

Lesson No. 1

WORD PROCESSING WITH MS-WORD

STRUCTURE

- 1.1 Features of a Word Processor
- 1.2 Introduction to Word
- 1.3 Menus
- 1.4 Shortcut Menus
- 1.5 Toolbars
- 1.6 Customizing Toolbars
- 1.7 Working With Files
 - 1.7.1 Create a New Document
 - 1.7.2 Open an Existing Document
 - 1.7.3 Save a Document
 - 1.7.4 Renaming Documents
 - 1.7.5 Working on Mutiple Documents . 1.7.6 Close a Document
- 1.8 Working With Text
 - 1.8.1 Typing and Inserting Text
 - 1.8.2 Selecting Text
 - 1.8.3 Deleting Text
 - 1.8.4 Formatting Text
 - 1.8.5 Format Painter
 - 1.8.6 Undo
- 1.9 Styles
 - 1.9.1 Applying a Style
 - 1.9.2 Applying a Style from the Style Dialog Box
 - 1.9.3 Create a New Style from a Model
 - 1.9.4 Create a Simple Style from the Style Dialog Box
 - 1.9.5 Modify or Rename a Style
 - 1.9.6 Delete a Style
- 1.10 Lists
 - 1.10.1 Bulleted and Numbered Lists
 - 1.10.2 Nested Lists
 - 1.10.3 Formatting Lists
- 1.11 Review Questions
- 1.12 Suggested Readings
- 1.13 Solution to Self Check Exercise

1.1 FEATURE OF WORD PROCESSOR

Consider the following typed letter :

Dear ABC,

We both have holiday next Monday. What do you say to a trip to muree and a ramble in the gullies ? We could start early, say 6 a.m., in my car, and take some group with us, and make a day of it up in the cool. It would be a change from this heat down here. If you agree, I will arrange the picnic, and be round at your house at a quarter to six on Monday morning. Bring your camera with you.

Yours

XYZ

Just notice, in this letter, there are some spelling errors, typing mistakes, missing words, missing lines, a paragraph to be moved down and so on. In, order to make the changes, the entire document has to be retyped and if there were many documents of this sort, the time and effort required to retype each would be phenomenal.

Such work, defined above, is called Word Processing. A word processor is a software package, which helps enter and, edit a document much faster than the usual manual ways. Most of the word processors today allow much more than allowing one to enter and edit a document.

A word processor is a package that processes textual matter and creates organized and flawless documents. A word processor has everything that a conventional, typewriter has. In addition to it, a word processor not only removes all the limitations of typewriters but also offers various useful features that can not be even dreamt of with typewriters. For instance, making corrections through type writers on a typed text is (though) not impossible but it certainly makes the document untidy. However, with word processors, the corrections are very simple without affecting the neatness of documents.

Also if same textual matter is to be reproduce with minor changes, retyping is the only option in typewriters. For example, if same invitation letters are to be sent to 200 employees and names and addresses of the invitees are to be typed in the documents individually. Then, with typewriters retyping the same matter 200 times with the changed names and addresses can be performed and no other alternative is available. On the other hand, the same situation can easily be tackled within word processors using its mail merge feature. Mail merge feature allows you to combine text and data without requiring any retyping.

The word processing (and word processor) originated way back in 1964 when special typewriters Magnetic Tape' Selectric typewriters (MTST) were launched by IBM (International Business Machines). These machines were capable of storing documents on magnetic storage. The stored data could easily be reprinted when desired.

A word processing is a lot more than a mere text editor. It provides facility to include images, graphs and others objects in the document along with text. Following are some of the facilities available in a word processing package.

- Creating and Saving Documents: Using a word processor we can create document and store it permanently for future use.
- Printing Documents: A word processor facilitates printing of documents. Any number of copies of the same document can be printed without retyping it.
- Text Formatting: Text can be formatted for making it bold, italicized or underlined. Font size can be changed to distinguish some important part of text from not so important.
- Text Alignment: Text can be aligned left, centered, right or justified as per the needs.

The grammar of the text is also checked and corrections are suggested if any grammatical error is found.

- Auto Correct Some error can be automatically corrected like error of first two capital letters or some most common typing errors. Auto correct can also be used to expand the abbreviations into full text.
- Lists : Numbered or bulleted list can be creating to represent point in the text.
- Headers and Footers : Headers and footers can be applied which will automatically appear on top or bottom of every page. Some lesson title can be displayed on top of every page and page numbers can be displayed on top or bottom of the page
- Objects : Object of different applications like spread sheets, presentations*- sounds etc. can. be inserted in a document.
- Columns: Text can be arranged in columns as is found in news papers or research publication.
- Tables : Some word processing packages provide facility to organize some text in tables to make it more understandable. Some mathematic functions can be applied on numeric data. The data can be arranged in ascending or descending order;
- Mail Merge : This is a very powerful utility. Through this a same letter can be addressed to any number of different recipients. This also facilities creation of mailing labels.

[1.1] Self Check Exercise

Question 1.1.1- What is Word Processor?

Question 1.1.2- What is Mail Merge?

Question 1.1.3- What is Lists?

1.2. INTRODUCTION TO WORD

In this block, we will describe the use of a word processor: Microsoft Word (MS Word). MS Word is a windows based application -and is a normally available as an icon in the Application group or the MS Office group. This unit describes the various features related to typing and revising text, selecting text as a group, instead of a letter or word at a time.

Most word-processing efforts, whether a note to yourself or an annual report, are created through an iterative process of typing and editing. In this unit, we briefly cover some simple ways of revising documents.

With Word, you can search a document for specific characters, formats, or styles using the Find & Replace command. Various editing & proofing tools including spell check have been explained. Word's spelling feature is used to check an entire document or a block of selected text against Word's built-in dictionary or against specilized dictionaries that you create.

For most people, writing is an everyday occurrence. When computers have affected out life styles and work patterns, this activity is also not left out. Many application, programs have been developed to make writing easier and smooth operation. One such most popular program is Word Processor. Word-processing software provides a general set of tools for entering, editing, and formatting text. Nearly all the document types that we use in our daily lives can be created in a word processor. In fact, word processors have affected our live to a large extent. Therefore, it is suggested generally that every person must be aware of word processing and its features. This lesson is dedicated to word processing and word processors. This lesson shall introduce the kinds of documents that you can create with word processors and the features that you will find within word

- (i) Creating or opening a document
- (ii) typing text in it,
- (iii) editing the document, if required, and
- (iv) saving the document for later use.

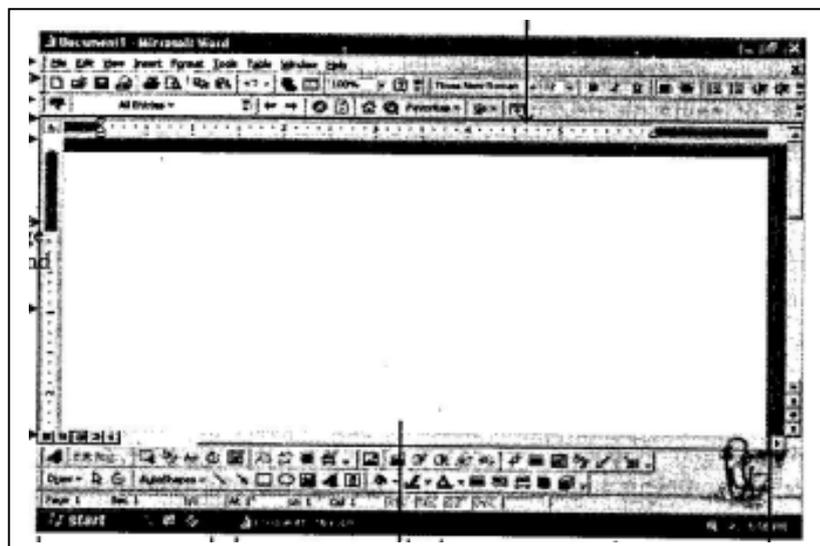
We shall learn about these in context to one word processor Windows based word processor (Microsoft Word or MS Word in short).

Before creating or opening a document in Word, first you'll have to load/open Word in memory. This can be done either by clicking at the shortcut of Word on, the desktop, if available or* by choosing Microsoft Word application from Programs menu pad of Start menu. Once you start Word, following Window (see Fig.), the document window appears wherein you can start typing your text.

Before you start working in Word, you must know the basic components of a document window. The document window has following major components:

- (i) Title bar : Located at the top of the screen; it displays the name of the application (MSWord) and the active document (Document 1).
- (ii) Menu bar : Located below the Title bar, lists the Word menu options.
- (iii) Formatting toolbar : Formatting toolbar consists of tools frequently used for formatting document.
- (iv) Standard tool bar : Standard toolbar consist of most frequently used commands and utilities.
- (v) Ruler bar : Ruler bar allows formatting the vertical alignment of text in a document. It is used to get tab stops, margins and indents.
- (vi) Status bar : The status bar displays information 'which includes page numbers, Horizontal ruler, use to view and set paragraph indents, tab stops page margins and column widths

Menu Toolbar
Standard Toolbar
Formatting Toolbar
Web Toolbar
Tab stop - a position you set for placing and aligning text on a page.
Click here to change the kind of tab stop.
Vertical ruler use to view and set top and bottom margins of pages and the height of rows in tables. _
Drag the markers to adjust settings.
Only available in Print Layout View.



Status bar - Page number of displayed page.
Section of page and page number / total number of pages.

Status bar - Distance from the top of the page to your insertion point.
Line of text where the insertion point is located. Distance, in number of characters, from the left margin to the insertion point. No measurements are displayed if the insertion point is not in the window.

Scroll bar - drag the box or click the arrows to navigate through the current document.

Select Browse Object - click to open the Select Browse Object Menu where you can browse for footnotes or graphics. Use the previous and next arrows to browse through the items.

Status bar - Double click REC to turn the macro recorder on or off; Double-click TRK to turn the track changes feature on or off. Double click EXT to turn the extend selection mode on or off. Double click OVR to turn the overtype mode on or off. The current language is displayed.

Fig. 1.1 : The Screenshot of Microsoft Word and Document Window in Word

the column and line number on which your cursor is present at any given point of a time.

- (vii) Scroll bar : Scroll bars are used to view different areas of the active window. You can do so by moving the elevator along the scroll bar, or by clicking on the buttons with the arrows marked on them, to move up and down a page.
- (viii) The Workspace is the area in the document window wherein you enter the text of your document.

All these components are shown in Fig. 1.1

Most of the tools and commands you need are easy to find on the Standard and Formatting toolbars and on the Word 2000 menus. The following illustration is of the Word 2000 window with a blank document in Print layout view.

[1.2] Self Check Exercise

Question 1.2.1- Write down the steps involved while using Word Processor?

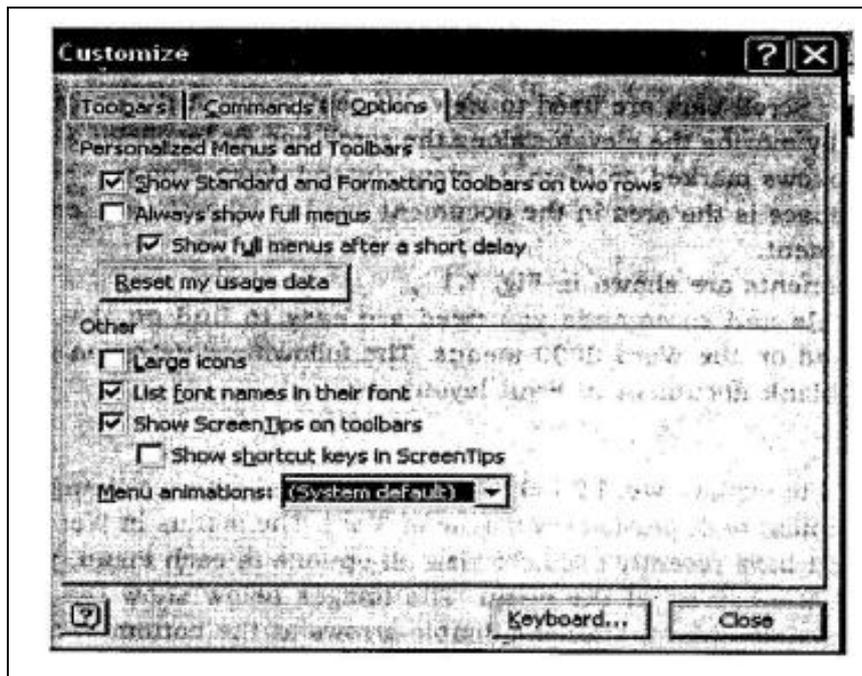
Question 1.2.2- What are major components of Document Window?

1.3. MENUS

When you begin to explore Word 2000 you will notice a significant change in the menu

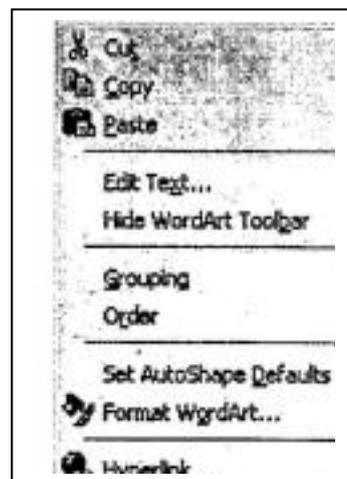
Follow the steps below to display menus similar to previous versions of Word with all the choices listed initially: .

- Select View\ Toolbars\Customize from the menu bar.
- Click on the Option tab.
- Uncheck the Menu show recently used commands first check box.



1.4 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.



Action 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.

[1.4] Self Check Exercise

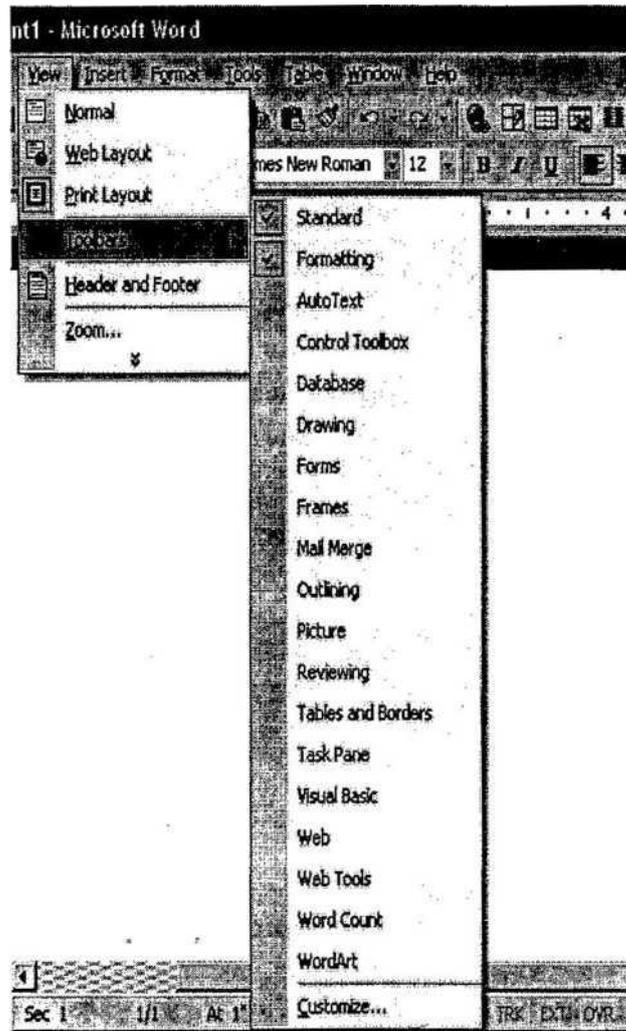
Question 1.4.1- What are Shortcut Menus?

1.5 TOOL BARS

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

[1.5] Self Check Exercise

Question 1.5.1- What are TOOL BARS?



1.6 CUSTOMIZING TOOLBARS

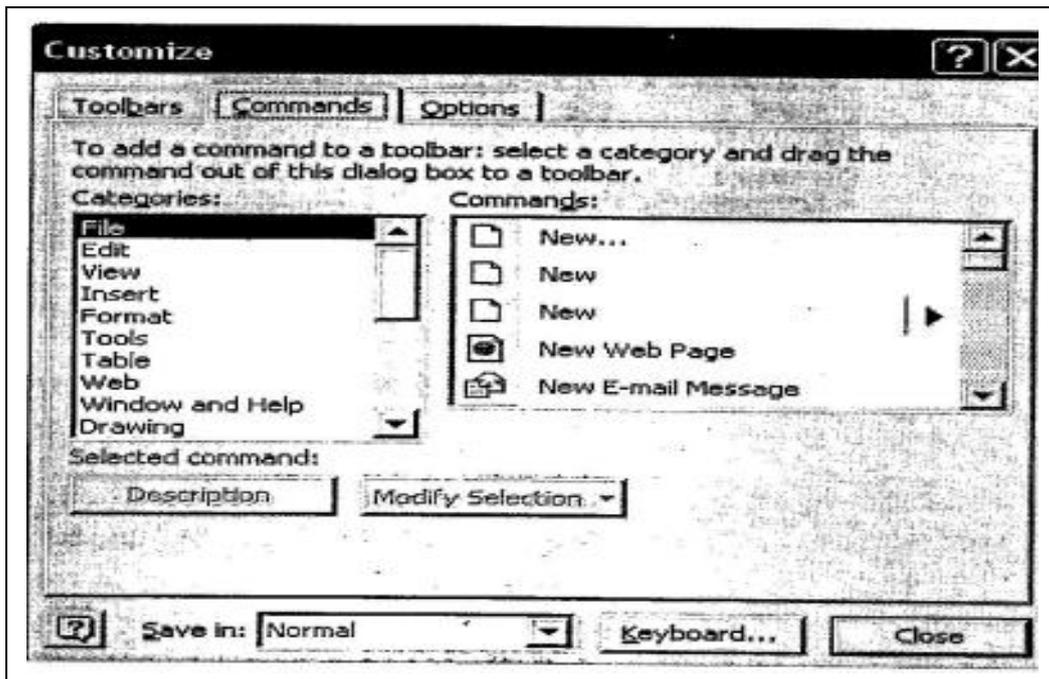
There may be certain actions on a toolbar that you do not use and there may also be commands that you execute often but that are not located on any toolbar. Word toolbars can be customized so these commands can be added and deleted.

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 tool bar by selecting it in the Commands box.
- * Drag the command with the mouse to the desired location on the tool bar and release the mouse button. .
- * Remove a button from the tool bar by clicking and dragging the button off the tool bar.

[1.6] Self Check Exercise

Question 1.6.1- How to Customize the TOOL BAR?



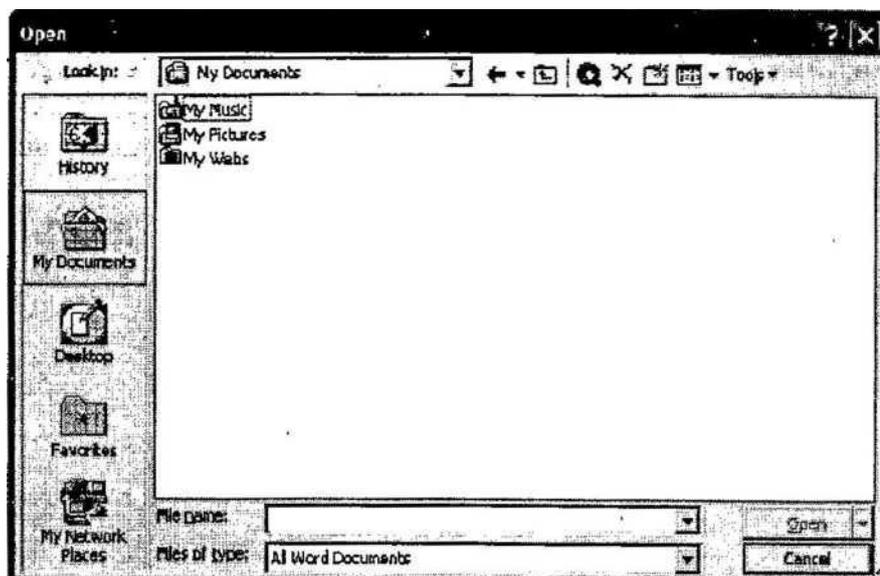
1.7 WORKING WITH FILES

Creating, Opening and Saving Documents

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

1.7.1. 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.



1.7.2. Open an Existing document

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

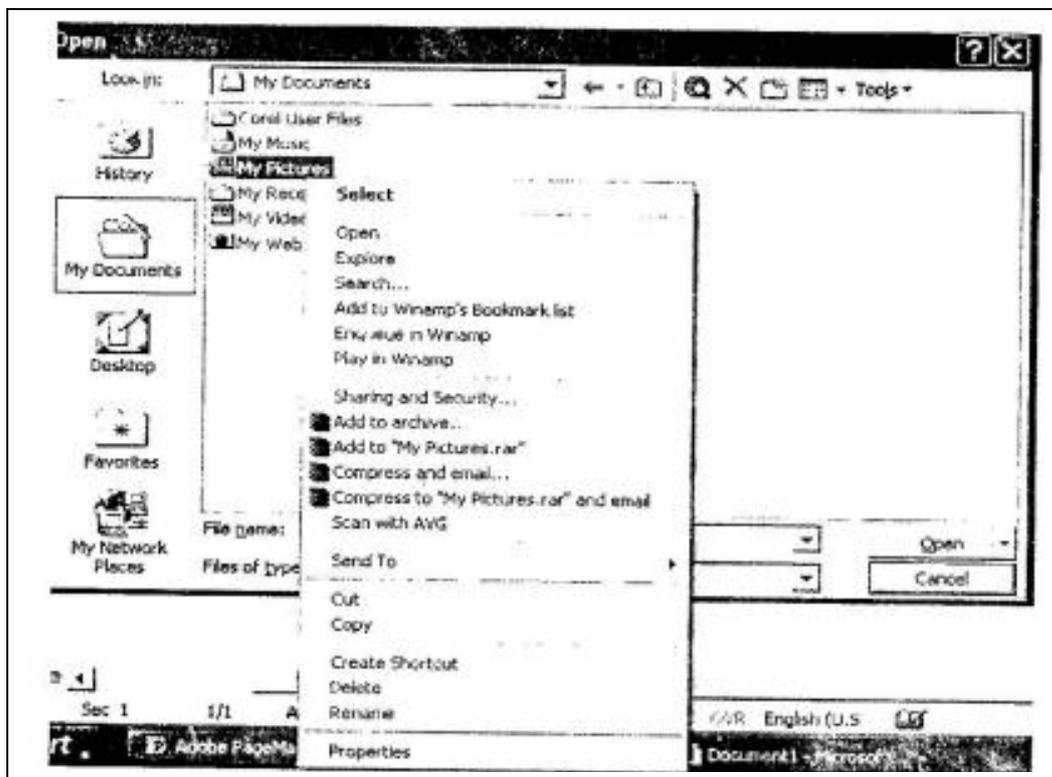
Each method will show the Open dialog box. Choose the file and click the Open button.

1.7.3. Save a Document

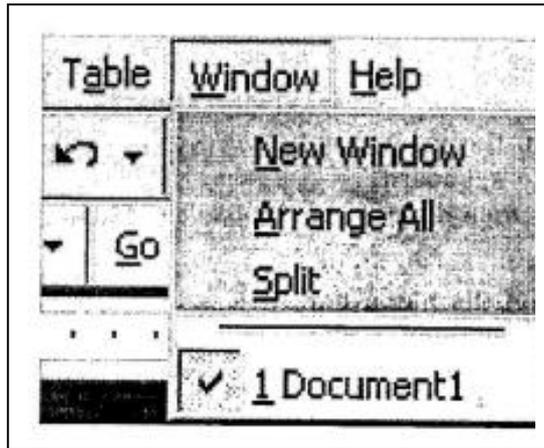
- * Click the save button on the menu bar.
- * Select File \ Save from the menu bar.
- * Press CTRL + S on the key board.

1.7.4. 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.

**1.7.5 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 name to view another open document or click the button on the Windows taskbar at the bottom of the screen.



