied) from.
- If you get an error message when attempting to append, consider any complications caused by a keyed table. For example, if you are appending into a table that has a primary key set but you are not appending any data into keyed field, Access will not allow the append because keyed fields can not contain blanks. Another problem sometimes arises when data is being appended into the keyed field. If the data being added duplicates data that is already in the keyed field, then Access will not allow the append.

- When appending from one table to another, if the field names are an exact match, Access will place data from one table into its corresponding field in the other table. When the field names do not match, the user must tell Access the corresponding fields.
 - The field names do not have to be in the same order in both tables.
 - Not all fields (columns) need to be copied into the table.
 - Not all records need to be copied into the new table. You can append based upon a criteria.
 - Appending has no effect on the table being appended from but can dramatically affect the table being appended to.
1. A dialog box will appear. Enter the name of the table to be appended.



To run the append table query: from the design view, choose the run button on the toolbar from a closed query, open the query.

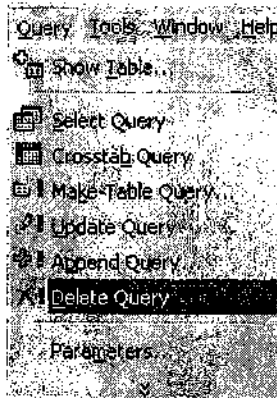
A message will appear indicating that the query will append rows to a table and the number of rows to be added.



13.5.2.3 Delete Query

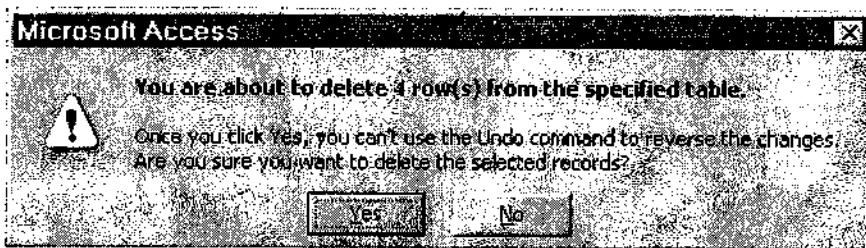
The Delete Action Query deletes a group of records from one or more tables. We can use a single delete query to delete records from a single table, from multiple tables in a one-to-one relationship, or from multiple tables in a one-to-many relationship with referential integrity set to allow cascading deletes. A Delete Query removes records from a table based on criteria. To create a Delete Query, first create a simple query with the criteria desired. Check the query to verify it is pulling the desired records.

From the menu choose Query, Delete Query.



To run the delete query: from the design view, choose the run button on the toolbar from a closed query, open the query.

A message will appear indicating that the query will delete rows in the table and the number of rows to be deleted.



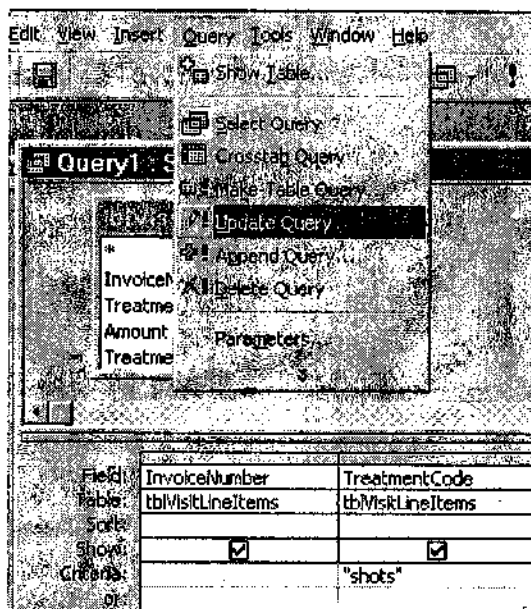
13.5.2.4 Update Query

Update queries can be used to make global changes to your records based upon a criteria. For example, you would like to raise the credit limit of those people who live in the USA by 10%.

An Update Query allows information to be changed throughout a table based on criteria.

To create an Update Query, first create a simple query with the criteria desired. Check the query to verify it is pulling the desired records.

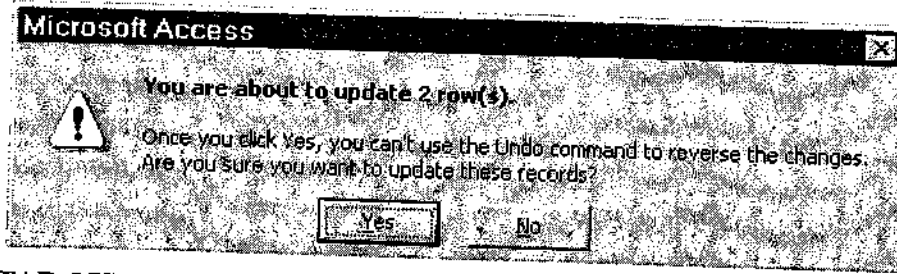
From the menu choose Query, Update Query.



The Update To line will appear in the design grid. Enter the update value.

Note: When the query is switched to the datasheet view, only the field to be updated will appear.

To run the update query: from the design view, choose the run button on the toolbar from a closed query, open the query. A message will appear indicating that the query will update the table.



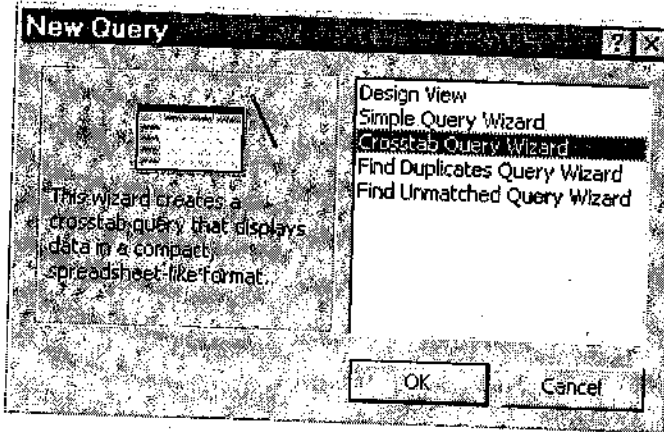
13.6 CROSTAB QUERY

A crosstab query takes data that is in a list and summarizes it into columns and rows. They are useful for performing data analysis by category. A crosstab query is not an action query and has no effect on the table it is based on. To perform a crosstab query, at least 3 different columns are needed. Crosstab queries are simple to create using the "Crosstab Query Wizard". Crosstab queries can also be created manually but that procedure can be somewhat tedious.

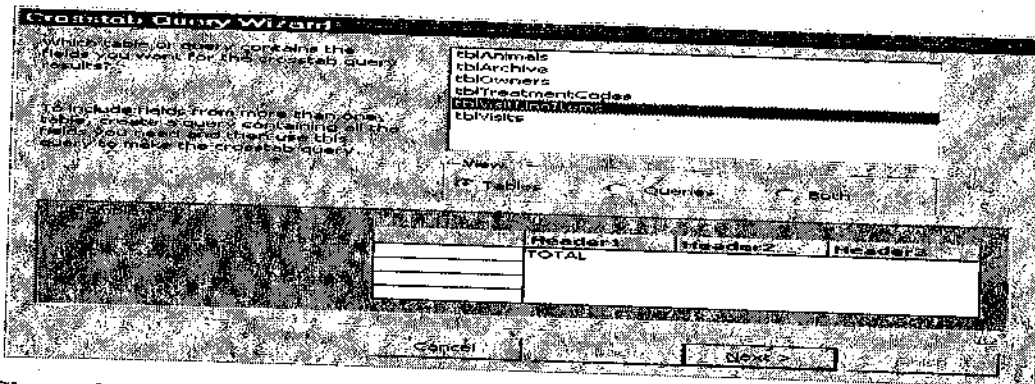
In this example, we have a list of movies made between 1972 and 1994. The list contains the name of the movie, its rating, release date, profit made, production company, and the type of movie it is. We would like to know the total profit for each year broken down by movie rating.

A Crosstab Query is used to create a view of data in a compact form. To create a Crosstab Query, create a new query using the Crosstab Query Wizard.

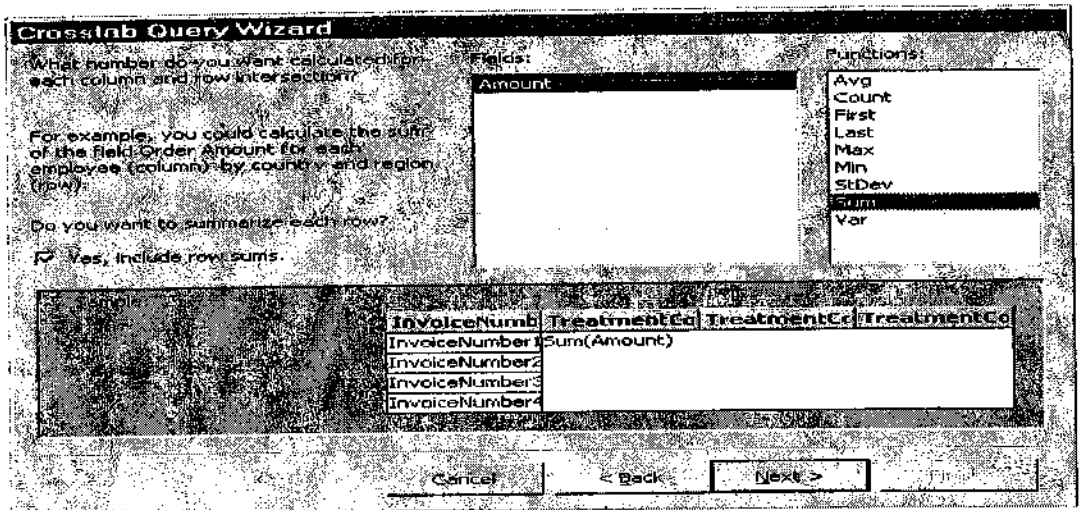
The wizard will start prompting for the information needed to create the query.



Choose the table or query upon which the query is to be based.