1.7.6. Close a Document

Close the current by selecting File\Close or click the Close icon if it’s visible on the Standard Toolbar.

[1.7] Self Check Exercise

- Question 1.7.1- How to create a New Document in Word?
- Question 1.7.2- How to save a Document in Word?
- Question 1.7.3- How to Rename a Document?

1.8 WORKING WITH TEXT

1.8.1 Typing and Inserting Text

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

1.8.2 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.

Selecting	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

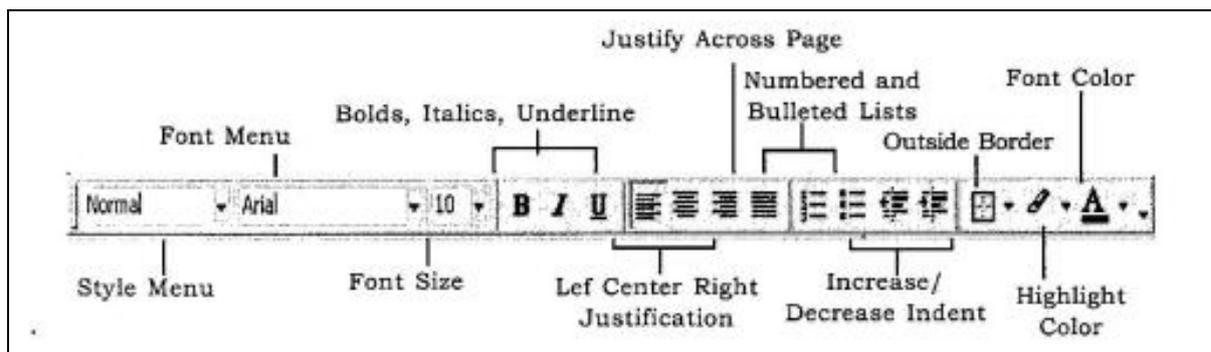
Deselect the text ,by clicking anywhere outside of the selection on the page or press an arrow key on the keyboard.

1.8.3 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.

1.8.4 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 Formating.



Style Menu - Style are explained in detail later in this lesson.

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.

®r 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 one. A font size of 10 or 12 is best for paragraphs of text.

Font Style - Use these button to bold, italicize, 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 lesson.

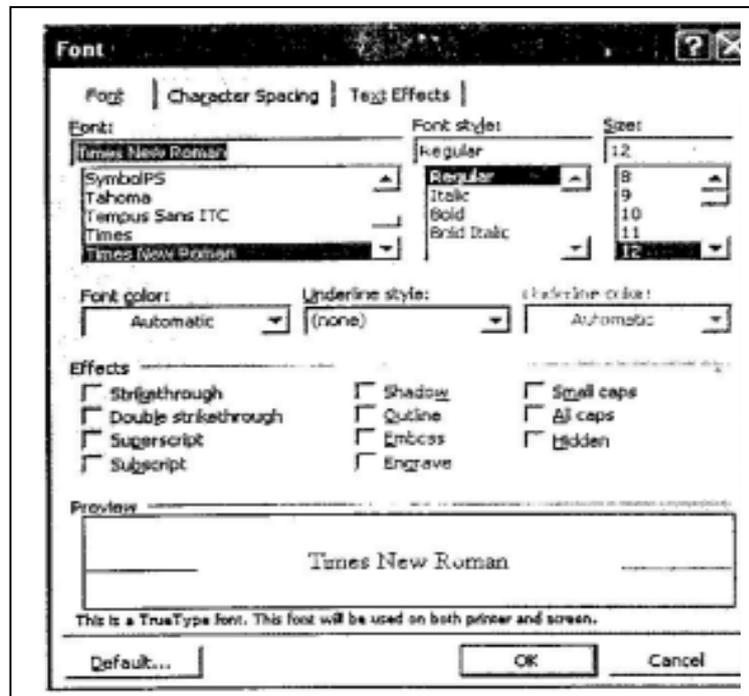
Increase/Decrease Indent - Change the indentation of a paragraph in relation to the side of the page.

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.



1.8.5. 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 tool bar. 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.

1.8.6. Undo

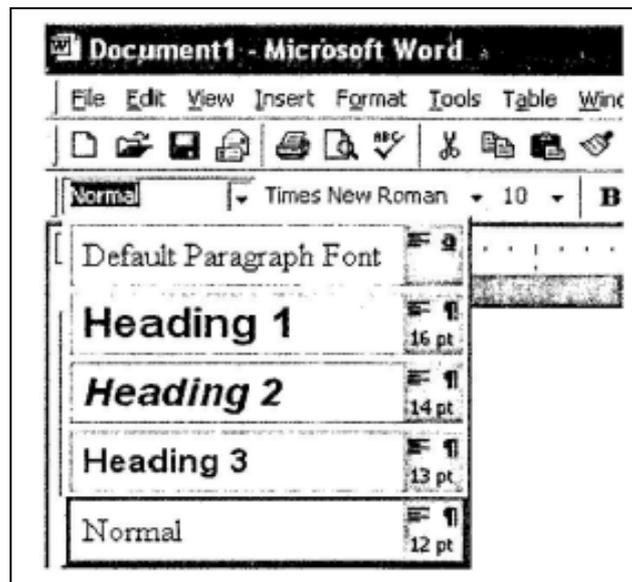
Feel free to experiment with various text styles. You can always undo your last action by clicking the Undo button on the standard tool bar or selecting Edit\ Undo... from the menu bar. Click the Redo button on the standard toolbar or select Edit\Redo to erase the undo action.

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.

[1.8] Self Check Exercise

Question 1.8.1- How to Select a Text?

Question 1.8.2- How to Delete a Text?



1.9 STYLES

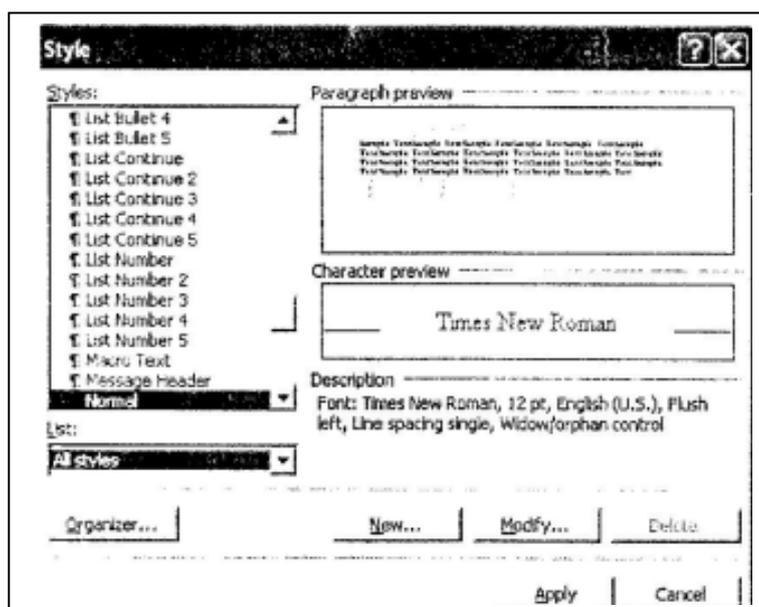
1.9.1. Applying a Style

- * 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.

1.9.2 Apply a Style from the Style Dialog Box

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



the paragraph you want to add a style to.

Select Format\Style... from the menu bar.

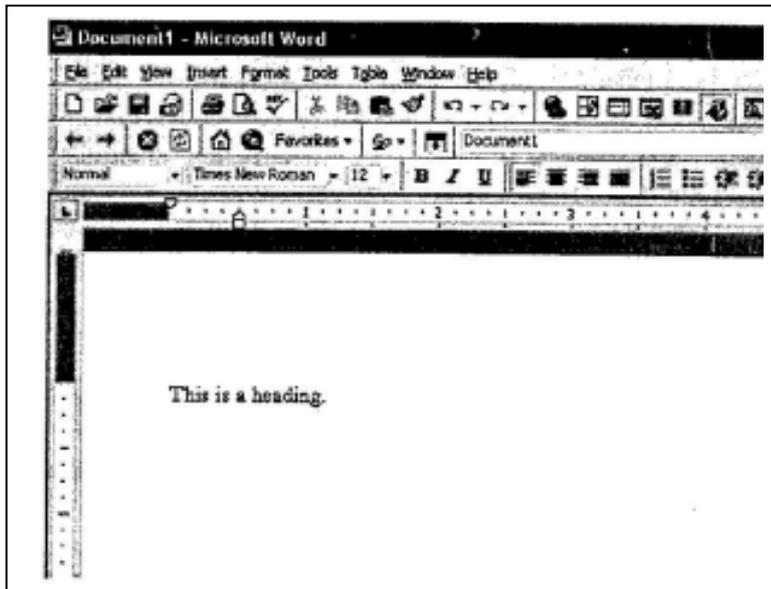
From the List drop-down menu, choose All styles to view all the styles

- * 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 icon (a). A pointer arrow is located next to the current styles. Highlight the style you want to apply to the paragraph and click Apply.

1.9.3. Create a New Style from a Model

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

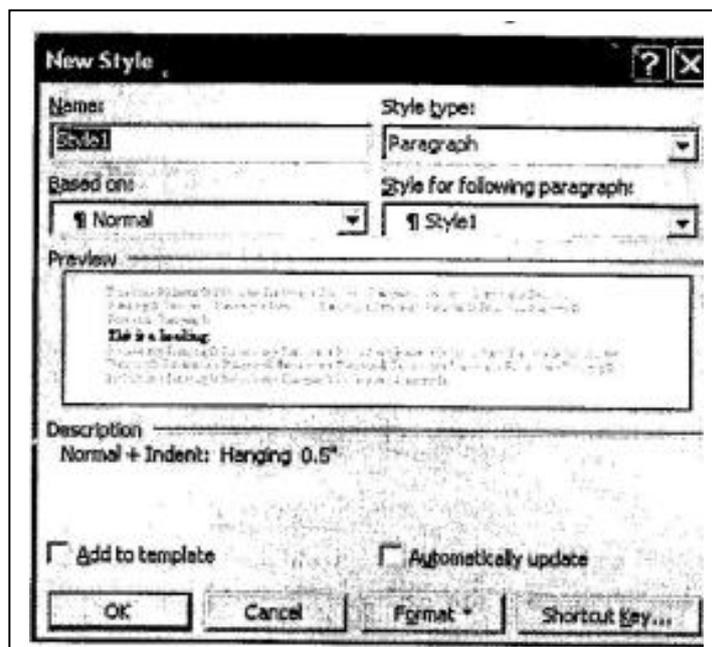
- * Place the cursor in the paragraph you would like to set as a new style.
- * Click the Style box on the formatting tool bar so the style name is highlighted.



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

1.9.4. 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.

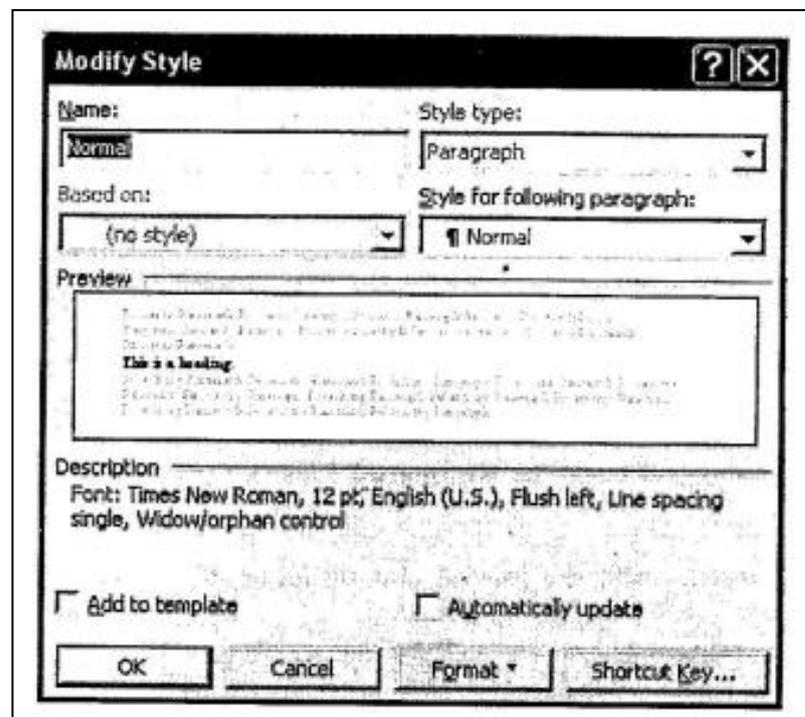


- * Type the name for the new style in the Name field.
- * Select "Paragraph or "Character" from the Style type drop-down menu.
- * Click the Format button at the bottom of the window and choose the paragraph element that will be formatted for the style. Continue to' make changes from the options from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

Modify or Rename a Style •

1.9.5 **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 name 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.

1.9.6 **Delete a Style**

Present 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.

To create a bulleted or numbered list, use the **Bulleted List** or **Numbered List** features provided by Word.

[1.9] Self Check Exercise

Question 1.9.1- How to create a New style from Model?

Question 1.9.2- How to Delete a Style?

1.10 LISTS

1.10*1. 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** formatting toolbar to create lists of multiple levels.

NOTE : You can also type the text first, highlight the section, and press the **Bulleted Lists** or **Numbered list** button to add, the bullets or numbers.

1.10.2 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

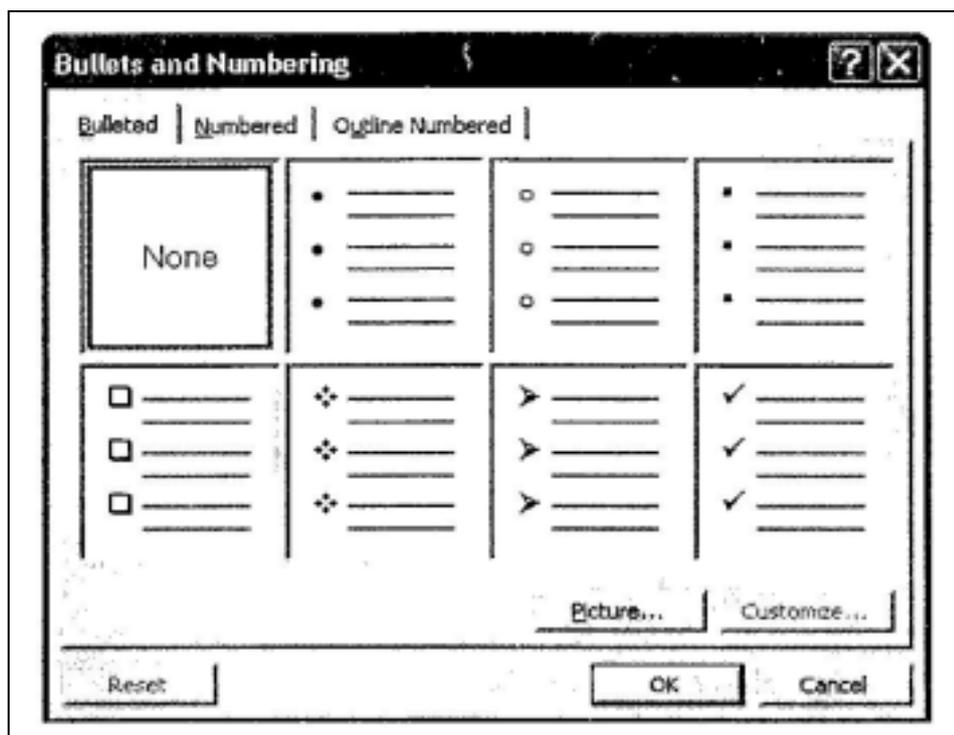
Formatting Lists

* Tables

Create a Table

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

1.10.3 Formatting Lists



- * Highlight the entire list to change all the bullet 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 choice given, or click the Picture... button to choose a different icon. Click Numbered tab to choose a numbered list style.
- * Click OK when finished.

[1.10] Self Check Exercise

Question 1.10.1- How to create Nested Lists?

Key Words:-

Mail Merge, Table, Lists, Undo, Tool Bars

1.11-Review Questions:-

1.11.1-Short Questions

1. What are the main features of a word processing package?
2. What are menus and toolbars in MS-Word ?
3. What are the various formats that can be applied on text?
4. What is a format painter? How can it be used? Explain.

1.11.2-Long Questions

1. How styles can be applied to the text? Explain. .
2. How bulleted and numbered lists can be created ? Explain.
3. How to work with text? Explain in detail.

1.12-SUGGESTED READINGS

1. "Windows Based Computer Courses" by G. Singh and R. Singh, Kalyani Publishers.
- 2. "MS-Word 2002" by V K Jain, BPB Publications, New Delhi.

1.13 Solutions to Self-Check Exercise

[CHAPTER 1]

1.1.1- A word processor is a package that processes textual matter and creates organized and flawless documents. A word processor has everything that a conventional, typewriter has. In addition to it, a word processor not only removes all the limitations of typewriters but also offers various useful features that cannot be even dreamt of with typewriters

1.1.2- This is a very powerful utility. Through this a same letter can be addressed to any number of different recipients. This also facilities creation of mailing labels.

1.1.3- Numbered or bulleted list can be creating to represent point in the text.

1.2.1- (1) Creating or opening a document

(2)typing text in it,

(3) editing the document, if required, and

(4)saving the document for later use.

1.2.2 Major Components of Document Window:-

- (ix) Title bar : Located at the top of the screen; it displays the name of the application (MSWord) and the active document (Document 1).
- (x) Menu bar : Located below the Title bar, lists the Word menu options.
- (xi) Formatting toolbar : Formatting toolbar consists of tools frequently used for formatting document.
- (xii) Standard tool bar : Standard toolbar consist of most frequently used commands and utilities.
- (xiii) Ruler bar : Ruler bar allows formatting the vertical alignment of text in a document. It is used to get tab stops, margins and indents.
- (xiv) Status bar : The status bar displays information which includes page number.

1.3.1- 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 Option tab.
- Uncheck the Menu show recently used commands first check box.

1.4.1- These features allow you to accesses various Word Command faster than using the options on the menu bar.

1.5.1- Toolbars are displaying shortcut buttons available to make editing and formatting quicker and easier.

1.6.1- 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 tool bar by selecting it in the Commands box.
- * Drag the command with the mouse to the desired location on the tool bar and release the mouse button. .
- * Remove a button from the tool bar by clicking and dragging the button off the tool bar.

1.7.1- 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.

1.7.2- Click the save button on the menu bar.

Select File \ Save from the menu bar.

Press CTRL + S on the key board.

1.8.1- 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.

1.8.2- 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.

1.9.1- 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 tool bar 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.

* 1.9.2- Present 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

1.10.1 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

FORMATTING TEXT AND DOCUMENTS

STRUCTURE

- 2.1 Formatting Paragraphs
 - 2.1.1 Paragraph Attributes
 - 2.1.2 Moving Text
 - 2.1.3 Copying Text
 - 2.1.4 Paste Text
 - 2.1.5 The Clipboard
 - 2.1.6 Columns
 - 2.1.7 Drop Caps
- 2.2 Page Formatting
 - 2.2.1 Page Margin
 - 2.2.2 Page Size and Orientation
 - 2.2.3 Headers and Footers .
 - 2.2.4 Page Number
 - 2.2.5 Print Preview and Printing '
- 2.3 Creating Web Pages
 - 2.3.1 Hypelinks
 - 2.3.2 Saving Web Pages
 - 2.3.3 Creating a Webpage from a Template
 - 2.3.4 WebPages Themes
 - 2.3.5 Preview the Webpage
- 2.4 Inserting Pictures, Symbols and Objects
 - 2:4.1 Adding Clip Art
 - 2.4.2 Add an Image from a File
 - 2.4.3 Editing a Graphic
 - 2.4.4 Auto Shapes
- 2.5 Review Questions
- 2.6 Suggested Readings
- 2.7 Solution to Self Check Exercise

2.1 FORMATTING PARAGRAPHS

2.1.1 Paragraph Attributes

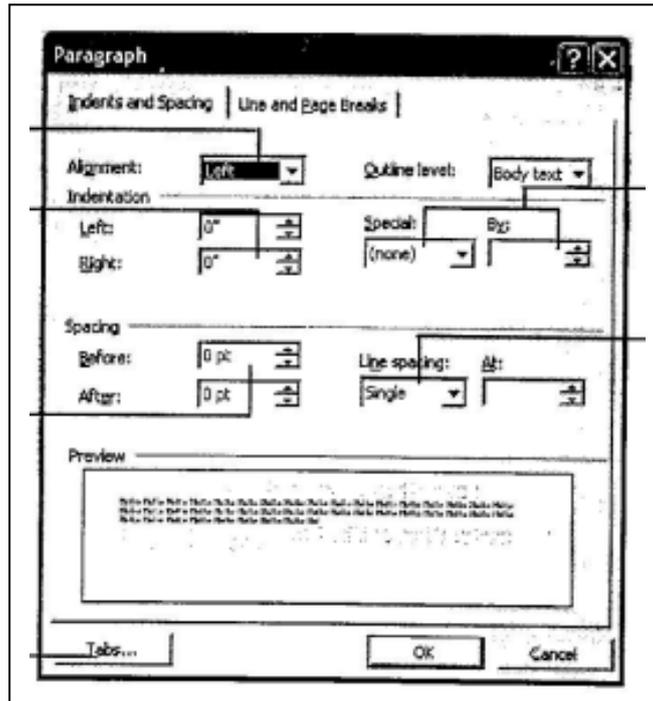
Format a paragraph by placing the cursor within the paragraph and selecting Format\Paragraph from the menu bar.

2.1.2. 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 toolbar, or press CTR1+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

horizontal text alignment for the paragraph distance the text is indented from the left and right edges of the page distance the indented text is from the text above and below the paragraph Click to set tab stops for the paragraph



select special indents for first lines and hanging indents set the line spacing for the text

2.1.3. Copying Text

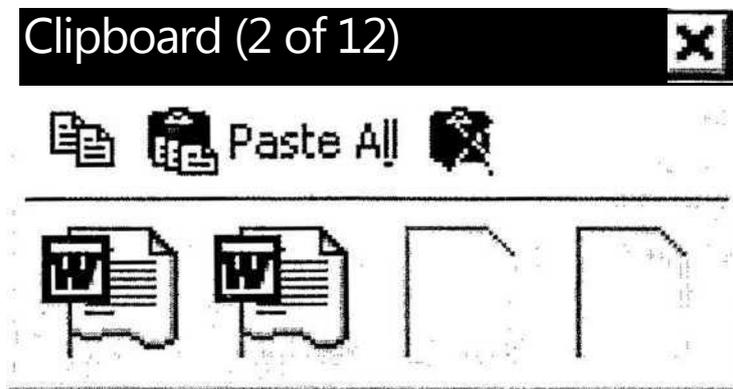
To copy text, choose Edit\Copy click the 'Copy button on the standard toolbar, or press CTRL+C to copy the text to the clipboard:

2.1.4. Paste Text

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

2.1.5. 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\Toolbar\Clipboard from the menu bar.

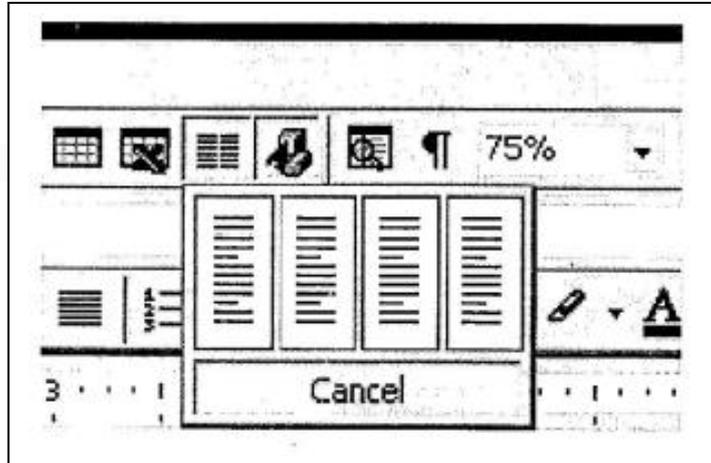


Place the mouse arrow over each element in the clipboard to view the contents of each item and click on an element to add its contents to the document. Click Paste All to add all

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.