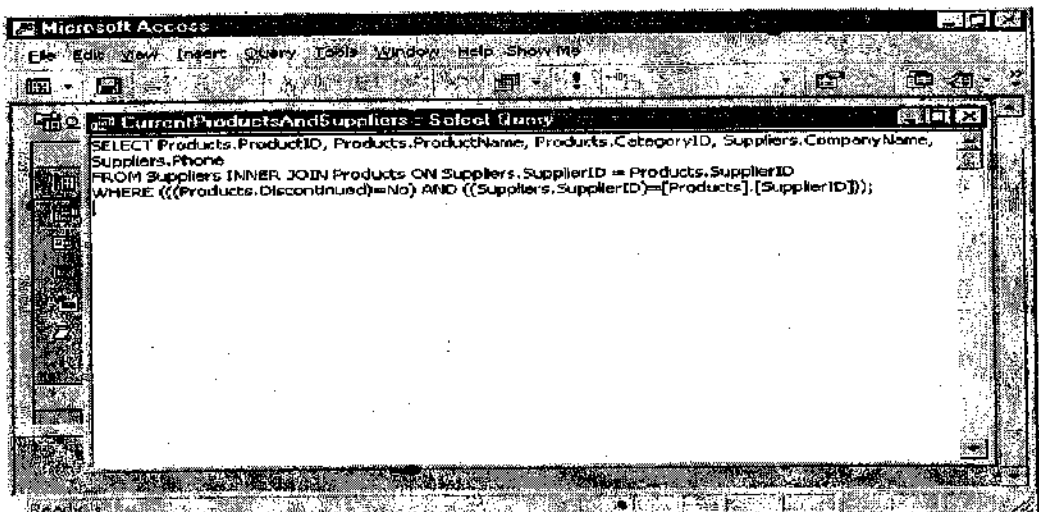
Choose the fields to be used for the row headings, then choose the fields for the column headings. can Choose the field for the calculation, and the type of calculation.



13.7 SQL VIEW OF QUERIES

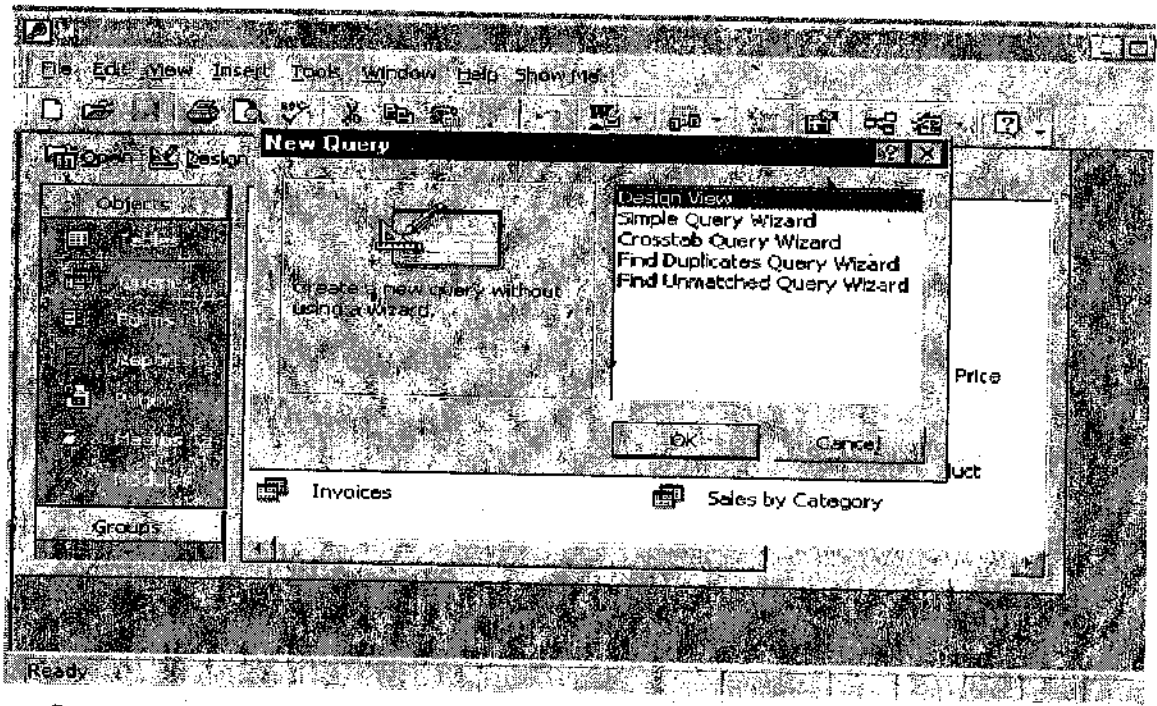
You need to become familiar with SQL (Structured Query Language) because you will need it if you ever develop a Microsoft Access application and have to issue queries through code. You also need SQL to query other database systems, such as Oracle and MySQL. Finally, once you know SQL, it is often easier to write a query directly in SQL than to design it using Access's QBE interface.

As Roger Jennings observes in his excellent book, *Using Access 2002*, one of the best ways to learn SQL is to build QBE queries and then inspect and alter the query in SQL View. You are going to do just that with the *CurrentProductsAndSuppliers* query that you developed and saved in the last chapter. In detail, you are going to copy the SQL from the *CurrentProductsAndSuppliers* query, start a new blank query, paste the SQL into the new query, and save the new query under a new name. Then, you are going to change the SQL behind the new query.

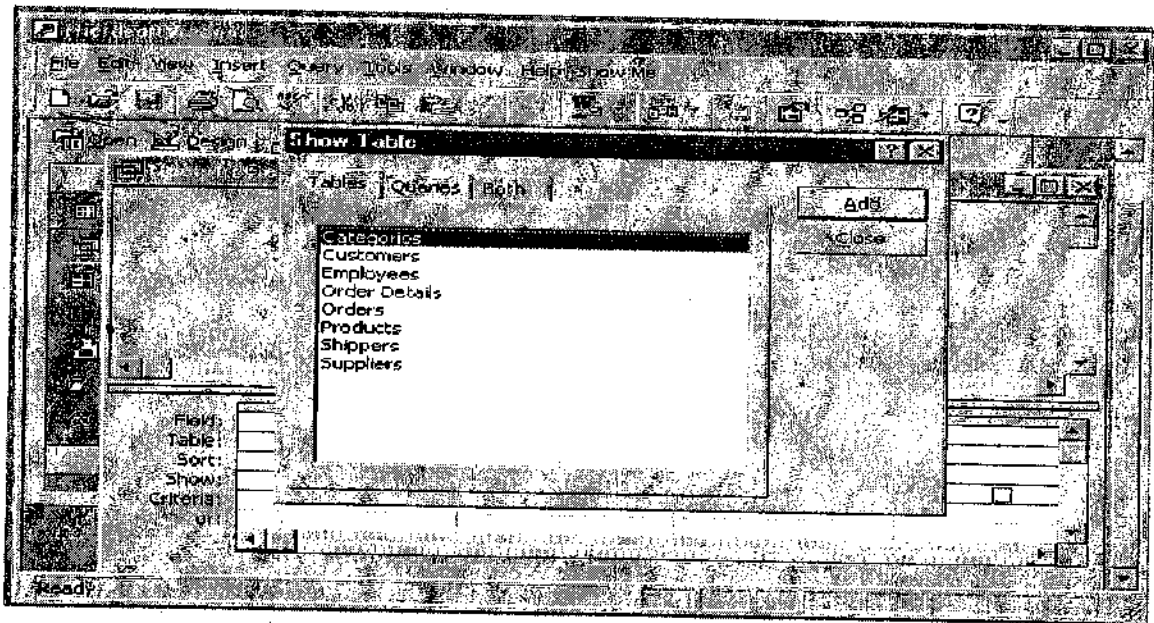


1) Starting the New Query

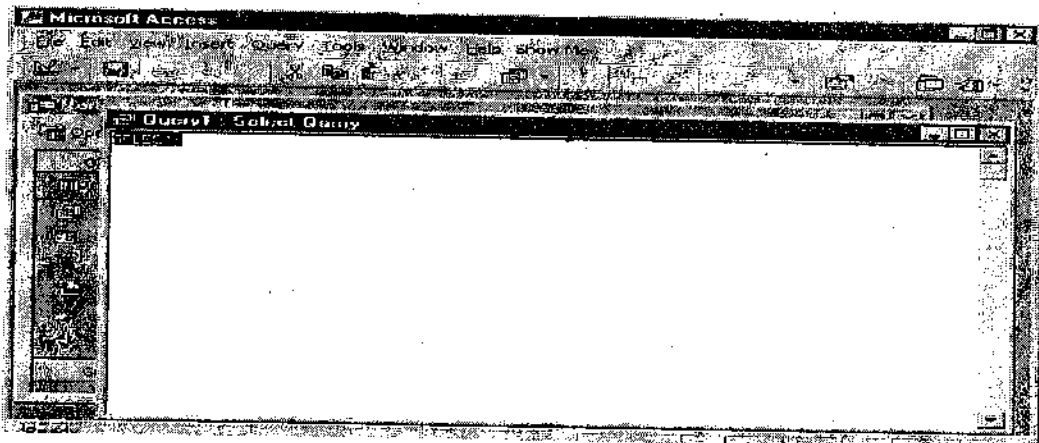
Step 1. Be sure the Queries tab is visible. Press the New button to start a new query. When the New Query dialog box appears, be sure that Design View is selected and press OK.



Step 2. Because you want to start a new blank query, press Close as soon as the Show Table dialog box appears.

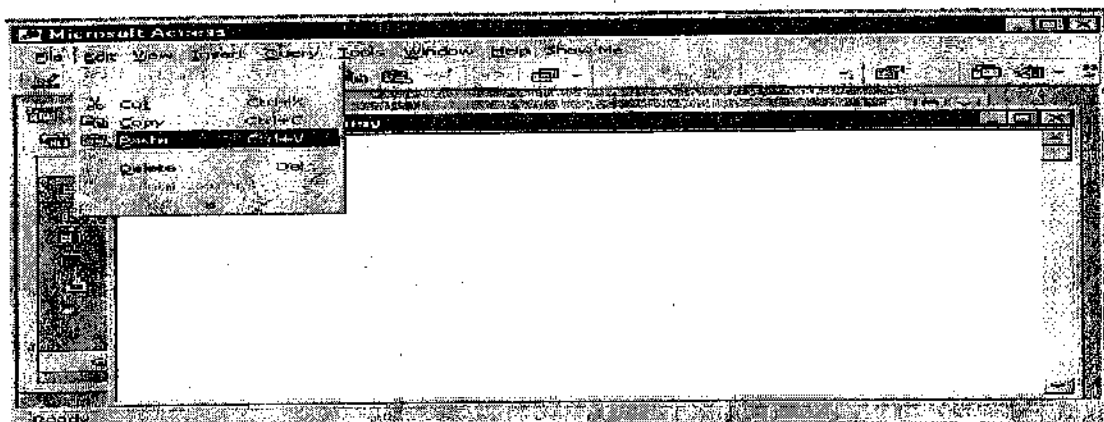


Step 3. Change to SQL view. By now, you know how.