2.1.6. Columns

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



For more column options, select. Format\Column 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.

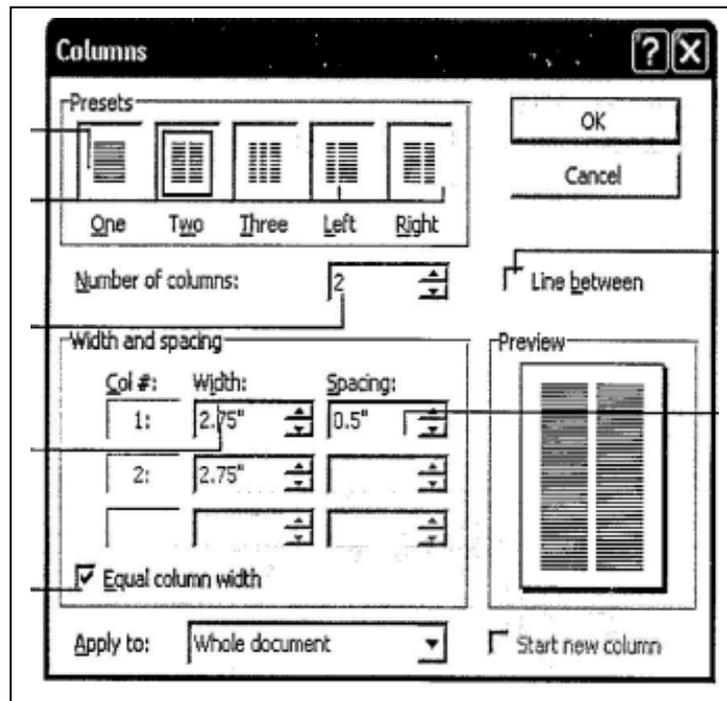
remove columns

select a present column' arrangement

enter the number of* columns

enter the width

check if all columns are equal which



check to place a vertical line

enter the amount of space

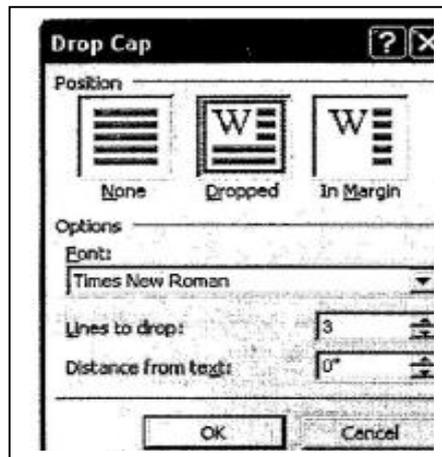
2*1.7 Drop Caps

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

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

- * Place the cursor within the paragraph whose first letter will be dropped.
- * Select Format\Drop Cap from the menu bar.

Welcome to the
all at Florida
website. We
will increase your
known



- * The Drop Cap dialog box allows you to select the position of the drop cap; the font, the number of lines to drop and the distance from the body text.
- * Click OK when all selections have been made.

To modify a drop cap, select Format\Drop Cap again to change the attributes or click on the letter and use the handles to move and resize the letter.

[2.1] Self Check Exercise

Question 2.1.1 - How to a copy text?

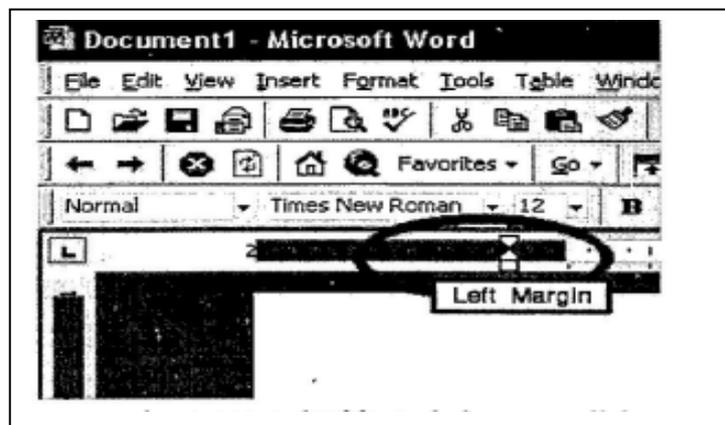
Question 2.1.2- How to paste a text?

2*2. PAGE FORMATTING

2.2.1 Page Margin

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

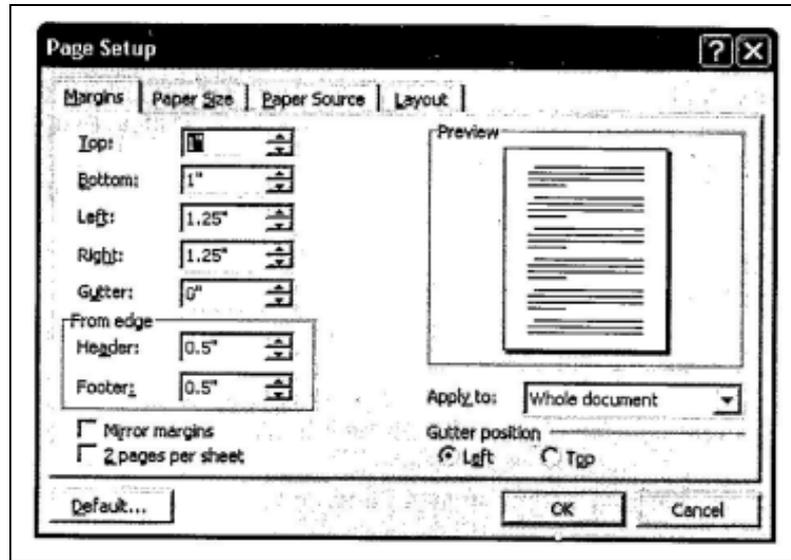
- * Move the mouse over the area where the white ruler changes to gray.



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 Margin tab in the dialog box. fclargJns



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

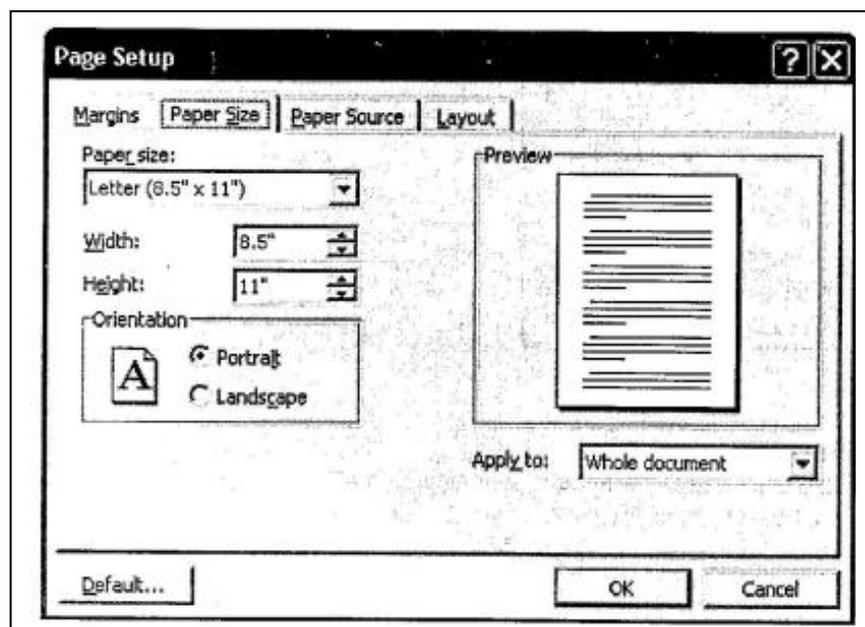
If the document has Headers and/ or Footers, the distance this text appears from the edge of the page can be changed.

- * Click OK when finished.

2.2.2. Page Size and Orientation

Change the orientation page within the Page Setup dialog box.

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

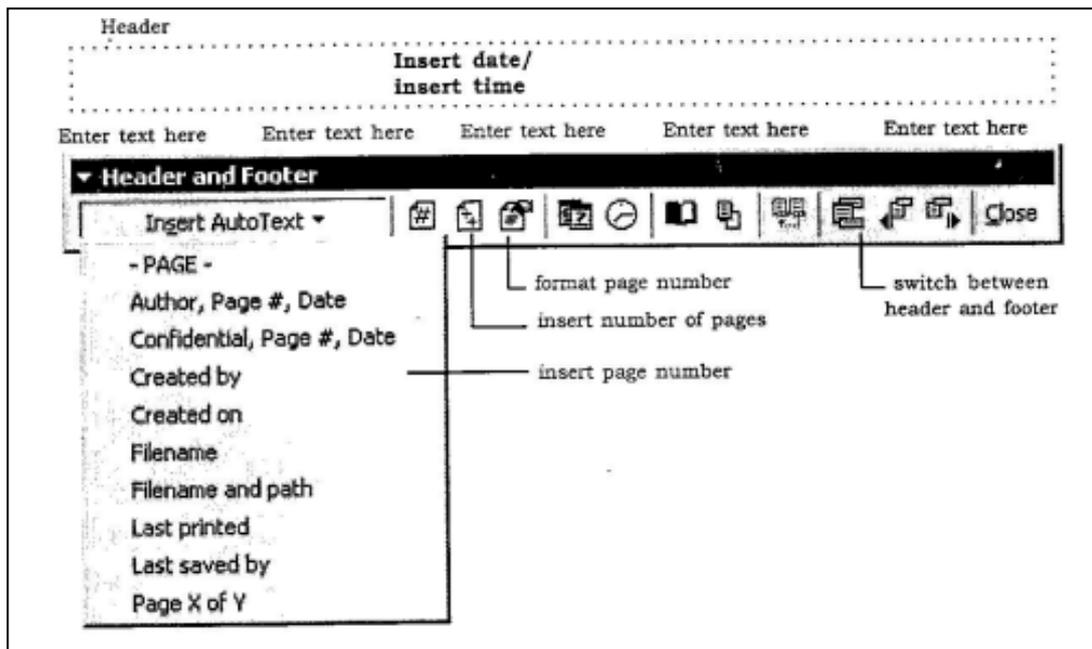


- * Select the proper paper size from the drop-down menu.
- * Change the orientation from Portrait or Landscape by checking the corresponding radio button.

2.2.3 Header 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:

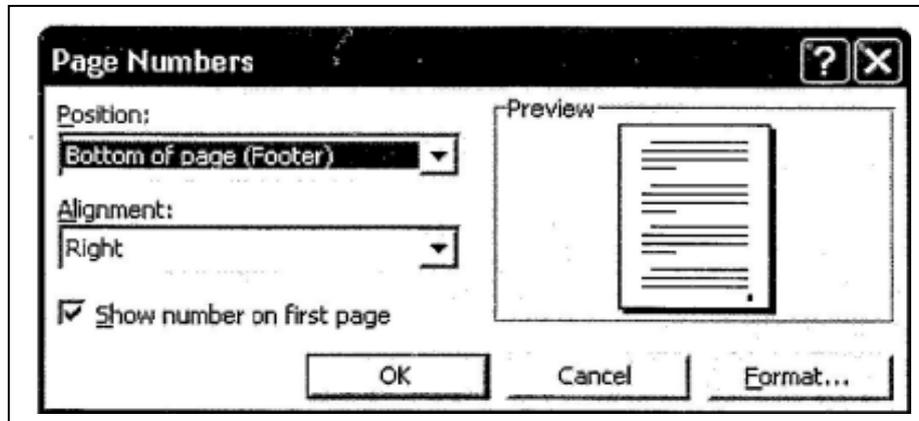
- * Select View\Header and Footer from the menu bar. The Header and Footer toolbar will appear and the top of the page will be, highlighted as shown below.
- * Type the heading in the Header box. You may use many of the standard text formatting options such as font face, size, bold, italics, etc.
- * 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.



2.2.4 Page Number

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

- * Select Insert\Page Number 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.

2.2.5 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.

The previous page explained how to create a web page using the Web page Wizard. This page describes creating a web page from scratch and adding elements to a page from the wizard. When working 'on a web format, document, view the page in web layout by selecting View\Web Layout from the menu bar. Enter text and insert graphics just as you would in a normal Word document.

[2.2] Self Check Exercise

Question 2.2.1 – What are Header and Footers?

Question 2.2.2 – How to Preview a document?

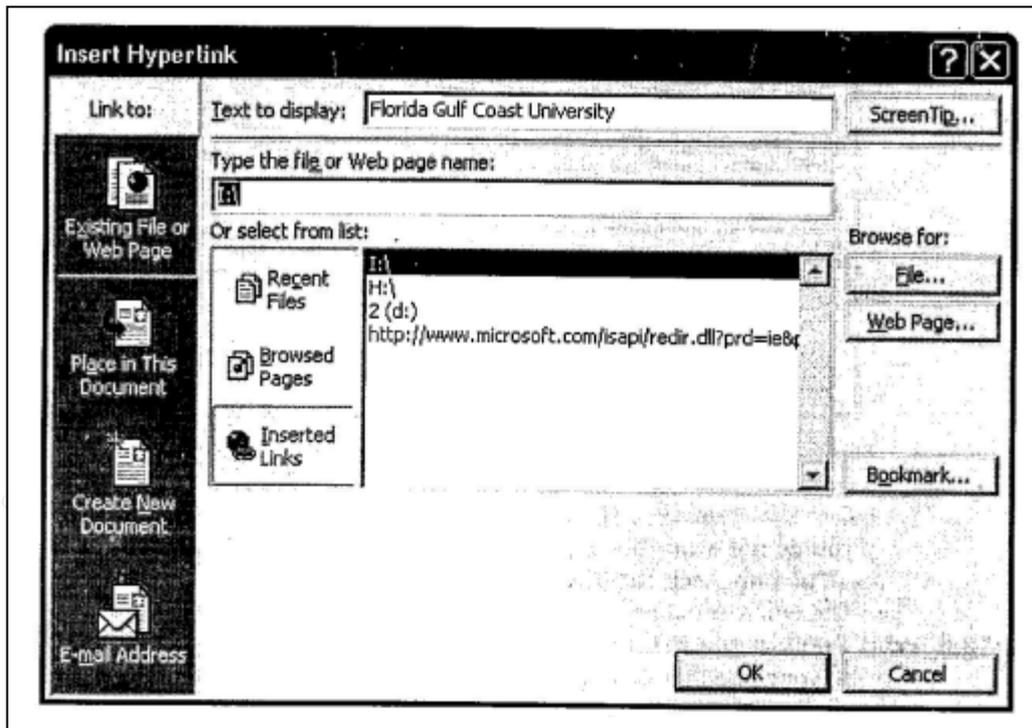
2.3 CREATING WEB-PAGES

2.3.1 Hyperlinks

A hyperlink is a connection between two web pages on the Internet. Hyperlinks can be produced from text or graphics and both methods will be discussed here. Follow these steps to create links to other web sites and pages within your site :

- * Type the text you want to appear on the 'page as a link or add the graphic that will be a link.
- * Highlight the text or graphic and click the Insert Hyperlink button on the standard toolbar or press CTRL+K.
- * From the Insert Hyperlink dialog box, change the Text to display if necessary.
- * Type the file or Web page name in the appropriate box or select from list.
 - * Click OK to create the link.

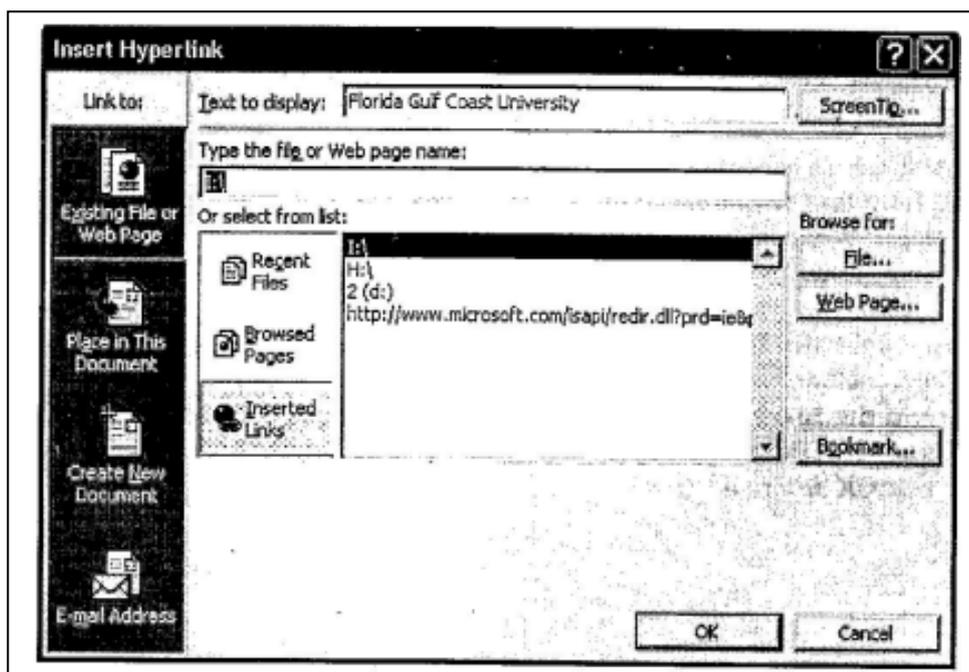
Insert Hyperlink



2.3.2. Saving Web Pages

Pages on the web must be saved in a format called HTML (Hypertext Markup Language) that is readable by web browsers. Word will convert your document to HTML using the Save as Web Page feature.

- * Select File\Save, as Web Page from the menu bar.

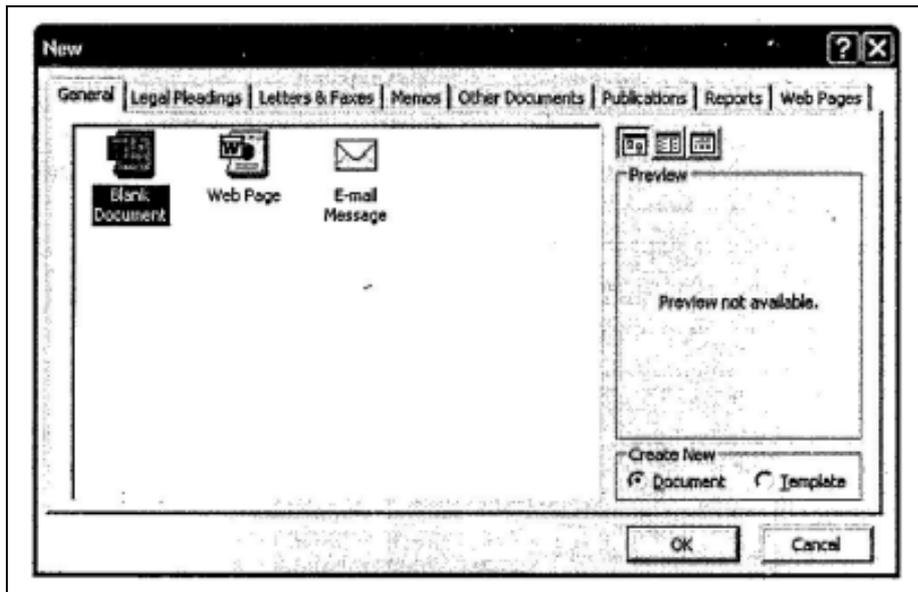


- * Click the Change Title button to add a title to the web page:
- * Type the File name in the box provided.
- * Be sure the Save as type is set to Web Page.
- * Click Save.

2.3.3. Creating a Web Page from a Template

Word features several layout templates that you can add your own content to. Create a web page from a template by following these steps :

- * Select File\New... from the menu bar.
- * Click the Web Pages tab on the New dialog box.
- * Highlight one of the templates listed and click OK.



The template will now, appear in the main window. Replace the placeholder text with your own text by highlighting it and typing. Replace photos and images by deleting them and adding new images.

Main Heading Goes Here



Caption Goes Here

Section Heading Gose Here

Select text you would like to replace and type over it. Use Styles such as Heading 1-3 and Normal in the Style control of the Formatting toolbar.

This quick br * fox jumps over the lazy dog. The quick brown for jumps over the lazy dog. The quick brown fox jumps over the lazy dog. The quick brown for jumps over the lazy dog.

Section Pending Goes Here

The quick brown fox jimps over the lazy dog. The quick brown fox jumping cv'r the lazy dog. The quick brown fox jump? uver the laz_ doie. Vhe quick brown fox jumps over the Iezy dog. The quick brwn fox.

Save the page by selective File\ Save as Web Page from the menu *her*.

2.3.4 Web Page Themes

The Visual Theme feature from the Web Page Wizard can be accessed for any web page. To add a theme to a blank page or existing page, select Format \ Theme... from the menu bar. Choose a theme from the list and click OK. The page Content will remain blank unless a background image is part of the theme that was selected. The style listings, default font, and bullet images have been changed to reflect the new theme. To change the theme of the page simply select Format\Theme... from the menu bar. again and choose a different theme.

2.3.5 Preview the Web Page

The page may look slightly different when converted to HTML and viewed on the web. Before publishing your web page, be sure to use Word's web preview feature. Select File\Web Page Preview to open the page in a web browser.

[2.3] Self Check Exercise

Question 2.3.1- What is a Hyperlink?

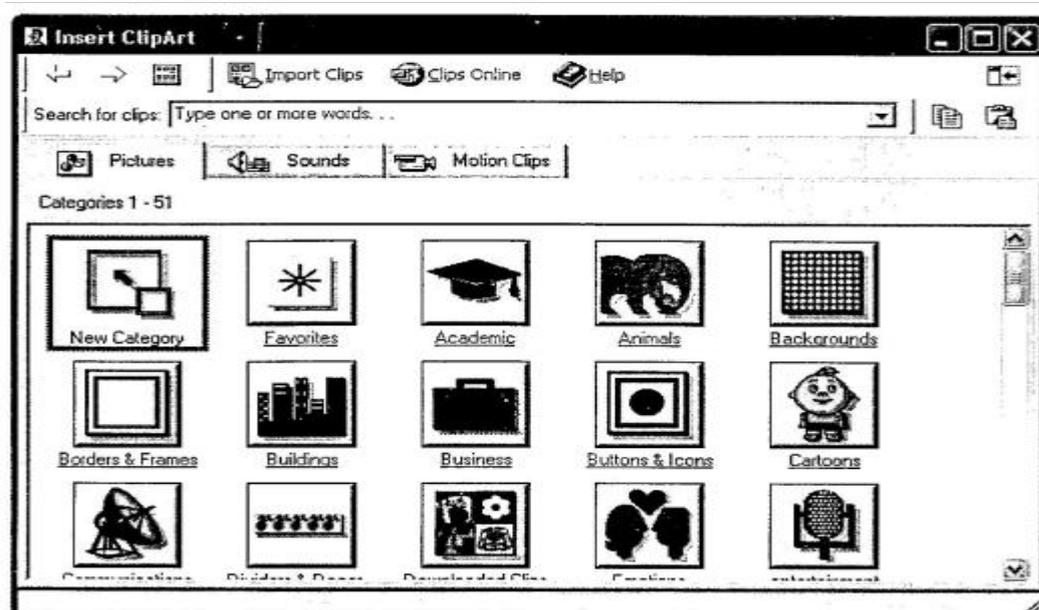
Question 2.3.2- How to create a web page from a Template?

2.4 INSERTING PICTURE, SYMBOLS AND OBJECTS

2.4.1 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.

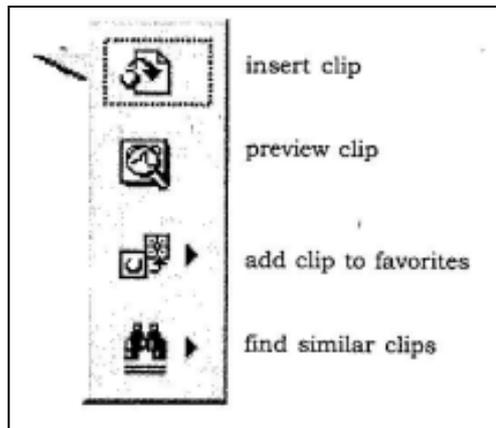


- * To find an image click in the white box following Search for clips Delete the words “Type one or more words...” and enter keywords describing the image you want to use.