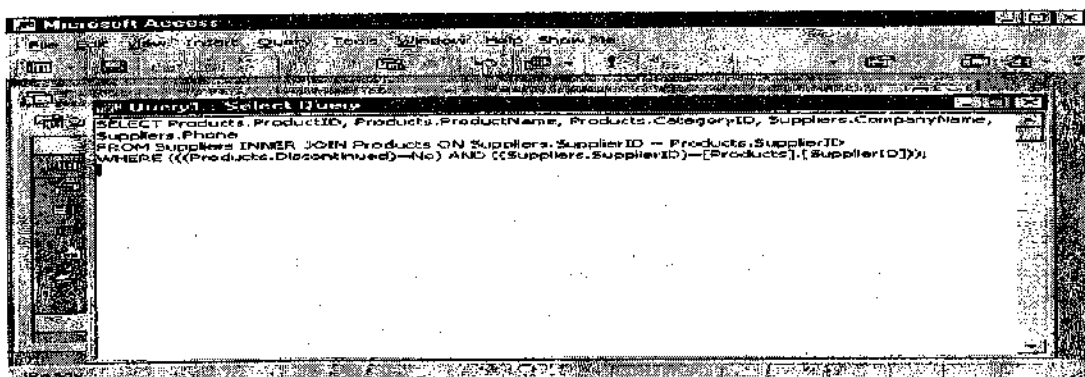


2) Pasting SQL into the New Query

Step 1. Paste the SQL you have previously copied to the clipboard into the new query's SQL view window by selecting the text in the window if necessary, clicking on the Edit menu, and then clicking Paste.



The result will be that you have the SQL from the CurrentProductsAndSuppliers query pasted into the SQL view window of your new query.

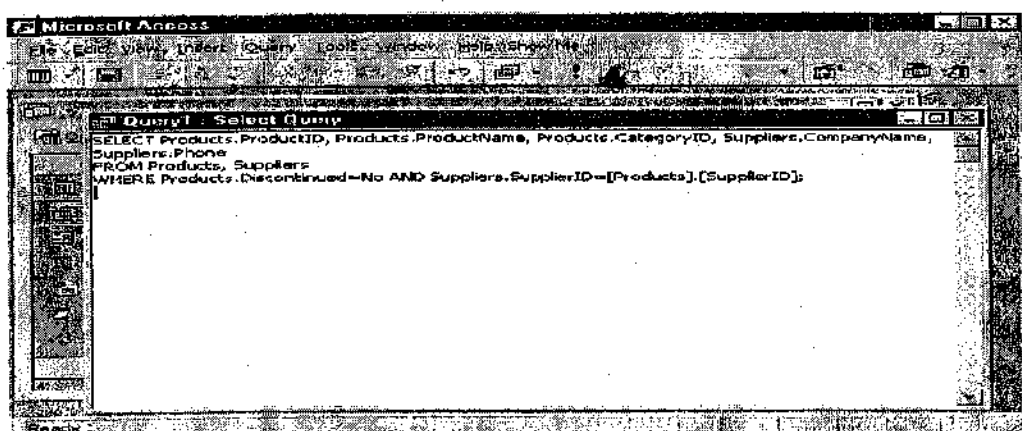


3) Simplifying the New Query SQL

The SQL view window is a complete, though simple, text editor. You are going to simplify the SQL you have just pasted in by editing it.

Step 1. The parentheses in the SQL are not needed, so delete them.

Step 2. The INNER JOIN statement is not needed either, so remove it too. (Remove everything after the FROM on the INNER JOIN line.) You do need to say what tables you are using though, so insert PRODUCTS, SUPPLIERS after the FROM. The simplified SQL in the SQL view window of the new query should look like



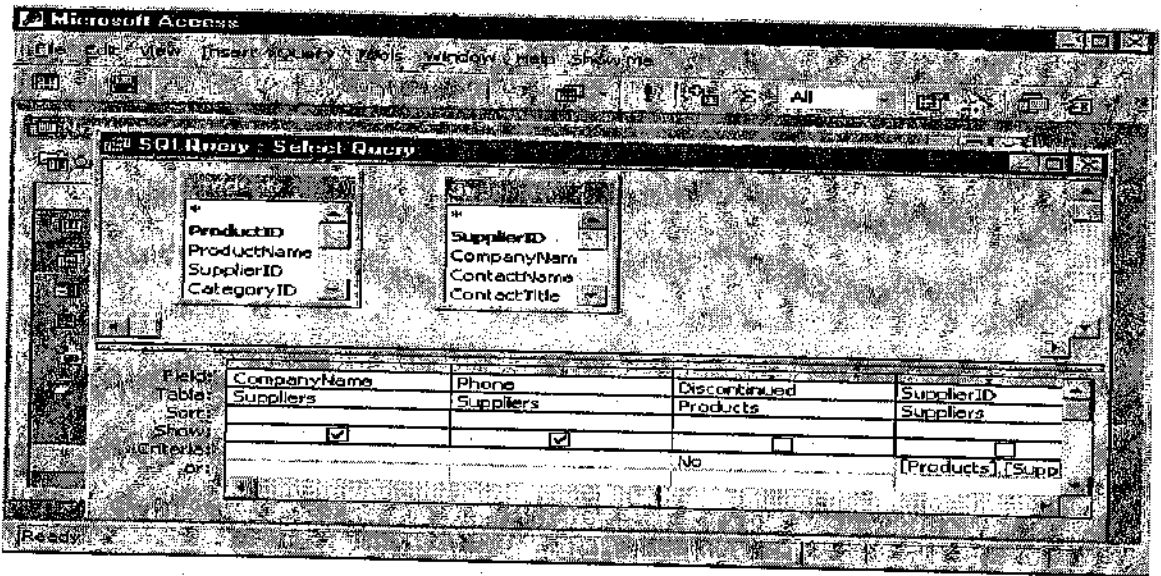
4) Saving the Simplified New Query

Save the simplified new query for future use as SQLQuery. (The period is there for grammatical reasons and is not part of the name.) Yes, the name SQLQuery is a dumb one, but there are only so many variations on the more descriptive CurrentProductsAndSuppliers name. Displaying the SQL Query in Design View.

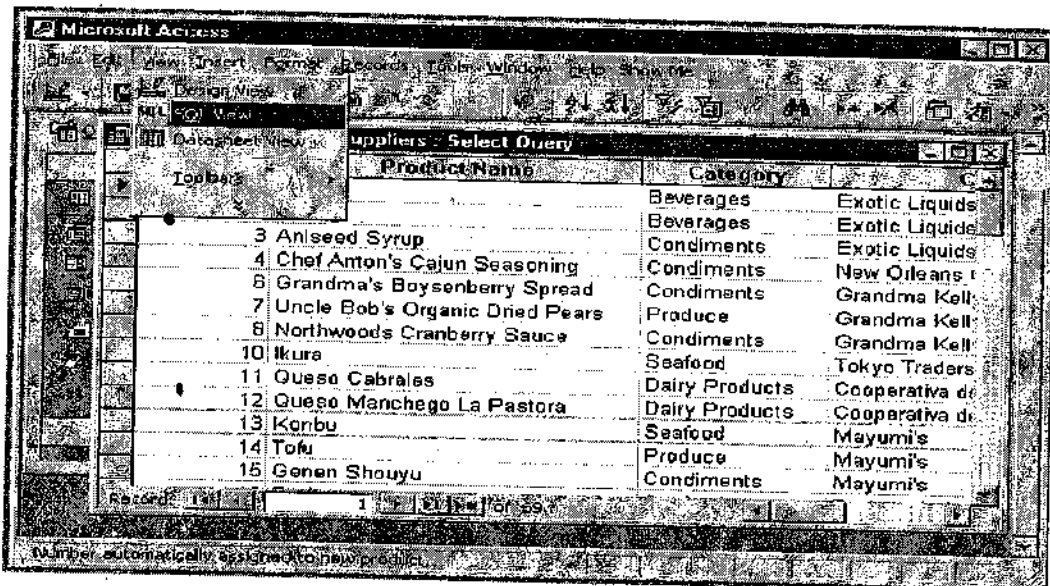
Once a query has been built with SQL, it has a perfectly reasonable design view (QBE view). Let us verify this by displaying the SQL query in design view.

Step 1. Change to the Design View of the query. By now, you know how.

Note that the design view of the SQL query is nearly the same as the design view of the CurrentProductsAndSuppliers query. Note the two tables displayed in the tables panel of the design view window. Only the line denoting the Access many-one relationship is missing. Note how similar the tabular QBE panel of the SQL query is to the QBE panel of the CurrentProductsAndSuppliers query. Only the order of some of the columns is different. You can switch back and forth between designing a query in SQL View and Design View at will. You should mix and match, and use whatever is simplest at the time.



SQL means Structured Query Language. Behind a query is always an SQL-statement that specifies what to compute. Let us look at the SQL statement in qryStayList:



In SQL, the SELECT part corresponds to the top-two lines of the query grid. Field names may include strange characters, and in this case Access surrounds the name with square brackets to avoid that the name is interpreted as something else. (Often Access surrounds the names with square brackets for no apparent reason.) Examples of names with strange characters:

guest# written as [guest#]

Guest History written as [Guest History]

The FROM part corresponds to the tables and the relationships in the top part of the query window. In our example, the FROM part says that tblGuest and tblStay must be joined, and the join criterion must be that guestID must be equal in the two tables. Actually, Access stores the query as an SQL-statement, and when we want to see the query in design view, Access translates it into a grid and the data model. You can sometimes observe this when you have set up the grid in one way. When you close the query and open it again, the grid looks different, for instance with the columns in a different sequence. Your version and Access's version correspond to the same SQL statement. You can also type the SQL-statement directly in SQLview. Access may still be able to show it as a grid, but for some SQL-statements it is not possible. For instance this is the case with a UNION statement, where two tables are to be concatenated one after the other. Access can handle this, but not show it as a grid. Expert Access developers sometimes define a query with a grid, sometimes with SQL, and often they switch between the two during development.

Capital letters: Access doesn't care whether you type with capitals or small letters. For instance you may type SELECT with small letters, but when you close and open the query in SQL view, SELECT will be with capitals. When you define field names and other names, Access remembers the capitalization in the name definition, but accepts names written with different caps as equivalent. It finds the result in six steps (a to f):

- a) **Cartesian product:** The SQL-engine takes the first guest record and extends it with all the fields from the first stay record. It corresponds to the top left cell of the matrix. Then it takes the second guest record and extends it with the first stay record. This corresponds to the second cell in the top row. And so on for all the guest records. This corresponds to all the cells in the top-row of the matrix.
- b) **Join:** Next, the SQL-engine discards all cells where the join criterion is not met. For example, In our case, the criterion is that guestID must be equal in the two source tables. What is left are the cells marked with a cross on the figure. Notice that all stays are included because they have a cross in their row. However some guests (for instance guest 2) are not included because no stay is recorded for them in the database.
- c) **Where:** We can also specify Where criteria, for instance Where state=1 This would cause the SQL-engine to discard all cells where state isn't one. They are discarded at this point of the process.
- d) **Group By:** We can specify Group-By criteria. They cause the SQL-engine to bundle the remaining records according to the Group-By criteria and compress each bundle into one record.
- e) **Having:** If we have a Group-By, we can also specify Having criteria. They tell the SQL-engine to keep only bundles that meet the criterion. Other bundles are discarded at this point.
- f) **Order By:** We can ask the SQL-engine to order the remaining records according to some criteria. Some people say that the records are sorted rather than ordered.

13.8 SUMMARY

In this unit we demonstrated the major features of the Query-by-example(QBE) facility using the Microsoft Access 2000 DBMS. When we create a query using QBE , in the background Microsoft Access constructs the equivalent SQL statement. SQL is a language used in the querying, updating and management of relational databases. In this unit we presented a comprehensive overview of the SQL standard. We can also use QBE to perform useful operations on tables such as inserting and deleting records, modifying the values of fields, or creating new fields and tables.

13.9 UNIT END QUESTIONS

- 1) Discuss the concept of QBE in Microsoft Access 2000?
- 2) Describe the main functions of Relationship for multiple tables?
- 3) What is the use of Query? How it can be implemented in Relational databases?
- 4) Describe the different types of ACTION queries with their example?
- 5) Discuss the function and importance of Integrity constraints in relationship?
- 6) How delete action query can be implemented on Microsoft Access Database?
- 7) How to create query using QBE in relational databases?
- 8) What Advanced Action queries can be implemented on databases?
- 9) What is the use of Append Action query on relational databases?
- 10) How Crosstab query can be implemented on relational databases?

13.10 REFERENCES

- 1) http://download.oracle.com/docs/cd/B19306_01/server.102/b14200/statements_5004.htm
- 2) [http://proicereinc.com/Documents/MS%20Access%20II%20\(class%202\)%20Advanced%20Queries.pdf](http://proicereinc.com/Documents/MS%20Access%20II%20(class%202)%20Advanced%20Queries.pdf)
- 3) http://www.imse.hku.hk/imse1013/pdf/A_Quick_Microsoft_Access_2000_Tutorial.pdf

Unit 14: Forms and Reports

Structure of the Unit

- 14.0 Objective
- 14.1 Creating Forms
- 14.2 Form Wizards
- 14.3 Charts
 - 14.3.1 Creating a Chart
 - 14.3.2 Editing a Chart
 - 14.3.3 Changing the Chart Type of an Existing Chart
- 14.4 Pivot tables
- 14.5 Creating Forms with Design view
- 14.6 Creating Reports
 - 14.6.1 Introduction
 - 14.6.2 Different kinds of Reports
 - 14.6.3 Groups
 - 14.6.4 Totals and summary Reports
 - 14.6.5 Sort order
 - 14.6.6 Reports using more than one table
- 14.7 Summary
- 14.8 Unit End questions
- 14.9 References

14.0 OBJECTIVE

After studying this unit, you will learn -

- How to create Forms
- Description of Form wizard
- How to work on charts
- How to create Reports
- Use of different kinds of Reports

14.1 CREATING FORMS

Microsoft Access Forms allow a user to view and edit the data stored in the underlying base tables, presenting the data in an organized and customized manner. Forms can be displayed and printed. The main use of forms is on screen, to improve the interface for data entry. You can add graphics to them.

and specifying shading, colors, type style, and more. You might have a form that you use for the on-screen entry and editing of employee records. Forms can use information for multiple tables. It's even possible to combine information from different databases on the same form.

Forms are constructed as a collection of individual design elements called controls or control objects. There are many types of control, such as Text boxes to enter and edit data, labels to hold field names, and command buttons to initiate some user action. Controls can be easily added and removed from a form. In addition, Access provides a control wizard to help the user add controls to a form.

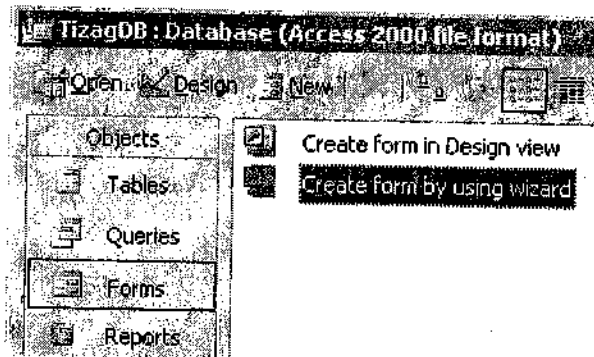
A form is divided into a number of sections, of which the three main ones are:

- Form Header: This determines what will be displayed at the top of each form, such as a title.
- Detail : This section usually displays a number of fields in a record.
- Form Footer : This determines what will be displayed at the bottom of each form, such as a total.

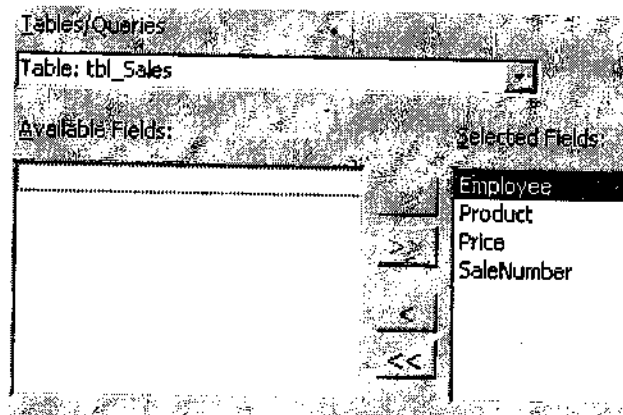
14.2 FORM WIZARD

There are Wizards and other tools to help you create forms. It's a good way to get started. Although the form wizard is actually very useful and should save you a bunch of time! Let's create a simple data input form for the new employee. You can run the Form Wizard at any time after creating a new table. In this example the Wizards and I will show you how to create a couple of forms from a database as follows:

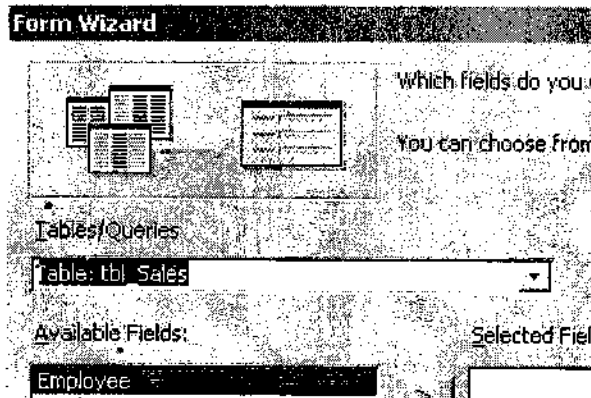
1. Open the Database of your choice the Form tab, if necessary.
2. Click on form wizard to bring it forward. Unless you've already created some forms for this database, you will see an empty list.



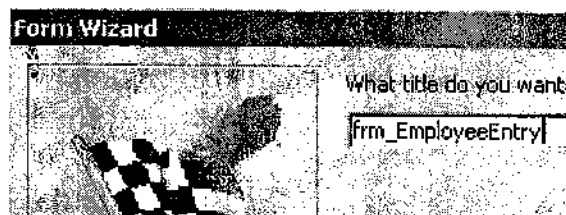
3. In any case, click the New button in the Forms window.
4. You will be asked to select a table. Choose your table from the drop-down list.



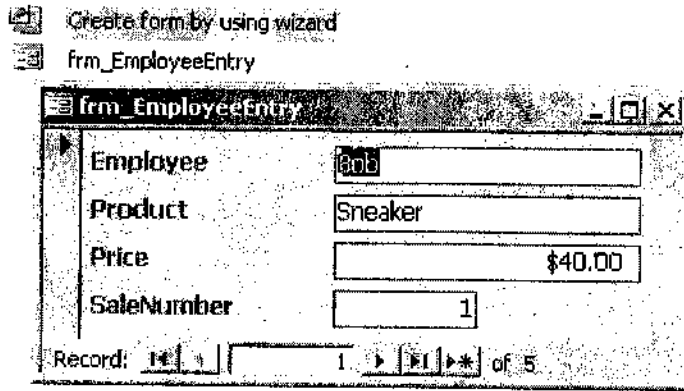
5. After selecting a table, click on the Wizard button.
6. You will be presented with a choice of five Form Wizards(Single column, Tabular, etc.). You can click once on a Wizard's name to display a brief description of its function at the bottom of the dialog box. Double clicking on a name selects the Wizard and continues the process of creating a form. for this exercise, double clicking on the Tabular Form Wizard.



7. You will be given the opportunity to choose which of your table's fields will appear on the new form. To choose fields, select them in the Available fields list and click on the > button between the two lists, or double click on the fields. To remove fields from the form list, double click on them or use the < button .
8. When you have moved all of the desired fields to the form list, Click on the Next button to continue.
9. The Wiz will offer some predefined style choices: They are chosen by clicking on the appropriate radio button . Chosen styles are demonstrated in the upper left corner of the dialog box. Explore them all, if you like. Then choose one and click on the Next button.
10. You will be presented with the wizard's final dialog box, which gives you a chance to modify the form or see it with your contacts data. This is also where you create a title for your form. Access proposes a title which you can edit.
11. After you have titled yours, be sure the choice "Open the form with data in it" is marked and click on the Finish button.



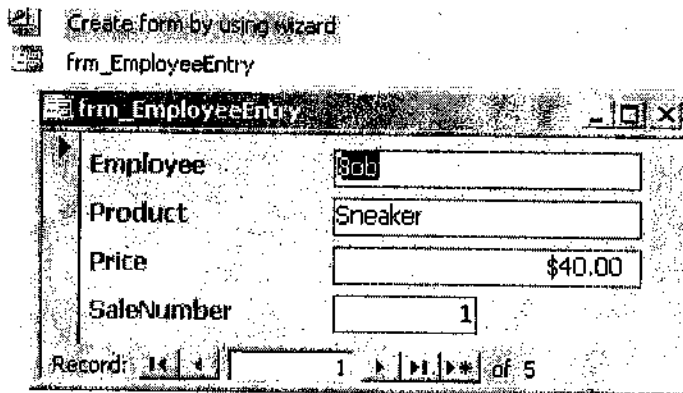
12. In a moment you'll see your new title form with your contacts data displayed in it.



Entering Data Using Access Forms

Now that the form has been created, Bob just needs to teach his employee how to enter in the data. Lucky for Bob it's as easy as one-two-three and won't take him long to bring his new employee up to speed.

1. Open up frm_EmployeeEntry (easy!)



2. At the bottom of the form is a set of arrows to navigate through the records. To get to the end of the existing records and begin entering data you need to click the arrow with an asterisk(*).



3. Clicking that button will bring you to the first blank record, which would be the sixth in our case. You would then enter all the data for that record and click the right arrow to advance to the next blank record. After all the new records have been entered, close the form and pat yourself on the back.