OR

Click one of the category icons.

Click once of the image you want to add to the document and the following pop up 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 click the “x” close button to end the preview.

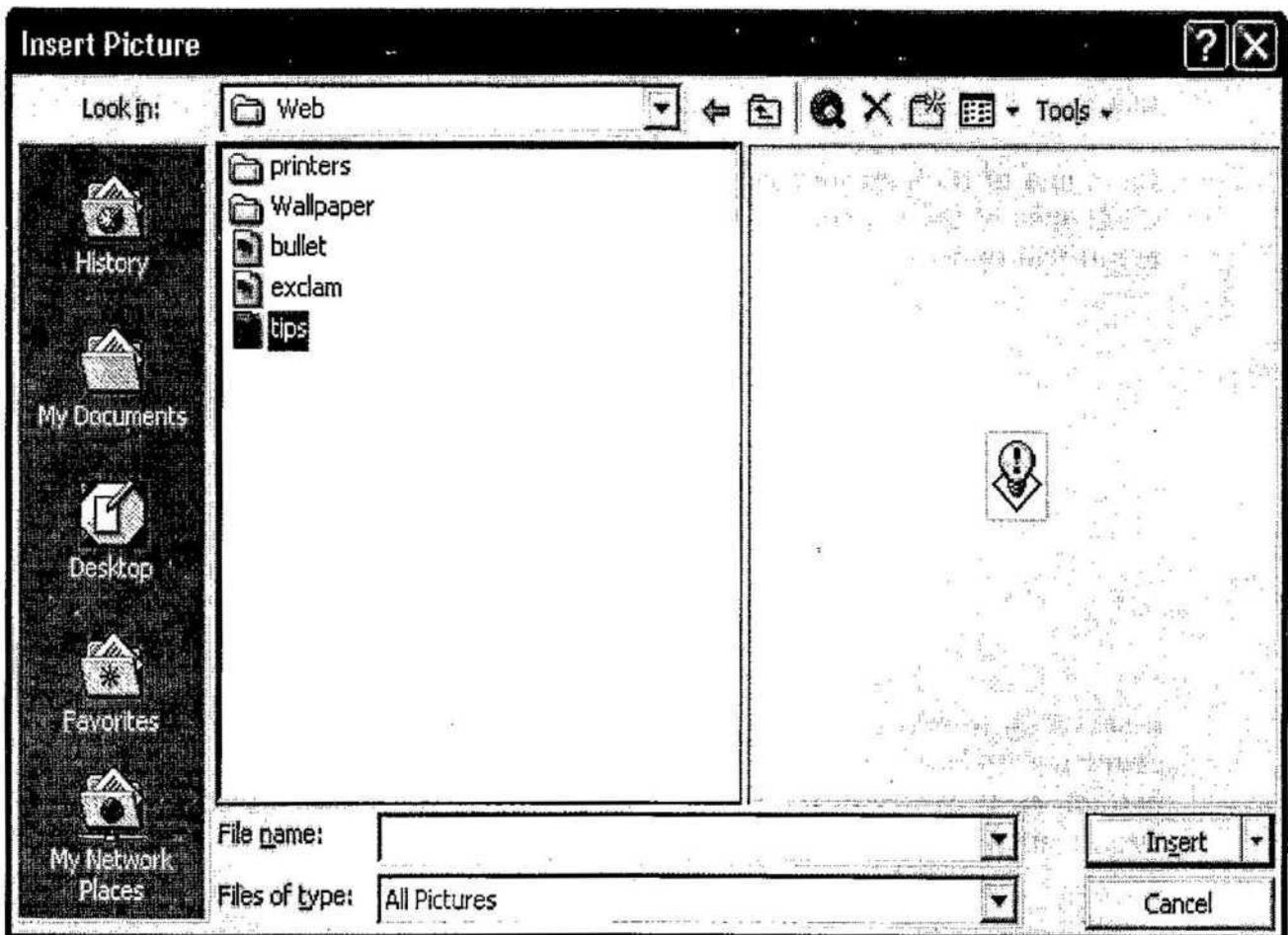


- * Add clip to Favourites will add the selected image to your favourites directory that can be chosen from the Insert ClipArt dialog box.
- * Find Similar Clips will retrieve images similar to the one you have chosen.
- * Continue selecting images to add to the document and click the Close button in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

2.4.2 Add an Image from a File

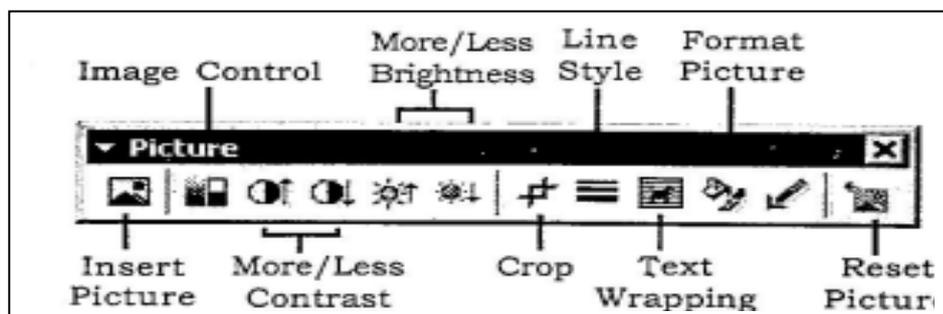
Follow these steps to add a photo or graphic from an existing file :

- * 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.



2.4.3. 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 tool bar. The Picture toolbar should appear when you click on the image. Otherwise, select View\ Toolbars\Picture from the menu bar to activate it.

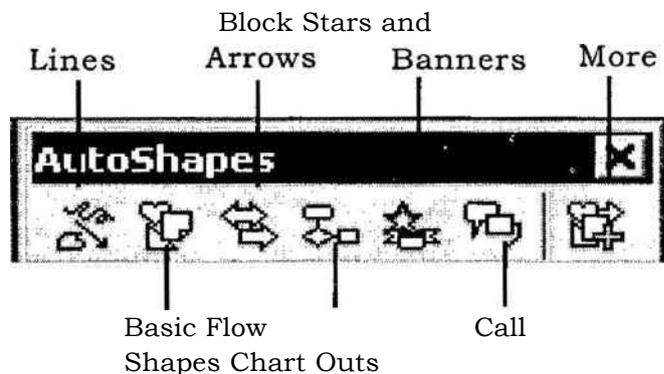


Insert Picture will display the image selection window and allows you to change the image. Image Control allow to make the image grayscale black and white or a watermark. More/Less Contrast modifies the contrast between the color of the image.

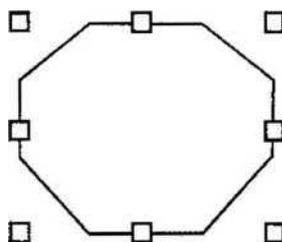
- * More/Less Brightness will darken or brighten the image.
- * Click Crop and drag the handles on the activated image to delete outer portions of the image.
- * Line Style will add a variety of borders to the graphic.
- * Text Wrapping will modify the way the document text wraps around the graphic.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

2.4.4. Auto Shapes

The AutoShapes tool bar will allow you to draw many different geometrical shapes, arrow, flow chart symbols, stars, and banners on the document. Activate the AutoShapes tool bar by selecting Insert \Picture\AutoShapes or View\Toolbars\Auto Shapes from the menu bar, or clicking AutoShapes button on the Drawing toolbar. Click each button on the tool bar 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 *free form 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 Auto Shapes 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.



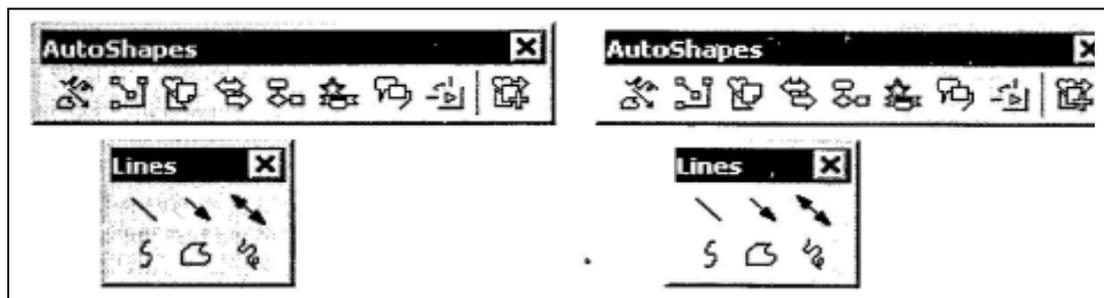
Flow Chart - Choose from the flow chart menu to add *flow chart elements* to the document and use the line menu to draw connections between the elements. Starts and Banners - Click the button to select *stars, bursts, banners, and scrolls*.

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.



[2.4] Self Check Exercise

Question 2.4.1- How to add an image from file?

Question 2.4.2- How to edit a graphic?

2.5 Key Words:-

Moving text, Column, Drop Cap, Page margin, Hyperlink

2.6-Review Questions:-

2.6.1-Short Questions

1. What are the paragraph attributes used for formatting paragraphs ?
2. What is the role of clipboard ?
3. What are the various page formatting attributes ?

2.6.2-Long Questions

1. How web pages can be created ?
2. How pictures, symbols and objects can be added to the documents ?
3. How to Inserting Pictures, Symbols and Objects.

2.7-SUGGESTED READINGS

1. "Windows Based Computer Courses" by G. Singh and R. Singh, Kalyani Publishers.
2. "MS-Word 2002" by V K Jain, BPB Publications, New Delhi.

2.8 Solutions to Self Check Exercise

[CHAPTER 2]

2.1.1- To copy text, choose Edit\Copu click the 'Copy button on the standard toolbar, or press CTRL+C to copy the text to the clipboard.

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

2.2.1- A header is text that is added to the top margin of every page such as a document tittle or page number and a footer is text added to the bottom margin.

2.2.2- 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.

2.3.1- A hyperlink is a connection between two web pages on the Internet. Hyperlinks can be produced from text or graphics and both methods will be discussed here.

2.3.2- Word features several layout templates that you can add your own content to. Create a web page from a template by following these steps :

- * Select File\New... from the menu bar.
- * Click the Web Pages tab on the New dialog box.
- * Highlight one of the templates listed and click OK.
- *

2.4.1- 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.
- *

2.4.2- 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 comers will resize proportionally while the handles on the straight lines will stretch the image. More picture effects can be changed using the Picture tool bar. The Picture toolbar should appear when you click on the image. Otherwise, select View\ Toolbars\Picture from the menu bar to activate it.

WORKING WITH TABLES AND MAIL MERGE

STRUCTURE

- 3.1 Tables
 - 3.1.1 Insert a Table
 - 3.1.2 Draw the Table
 - 3.1.3 Inserting Rows and Columns
 - 3.1.4 Moving and Resizing a Table
 - 3.1.5 Tables and Borders Toolbars
 - 3.1.6 Table Properties
- 3.2 Mail Merge
 - 3.2.1 Information used in a Data Source File
 - 3.2.2 Setting View Options
 - 3.2.3 Beginning the Mail Merge Process
 - 3.2.4 Create the Data Source
- 3.3 Review Questions
- 3.4 ⁴ Suggested Readings
- 3.5 Solution to Self Check Exercise

3.1 TABLES

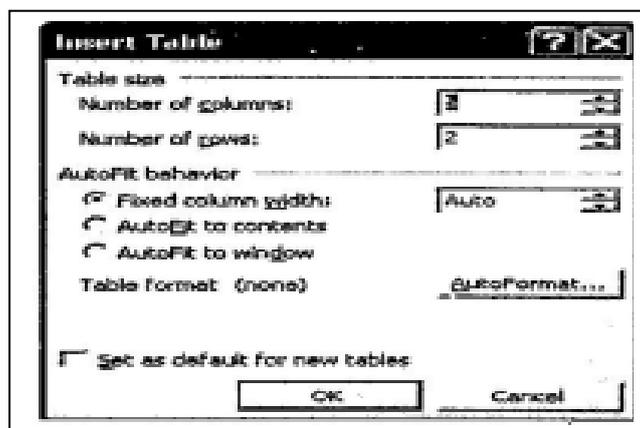
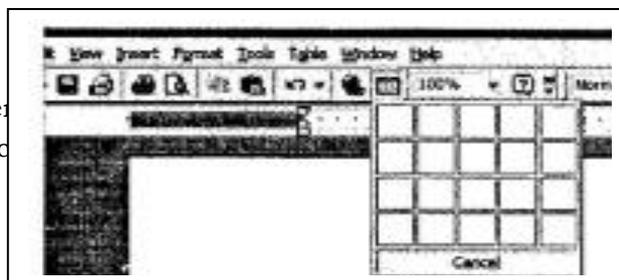
Tables are used to display data and there are several ways to build them in Word. Begin by placing the cursor where you want the table to appear in the document and choose one of the following methods.

3.1.1. 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 I Insert for the table and click

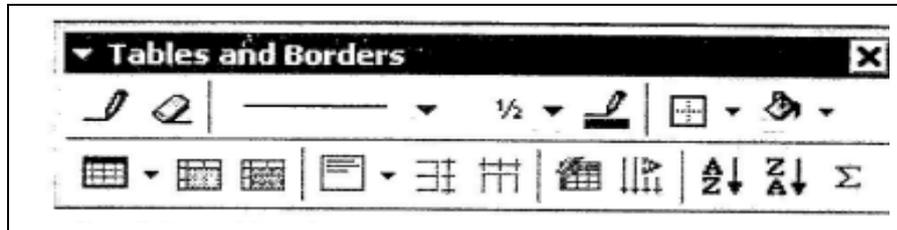


3.1.2. Draw the Table

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.

Tables and Borders toolbar has appeared.



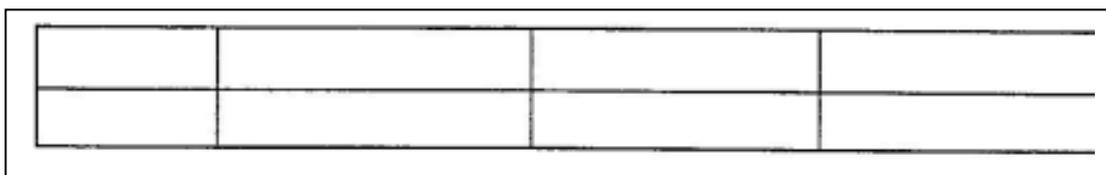
- * Draw the cells of the table with the mouse. If you make a mistake, click the Eraser button ! and drag the mouse over the area to be deleted.
- * To draw more cells, click on the Draw Table button

3.1.3. 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 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.

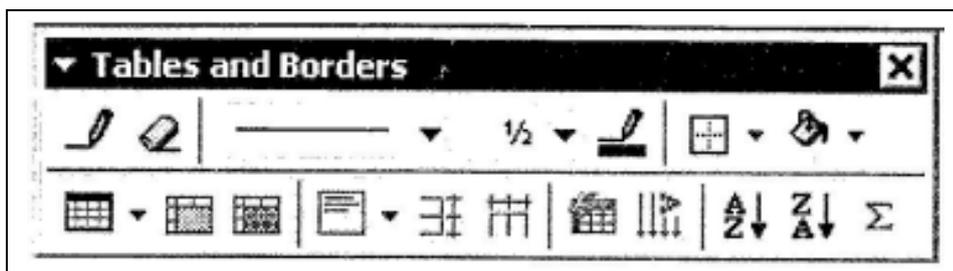
3.1.4 Moving and Resizing a Table

A four-sided moving arrow and open box resizing handle will appear on the comers of the table if the mouse is placed over the table. Click and drag the fourended 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, move handle



3.1.5 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.



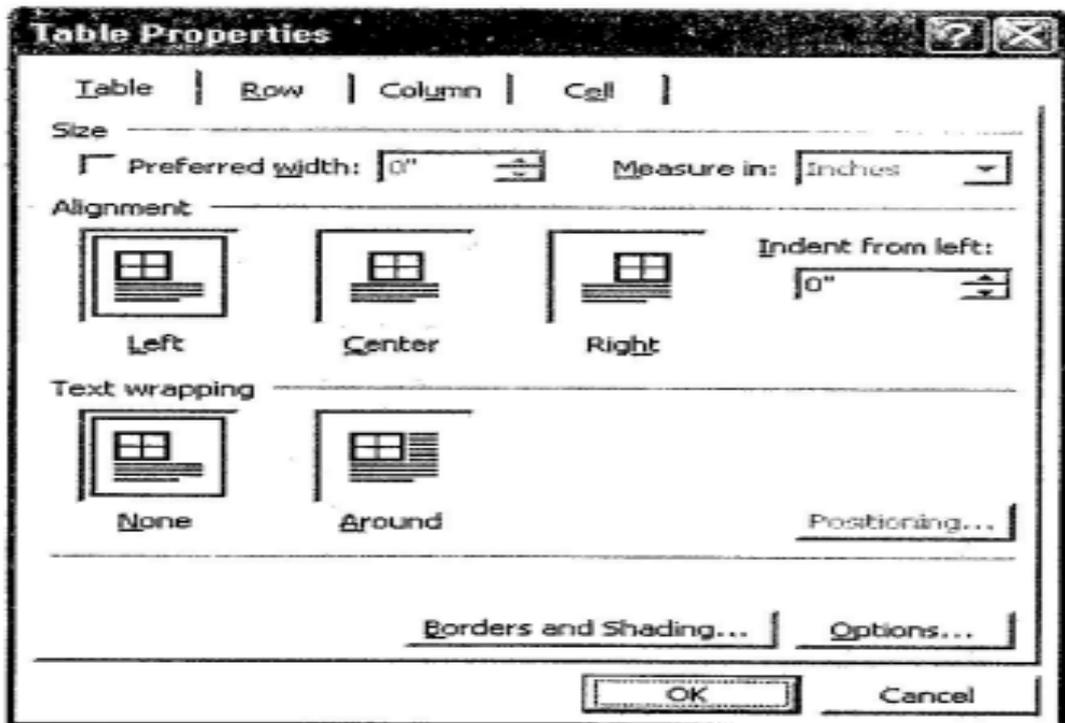
You Will need to highlight the cells of the table you want to format. Click and drag

SELECTION	One	Table	METHOD	MOUSE METHOD
cell			cell	Click the bottom, left Corner of the cell when A black arrow appears
One row		Table	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 Column		(none)		Click outside the table above the column
Entire table		Table	Select j Table	Triple-click to the Left of the table

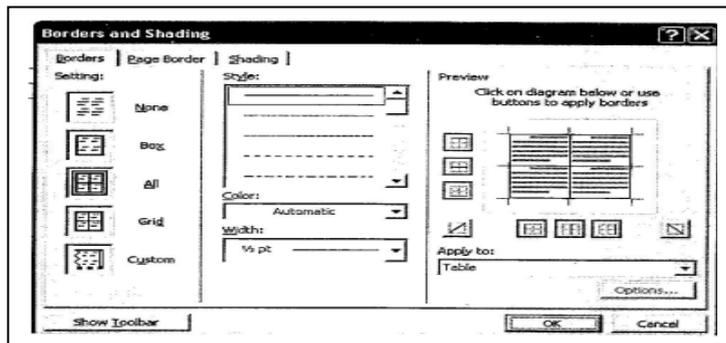
the mouse over the cells, or use the following shortcuts :

3.1.6 **Tables Properties**

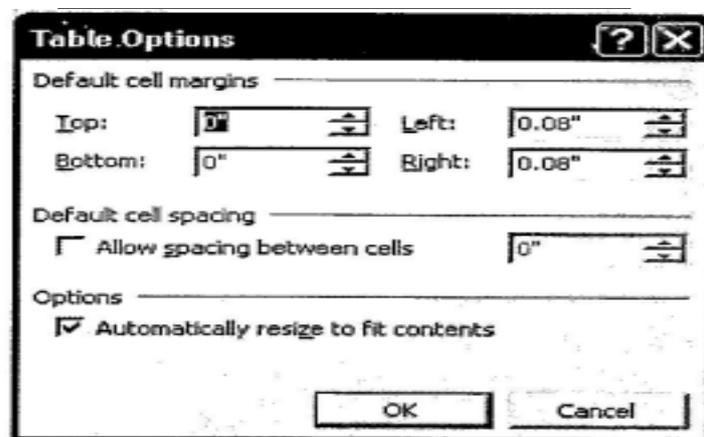
Use the Table Properties dialog box to modify the alignment of the table with the body text and the text within the table. Access the box by selecting Tables/Table Properties.



- * 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 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.



[3.1]Self Check Exercise

Question 3.1.1- What are tables?

Question 3.1.2- How to move and resize a table?

3.2 MAIL MERGE

If you need to send similar (or identical) letters to a group of people, or need to create a list of people who will receive a newsletter or flier, you will probably want to use the mail merge feature. You might be sending out thank you letters for people who helped with the' workshop or meeting; composing "rejection" letters at the end of a search process; creating a file of people who will receive monthly mailings during the course of a project; or printing name tags a conference.

Basically, to merge you need to create a data source document and a related form, called the mail merge main document. The main document can be a letter, envelope, mailing label, or another type of document which references the data source. The last step is to combine or merge these two documents into a new document. Even if you are sending a similar letter to a unique list of people who you will not need to contact again, it is faster to use the mail merge feature. The alternative-to write one letter, print it, change the address, print the second letter, and so forth-is a rather time consuming task. Also, most offices and professionals the year, or from one year to the next. This certainly is a job for the mail merge feature.

3.2.1 Information Used in a Data Source File

* The information used in a merge-the names and addresses used to produce the form letter or the mailing labels-is stored in a document called the data source. The term data source comes from database type a software, like dbase,Access,or paradox. Data means information.The data source is made up or *records*-a group of related information,like information about one person. Each record, in turn, is made up of *fields*, like a person's name, address, and phone number.

The first row in a data source is called the header row. The *header row* is made up of a list of field names. Word provides a list of commonly used field names; you can add or remove names from that list to develop the header row for your data source.

3.2.2 Setting view options

Before you begin the mail merge process, it is a good idea to look at your view options control that types of information you will view within your main document. Under the Tools menu, select options and then select the view tab. If the Field codes box is checked, click on it to uncheck that selection. By leaving this unchecked, the field codes will not be displayed in your document and then you cannot inadvertently change a field name.This code also must be hidden to view your merged data properly.

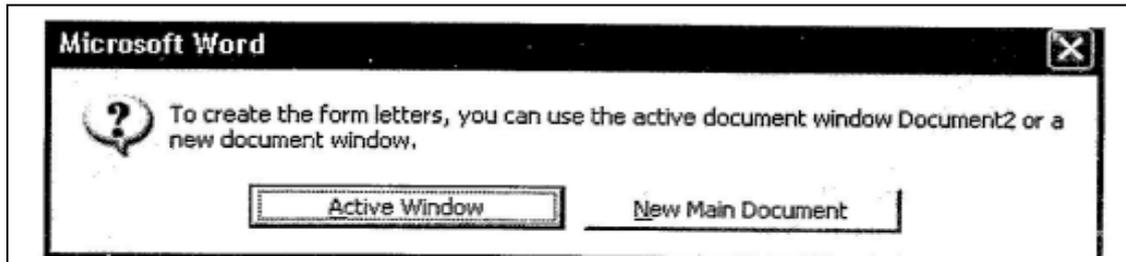
The second item to look at is the Field shading. This option should be set to always. When this option is selected, the merge fields easy to recognize because they are shaded in grey.

3.2.3 Beginning The Mail Merge Process

To begin the merge process,

1. Open a new document, or have your insertion point at the top of an empty document.
2. Select Tools on the menu bar, than choose Mail Merge to bring up the "mail Merge Helper" dialog box. There are three sections in this dialog box. There are three sections in this dialog box-Main Document, Data Source, and Merge the data with the Document.