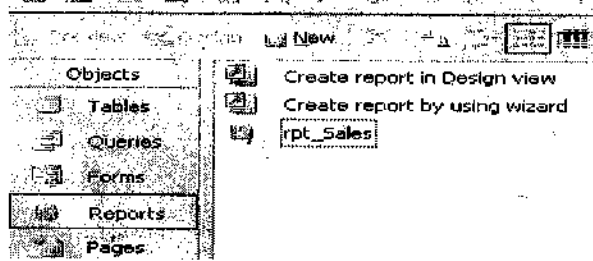
When you enter data into this form it will automatically add it to our existing tbl_Sales because we specified that table when we created our form. With this form the new employee will be able to enter data into Bob's existing Access table without ever knowing a thing about tables

14.3 CHARTS

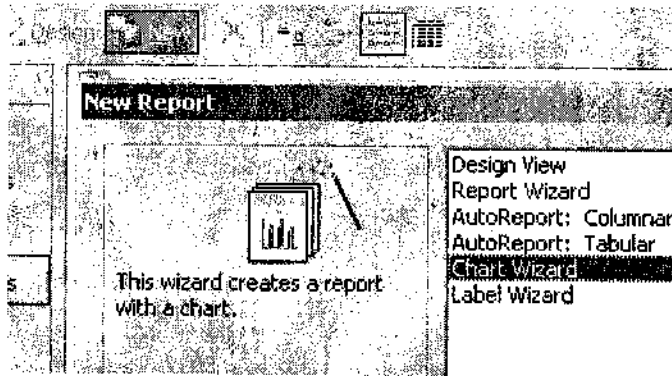
Each application in Microsoft Office(except Mail) allows you to create a chart. Charts are embedded objects, and are saved in the file in which they were created.

Finding the Chart Wizard

The chart wizard can be found inside the Reports area of Access. Navigate to the reports are.

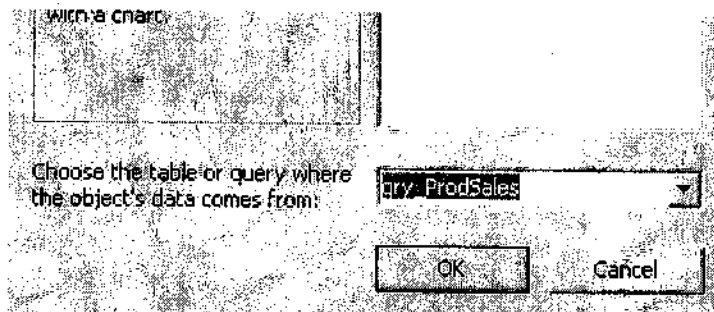


The chart wizard can be found by clicking the green **New** button and selecting **Chart Wizard**.



Choosing the Right Chart

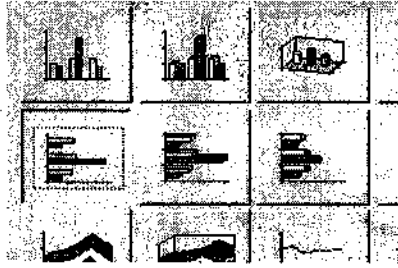
1. Our data consists of product types and total sales, so a histogram would probably be the best choice for this data. With Chart Wizard selected, choose the Query "qry_ProdSales" from the drop down list. This is what our chart will be constructed from.



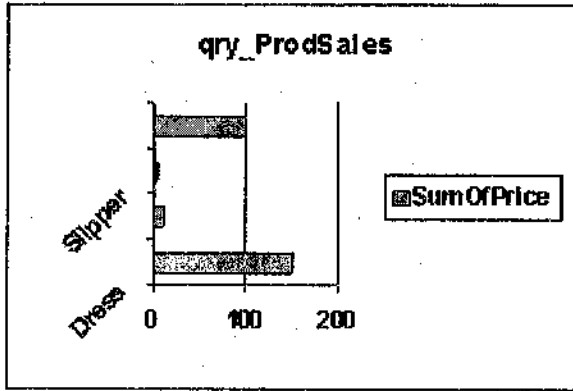
1. Click **OK**.
2. Add both available fields to the chart and click **Next**.



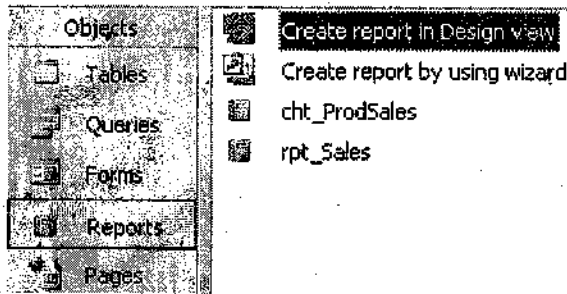
3. Select the **Bar Chart** and press **Finish**.



4. Your new chart should look something like this:



5. Close the chart preview and save your chart as "cht_ProdSales"



This chart doesn't clearly show all the products, so we are going to have to widen it a bit.

14.3.1 Creating a Chart

In Access, Use the Graph Wizard and Chart Wizard to create a Chart using data entered in a file. In Access, you can insert a chart while you are in Form or Report view. The chart you can create will appear on each form in the database.

To create a chart

1. Open the Access file that contains the data you want to plot.
2. In Access, click on the Design view button on the Form Design or Report Design toolbar, and then click on the Toolbox button on the Form Design or Report Design toolbar to display the Toolbox.
3. Click on the Chart Wizard or Chart button on the standard toolbar in Access's Toolbox. Click in the location in Access's form or report, or in where you want to place the chart. The Graph Wizard dialog box appears in Access.
4. Answer the question in the Graph Wizard or Chart Wizard dialog box, and then select *Next*. Continue until each of the questions is answered, and then select *Finish*. Or select the data in any cell in the datasheet window, and then type the data you want to plot. The chart window reflects any changes you make.

There are several different items that are either used to create a chart or that appear in the chart, depending on the type of chart you create:

- a) The data series in the row, column, or field of data used to plot the chart.
- b) The chart is the area inside the Chart window, including all the items that make up the graph.
- c) The chart's axes are the lines used to plot data on the chart.
- d) The plot area is the region of the chart in which the data is plotted. The axes and data markers used to plot the data are located in the plot area.
- e) A data marker is the symbol in the chart that marks a data point or value.
- f) Gridlines, which often make the chart easier to read, begin at tick-marks and continue through the chart either horizontally or vertically.
- g) The chart text describes the data or chart items.
- h) The legend is an insert in the chart that identifies the colors, patterns, or symbols assigned to the markers in the data series.

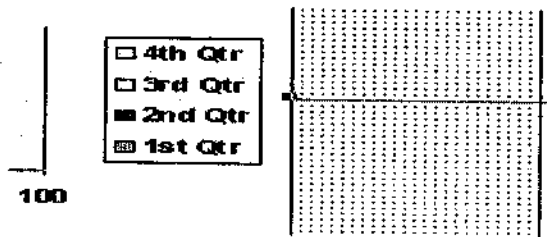
14.3.2 Editing a Chart

You can change virtually every element of the chart, including the chart's size and type, the chart text, and the data that is used to plot the chart.

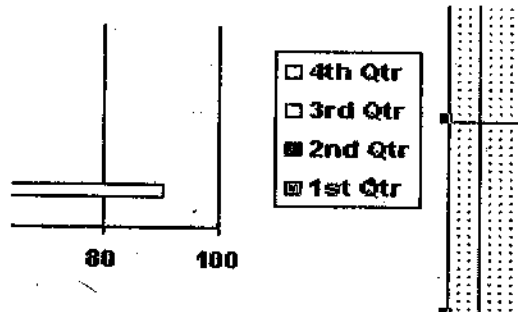
To make any changes to a chart in Access, you must be in Design view.

Use any of the following methods to edit a chart:

- 1) In Access, double click on the chart to display Microsoft Graph's Datasheet and Chart windows. Select the cell that contains the value you want to change, and then type the new value to be plotted in the chart. The chart is automatically updated in the chart window.
- 2) To move a chart, click just inside the frame that surrounds the chart to select the chart. Then drag the chart to a different location.

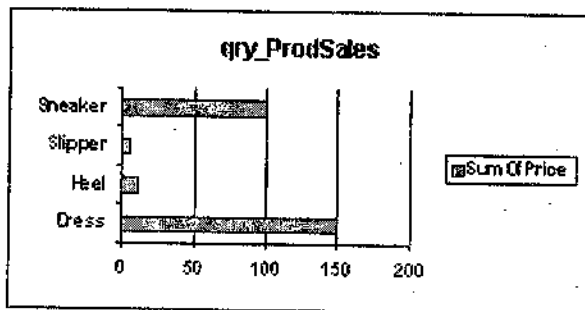


- 3) Double click on the chart text you want to change to activate its text box, and then select the text and type the new text to replace the selection.



- 4) select one of the axes, right click on it and then select Insert Gridlines to display the Gridlines dialog box. Select the check boxes of any gridlines you want to appear in the chart, and choose OK.

- 5) To insert a chart title or axis title in a chart, right click on an axis, and then select Insert titles to display the titles dialog box. Select the check box of any chart item for which you want a title, and then choose OK. A text box appears in the chart with some text in it describing the chart item. Edit the text as described above.



14.3.3 Changing the Chart type of an Existing Chart

You can easily change the chart's type. Double click on the chart to activate it, and then right-click just outside the plot area of the chart to display its shortcut menu. Select Chart type in the shortcut menu to display the chart type dialog box, choose a different type of chart, and then choose OK. The same data that was used to compile the original chart is used to draw a new chart of the selected type.

14.4 Pivot Tables

Pivot tables represent a powerful way to convey the data in Access databases, and they empower users to perform many tasks that used to require custom programming.

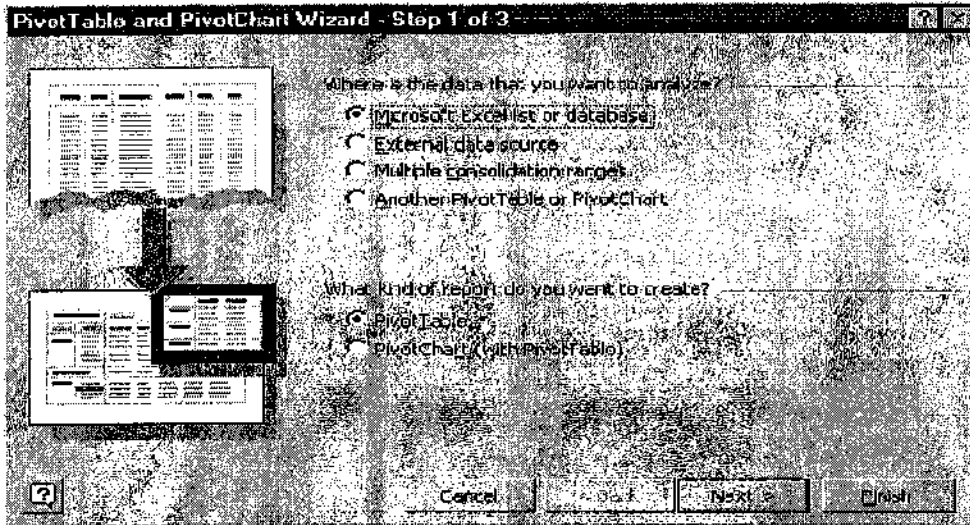
Create a pivot table in Access to summarize data in a list or database, and display the summary so it can be analyzed. A pivot table allows you to rotate the row and column headings in order to display different views of the data, and can be updated when the data in the source changes. In addition to Datasheet and Form views, Access 2002 or later supports PivotTable and PivotChart views for viewing data in a datasheet or form. The PivotTable view uses an Office PivotTable Component and facilitates interactive data analysis. The PivotChart view uses an Office Chart Component and helps you create dynamic, interactive charts.

To create the Pivot Table, invoke the Pivot Table Wizard with the menu commands Data, Pivot Table and Pivot Chart Report. The Pivot Table Wizard leads you through three steps:

Step 1: Allows you to specify where your data is located and whether you want a chart as well as a table. Most commonly you'll get your data from an Excel list that's part of the current worksheet.

Step 2: Identifies the list range. If you have the insertion point anywhere in the list when you start the Wizard, Excel defines the list range automatically.

Step 3: Creates the Pivot Table using its best guess as to layout.



How to Use an Access Pivot Table

1. Click "File" and then "Open" and browse to the Microsoft Access database you want to analyze.
2. Click "View" and then select "PivotTable View" and this displays the "PivotTable Field List."
3. Select a numerical field from the "PivotTable Field List," then drag and drop this field in the "Drop Totals or Detail Fields Here" section of the pivot table view. For example, if you want to know how many orders you have in a store database, the order quantity field is the numerical field you select, since it represents the number of orders. A simple pivot table view is displayed showing the summarized list of the order quantities.
4. Select the field representing the store's product identifier from the "PivotTable Field List," then drag and drop it in the pivot table view section labeled "Drop Row Fields Here." Now the pivot table view is displayed listing the order quantities for each store product. The grouping of information by store product identifier makes the pivot table summary more meaningful for analysis.
5. Right-click the numerical field column name in the pivot table view and select "AutoCalc" and then select "Sum" and now you have a meaningful pivot table that summarizes the order quantity for every store product in your database.

14.5 CREATING FORMS WITH DESIGN VIEW

Although information in a database can be entered and edited directly in a table, most people find it simpler to use a form. We use forms all the time in everyday life as a way of recording information so forms are familiar to us. The Form design tools in Access are very flexible and allow you to customise a form with many features to make it easy to use. Forms can be created in a few different ways.

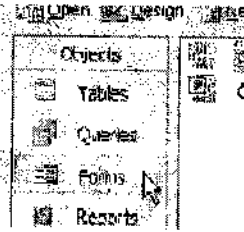
- Use an Auto form to create a form based on a standard layout.
- Use the Form Wizard.
- Use one of the above methods and then modify the form in Design View.
- Create a form completely from scratch using the Design View tools.

Using Auto forms

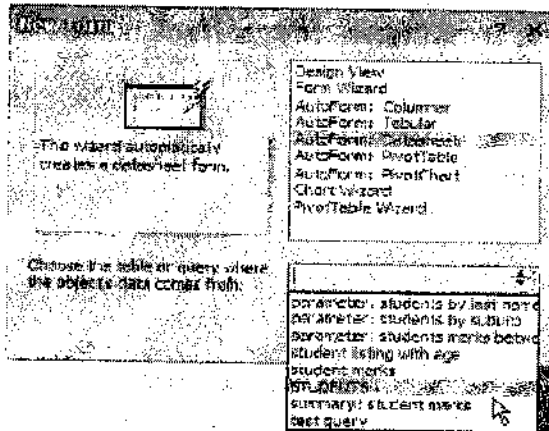
Auto forms allow you to create a form quickly based on a standard layout. In the first exercises, you actually used an auto form when you used a form for data entry. There are several auto form layouts to choose from and we will try out three of them in the following exercises.

Creating a Datasheet Auto Form

- 1) Make sure your Student List database is open.



- 2) Select the Forms section from the Database Window.
- 3) Click the New button at the top of the Database Window.
- 4) When the New Form dialog appears, click on the list at the bottom as shown below. A list of all your tables and queries appears since forms can be based on either.
- 5) Select your STUDENTS table from the list (it's easy to tell which one's a table because we named tables in uppercase and queries in lowercase).

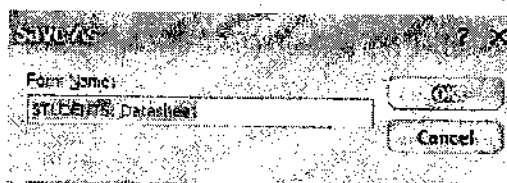


- 6) From the list of options at the top of the dialog, select AutoForm: Datasheet.
- 7) Click OK to create the form.

Student Number	Last Name	First Name	Date of Birth	Address	Suburb
1	Robbins	Mark	17-06-89	4 Kensington Ave	Dianella
2	Stevens	Sarah	10-04-89	24 Chovyns Ave	Yokne
3	Andrews	Claire	01-11-89	322 Walter Rd	Mortley
4	McKay	Tim	02-08-89	54 Coppie St	Dianella
5	Dutton	Robert	28-03-88	230 Fildes St	Yokne

The end result is a form that looks and acts the same as a table. It may not seem very useful to have a form that's the same as a table but it can be very useful for subforms as you will see later on. Sometimes it is handy to have a list inside a form. Since a table can't be placed inside a form, another form that looks like a table can be used instead.

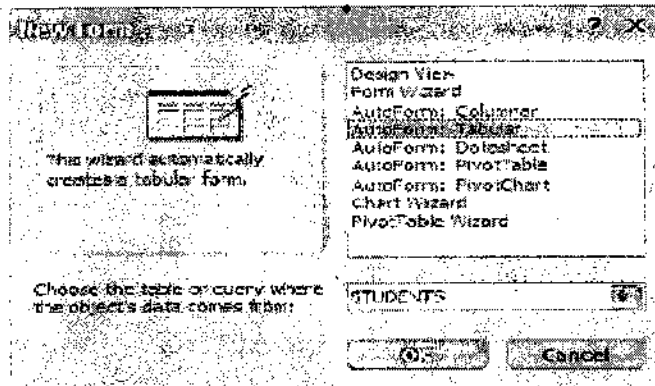
- 8) Close the form.
- 9) When you are prompted to save the form, click Yes.



10) Enter STUDENTS: Datasheet as the form name and click OK.

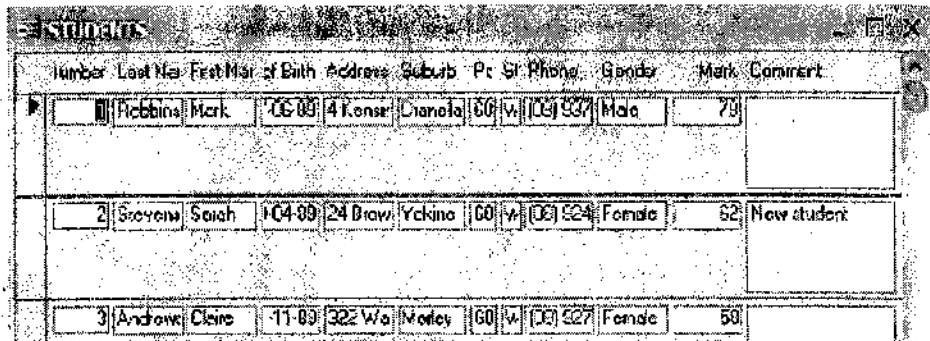
Creating a Tabular Auto form

1) Click the New button at the top of the Database Window.



2) When the New Form dialog appears, select the options shown above (STUDENTS as the table and AutoForm: Tabular as the type of form).

3) Click OK to create the form.



Number	Last Name	First Name	Date of Birth	Address	Suburb	Postcode	Phone	Gender	Mark	Comment
1	Robbins	Mark	06-09	4 Fense	Lianola	60	W 02 524	Male	79	
2	Stevens	Sarah	04-09	24 Brown	Yckina	60	W 02 524	Female	52	New student
3	Andrew	Claire	11-09	322 W	Morley	60	W 02 527	Female	50	

4) Close the form.

5) When you are prompted to save the form, click Yes.

6) Enter STUDENTS: Tabular as the form name and click OK.

A tabular form can be used in the same way as a table, but it can be formatted and customized a lot more than a table.

14.6 CREATING REPORTS

Reports are used in a database to present information in a neat and organised format that is ready for printing. When a report is opened in Access, it is opened in Print preview for this reason. Creating a report is very similar to creating a form and like a form, can be done using any of the following methods:

- Use an Auto report to create a form based on a standard layout.
- Use the Report Wizard.
- Use one of the above methods and then modify the report in Design View.
- Create a report completely from scratch using the Design View tools.

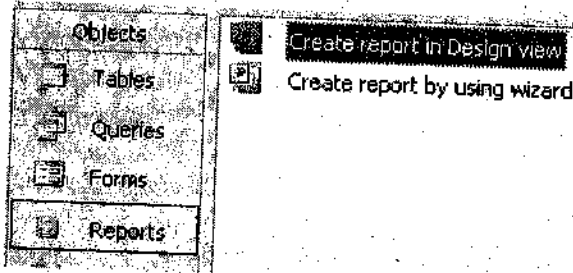
14.6.1 Introduction

Having all your data stored in Access is great for maintaining a database, but it isn't the best when you want to share the data or view it away from a computer. The solution to this problem is to create an Access report that will let you design a ready-to-print document of your desired database information.

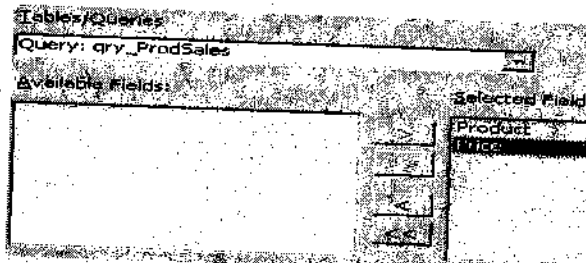
For example, Bob wants a report to show the sales for each product, as well as the total sales for his company. Luckily, because he has all his sales information in an Access database, he can create this report in about a minute!

Let's explore how you would create this basic sales report in Access.