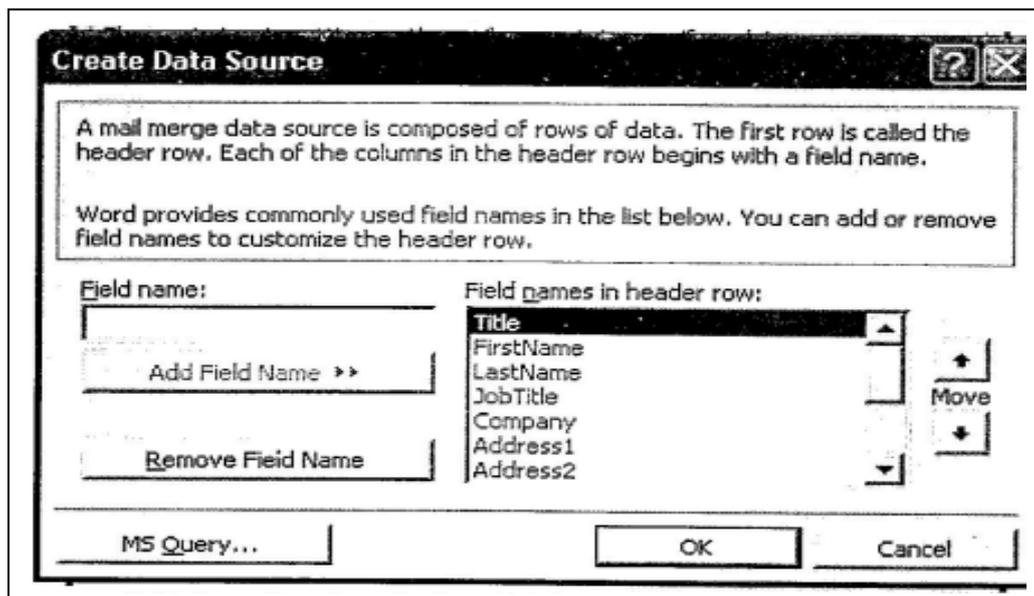
3. To create the data source, click on the [create] button. A drop-down list appears with four options: Form Letters, Mailing Labels, Envelopes and catalog.
4. Select the type or main document you eventually intend to create. Your selection later, if you plan to use the data source for more than one type of merged document. Select [Active window] to use the current screen.
- 5.



3,2.4 Create The Data Source

The next step is to identify or create the data source, click on the [Get Data] button in the mail merge helper and, for now, choose Create Data' Source. If you already have a data source, you can open it, or you can use data from address book entries (ex. outlook).

In the "Create Data Source" dialog box, the "Field Names in Header Row" window lists commonly used field names. Remember, each field is a category of information. If you do not want to use the default field names, you may either delete listed fields or add new ones.



To remove a field from the given listing, highlight the field name and click on [Remove Field Name].

To add a field not in the default listing, type the new field name in the "Field Name" window and click on [Add Field Name]. Field names must be one word. When you add a new field name it is placed at the end of the list. To reposition it in the list, highlight the field name, then click the up and down arrows you see at the right of the field names list.

3.2.4.1. Using the Data Entry Form

Immediately after you save the header list you prepared in the “Create Data Source” dialog box, you may choose [Edit Data Source] to enter data. The “Data Form” dialog box that opens is essentially an attempt to make your word processor look more like a database program. Using this data entry form, it is easy to remember what data goes where.

You will see the field names at the left of the window. Type in each piece of data in the appropriate window. You can press <Enter> or <Tab> to go to the next field. If you make a mistake, use your normal keystrokes to correct it, or drag the field with the mouse to select it, and type over the incorrect data.

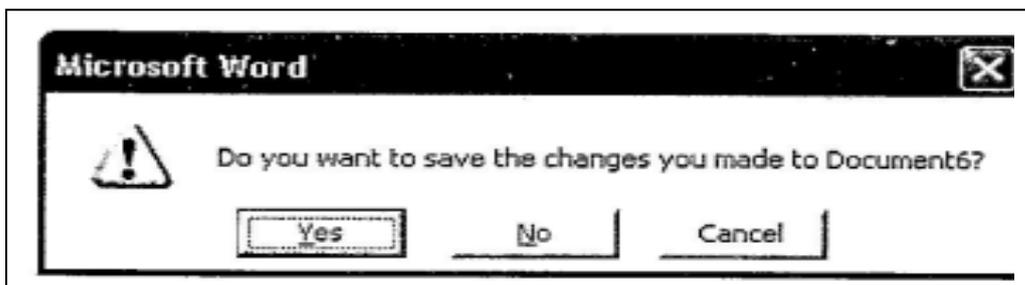
If you press <Enter> after typing the information for the last field in one record, a blank data entry form appears. You can also click on the [Add New] button to go to a blank form.

3.2.4.2 Saving the Data File

When you are through entering data, click on the [OK] button in the “Data Form” dialog box. The insertion point will be blinking on the blank screen of the mail merge main document, which you will create. You can verify this if you look at the filename on the title bar. Since we haven’t done anything with this document yet, it will have the name Document (or some other number) if you were working in Word before starting.

The data source document you created has not been closed and saved, even though you don’t see it on screen at the moment. The file you saved earlier contained field names only-no data! Remember to save the file often while you are entering data so that the new records are saved. To save both the main document AND the data source now, hold down the <Shift> key, click on FILE, Save All.

The first message from Word is: “Document is a mail merge main document that is attached to a data source 2001 contacts, doc that has not been saved. Do you want to save 2001 contacts, doc?” Click [Yes].



Next, ‘the “Save As” dialog box opens, asking for a name for the main document. If you had already created a main document yet, you could click [Cancel]. If you had already created the main document, you would name the file and click [Save].

3.2.4.3 Editing the Data File

After the data is saved, the insertion point will be blinking on the blank mail merge main document screen. You will see the mail merge toolbar above the document area. You can quickly return to edit the data source document by clicking on the [Edit Data Source] button near the far right of that bar.



It is typical that you will want to edit data some other time to add more records, delete

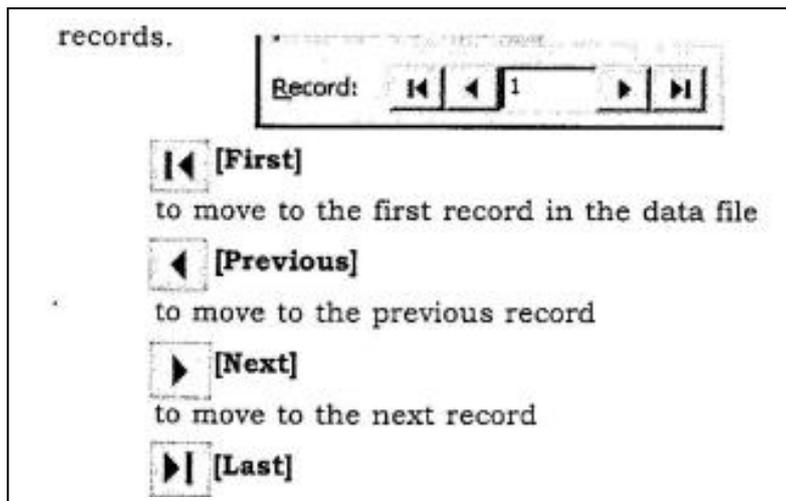
records, or make changes. There are several ways to access the data source document to do that.

To access the data in the "Data Form" display from a new or existing document choose TOOLS, Mail Merge. You will again select the type of main document to create and then choose [Get Data]. This time, instead of creating a data source, you will choose Open Data Source and select the data source file from the list of file names displayed.

If you wanted to go directly to editing the data, you would click [Cancel] to avoid editing the main document and return to the "Mail Merge Helper" dialog box. Clicking [Edit] in the Data Source section will open the "Data Form" dialog box.

3.2.4.4 Scrolling Through the Data Source File

There are four buttons at the bottom of the "Data Form" display to move through your



[First]

to move to the first record in the data file

4 [Previous] to move to the

previous record j: ^ [Next]

to move to the next record j>I

[Last]

to move to the last record

By clicking on the [Next] and [Previous] buttons you can scroll through your file to look for individual records. You can click in a particular field, selecting it to delete it or use: normal editing procedures to make changes. You may also enter a specific record number in the window that appears between the record buttons to go directly to a record.

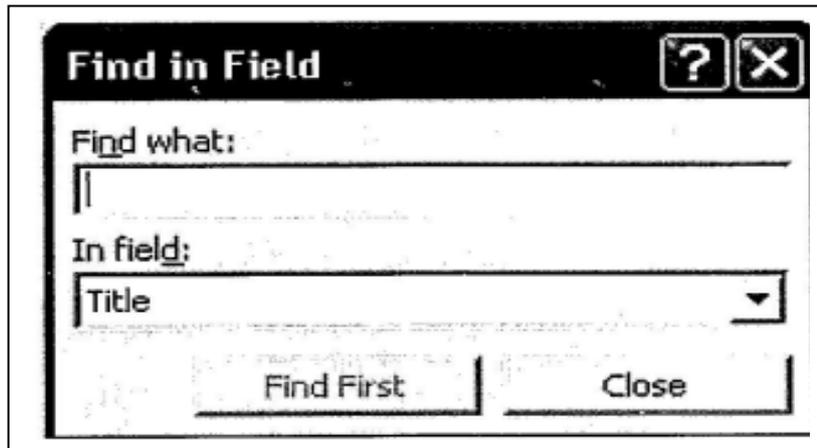
3.2.4.5 Deleting Records

To delete a record when it is displayed in the "Data Form," click on the [Delete] button.

3.2.4.6 Adding Records

At any point when you are working with your data file in the "Data Form," click on the [Add New] button to get a blank display for a record.

3.2.4.7 Searching the Data Source File



The search for the designated string of characters will begin with the selected record and proceed to the last record, so you may want to go to the first record in the data me before beginning the search. (If you don't start at the first record, Word will eventually ask you if you want to continue the search at the beginning.) Type in a word or series of characters to search for in the "Find, What" window, select the field to search in the "In Field" window, and then click the [Find First] button.

Word finds the first occurrence of the phrase in your file, and displays the record in the "Data Form" dialog box. If that is not the record you want, click [Find Next]. Keep repeating this process until you get a "finished" message.

3.2.4.8 Viewing the Data Source in a Table

If you click on the [View Source] button !view;|Mirce. you can view all the data in the data source in a table format. This is also now the data document will look if you open the file using the FILE, Open command. You can add, delete or edit the data directly in the

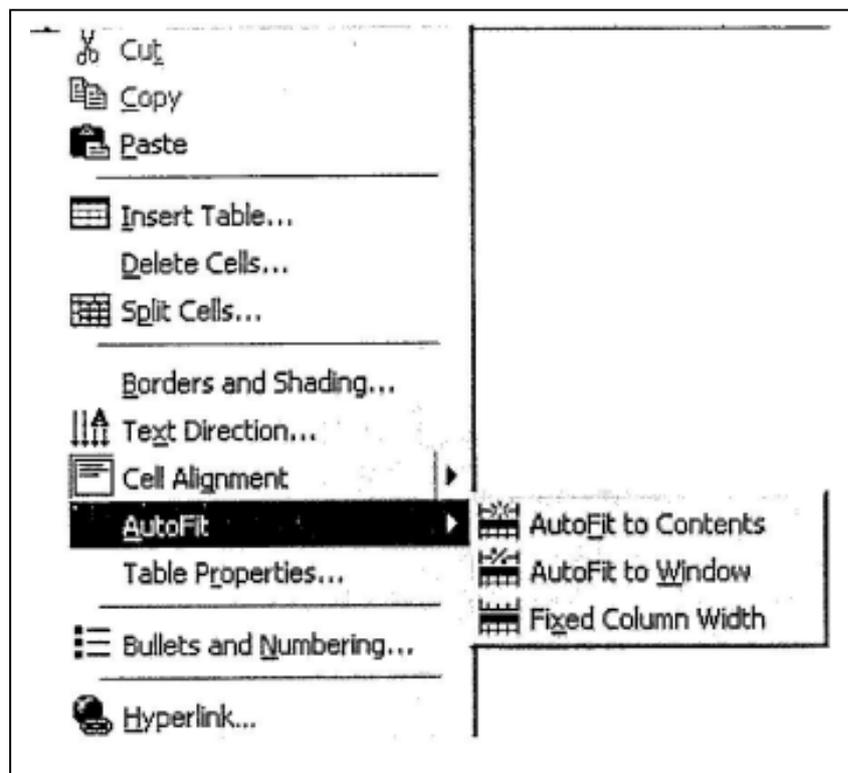


table. Also, since the data source is the open document, you can use the FILE, Save command to save changes when you are working in the table view of the data source document.

The table column widths are based on the width of the field name in the header record- the first record at the top of the table. As a result, the data might be wrapped within the cells and therefore, hard to read. You can select Table, Table Properties and adjust the column and row height and width. If you don't have too many columns, You can also click on Table, AutoFit, AutoFit to Contents.

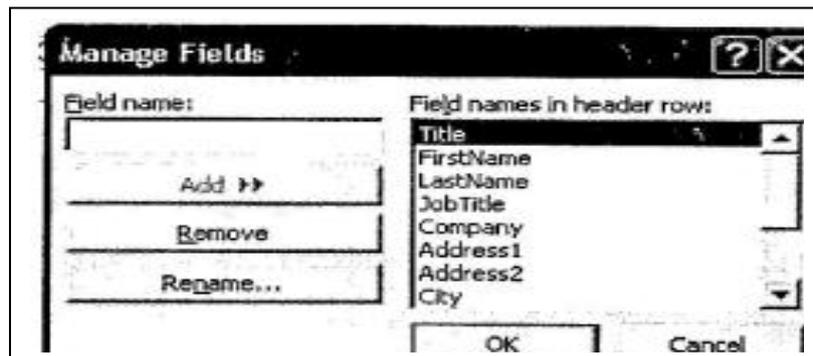
The main disadvantage of working with a table layout for your data occurs in situations where you have many fields. It gets harder to read the data if your table columns become too narrow. The data will still work correctly with form letters and mailing labels; it is just hard to work with it on the screen to enter and edit data.

If you are familiar with the table feature and you only have a few fields (like 6 to 8) in each record, you can use this table format for editing, adding and deleting data if you wish. The database toolbar is displayed when you are viewing the data table. It contains buttons that will help you make changes to the data. You can return from the data source (table) display to the "Data Form" window by clicking on the [Data Form] I ^ 'button in the database toolbar.



3.2.4.9 Adding Fields While Viewing the Data Source

Occasionally after you have created a data source, you might want to add, remove or rename fields. To add a field, you must display the data source in the document window. You can either open the data source document using the FILE, Open command, or choose [View Source] from the "Data Form" dialog box. When the data table is visible, click the [Manage Fields] button on the database toolbar (it is the second one from the left). The "Manage Field dialog box permits you to add, delete or rename fields. Click [OK] when you are finished.



If you add new fields, you can enter data into the fields either directly into the data source table, or by returning to the "Data Form" dialog box.

3.2.4.10 Sorting the Data Source File

Records in the data source file are initially stored in the order that you enter them. Depending on how you want to use the data, you will want to sort the file by different fields to rearrange the records. The data file will print form letters or mailing labels in the order that the records appear in your data file.

3.2.4.11 Quick Sort in the Data Source (Table) Display

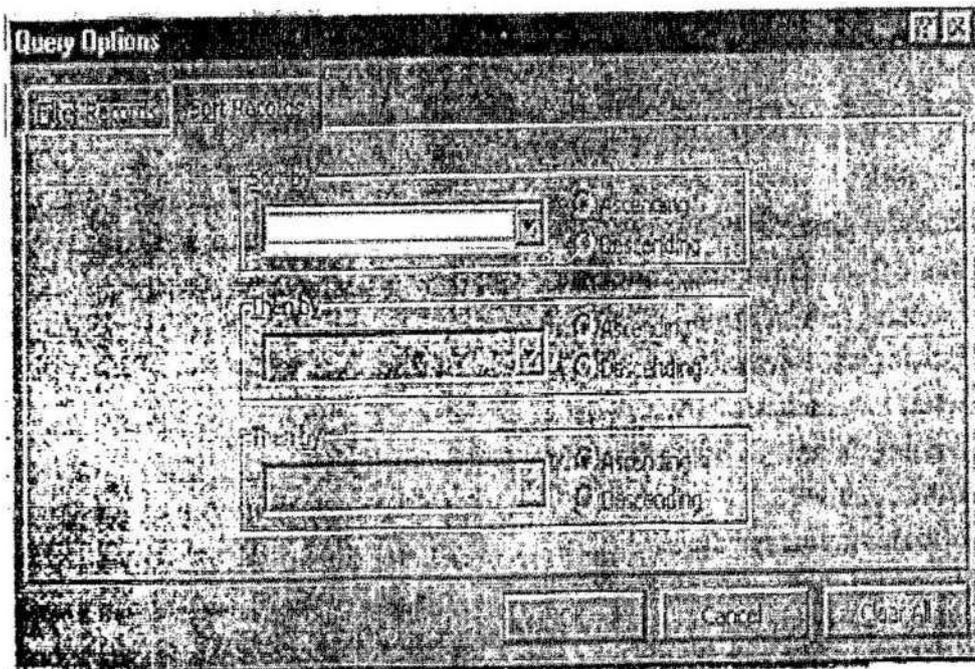
If you are working in the data source (table display) you may quickly sort by any single field by placing the insertion point in a column and clicking on the [Sort Ascending] button or the [Sort Descending] buttons in the database toolbar. This works well for smaller files, when you only want to sort by one field. As a file gets larger, you may often need to sort by multiple fields.

3.2.4.12 Sorting by More than One Field

You may sort by up to three fields if you use the [Query Options] button in the "Mail Merge Helper" dialog box. If you do not have a mail merge main document and data source file open, you must do that first. Choose TOOLS, Mail Merge. Click on [Create] and select a document type, then click on [Get Data] and select Open Data Source. If you are already in a mail merge main document, select TOOLS, Mail Merge from the menu bar or click on the [Mail Merge Helper] button. Click on the [Query Options] Query Options... button in the Mail Merge Helper dialog box. The "Query Options" dialog box has two tabs: Filter Records and Sort Records.

3.2.4.13 The "Sort Records" Dialog Box

To sort the data source file, click the Sort Records tab. You can sort by up to three fields. -If you only want to sort by one field, like PostalCode, click on the "Sort by" window and choose that field from the drop down list. Check the button on the right to choose between ascending and descending sorts. If you want to sort the records so that names are listed alphabetically within zip codes, click on the first "Then by" window and pick "LastName" from the field list. Click [OK] to perform the sort.



Word will store new records in the sort order you established until you close the file or until you change the sort order. When you want to start over with a completely new sort, click the [Clear All] button.

3.2.4.14 Printing the Data File

In this section you will learn about different ways to use the data source document in

various documents, and how you might generate a printed list of some or all of your fields. For now, if you want a printed list of all the records in the data source document, click on [View Source] while you are in the “Data Form.” When the data table is displayed in the main document window, choose FILE, Print or click the [Print] button on the standard toolbar.

[3.2] Self Check Exercise

Question 3.2.1- How to begin the mail merge process?

Question 3.2.2- How to save the data file?

3.3 Key Words:-

Tables, Mail merge, Row, Sorting

3.4-Review Questions:-

3.4.1-Short Questions

1. How properties of the tables can be set?
2. How borders toolbar can be used with tables?
 1. What is mail merge ?
 2. How rows and columns can be inserted and deleted in tables?

3.4.2-Long Question

1. Write the procedure of creating and editing data source?
2. Write the procedure of creating mailing labels?
3. Write the procedure of inserting a table in a word document

3.5-SUGGESTED READINGS

1. "MS-Word 2002" by V K Jain, BPB Publications, New Delhi
2. Windows Based Computer Courses" by G.Singh and R.Singh, Kalyani Publishers

Solutions to Self Check Exercise

[CHAPTER 3]

3.1.1- 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.

- Insert Table
- Draw Table

3.1.2- A four-sided moving arrow and open box resizing handle will appear on the comers of the table if the mouse is placed over the table. Click and drag the foureneded 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, move handle.

3.2.1- To begin the merge process,

3. Open a new document, or have your inserction point at the top of an empty document.
4. Select Tools on the menu bar, than choose Mail Merge to bring up the “mail Merge Helper” dialog box. There are three sections in this dialog box. There are three sections in this dialog box-Main Document, Data Source, and Merge the data with the Document.

3. To create the data source, click on the [create] button. A drop-down list appears with four options: Form Letters, Mailing Labels, Envelopes and catalog.
4. Select the type or main document you eventually intend to create. Your selection later, if you plan to use the data source for more than one type of merged document.
5. Select Active Window to use the current screen.

3.2.2- When you are through entering data, click on the OK button in the “Data Form” dialog box. The insertion point will be blinking on the blank screen of the mail merge document, which you will create. You can verify this if you look at the filename on the title bar. Since we haven’t done anything with this document yet, it will have the name Document (or some other number) if you were working in Word before starting.

The data source document you created has not been closed and saved, even though you don’t see it on screen at the moment. The file you saved earlier contained field names only-no data! Remember to save the file often while you are entering data so that the new records are saved. To save both the main document AND the data source now, hold down the <Shift> key, click on FILE, Save All.

STRUCTURE

- 4.1 Introduction
- 4.2 Basic Operations and Concepts
- 4.3 Entering Information
- 4.4 Editing the Spreadsheet
- 4.5 What If ? Analysis
- 4.6 Writing Formulas Using Operators and Functions
- 4.7 Functions
- 4.8 Summary
- 4.9 Keywords
- 4.10 Review Questions
- 4.11 Suggested Readings
- 4.12 Solution to Self Check Exercise

OBJECTIVE

This lesson illustrates the capabilities of excel as a spreadsheet package, the basic concepts of the spreadsheets and the methods of starting and using excel. It also contains a brief list of command and shortcuts (Accelerators) to the commands. Some basic operations like entering numbers and text have also been discussed.

This lesson also discusses the various methods of editing the spreadsheet and managing the spreadsheet. Also discussed are the uses of what-if analysis, formulas and functions. Methods of entering values, deleting contents of cells, ranges, rows and columns etc. have been discussed. Then the other editing capabilities like, cut, copy, paste, find and replace etc. have also been discussed. After reading this lesson students will be able to use the various editing capabilities of Excel.

4.1. INTRODUCTION

Spreadsheets have evolved over many years as programs written to allow the automation of the entering of numbers, typically budgets and statistics. Formulae can be applied to the figures to allow totals to be worked out, percentages applied, or 'what-if' statements to be evaluated.

They can be used where the same layout is required on a regular basis, but where the figures change. Amend the figures and, if the spreadsheet is set up correctly, the totals will change automatically.

A worksheet, sometimes called a spreadsheet, is nothing more than a large planning form made up of columns and rows. Excel uses a workbook-style presentation, which is made up of several worksheets, like pages in a notebook. Look at the following illustration.

The preceding screen shows the Excel toolbars, which are a series of shortcut icons that are used in place of the series of keystrokes or mouse clicks used to access commonly used worksheet features.