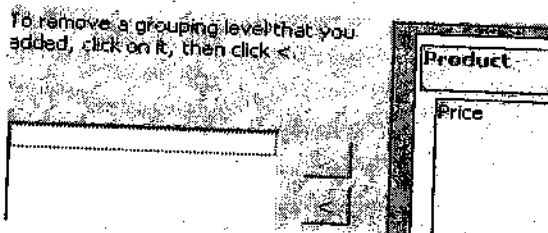
1. Navigate to the Reports section in Access



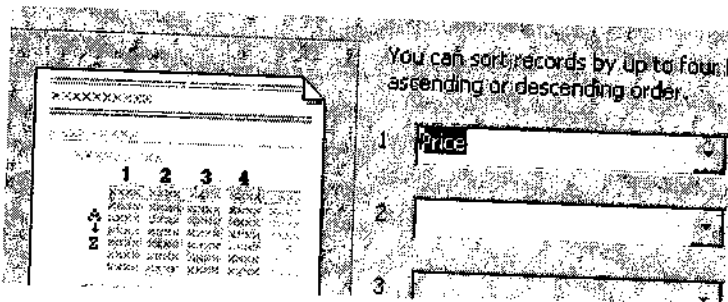
2. Double-click "Create report by using wizard".
3. Select the query we created in the Access Query lesson qry_ProdSales and add both fields to the report.



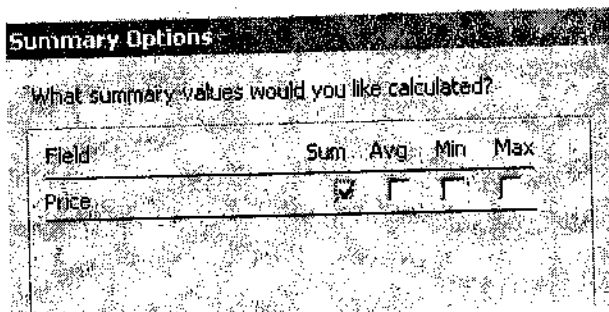
4. Click Next
5. At the grouping step, add the Product field by clicking the right arrow and click Next



6. At the sorting step, select Price from the drop-down-box then click Summary Options ...



7. Check the Sum box, so the report will include totals for the Price field and click OK



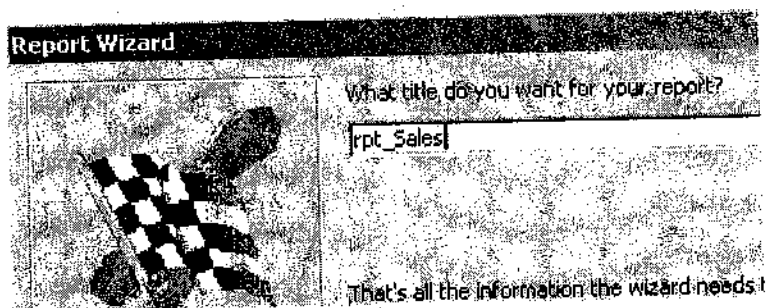
8. and click Finish

9. Click Next to advance to the layout options

10. Choose a Stepped layout and a Portrait orientation, then click Next

11. At the Style screen choose Bold and click Next

Name the report rpt_Sales and click finish



Open up your report and check it out!

rpt_Sales	
Product	Price
Dress	\$150.00
Summary for Product = Dress (1 detail record)	
Sum	\$150.00
Heel	\$12.00
Summary for Product = Heel (1 detail record)	
Sum	\$12.00
Slipper	\$5.00
Summary for Product = Slipper (1 detail record)	
Sum	\$5.00
Sneaker	\$40.00
Summary for Product = Sneaker (2 detail records)	
Sum	\$100.00
Grand Total	\$267.00


Bob can now print out this handy report and review his sales in an easy-to-read fashion, while away from his computer. If you would like to make any changes to the report just right-click rpt_Sales and choose the "Design View" option from the popup menu.

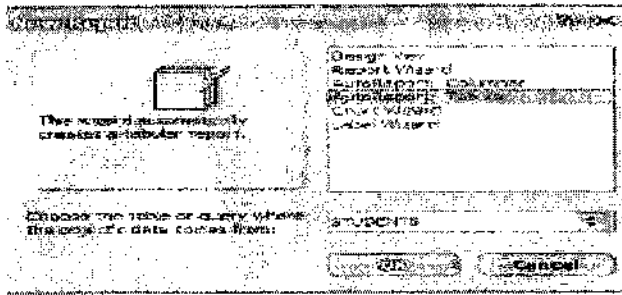
14.6.2 Different kinds of Reports

There are different types of reports in Ms Access. These reports are:

a) Creating a Tabular Auto Report

- 1) Make sure you are in the forms section of the Database Window.

- Click the New  button at the top of the Database Window.




- Select AutoReport: Tabular and make sure the STUDENTS table is selected as the source.
- Click OK to create the report. The report will appear in Print Preview ready for printing.

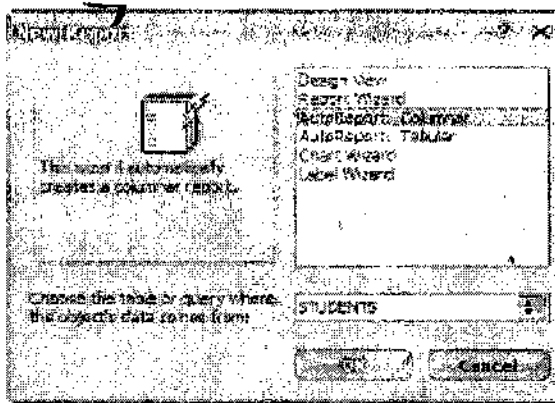
STUDENTS

Number	Last Name	First Name	Age of Birth	Address	Suburb	Postcode	State	Phone	Gender
1	Robson	Mark	17-01-82	4 Kensington A	Diamond	6000	WA	(81) 9275 1204	Male
2	Stevens	Sarah	10-04-89	26 Brownlow	Perth	6000	WA	(81) 9249 8127	Female
3	Anderson	Clare	01-11-80	322 Walker Rd	Norley	6255	WA	(81) 9275 1537	Female
4	McGee	Tim	02-04-89	54 Coote St	Diamond	6009	WA	(81) 9275 2610	Male

- Close the report. When prompted, save the report as *Student Report: Tabular*.

b) Creating a Columnar Auto Report

- Click the New  button at the top of the Database Window.



- Select AutoReport: Tabular and make sure the STUDENTS table is selected as the source.
- Click OK to create the report. The report will appear in Print Preview ready for printing.

STUDENTS

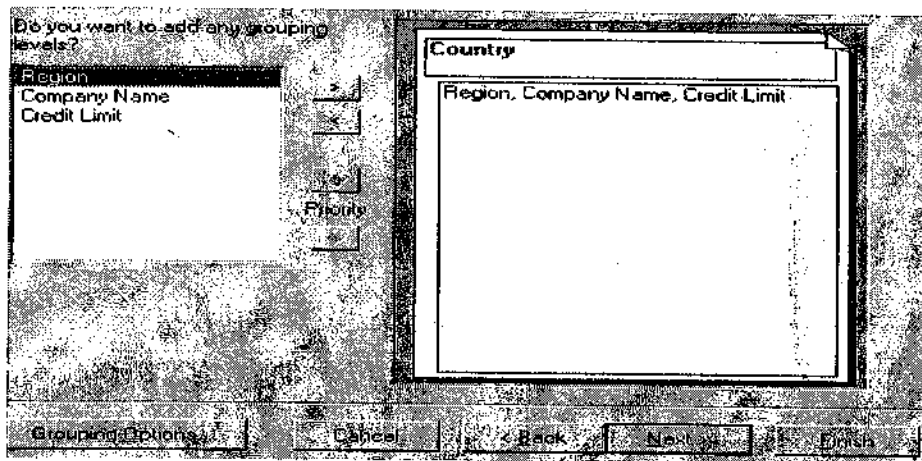
Student Number	<input type="text"/>
Last Name	<input type="text" value="Robson"/>
First Name	<input type="text" value="Mark"/>
Date of Birth	<input type="text" value="17-02-77"/>
Address	<input type="text" value="Kensington Ave"/>
Suburb	<input type="text" value="Marrickville"/>
Postcode	<input type="text" value="2155"/>
State	<input type="text" value="NSW"/>
Phone	<input type="text" value="02 9375 1234"/>
Gender	<input type="text" value="Male"/>
Mark	<input type="text" value="70"/>
Comment	<input type="text"/>
Student Number	<input type="text" value="2"/>
Last Name	<input type="text" value="Robson"/>

4) Close the report. When prompted, save the report as *Student Report: Columnar*.

14.6.3 Groups

The data in a field that was used to sort records in a report can also be placed in a group, a collection of related data. Each group can contain summary information about its data in a header or footer. The summary information can be the result of a calculation, such as the total number of items in the group.

Often statistics are used in combination with grouping. For example you may want the average GPA for all students in each major of study. Grouping means creating groups of records that share some common characteristic. In this example, when grouped by major, one group would be Business Administration students, one group would be Finance students, and another group would be Economic students. The calculation of average GPA would be made for each group. To indicate grouping in the query, select the Group By as the entry in the Total row for the field to be used for grouping. Then perform the aggregate function, such as average, on the field to computer, GPA.

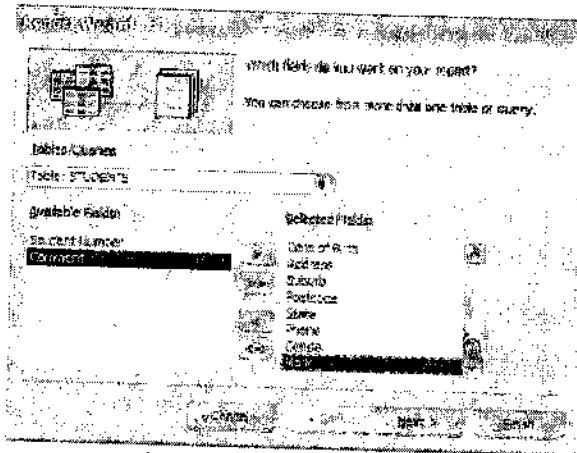


- 1) Open the report in Design view.
- 2) Select view->Sorting and Grouping to display the Sorting and Grouping window.
- 3) Position the Insertion point in the field to be grouped in the field/Expression column in the Sorting and Grouping window, and then set any of the following properties for the group in the Group properties pane:
 - Ø Select Yes in the Group Header drop-down list to add text or graphics at the top of the selected field's group.
 - Ø Select Yes in the Group Footer drop-down list to add text or graphics at the bottom of the selected field's group.