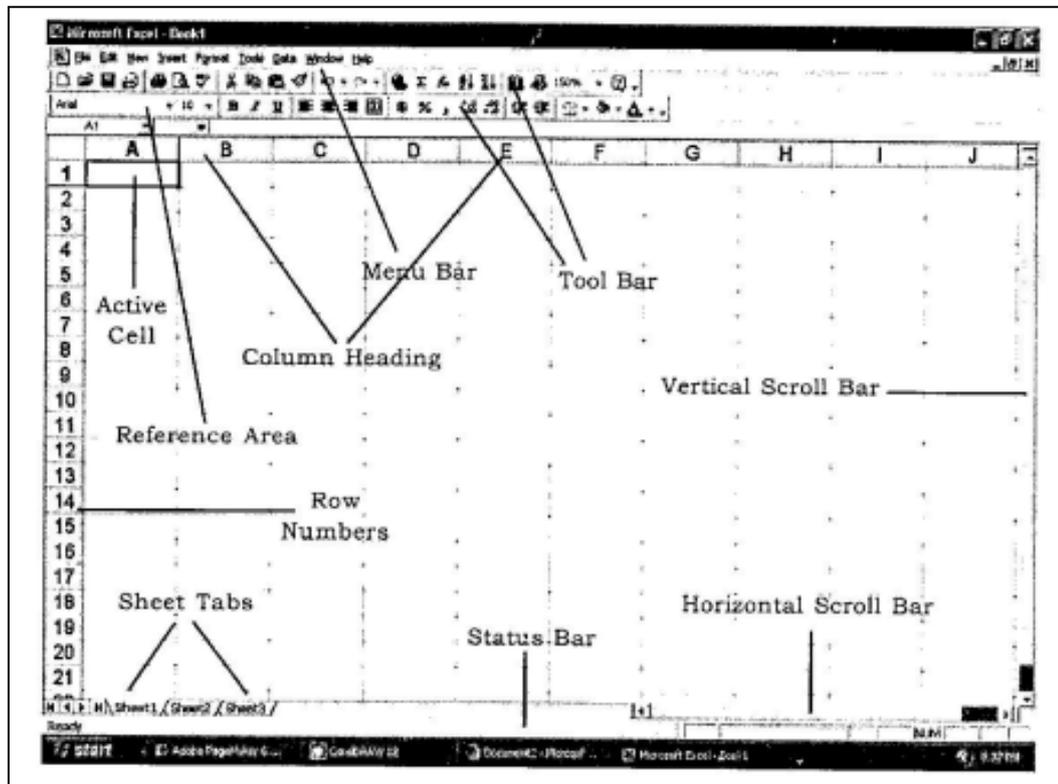


Fig. 4.1 : The Excel Screen

4.2. BASIC OPERATIONS AND CONCEPTS

4.2.1. Starting Excel

To start Excel, double click on the Excel icon on the Windows screen. Alternatively, if you are using Excel as part of Microsoft Office, click on the Excel icon on the Microsoft Toolbar.

4.2.2. Closing Excel

To ensure that all work is properly saved, as with all other Windows applications, Excel must be closed once you have finished working with it. This is done by selecting Exit from the File menu. If you have any workbooks open but not saved, Excel will ask if you want to save before exiting. An alternative method is to press Alt+F4, Which is common for closing almost all the windows applications. Another alternative is to place the mouse pointer on the cross icon (X) (on the control menu and press left mouse button.



4.2.3. Getting Help

At any time when working with Excel you can ask for help, or even a demonstration of a particular function. The help button can also be used to point at any item on screen. The mouse pointer will change to an arrow and a question mark point at the screen element on which you want information then click. If you want simple help on what a particular button is used for, point at the button and a small box will appear, usually highlighted in yellow, showing which function that button performs. The status line at the bottom of the screen gives more information. “For more detailed help, select Contents or Index from the help menu or press F1.

4.2.4. Using Menus and Buttons

Commands in Excel can be executed in a number of ways:

i. Using a Direct Key on the Keyboard

This is usually the quickest way, but does entail remembering the appropriate instructions unless a keyboard template is used. Use of the Ctrl key, the Alt key and the Shift key along with another key on the keyboard offers a fast method of carrying out a command, e.g. to save a file press Ctrl + S.

ii. Using the Menus with the Keyboard

Each menu option has an underlined letter, which can be used to access the option using the keyboard. For example, to save a file the sequence would be Alt, F, S. The cursor arrow keys can also be used to move up and down the menus, and the Return key will select the item on which the cursor is positioned.

iii. Using the Menus with the Mouse

Menu options can be chosen by clicking on them with the mouse then pointing and clicking on required selection.

iv. Using the Toolbars

A range of button bars is available for particular tasks. By default the Standard and Formatting toolbars are displayed. Toolbars can be displayed by selecting Toolbars from the View menu.

4.2.5. Spreadsheet Structure and Terminology

When you start Excel, a me called a workbook is created. Each workbook is normally made up of 16 worksheets, though you can change this number by selecting Options from the Tools menu and amending the Sheets in New Workbook option on the General tab card. A workbook may also contain chartsheets, which are used to produce graphs on a separate sheet. *Macrosheets* are also available. Spreadsheets such as Excel have their own terminology, described below, i The Workbook

Most of the Excel screen is devoted to the display of the workbook.” The workbook consists of grids and columns. The intersection of a row and column is a rectangular area called a cell.

ii. Cells

This is the name of the box into which you can type figures, words, dates, times or formulae. The workbook is made up of cells. There is a cell at the intersection of each row and column. A cell can contain a value, a formula, or a text entry. A text entry is used to label or explain the contents of the workbook. A value entry can either be a constant or the value of a formula. The value of a formula will change when the components (arguments) of the formula change. The appeal of spreadsheet programs is the ability to change One value and watch all other values that depend on that first value automatically change when the spreadsheet is recalculated.

iii. Formula

An instruction to perform a calculation on a cell or a range of cells.

iv. Columns and Rows

The Excel worksheet contains 16,384 rows that extend down the worksheet, numbered 1 through 16384, The Excel worksheet contains 256 coulmsns that extend across the worksheet, lettered A through Z, AA through AZ, BA through BZ, and continuing to IA through IV. The Excel worksheet can contain as many as 256 sheets, labeled Sheet1 through

Sheet256. The initial number of sheets in a workbook, which can be changed by the user is 16. The last cell on a worksheet would therefore be IV16384.

v. Range

An area of the spreadsheet, which is defined by the column letter and row number of the top left corner, then the column letter and row number of the bottom right corner, e.g. AI:B6 would include all the cells between AI and B6.

4.2.6. Moving Around a Workbook

To enter text or numbers into a workbook, the cell must be active. To make a cell the active cell, use the mouse pointer (shaped like a cross) to click in the appropriate cell, or use the cursor arrow keys to move to the required cell. The following keys can be used to move around a worksheet:

Press	Cell pointer goes
Return	one row down
Shift + Return	one row up
Right arrow or Tab	cell to the immediate right
Left arrow or Shift Tab	cell to the immediate left
Down arrow	cell in the row below
Up arrow	cell in the row above
Home	start of line, i.e. cell in column A
Ctrl + Home	first cell, i.e. top left corner (A1)
Ctrl + End	last cell, i.e. bottom right corner
Ctrl + Right arrow	next occupied cell in the same row
Ctrl + Left arrow	previous occupied cell in the same row
Ctrl + Down arrow	next occupied cell in the same column
Ctrl + Up arrow	previous occupied cell in the same column (Repeating any of the above keys will move to the next block of data on the screen, or the last row or column of the worksheet.)
Page Up	cell one screenful up in the same column
Page Down	cell one screenful down in the same column
Alt + Page Down	one screen right
Alt + Page Up	one screen left
Ctrl + Page Down	one sheet right
Ctrl + Page Up	one sheet left
F5	go to specified location

For the above keys to behave as shown, Scroll Lock must be off, and the Move Selection after Enter option should also be checked on the Edit tab card, available by selecting Options from the tools menu.

4.2.7. The Excel Screen Display

i. Title Bar

This shows the workbook name, if the file has been saved, or 'Book X' where X is the

workbook number, if it has not been saved.

ii. Menu Bar

Contains the drop-down menus.

iii. Standard Toolbar

Contains the buttons, which can be selected by clicking on them once. If the pointer is placed over one of these buttons, a yellow box will normally appear describing what the button is used for.

iv. Formatting Toolbar

These buttons and drop-down menus are used to change the appearance of text, to apply effects such as bold or underline or to change font.

v. Formula Bar

Information appears here as you type it, so that it can be checked before it is entered on the worksheet. On the last line are :

* The 'mode' indicator, which is Ready if Excel is ; awaiting an instruction, Enter if you need to complete an instruction before carrying on or Edit if you are currently making changes.

* Six dimmed buttons, which will indicate if you, have used Caps Lock, Num Lock etc.

4.2.8. Creating a Workbook

As information is typed, it appears first at the top of the screen in the Formula Bar. Having ensured that the entry is correct, press Return, which will move to the next row down or Tab, which will move to the next column across. Note that the Move Selection after Entry box must be checked on the Edit tab card, which can be obtained by selecting Options from the tools menu, for these keys to work as described. Alternatively, the information can be confirmed by clicking the Tick on the formula bar, or removed by clicking the X on the formula bar.

It is the easiest to enter the information in a logical way, either across each row or down each column. It is preferable that the worksheet does not contain blank rows or columns, since these can cause problems when, for example, you try to add up columns or rows using AutoSum, or wish to make a graph of your data. It is far better to change column width or row height.

1. Create a workbook if necessary by clicking on the New button or by selecting New from the File menu.
2. Type the required information.
3. Click on the Save button or select Save from the File menu. You can name the workbook with up to eight letters or numbers.
4. Click on the Print button, or select Print from the File menu.
5. Close the file by selecting Close from the File menu.

To create a simple workbook, you need to start with a blank workbook.

Within the Excel window, Choose New from the File menu. A new workbook should appear labeled Workbook2. Resize and position Workbook 2. Starting in cell AI, build the following table :

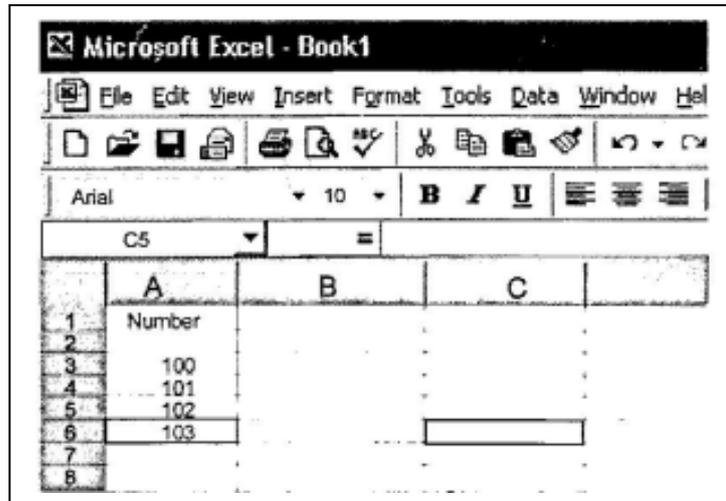


Figure 4.2 : Creation of a simple workbook

To move through your worksheet, you can use the arrow keys.

- * The down arrow moves the active cell down to the next row.
- * The up arrow moves the active cell up to the previous row.
- * The right arrow moves the active cell right to the adjacent column.
- * The left arrow moves the active cell left to the adjacent column.
- * The return key moves the active cell to the next row.

Remember to click on the Enter button or press the Return key to enter each check number. Select cell B1 and type in the text:Data. Starting in cell C 1, build the following table:

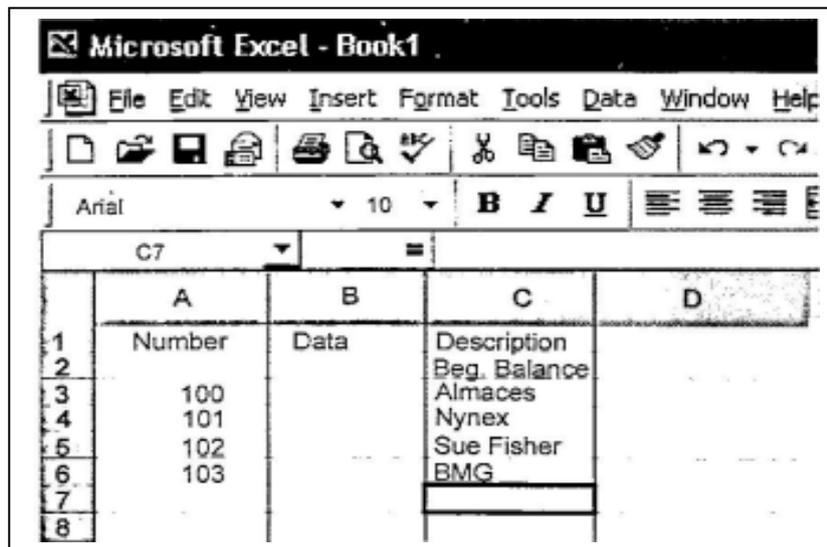


Figure 4.3 : Creation of a simple workbook

Select cell D1, and type the following text : Payment Amount. Observe that text is too large for the cell. You Can change the width of the cell and as result the whole column to fit the text.

4.2.9 Changing column widths

Position the pointer between the column heading for column D and column E. The Pointer should change shape to show a Double arrow as you position the pointer between the two column heading. When the pointer changes shape, you can change the width of the column by dragging to the right or left.

Press the mouse button and drag to the right until the width of column D will fix the text. Starting in Cell D3, build the following table :

	A	B	C	D
1	Number	Data	Description	Payment Amount
2			Beg. Balance	
3	100		Almaces	89.54
4	101		Nynex	56.1
5	102		Sue Fisher	235.13
6	103		BMG	76.35
7				
8				
9				

Figure 4.4 : Changing Column width

Starting in cell E1, build the following table : Make sure you change the column width of column E.

	B	C	D	E
1	Number	Data	Description	Deposit Amount
2			Beg. Balance	
3	100		Almaces	89.54
4	101		Nynex	56.1
5	102		Sue Fisher	235.13
6	103		BMG	76.35
7				900

Figure 4.5 : Changing Column Width

Starting in cell F1, build the Following table

	A	B	C	D	E	F
1	Number	Data	Description	Payment Amount	Deposit Amount	Balance
2	100		Reg. Balance			300
3	101		Almaces	89.54		
4	102		Nynex	56.1		
5	103		Sue Fisher	235.13	900	
6			BMG	76.35		
7						

Figure 4.6 : Changing Column width

It is now time to save your worksheet.

Choose save from the File menu or click on the Save button and call your worksheet “checks”. Before you add more to your “checks” worksheet, you will need to learn how to write formulas using arithmetic operators and functions.

[4.2] Self Check Exercise

Question 4.2.1- How to start Excel?

Question 4.2.2- How to close the Excel?

Question 4.2.3- What are cells?

4.3. ENTERING INFORMATION

Before typing information, make the required cell active. Excel treats text and numbers differently, as noted below.

i. Text

Text, of a maximum length of 256 letters, will be aligned to the left of a cell. If it is too wide for the cell, and if the adjacent cell to the right is blank, it will spillover into that cell. If the cell to the right is not blank, the display of the text will be cut off at the cell boundary.

ii. Numbers

Excel will align numbers to the right of the cell. Numbers consist of any numeric characters plus arithmetic and scientific notation. To enter a number, string, or formula as text, type a single quotation mark before the entry. If the cell is not wide enough to display the complete number, Excel will, depending on the number format in use, convert the number to scientific notation or ## characters. To view the whole number in the cell, widen the column.

The easiest and quickest way to enter either text or a number is to type it, then press the cursor arrow key in the direction you need to go to enter your next cell. Other methods, which can be used, are to click on the green tick in the formula bar or to press Return.

4.3.1. Entering the Same Value into a Range

To put the same information into a range of cells, either text or a number:

1. Select the range of cells.
2. Type in the value to appear in each cell.
3. Press Ctrl + Return.

Alternatively, use the required Fill option from the Edit menu.

4*3.2* Using AutoFill

AutoFill can be used to enter information into a cell, then increment this information automatically. It can therefore be used to enter consecutive information into a column or row (for example, all the months in a year or days in a week) or to enter the same figure in a range, as well as to enter figures into a workbook to test formulae.

AutoFill is usually smart enough, to work out the next entry in a series of data. It uses the initial value to work out the series, incrementing by a factor of one (e.g. Jan would increment to Feb, Mar; Period 1 would increment to Period 2, Period 3, etc). To increment by a different factor, type in two sample values, select them both, then use the fill handle to drag. To use AutoFill, use the 'handle' at the bottom right hand corner of the cell:

1. Select the cell containing the information.
2. Drag the AutoFill handle as far down as you want, or as far to the right as you want.
3. If you want a number incremented rather than copied, hold Ctrl while dragging the AutoFill handle.

4.3.3. Creating Custom Lists

Custom lists to your own specification can also be created. For example, if you were working with budgets and wanted to have a list containing Electricity, Gas, Telephone, Stationery and Wages. Select Options from the tools menu, then click on Custom Lists. A dialogue box will appear. Type in your customized list, either separating the entries with commas, or with Return, then click OK. Alternatively, type the list in your worksheet, and select the list. The selected range will then appear in the Import List from Cells dialogue box. Click Import and then click OK.

To use the custom list, type in the first entry then drag the handle in the required direction.

4.3.4. Formatting Numbers

Numbers are formatted to the right and have a default value of no decimal places, i.e. if you typed in 10.00, Excel would enter 10. To layout columns or rows correctly, it is often necessary to re-format them, particularly if entering currency and requiring decimal places. The five number-style buttons can deal with this formatting; alternatively select Cells from the Format menu or press Ctrl + 1 and choose the Number tab card.

i. Currency Style

This button will format selected cells to two decimal places, put a comma in thousands, and place a # sign in front of the selected numbers. Using the keyboard, press Ctrl + Shift + \$.

ii. Percent Style

This button will multiply the figure by 100 and place the percent sign after it.

iii. Comma Style

This button will format the selected cells to two decimal places and put a comma in thousands. Using the keyboard, press Ctrl + Shift + !.

iv. Increase or Decrease Decimal

Each time you click on either of these buttons, an extra decimal place will be added to or removed from the selected numbers.

[4.3] Self Check Exercise

Question 4.3.1- How to create custom lists?

4.4. EDITING THE SPREADSHEET

Edit of workbook involves activities like selecting cells, ranges, which may be continu

ous or discrete, for deletion, copy and paste etc.

Excel also provides the facility of doing what-if analysis on the data. Annotation of formulae or values is also possible. As a spreadsheet package Excel provides facility of making computations on data using formulae and functions.

The following can be used to make changes to the spreadsheet after it has been typed:

i. Replacing Existing Cell Contents

To replace cell contents, select the cell, type the new data and press Return or Tab.

ii. Deleting Cell Contents

To delete a cell or range of cells, select them and press Delete. To delete cells and move adjacent cells up to fill the gap, select Delete from the Edit menu. In the Delete dialogue box, select either Shift Cells Up or Shift Cells Left.

iii. Deleting a Row

To delete a row, click the row number then press the Delete key. If the row should be moved ; - p, select the row then use Delete from the Edit menu.

iv. Deleting a Column

To delete a column, click on the column letter, then- press the Delete key. Select Delete from the Edit menu if the column adjacent should be moved in to fill the gap.

v. Inserting a Row

Inserting a blank row can be carried out by selecting the row which you want to be moved down, then selecting Rows from the Insert menu.

vi. Inserting a Column

Select the column to be moved to the right, then select Columns from the Insert menu. Be wary of the two options Clear and Delete on the Edit menu. Note that Clear empties the cell contents without deleting the actual cell, where as Delete is like removing bricks from a wall -the cell will be removed according to the options made on the dialogue box.

Note also that you can select Clear then Formats from the Edit menu to remove the formatting of a cell without removing the data it contains.

4.4,1 Selecting Cells

To make changes to an area of the spreadsheet, it must first be selected, after which the selected area will be highlighted on the screen.

i. Cell

Click anywhere in the cell. Drag to select more than one cell.

ii. Row

Click on the row number at the left-hand side of the screen, click and drag to select more than one row. Alternatively, use Shift Spacebar to select the current row.

iii. Column

Click on the column letter at the top of the screen, click and drag to select more than one column.

iv. Non-adjacent columns or rows

Press Ctrl + click in the row number or column letter area.

v. Selection

Click in the top left cell, move the pointer to the bottom right cell press Shift and click.

vi. Non-adjacent cells

Press Ctrl + drag, then press Ctrl+~+ drag in next area. Repeat till all ranges required are highlighted.

vii. Whole Worksheet

Press Ctrl + A, or Ctrl' + Shift + Spacebar, or click the Select All button, which is the gray rectangle at the intersection of the row and column headings. Selected text is highlighted on the screen. To deselect, or to start again, click once anywhere on the worksheet.

4.4.2. Scrolling Through a Workbook

The vertical scroll bar arrows will move the screen one line at a time, up or down; depending on which arrow is clicked. The vertical scroll box scrolls one screenful at a time by clicking above or below it. To scroll forwards to a particular line, click and drag the scroll box, and the formula bar will display the row number.

The horizontal scroll bar arrows moves a screen right or left. The horizontal scroll box works in the same way as the vertical, but shows the Current column.

Note that the above actions do not move the active cell. The left mouse button must be clicked once the required location in the workbook is reached, or any text typed will be placed at the location of the active cell.

4.4.3. Using the Insertion Point

To change incorrect text in the Formula Bar, the insertion point, which is the flashing vertical line, must be positioned to the left or right of a letter or character before changes can be made.

i. Inserting Text

Position the insertion,point where you want to insert. Type the text to be inserted -any text following will be moved out of the way.

ii. Deleting Text

To delete to the left, position the insertion point after the text to be deleted, and press Backspace. To delete to the right, position the insertion point before the text to be deleted, and press Delete. You can also position the insertion point at the required position in the cell by double clicking.

4.4.4. Undoing or Redoing the Last Action

The last action carried out can be undone, which is useful if, for example, you delete a range of cells by mistake. The last action can also be redone. Click the Undo or Redo button or select Undo or Repeat from the Edit menu I, or use Ctrl + Z to undo, F4, to repeat. The Edit menu will show Repeat X, where X is the last action you carried out, only if the action is one that Excel considers it sensible to repeat.

4.4.5. Using Cut and Paste

The term 'cut and paste' came from the method used on paper -to literally cut out a section of text with pair of scissors, and paste it somewhere else with glue or cellotape. Cut and paste in Excel can be used to move or copy a cell or cells from one place in a worksheet to another, or to another worksheet, or to another workbook. Cut and paste works in the same way in Excel as it does in other Windows packages, so it is possible to use Shift + Delete to cut text, Shift + Insert to paste text, and Ctrl + Insert to copy text, as an alternative to the methods given below,

i. Cutting Text

To cut text from one place in the worksheet and paste it to another location, select the text you want to cut, then click on the Cut button or select Cut from the Edit menu or press Ctrl+ X. The cells will now have a flashing border around them.

ii. Pasting Text

To paste text, select the cell where you want the text to appear and follow the instruction at the bottom of the screen or click on the Paste button or select paste from the Edit menu or press Ctrl+Y. The instruction at the bottom of the screen tells you to Select destination and press ENTER or choose Paste. Pressing Enter removes the flashing border from around your selection, whereas Paste leaves it there so that you can perform multiple pasting actions if you wish.

iii. Copying Text

To leave the text at the original position and copy it somewhere else, you select it then click the Copy button or select Copy from the Edit menu or press Ctrl+C. You can then use paste, exactly as described above, to bring the text back at another location.

4.4.6. Finding and Replacing Cell Contents

This is a very powerful facility available in excel. Using this you can search for some text or number in the workbook and even you can replace the contents selectively or all instances of the text or number to be replaces in one go.

L Finding

It is often difficult to find on screen a piece of text you are looking for. Rather than looking for the text yourself (typically because you have a change to make), it is better and faster to get Excel to look for it for you. To find a word, a string of words or a number, select Find from the Edit menu or press Ctrl +F, and a dialogue box will appear. Type in the word or number you want to find, then click in the find Next box. The search will stop at the first ceE, which matches. You can then click Close, or you can click find Next if it has not found the correct instance of the word. The Find dialogue box will select the found word -what you do then is entirely up to you. **it. Replacing**

To fwrl a word or number and either replace with another word, or delete the text, there are two main options you can use -interactive replace, which asks you each time it finds the word if you want to replace it, and global replace, which just does the whole task almost instantaneously. Select Replace from the Edit menu or press Ctrl + H. A dialogue box will appear where you can type in what you want to find, press Tab and type in what you want to replace it with. Excel will find the first match and stop. Click on Replace. It will then find the next word, and so on through the selected worksheet (s). Only click on Replace All if you are sure that the replace is correct.

4.4.7. Checking Spelling

ExceFs English dictionary lets you check and correct any typing mistakes in your worksheet. If you want to check the whole workbook, select the entire necessary sheet Tabs (using e.g. Shift + dick) then click the Spelling button or select spelling from the Tools menu or press F7. A dialogue box will appear, highlighting the first word the spell checker is questioning, and showing possible changes. If none of the suggestions are correct, you can type your own new spelling in the Change To box. You can select any of the buttons at the right of the box to tell Excel what to do next. Ignore, Ignore All, Change and Change All are fairly self-explanatory. Add will add the word to your own customized dictionary.

L Copying Cells

In this part of the lesson you will be creating a workbook and learning how to fill a cell or range of cells with formulas to speed data entry.

Find and Open Excel if it isn't already open. Choose New from the File menu to start a new workbook if there isn't a new workbook open. Choose Formula Bar from the View menu to display the formula bar. You will be creating an income statement worksheet.

Make the entries displayed below :

	A	B	C
1	The Book Company		
2	1996 Projections		
3			
4		Qtr	
5	REVENUE		
6	Sales		
7	Service		
8	Total		
9			
10	EXPENSES		
11	Wages		
12	Supplies		
13	Total		
14			
15	INCOME		
16	Gross		
17	Tax		
18	Net		
19			
20			

Figure 4.7 : Income Statement Worksheet

Select the text below the bold-faced heading, and right justify the text. Remember to hold down the Ctrl key when selecting a discontinuous range.

Observe :

	A	B	C
1	The Book Company		
2	1996 Projections		
3			
4		Qtr	
5	REVENUE		
6	Sales		
7	Service		
8	Total		
9			
10	EXPENSES		
11	Wages		
12	Supplies		
13	Total		
14			
15	INCOME		
16	Gross		
17	Tax		
18	Net		
19			
20			
21			

Figure 4.8 : Formatting the value in worksheet

Your workbook should look as follows :

	A	B	C
1	The Book Company		
2	1996 Projections		
3			
4		Qtr	
5	REVENUE		
6	Sales	46000	
7	Service	55000	
8	Total		
9			
10	EXPENSES		
11	Wages	62000	
12	Supplies	22500	
13	Total		
14			
15	INCOME		
16	Gross		
17	Tax		
18	Net		
19			

Figure 4.9: Workbook after right justifying the values

Before you enter any formulæ, let's name some of the cells in your worksheet,

ii. Naming Cells

Excel allows you to name any cell, range, or value in a workbook. You can then use this name to refer to the cell, range, or value. Names make formulæ easier to read, understand, and maintain. You can change or delete names that have been defined previously. Names appear in the reference area of the formula bar when you select a named cell or range.

Select cell A6 and choose Name from the Insert menu, and choose Define from the Name submenu. Within the Names dialogue box, Excel provides a possible name: Sales. This is fine. Click the OK button. Select cell A7 and name it: Service. Enter the following constants into your workbook:

	A	B	C
1	The Book Company		
2	1996 Projections		
3			
4		Qtr	
5	REVENUE		
6	Sales	46000	
7	Service	55000	
8	Total		
9			
10	EXPENSES		
11	Wages	62000	
12	Supplies	22500	
13	Total		
14			
15	INCOME		
16	Gross		
17	Tax		
18	Net		
19			
20			

Figure 4.10: Entering Constants in the workbook

Select cell B8 and enter the formula that sums Sales and Services. Save your workbook as “company*. The formula in cell B8 should be either the formula = B6 + B7 or = SUM (B6 : B7). The formula is summing up the two cells directly above cell B8. If you look at cell B13, it will need a formula too. The formula in cell B13 will also sum up the two cells directly above it. This is where Excel’s Copy command is useful. What you can do is copy the formula from one cell to another cell,

iii. Copying From One Cell to Another Cell

Select cell B8. Choose Copy from the Edit menu. Excel places a marquee around the cell. Select cell B13 and choose Paste from the Edit menu. Your company workbook should look as follows:

	A	B	C
1	The Book Company		
2	1996 Projections		
3			
4		Qtr	
5	REVENUE		
6	Sales	46000	
7	Service	55000	
8	Total	101000	
9			
10	EXPENSES		
11	Wages	62000	
12	Supplies	22500	
13	Total		
14			
15	INCOME		
16	Gross		
17	Tax		
18	Net		
19			
20			

Figure 4.11 : Copying from one cell to another

Press the Escape key on your keyboard to cancel to marquee. Select cell B13. The formula should be = B11 + B12 or = (SUM (B11:B12)). That is the formula has summed the two cells directly above cell B13. Your company workbook should look as follows :

	A	B	C
1	The Book Company		
2	1996 Projections		
3			
4		Qtr	
5	REVENUE		
6	Sales	46000	
7	Service	55000	
8	Total	101000	
9			
10	EXPENSES		
11	Wages	62000	
12	Supplies	22500	
13	Total	84500	
14			
15	INCOME		
16	Gross		
17	Tax		
18	Net		
19			
20			

Figure 4.12 : Workbook after copying the cells

Save your work before proceeding.

You now know how to copy a formula from one cell to another. Next, in order to duplicate the Qtr. heading across columns C through E, you will make a copy from one cell to several other cells.

iv. Copying From one Cell to Several Cells

Select cell B4-and choose Copy from the Edit menu. Highlight the range C4:E4. Choose Paste from the Edit menu. Press the Escape key to remove the marquee. Your company workbook should look as follows :

	A	B	C	D	E
1	The Book Company				
2	1996 Projections				
3					
4		Qtr	Qtr	Qtr	Qtr
5	REVENUE				
6	Sales	46000			
7	Service	55000			
8	Total	101000			
9					
10	EXPENSES				
11	Wages	62000			
12	Supplies	22500			
13	Total	84500			
14					
15	INCOME				
16	Gross				
17	Tax				
18	Net				
19					
20					

Figure 4.13 : Copying from one cell to several cells

Center the Qtr. headings. Save your work before proceeding. The next step is to fill in the range C6:E7 with projected revenues. Select cell C6 and enter the formula = B6*1.08. Choose Copy from the Edit menu. Highlight the range C6:E7.

Observe

	A	B	C	D	E
1	The Book Company				
2	1996 Projections				
3					
4		Qtr	Qtr	Qtr	Qtr
5	REVENUE				
6	Sales	46000	49680		
7	Service	55000			
8	Total	101000			
9					
10	EXPENSES				
11	Wages	62000			
12	Supplies	22500			
13	Total	84500			
14					
15	INCOME				
16	Gross				
17	Tax				
18	Net				
19					
20					

Figure 4.14 : Copying cells using formulas

	A	B	C	D	E
1	The Book Company				
2	1996 Projections				
3					
4		Qtr	Qtr	Qtr	Qtr
5	REVENUE				
6	Sales	46000	49680	53654.4	57948.75
7	Service	55000	59400	64152	69284.16
8	Total	101000			
9					
10	EXPENSES				
11	Wages	62000			
12	Supplies	22500			
13	Total	84500			
14					
15	INCOME				
16	Gross				
17	Tax				
18	Net				
19					
20					

Figure 4.15 : Workbook after copying the formula in cells

Highlight the cells in the range C6:E7 and observe the cell's formulas. In each cell the formula multiplies the cell directly to the left of it by 1.08. You can also copy data and formulas from one location on the workbook to another using the Fill command,

v. The Fill Command

Select the range B8:E8. Choose Fill from the Edit menu , and from the Fill submenu choose Right. Your company workbook should look as follows:

	A	B	C	D	E
1	The Book Company				
2	1996 Projections				
3					
4		Qtr	Qtr	Qtr	Qtr
5	REVENUE				
6	Sales	46000	49680	53654.4	57948.752
7	Service	55000	59400	64152	69284.16
8	Total	101000	109080	117806.4	127230.912
9					
10	EXPENSES				
11	Wages	62000			
12	Supplies	22500			
13	Total	84500			
14					
15	INCOME				
16	Gross				
17	Tax				
18	Net				
19					
20					

Figure 4.16 : Worksheet for fill command

The projected expenses in the range C11 : E12 are computed as 1.02 times the value of the previous quarter. Select cell C11 and enter the formula = B11*1.02. Select the range C11:C13 and choose Fill from the Edit menu, and from the Fill submenu choose Down. Your company workbook should look as follows :

	A	B	C	D	E
1	The Book Company				
2	1996 Projections				
3					
4		Qtr	Qtr	Qtr	Qtr
5	REVENUE				
6	Sales	46000	46880	53654.4	57946.752
7	Service	55000	59400	64152	69284.16
8	Total	101000	109080	117806.4	127230.912
9					
10	EXPENSES				
11	Wages	62000	63240		
12	Supplies	22500	22950		
13	Total	84500	86190		
14					
15	INCOME				
16	Gross				
17	Tax				
18	Net				
19					
20					

Figure 4.17: Workbook after copying the formula in cells

Excel provides another means of copying text, values, or formulas from one cell to other cells. Excel provides the AutoFill command. AutoFill copies cell's contents without using the menu. You work directly on the workbook using the mouse. *vL*

Copying Cells Using AutoFill

The AutoFill feature is used to copy formatting, formulas, or all cell contents, or to perform different types of series extensions. For example, if you type Monday and Tuesday in consecutive columns, and then drag the fill handle to the right, Excel fills Wednesday, Thursday and so on into selected cells. Select cell, C11. Cell C11 contains the formula you want to copy. Observe the fill handle located in the lower right corner. Place your mouse over the fill handle, until the arrow becomes a black cross. Drag the fill handle across the cells C11 and E11 and then release the mouse button. Your company workbook should look as follows :

	A	B	C	D	E
1	The Book Company				
2	1996 Projections				
3					
4		Qtr	Qtr	Qtr	Qtr
5	REVENUE				
6	Sales	46000	49680	53654.4	57946.752
7	Service	55000	59400	64152	69284.16
8	Total	101000	109080	117806.4	127230.912
9					
10	EXPENSES				
11	Wages	62000	63240	64504.8	65794.896
12	Supplies	22500	22950		
13	Total	84500	86190		
14					
15	INCOME				
16	Gross				
17	Tax				
18	Net				
19					
20					

Figure 4.18 : Workbook after copying the formula in cells

You can also select more than one cell and then use the AutoFill command to copy. Select the range C12:C13. Drag the fill handle across the range D12:E13.

Your company workbook should look as follows :

	A	B	C	D	E
1	The Book Company				
2	1996 Projections				
3					
4		Qtr	Qtr	Qtr	Qtr
5	REVENUE				
6	Sales	46000	49680	53654.4	57946.752
7	Service	55000	59400	64152	69284.16
8	Total	101000	109080	117806.4	127230.912
9					
10	EXPENSES				
11	Wages	62000	63240	64504.8	65794.896
12	Supplies	22500	22950	23409	23877.18
13	Total	84500	86190	87913.8	89672.076
14					
15	INCOME				
16	Gross				
17	Tax				
18	Net				
19					
20					

4.19 : Workbook after copying the formula in cell using Autofill

You have now learned how to copy in Excel. You may use any method above to finish the company workbook. Select cell B16 and enter the formula = B8 - B13. (Gross Income is equal to Total Revenue minus Total Expenses) Select cell B17 and enter the formula = B16*.22. (The Tax is 22%) Select cell B18 and enter the formula = B16- B17. (Net Income is Gross Income minus the Tax)

Your company workbook should look as follows :

	A	B	C	D	E
1	The Book Company				
2	1996 Projections				
3					
4		Qtr	Qtr	Qtr	Qtr
5	REVENUE				
6	Sales	46000	49680	53654.4	57946.752
7	Service	55000	59400	64152	69284.16
8	Total	101000	109080	117806.4	127230.912
9					
10	EXPENSES				
11	Wages	62000	63240	64504.8	65794.896
12	Supplies	22500	22950	23409	23877.18
13	Total	84500	86190	87913.8	89672.076
14					
15	INCOME				
16	Gross	16500			
17	Tax	3630			
18	Net	12870			
19					

Figure 4.20 : Workbook after copying the formula in cells

Copy the formulae in the range B16:B18 to the range C16:E18 using any method you would like. Your company workbook should look as follows :

	A	B	C	D	E
1	The Book Company				
2	1996 Projections				
3					
4		Qtr	Qtr	Qtr	Qtr
5	REVENUE				
6	Sales	46000	49680	53654.4	57946.752
7	Service	55000	59400	64152	69284.16
8	Total	101000	109080	117806.4	127230.912
9					
10	EXPENSES				
11	Wages	62000	63240	64504.8	65794.896
12	Supplies	22500	22950	23409	23877.18
13	Total	84500	86190	87913.8	89672.076
14					
15	INCOME				
16	Gross	16500	22690	29892.6	37558.836
17	Tax	3630	5035.8	6578.372	8262.94392
18	Net	12870	17654.2	23316.228	29295.89208
19					

Figure 4.21: Workbook after copying the formula in cells

You have almost completed your company workbook. There is one more column to enter. Select cell F4 and enter and center the text; Year. Select cell F6 and enter the formula =SUM(B6:E6). Copy the formula in cell F6 into the following ranges: F7:F8.

	A	B	C	D	E	F
1	The Book Company					
2	1996 Projections					
3						
4		Qtr	Qtr	Qtr	Qtr	Year
5	REVENUE					
6	Sales	46000	49680	53654.4	57946.752	207281.152
7	Service	55000	59400	64152	69284.16	247836.16
8	Total	101000	109080	117806.4	127230.912	455117.312
9						
10	EXPENSES					
11	Wages	62000	63240	64504.8	65794.896	255539.696
12	Supplies	22500	22950	23409	23877.18	92736.18
13	Total	84500	86190	87913.8	89672.076	348275.876
14						
15	INCOME					
16	Gross	16500	22890	29892.6	37558.836	108841.436
17	Tax	3630	5035.8	6576.372	8282.94392	23505.11592
18	Net	12870	17854.2	23316.228	29295.89208	83336.32008
19						

4.22 : Workbook after copying the formula in cells

Save your changes. Your company workbook is complete. You can now use the power of Excel’s automatic recalculation feature. You can now use What If? analysis.

[4.4] Self Check Exercise

Question 4.4.1- How to delete cell contents?

Question 4.4.2- How to insert a column?

Question 4.4.3- How to cut text?

4.5 WHAT IF? ANALYSIS

What If? analysis involves three steps:

1. First, you ask a What If? question about your workbook. For example, “What if the total revenue in the first quarter was \$5000?”
2. Second, you alter the appropriate cell or cells in your workbook. In this case it would be cell B8.
3. Third, you observe how the different values in the workbook change.

Experiment with a What If? analysis and enter \$5000 into cell B8. Observe that the Income entries are now negative. Undo the entering of \$5000 or enter \$101000 in cell B8.

[4.5] Self Check Exercise

Question 4.5.1- What are the steps of WHAT IF? ANALYSIS.

4.6 WRITING FORMULAS USING OPERATORS AND FUNCTIONS

Operators are what connect the elements of a formula. Some familiar operators are: addition (+), subtraction (-), multiplication (*), and division (/). There is an order of operations when you are evaluating a formula. Formulas are evaluated from left to right, with expressions enclosed in parentheses evaluated first, then exponents, multiplication, division, addition, and subtraction. Excel has many more operators, but we will work with the operators listed above for now. Here is an example of how the order of operations works:

If you have the following formula within a cell; $-A8/(A9+A4)$

The first operation would be the sum of A9 and A4 and then A8 would be divided by that sum.

i. Describing Formulas

Excel allows you to add comments to explain the purpose of an inserted formula. The comments are displayed in the Cell Note window, which can be viewed by choosing Note from the Insert menu. Let’s enter a formula using operators and comment the formula.

Open a new workbook window.

Starting in cell AI build the following table :

	A	B
1	Grades	
2	76	
3	89	
4	76	
5	100	
6	53	
7	89	
8	21	
9	85	
10	58	
11		
12		
13		

Figure 4.23 : Workbook for computing average of nine grades using formula

You are going to enter a formula, which will calculate the average of these nine grades. Select cell All and type in the text:Total.

It would be best if the total sum of the grades was beneath the last grade. You need to insert a column between column A and column B so you don't have to retype all the numbers.

ii. Insert a Column

Highlight column A by clicking in the column heading.

	A
1	Grades
2	76
3	89
4	76
5	100
6	53
7	89
8	21
9	85
10	98
11	Total
12	
13	
14	
15	
16	
17	
18	
19	

Figure 4.24 : Highlight columns in the workbook

Choose Columns from the Insert menu. Column A should be a blank column now. Select cell B1 and click in the formula bar. Highlight the text: Grades and Cut and Paste the text into cell AI. Cut and Paste the text:Total into cell All. Now to enter the formula for the total sum of the grades. Select cell B 11 and, enter the following formula:

Remember to click on the Enter button or press the Return key to enter the formula.

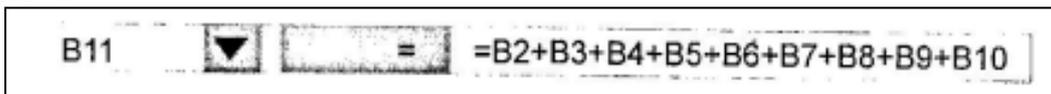


Figure 4.25 : Formula for computing grades
Your worksheet should look as follows:

	A	B	C
1	Grades		
2		76	
3		89	
4		76	
5		100	
6		53	
7		89	
8		21	
9		65	
10		98	
11	Total	667	
12			

Figure 4.26 : Workbook after applying formula in cells

Select cell A12 and enter the text: Average, Select cell B12 and enter the following formula :

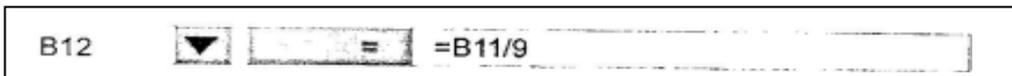


Figure 4.27 : Formula for computing average

Your worksheet should look as follows :

	A	B	C
1	Grades		
2		76	
3		89	
4		76	
5		100	
6		53	
7		89	
8		21	
9		65	
10		98	
11	Total	667	
12	Average	74.11111111	
13			

Figure 4.28 : Workbook after computing average

Let's annotate (comment) the formula in cell B 12. iii.

Annotating Formulas

You can attach notes to cells by using comments, formerly called cell notes. You can view each comment when you rest the pointer over the cell or view all comments at the same time. You can print comments in the same locations where they are displayed on the worksheet or a list at the end of the worksheet. Microsoft Excel uses the user's name in each comment. Select cell B12. Choose Comment from the Insert menu. The following Cell Comment box should appear :

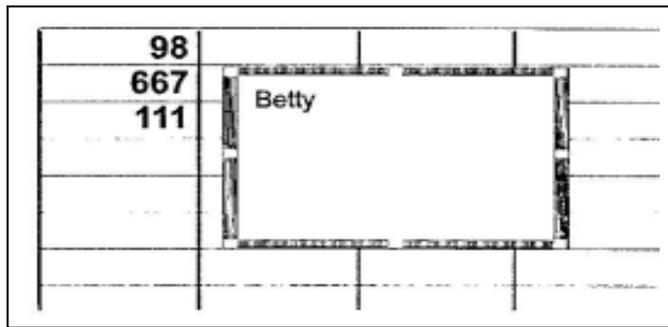


Figure 4.29 : Annotating the cells

Within the Text Note box, type in the text: Average of nine grades and then click anywhere outside the box.

Note that there is a red note indicator in the upper- right corner of the cell. Anytime you put the mouse over the red note indicator, your comment will appear.

Now that you know how to compute the average using operators, it is time to learn how to write formula using Excel’s functions.

4.7 FUNCTIONS

Functions are used to form all or part of a formula. Excel provides two general types of mathematical functions: those that are used in business applications and those that are oriented to higher mathematics. In this lesson we will focus on the business applications formulas.

The AutoSum button (Σ) located in the Standard toolbar. Whenever you click the Auto Sum button, Excel inserts a SUMQ function in the active cell. Not only will the SUMQ function write the sum formula, but it will make a guess at what range of cells you desire to sum, and will leave you in edit mode so that you can correct the sum range. Select cell C11 and click on the AutoSum button located in the Standard toolbar. Your worksheet should look as follows :

	A	B	C
1	Grades		
2		76	
3		89	
4		76	
5		100	
6		53	
7		89	
8		21	
9		65	
10		98	
11	Total	667	=B11(B11)
12	Average	74.11111111	

Figure 4.30 : Computing sum of values

Excel has guessed that you want to insert cell B11, which contains the appropriate formula. Let’s assume Excel did not guess correctly.

Within the formula bar highlight B11 and delete it. The Sum function is waiting for it’s arguments. You want to sum up B2 through B10, this is denoted in a more compact form as

B2 : BIO. Position your cursor in the formula bar, cut out B11 and instead type in B2 : BIO. Observe:

	A	B	C	D
1	Grades			
2		76		
3		89		
4		76		
5		100		
6		53		
7		89		
8		21		
9		65		
10		98		
11	Total	667	=SUM(B2:B10)	
12	Average	74.11111111		

Figure 4.31 : Modifying range of cells for computing sum

Click on the Enter button or press the Return key to enter the formula. The Sum function is one of the many functions Excel provides. Excel also provides many statistical functions in particular the Average function.

Excel provides two ways for entering function names: You can type the name of the function in if you know it or you can use the Function Wizard.

Using The Function Wizard To use the function Wizard you can choose Function from the Insert menu

or you can click on the Function wizard button located on the standard toolbar.

Select cell C12 and open the Function wizard dialog box by either method described

above.

Observe

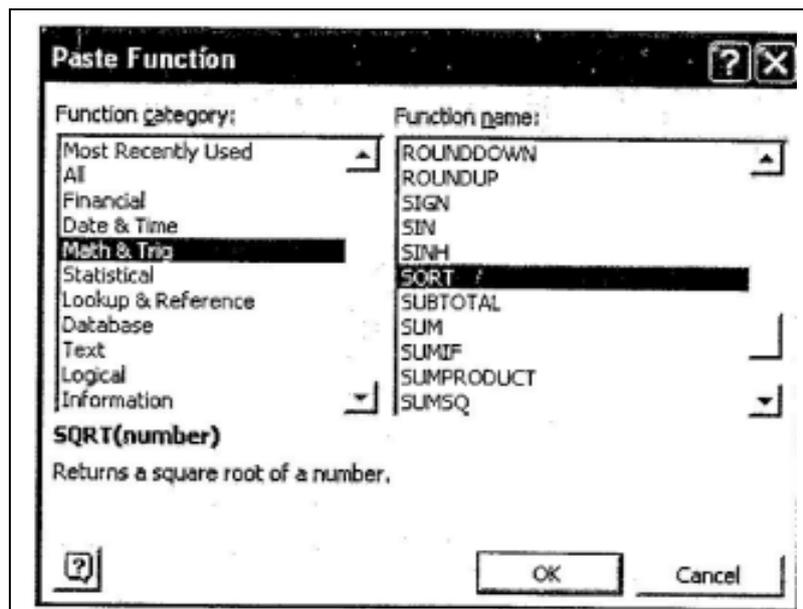


Figure 4.32 : Using function wizard

We Want to use the AVERAGE function. The AVERAGE function will take the average

of all the numbers you list in the parentheses. The Function wizard will take you through setting up the formula step by step.

Within the function Wizard dialog box highlight the Function Category: Most Recently Used and highlight the Function Name: AVERAGE then click on the OK button.

The following dialog box should appear :



Figure 4.33 : Enter cells for computing average

Enter the range B2 : B10 and then click on the OK button. Click on the Enter button or press the Return key to enter the formula. Your workbook should look as follows:

	A	B	C	D
1	Grades			
2		76		
3		89		
4		76		
5		100		
6		53		
7		89		
8		21		
9		65		
10		98		
11	Total	667	667	
12	Average	74.11111111	74.11111111	

Figure 4.34 Result of applying sum and average functions

Now that you know how to enter formulas using operators and functions, you can practice on your “checks” workbook.