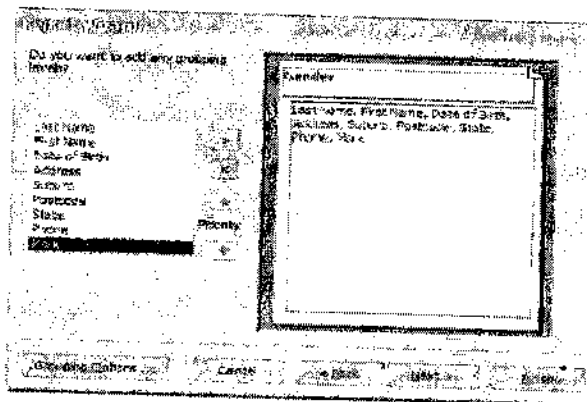
- Select the appropriate Text, Date/Time, or numeric option to specify how the data is to be grouped in the Group on drop-down list. The options that appear depend on the type of data in the field.
 - Type the number in the Group Interval text box to specify the interval that is necessary for the property selected in the Group on drop-down list. For example, when order Date is the option selected in the Group on drop-down list, type 2 in the Group Interval property text box to report on the data in biweekly groups.
 - Select No (the default) in the keep together drop-down list to print the group without restricting the header, details and footer to appear on the same page. Whole Group to print the group's header, details, and footer on the same page or with first detail to print the Group's header on the page if the first detail will also fit on the page.
- 4) If necessary, add controls to group's header and footer.
 - 5) Click on the Save button on the Report Design toolbar, or choose File -> Save to save the changes to the report.

14.6.4 Totals and Summary Reports

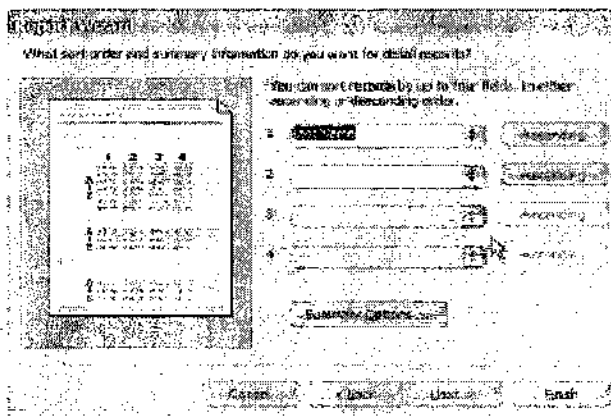
- 1) From the Database Window, click the option that says Create report by using wizard.



- 2) In the Tables/Queries list, make sure that *table: STUDENTS* is selected.
- 3) Click the button to select all of the fields for use in the form. All of the fields will now be listed on the right side.
- 4) Double-click on *Student Number* and *Comment* to move them back over to the left as shown above.
- 5) Click Next when ready.

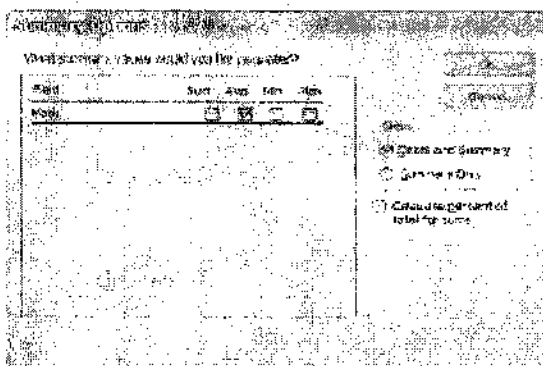


- 6) The next step allows you to choose grouping levels for your report. Double click on Gender to select that as the grouping field. This means that all of the female students will be grouped together in the report and all the male students will be grouped together.
- 7) Click Next to continue.



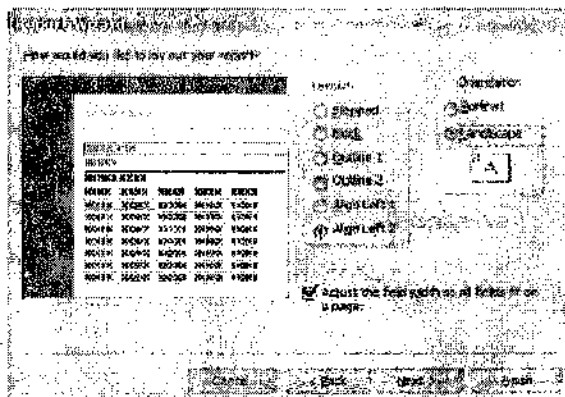
This step in the wizard allows you to choose how the records in the report will be sorted. There are also options for adding totals and subtotals to your report.

- 8) In the first sort box, select Last Name as shown above. You can also select additional fields for sorting in case there are any records with the same last name.
- 9) Click the Summary Options button.

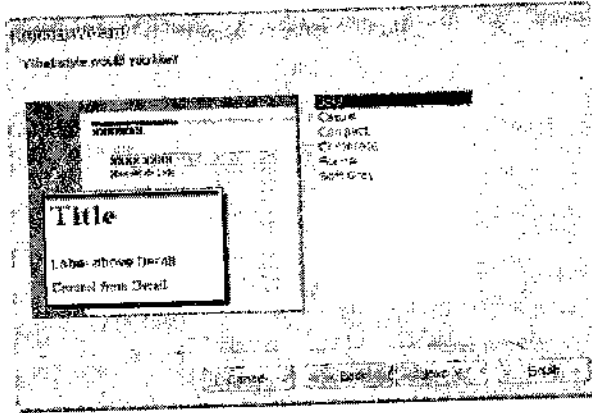


You can use these options to add totals for any number fields. The only field available here is Mark.

- 10) Click the box to put a tick under the Avg option as shown above. This will add an average mark figure to the report.
- 11) Click OK to return to the wizard.
- 12) Click Next to move to the next step.



13) Click Align Left 2 for the report layout with Landscape selected as the orientation and click Next.



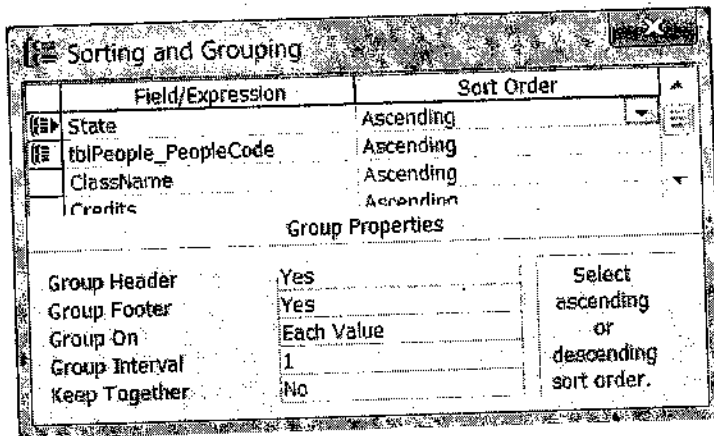
14) Select a report style and click Next.

15) Enter Students by Gender for the report name and click Finish.

Students by Gender

Last Name	First Name	Date of Birth	Address	Suburb	Postcode	State	Phone	Mark
Anderson	John	01/11/89	123 Main St	Adelaide	5000	WA	08 9234 5678	88
DeVries	Larry	04/07/77	45 Highway Rd	Melbore	3000	WA	08 9234 5678	92
Seaborn	Leona	10/07/84	87 Grand Place	Perth	6000	WA	08 9234 5678	75
Shapiro	Laura	12/08/95	101 Orchard	Perth	6000	WA	08 9234 5678	85
Spencer	Laura	14/11/88	251 Spring St	Perth	6000	WA	08 9234 5678	72
Swanson	Earl	11/01/76	13 Riverside Ave	Perth	6000	WA	08 9234 5678	62

Summary for Student: People (Total: 6 records): 68



To sort the records that will appear in a report :

- 1) Open the report in Design view.
- 2) Select view -> Sorting and grouping to display the sorting and grouping window.
- 3) Select the name of the first field on which the data is to be sorted in the first cell in the field / Expression column.
- 4) Select Ascending or descending in the first cell in the Sort Order column to specify the sort order for the first field .

- 5) Repeat steps 3 and 4 for each field on which the data in the report is to be sorted. Up to 10 fields can be used to define the sort order.
- 6) Double-click on the Sorting and Grouping window's control menu box to close it and return to the report in Design view.
- 7) Click on the save button on the Report Design toolbar or choose File -> Save to save the changes to the report.

14.6.6 Reports using more than one table

We wish to create a report which contains data from both the "Orders" table and the "Order Detail" table. There are two methods of placing data from different tables onto the same report:

- **Create a relationship between the tables.**

If you create a relationship between tables, you can place fields from the related tables on the same report. However, relating tables at the table level can have a major effect on the database. When tables are related at the table level, certain conditions must exist and certain constraints will be in effect.

- **Create a query between the tables.**

If you create and save a query which links the tables then a report can be created off the saved query. This solution has no functional impact on how your tables interact with one another and will pose no data entry constraints. However, the tables being linked must have a common field.

Table relations basically control how tables that have a field in common will behave with each other. To relate tables, specific conditions must exist:

Master/Subordinate: When two or more tables are related, there must be at least one "Master" table. When set up to its fullest extent, the master table dictates what can be typed into the other tables which are known as subordinates. (See Referential Integrity below).

Primary Keyed Field: The tables are linked through their common fields. Further, the "Master" table's linking field must be a primary key field. The subordinate table's linking fields do not have to be keyed.

Same Data Type: The linking fields must be of the same data type or similar data types. The following field types are compatible:

- Text to Text
- Number to Number
- Autonumber to Number (Field size on the number field must be set to "Long Integer")

Relating Tables

Our eventual goal is to create a report that allows us to place information from both the "Orders" table and the "Order Detail" table in the same report.

- "Orders" will be the master table
 - The two tables will be related through their common field of **Order ID**.
1. Click on the "Relationships" icon:
 2. Click on the "Show Table" icon.
 3. Select the table "Orders" and click on "Add".

4. Select the table **“Order Details”** and click on **“Add”**.
5. Click on **“Close”** to close the *Show Table* window.

The tables are related by using the mouse to connect the fields which are common to both of the tables. However, the direction the mouse is dragged determines which table is the master and which is the subordinate. Always drag from the master table to the subordinate table.

6. Click on **Order ID** in the **“Orders”** table.
7. Drag it to **Order ID** in the **“Order Details”** table.

The window below appears. At this point we could click on **“Create”** and be able to create the Main/Sub Reports, but we will explore some of the other options as well.

14.7 Summary

In this chapter we have defined how the user can interact with Microsoft Access and develops a database and application using tables, Forms, Reports, Data access pages, macros and modules. Queries can also be stored and used as the source of records for forms, reports and data access pages. Forms can be used for a variety of purposes such as to create a data entry form to enter data into a table. Reports allow data in the database to be presented in an effective way in customized printed format. Microsoft Access is the mostly widely used relational DBMS for the Microsoft Windows environment.

14.8 Unit end Questions

1. How Access can be used in a multi-user environment? Explain.
2. Describe the main data types in Access and when each type would be used.
3. Describe two ways to create tables and relationships in Access.
4. Discuss the advantages and disadvantages of Reports.
5. What is the function of Pivot tables?
6. Define the way to create charts in MS Access.
7. What restrictions are necessary to create Reports in MS Access?

14.9 References

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