Close Workbook3 and don't save the file. Open the “checks” workbook. Select cell F3 and enter the following formula :

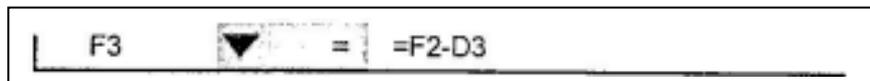


Figure 4.35 : Entering formula for finding difference

This formula will compute your balance after check 100 has been written. Select cell F4 and enter the following formula :

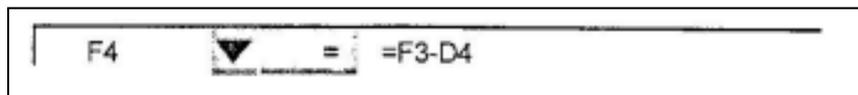


Figure 4.36 : Entering formula for finding difference

This formula will compute your balance after check 101 has been written. Select cell F5 and enter the following formula :

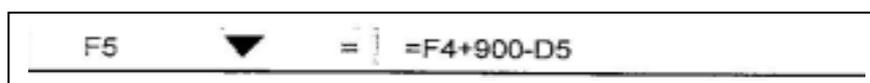


Figure 4.37 : Formula for finding difference

This formula will compute your balance after check 102, has been written plus the \$900 dollar deposit has been accounted for. Select cell F6 and enter the formula that would compute the balance after 103 has been written.

Your "checks" workbook should look as follows:

	A	B	C	D	E	F
1	Number	Date	Description	Payment Amount	Deposit Amount	Balance
2			beg Balance			300
3	100		Almacs	89.54		210.46
4	101		Nynex	56.1		154.36
5	102		Sue Fisher	253.13	900	819.23
6	103		BMG	75.35		742.88
7						
8						
9						

Figure 4.38 : Workbook displaying the result of computations

If something is incorrect in your "checks" workbook, go back and check over your formulas. Save your changes, starting in cell B3, build the following table:

	A	B
1	Number	Date
2		
3	100	8-Aug-96
4	101	10-Aug-96
5	102	13-Aug-96
6	103	20-Aug-96
7		

Figure 4.39 : Building Table of dates

[4.7] Self Check Exercise

Question 4.7.1- What are FUNCTIONS?

4.8. SUMMARY

To start Excel, double click on the Excel icon on the Windows screen. If you have any workbooks open but not saved, Excel will ask if you want to save before exiting. The workbook consists of grids and columns. The workbook is made up of cells. There is a cell -at the intersection of each row and column. A cell can contain a value, a formula, or a text entry. The value of a formula will change when the components (arguments) of the formula change.

The Excel worksheet contains 16,384 rows that extend down the worksheet, numbered 1 through 16384. The Excel worksheet can contain as many as 256 sheets, labeled Sheet/ through Sheet 256. To enter text or numbers into a workbook, the cell must be active. To make a cell the active cell, use the mouse pointer (shaped like a cross) to click in the appropriate cell, or use the cursor arrow keys to move to the required cell. The right arrow moves the active cell right to the adjacent column. The left arrow moves the active cell left to the adjacent column. The return key moves the active cell to the next row.

Before typing Information, make the required cell active. If it is too wide for the cell, and if the adjacent cell to the right is blank, it will spillover into that cell, Excel will align numbers to the r;^h: of the cell. To enter a number, string, or formula as text, type a single

quotation mark before the entry. Select the range of cells.

AutoFill can be used to enter information into a cell and then increment this information automatically. Numbers are formatted to the right and have a default value of no decimal places, i.e. if you typed in 10.00, Excel would enter.

4.8- Key Words

Menu, Cells, Formula, Range, Styles , Rows, Spreadsheet, Worksheet

4.9-Review Questions:-

4.9.1-Short Questions

1. What are the various methods of closing the excel program?
2. What are the various components of excel screen display?
3. What are the various alternative methods of executing commands in excel?
4. What are the various editing operations available in Excel?
5. What is the combination of keys for Copy, cut and Paste of selection?

4.9.2- Long Questions

1. Explain the following concepts:
 - i. Workbook
 - ii. Cell
 - iii Range
 - iv. Formula
 - v. Row and Column
2. Is it possible to select non-contiguous ranges in Excel? If yes, then how?
3. Which tool is used for inserting functions in the workbook?
4. Explain the steps involved in inserting a formula for finding sum and average of a range as well as selected cells?

4.10- SUGGESTED READINGS

1. Windows Based Computer Courses, G. Singh and R. Singh, Kalyani Publishers.
2. Mastering Excel 97 For Window J, Carl Townsend, BPB Publicat

Solutions to Self Check Exercise

[CHAPTER 4]

4.2.1- To start Excel, double click on the Excel icon on the Windows screen. Alternatively, if you are using Excel as part of Microsoft Office, click on the Excel icon on the Microsoft Toolbar.

4.2.2- To ensure that all work is properly saved, as with all other Windows applications, Excel must be closed once you have finished working with it. This is done by selecting Exit from the File menu. If you have any workbooks open but not saved, Excel will ask if you want to save before exiting. An alternative method is to press Alt+F4, Which is common for closing almost all the windows applications.

4.2.3- This is the name of the box into which you can type figures, words, dates, times or formulae.

4.3.1-Custom lists to your own specification can also be created. For example, if you were working with budgets and wanted to have a list containing Electricity, Gas, Telephone, Stationery and Wages. Select Options from the tools menu, then click on Custom Lists. A dialogue box will appear. Type in your customized list, either separating the entries with commas, or with Return, then click OK. Alternatively, type the list in your worksheet, and select the list. The selected range will then appear in the Import List from Cells dialogue box. Click Import and then click OK

4.4.1- To delete a cell or range of cells, select them and press Delete. To delete cells and move adjacent cells up to fill the gap, select Delete from the Edit menu. In the Delete dialogue box, select either Shift Cells Up or Shift Cells Left.

4.4.2- Select the column to be moved to the right, then select Columns from the Insert menu. Be wary of the two options Clear and Delete on the Edit menu. Note that Clear empties the cell contents without deleting the actual cell, where as Delete is like removing bricks from a wall -the cell will be removed according to the options made on the dialogue box.

4.4.3- To cut text from one place in the worksheet and paste it to another location, select the text you want to cut, then click on the Cut button or select Cut from the Edit menu or press Ctrl+ X.

4.5.1- What If? analysis involves three steps:

1. First, you ask a What If? question about your workbook. For example, "What if the total revenue in the first quarter was \$5000?"
2. Second, you alter the appropriate cell or cells in your workbook. In this case it would be cell B8.
 3. Third, you observe how the different values in the workbook change.

4.7.1- Functions are used to form all or part of a formula. Excel provides two general types of mathematical functions: those that are used in business applications and those that are oriented to higher mathematics.

FORMATTING THE WORKBOOK AND PERFORMING CALCULATIONS

STRUCTURE

- 5.1 Introduction
- 5.2 Formatting the Workbook
- 5.3 Performing Calculations
- 5.4 Addressing Modes
- 5.5 Naming Cells
- 5.6 Working with-Sheets
- 5.7 Protecting and Hiding
- 5.8 Sorting
- 5.9 Printing
- 5.10 File Management
- 5.11 Styles and the Format Painter
- 5.12 Using AutoFilter
- 5.13 Summary
- 5.14 Keywords
- 5.15 Review Questions
- 5.16 Suggested Readings
- 5.17 Solution to Self Check Exercise

OBJECTIVE

This lesson is about formatting the workbook using various methods and performing calculations. The reader will come to know of the methods of changing column width for one, multiple or all columns. Section 14.4 discusses the various methods of performing calculations using formulae and functions.

This lesson also discusses naming the cells and using the named cells for referencing in formulae of in other workbooks. This lesson contains information about addressing modes for cells, naming cells and sheets, selecting sheet, moving or copying sheets, making consolidated or summary sheets. Protection of cells and sheets has also been discussed in this lesson. Methods of sorting the workbook contents and printing the sheet have also been discussed in this lesson.

5.1. INTRODUCTION

Formatting of workbooks is important for efficient representation of data contained in the workbook. For example, emboldening the important value make them more visible, Numbers are to be right aligned and text entries are to be left aligned, heading normally should be centrally aligned etc. Spreadsheets facilitate performing calculations on the values like, sum, average, maximum, minimum etc. Calculations in Excel can be performed either using formulae or using functions, which are inbuilt in the Excel and they facilitate automation of certain formulae.

Naming the cells and sheet helps in referencing the cells or sheet in performing calculation, moving the sheets in preserving the data from accidental or malicious losses.

Sorting, of data contained in workbook, is a very useful facility available in spreadsheet packages. Sorting arranges the data in ascending or descending order based on one of more than one fields (columns). Printing of workbook helps in generating hardcopies of the data and analysis of data for future reference or for presenting data or reports.

5.2 FORMATTING THE WORKBOOK

5.2.1. Changing Width and Height

The default cell width is often not wide enough for the information to be entered, especially for row headings down the left of the screen. You can, however, change the width for one column, a selection of columns, or all columns, along with methods of aligning the values contained in the cells.

i. Changing Column Width -One Column

Point at the right-hand side of the column letter whose width has to be changed. The mouse pointer will change to a thick crosshair. Click and drag to the right till the column is the required width. If you double click on the right column border, Excel will make the column wide enough to match the widest entry in the column. Column width can also be set by selecting Column from the Format menu, then selecting the width option.

ii. Changing Column Width -Multiple Columns

Click on the column letter of the first column, then drag to include the other columns required (use Ctrl + click to select non-adjacent columns). Double click on the right border of any column letter -widths will change to match the widest entry in each column.

iii. Changing Width for All Columns

To change the width for all columns in the worksheet, select column then Standard Width from the Format menu, and amend the dialogue box which will appear to suit the required width, then click OK.

iv. Changing Row Height

Point the cursor at the row whose height you want to change. The mouse pointer will change to a thick crosshair. Click and drag downwards with the row is the required height. Alternatively, select Row from the menu, then select Height. Enter the required height of the row in the dialogue box which will appear.

5.2.2. Changing Alignment

The alignment buttons can be used to align text to the left, centre or right of a cell, or aligned across columns.

i. Left Align

Information can be left aligned in cells by selecting then clicking the Left Align button.

ii. Centre

Information can be centred in cells by selecting then clicking the Centre button.

iii. Right Align

Information can be aligned to the right in cells by selecting then clicking the Right Align button.

This can be particularly useful to make text column headings line up with numbers typed in the column.

iv. Centre Across Columns

This button is used to centre information over columns, usually text used for a heading. Select the heading and the columns across which it is to be centred, then click the Centre Across Columns button. An alternative method of changing alignment is to select Cells

from the Format menu then select the Alignment tab card.

5.2.3. Creating a New Page

Excel will automatically split the page on printing a worksheet. If the page break is not at a sensible place, and you wish to insert your own break, select the column before which or the row above which you want the break and then select Page Break from the Insert menu. Excel will show on screen where a page break has been inserted. To remove a page break, position the cursor just below it or after it and select Remove Page Break from the Insert menu.

5.2.4. Fixing Column and Row Titles

Most worksheets have row and column titles against or under which text or numbers are entered. These titles will scroll off the screen if, as is usually the case, the data takes up more room than the screen can display, making it difficult to know under which row or column heading you are typing in your information.

Row and column titles can be fixed in place as follows:

1. Position the cell pointer in the row under which your column headings finish, and in the column after where your row headings finish. If you have column headings only in column A, and row headings only in row 1, you should therefore put your cell pointer in B2.
2. Select Freeze Panes from the Window menu.
3. A thin vertical and horizontal line will appear, and the column and row heading will now remain in place, allowing for easier entering of column and row data. To remove the split, select Unfreeze Panes from the window menu.

5.2.5. Applying Bold, Italic and Underline L Emboldening

Click on the Bold button or press Ctrl + B or select Cells from the Format menu then select Bold from the Font tab card.

ii. Italicising

Click on the Italic button or press Ctrl + I or select Cells from the Format menu then select Italic from the Font tab card.

iii. Underlining

Click on the underline button or press Ctrl + U or select Cells from the Format menu then select type of underlining you require from the Font tab card.

5.2.6. Using Borders and Colour

Excel allows you to draw lines, draw boxes and apply shading to the boxes, all of which are useful for highlighting information on the screen. The possibilities are almost endless since you can choose from many colours, as well as many types of line or box outline. The colours are really only useful on screen, however, since most printers are black and white, and therefore use shades of grey to indicate colour. It can be help-ful, though, to highlight on-screen in colour since this can really make information stand out.

5.2.6.1 Drawing Borders

Borders can be applied in two main ways using Excel-using a dialogue box or using a button. Before adding a border, you may find it helpful to remove the Gridlines, as these can make it difficult to see the result of your border. To do this, choose Options from the Tools menu, then choose the view card. Remove the X from the Gridline check box, and click OK . To use the dialogue box, select the cells around which you want a border, then

select Cells from the Format menu, and click on the Border card. You can then select from the following options :

- I. Outline
Will draw an outline (i.e. a box) round the selected cells..
- ii. Left:
Will put a left border on every selected cell.
- iii. Right
Will put a right border on every selected cell.
- iv. Top
Will put a top border on every selected cell.
- v. Bottom.
Will put a bottom border on every selected cell.

Outline, Top and Bottom are the commonest options. It is best to stick to using the same method, e.g. for totals draw a line along the top, or it can be confusing to work out where the source of your line is. The palette is rather small and thus can be difficult to use, but the bottom right-hand corner option is the one which will draw a box round your selected cells so you may find this one helpful.

5.2.6.2. Adding Colour and Patterns

There are three main ways in Excel that you can add colour or patterns to your worksheet:

- i.** Font Colour
This button will change the colour of the selected font, but leave the background white.
- ii.** Colour
This button will change the colour of the background, leaving the text in black.
- iii.** Patterns

This card can be displayed by selecting Cells from the Format menu, then selecting the Pattern card, which will change the background colour or pattern and leave the text black.

If the printer you are using is black and white, using too many dark background colours on your worksheet can make the printed copy difficult to read. Colour, however, is very useful when viewing the spreadsheet on screen to highlight totals or problem figures to which you wish to draw attention.

- * Use as many colours as you like on screen, but if the printed copy looks awful choose Page Setup from the file menu and select the Sheet card, then put an X in the box for Black and White Printing. Use the 'Paleru' pattern options instead of colour to make selected cells stand out on the printed page.
- * Use different fonts or italic, bold or underline to highlight selected cells.
- * Use white font on a Black background for a crisp result on paper.
- * Use borders to make text stand out. .

5.2.7. Applying Fonts

The type of printer used with Excel has a major impact on the fonts which can be seen on the screen and used on the printer. Excel can use scaleable, printer and screen fonts, TrueType fonts, which are scaleable, can be printed on any printer that can print graphics and will look the same on the screen as on the printed output. To display a printer font on screen, a corresponding screen font in the appropriate sizes must be installed on your computer. If the screen font has a matching printer font, the screen display on the worksheet will closely match the printed workbook.

Font size determines how big the font will be. The term comes from the printing industry, where 1 inch has 72 points. The larger the point size; the larger the font will be on the page. To change the font, click on the list arrow to the right of the current font on the Formatting toolbar, or press Ctrl + Shift + F then use the cursor down key to see the list of font names. To change the size, click on the list arrow to the right of the current point size and click on the new size.

An alternative way of changing font is to use the Cells option from the Format menu, and select the Font tab card. A dialogue box will appear from which you can select the font you want, the font style, colour and size, the type of underline and the effect. The Preview box will show what your font would look like.

5.2.8. Formatting The Appearance of a Workbook

You will learn how to format an Excel workbook in this part of the lesson. Open your “checks” workbook if it isn’t already opened. Select the first row of the “checks” workbook, by clicking in the cell containing the bold face 1. Observe :

	A	B	C	D	E	F	G
1	Number	Date	Description	Payment Amount	Deposit Amount	Balance	
2			Beg. Balance			300	
3	100	8-Aug-96	Almacs	89.54		210.46	
4	101	10-Aug-96	Nynex	56.1		154.36	
5	102	13-Aug-96	Sue Fisher	253.13	900	819.23	
6	103	20-Aug-96	BMG	75.35		742.88	
7							
8							
9							

Figure 5.1 : Formating appearance of workbook

You have just selected what Excel describes as a range,

i. The Concept of a Range

A range is a rectangular block of cells. Many things are accomplished in Excel using ranges. For instance, the format used to display values can be changed for an entire range. All the values in a range can be referred to when writing a formula. Ranges can also be named. With the range of cells A1:F1 selected, click on the Bold button and Center alignment button. This formatting should have made the text too big for the cells. Adjust the column widths of the columns. Your workbook should look similar to the following :

	A	B	C	D	E	F	G
1	Number	Date	Description	Payment Amount	Deposit Amount	Balance	
2			Beg. Balance			300	
3	100	8-Aug-96	Almacs	89.54		210.46	
4	101	10-Aug-96	Nynex	56.1		154.36	
5	102	13-Aug-96	Sue Fisher	253.13	900	819.23	
6	103	20-Aug-96	BMG	75.35		742.88	
7							

Figure 5.2 : Formatting workbook

For selecting discontinuous ranges, first, select the frist range of cells : A3:A6 Hold down the Ctrl key and select the range of cells : c2:c6. observe.

	A	B	C	D	E	F	G
1	Number	Date	Description	Payment Amount	Deposit Amount	Balance	
2			Beg. Balance			300	
3	100	8-Aug-96	Almacs	89.54		210.46	
4	101	10-Aug-96	Nynex	56.1		154.36	
5	102	13-Aug-96	Sue Fisher	253.13	900	819.23	
6	103	20-Aug-96	BMG	75.35		742.88	

Figure 5.3 : Selecting discontinuous ranges

Click on the Center alignment button.

5.2.9 Formatting Dates and Numbers

The basic formatting rule “select and then do” is used when working with Excel. Select the range of cells : B3:B6. Choose Cells from the Format menu. The following Format Cells dialog box should appear :

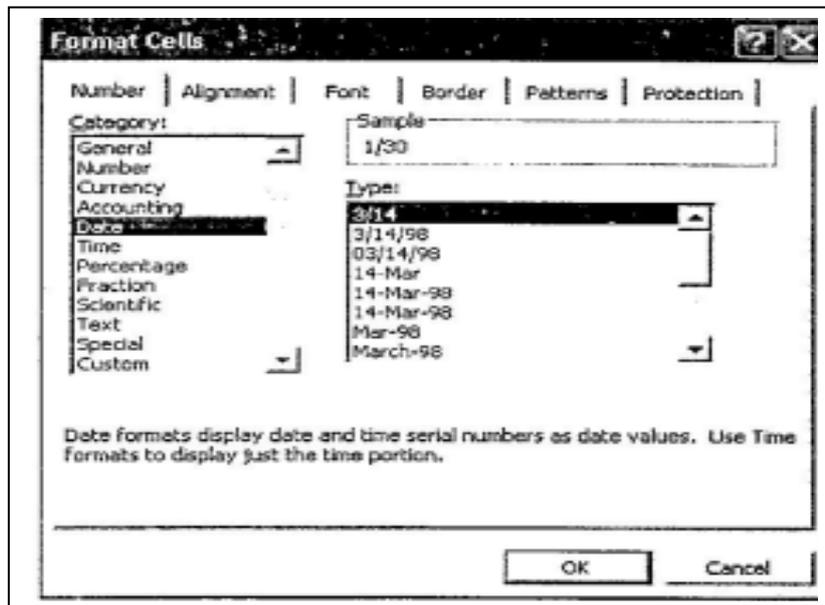


Figure 5.4 : Formatting date

Click on the Number tag if it is not already displayed. Within the Category box highlight Date to view all the Format Codes.

Scroll through the options in the Format codes. There is no format that displays as : Aug 8,96. You can custom format by typing in the code box. within the code box, type in the following custom format :

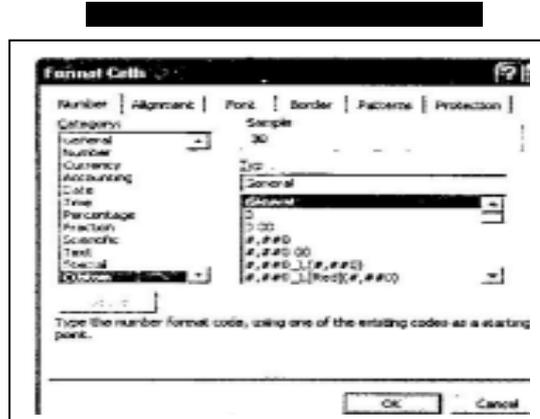


Figure 5.5 : Customizing date format

Click on the Center alignment button to align the dates. Now let's format the dollar amounts. Select the discontinuous range displayed below:

	A	B	C	D	E	F	G
1	Number	Date	Description	Payment Amount	Deposit Amount	Balance	
2			Beg. Balance			300	
3	100	8-Aug-96	Almacs	89.54		210.46	
4	101	10-Aug-96	Nynex	56.1		154.36	
5	102	13-Aug-96	Sue Fisher	253.13	900	819.23	
6	103	20-Aug-96	BMG	75.35		742.88	
7							

Figure 5.6 : Formatting numbers

Remember to select the first region, and then hold down the apple key when you select the remaining regions. Choose Cells from the Format menu. Click on the Number tab if it is not already displayed. Within the Category box highlight Currency. Select the following Format Code and then click OK:

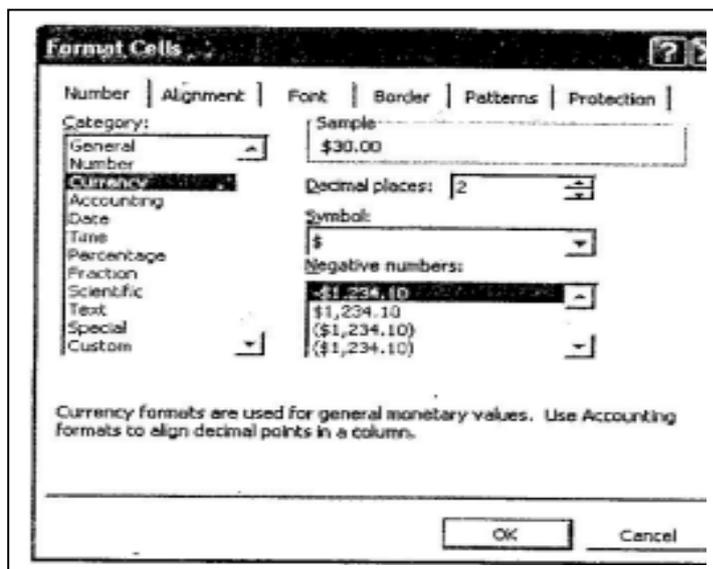


Figure 5.7 : Selecting dollar format for numbers

Click on the Center alignment button to align the dollar amounts. Note that you could have selected the whole "checks" workbook and then clicked on the Center button.

Your "checks" workbook should look as follows:

	A	B	C	D	E	F	G
1	Number	Date	Description	Payment Amount	Deposit Amount	Balance	
2			Beg. Balance			\$300	
3	100	8-Aug-96	Almacs	\$89.54		\$210.46	
4	101	10-Aug-96	Nynex	\$56.10		\$154.36	
5	102	13-Aug-96	Sue Fisher	\$235.13	\$900	\$819.23	
6	103	20-Aug-96	BMG	\$75.35		\$742.88	
7							

Figure 5.8 : Result of applying dollar format on numbers

Let's insert a row between row 2 and row 3 in the "checks" workbook, to make the workbook more appealing to the eye. Select row 3 by clicking on the bold face 3.

Choose Rows from the Insert menu.

You have now learned how to format an Excel document. Note that within the Format Cells dialog box you can format the borders of the cells, change the color, pattern, and shading of the cells and protection of cells can be set there too.

You have completed your first workbook. It is time to preview it. Choose Print Preview from the File menu.

Observe:

Number	Date	Description	Payment Amount	Deposit Amount	Balance
		Beg. Balance			\$300
100	8-Aug-96	Almacs	\$89.54		\$210.46
101	10-Aug-96	Nynex	\$56.10		\$154.36
102	13-Aug-96	Sue Fisher	\$235.13	\$900	\$819.23
103	20-Aug-96	BMG	\$76.35		\$742.88

Figure 5.9 : Print preview of the workbook

Click on the Close button to return you to the workbook.

Observe the dotted line between column E and column F, the dotted line indicates that there will be a page break there. What you want to do is actually flip the table so it will fit on the whole page. You can do this by choosing Page Setup from the File menu.

Choose Page SetUp from the File menu. The .following Page Setup dialog should appear :

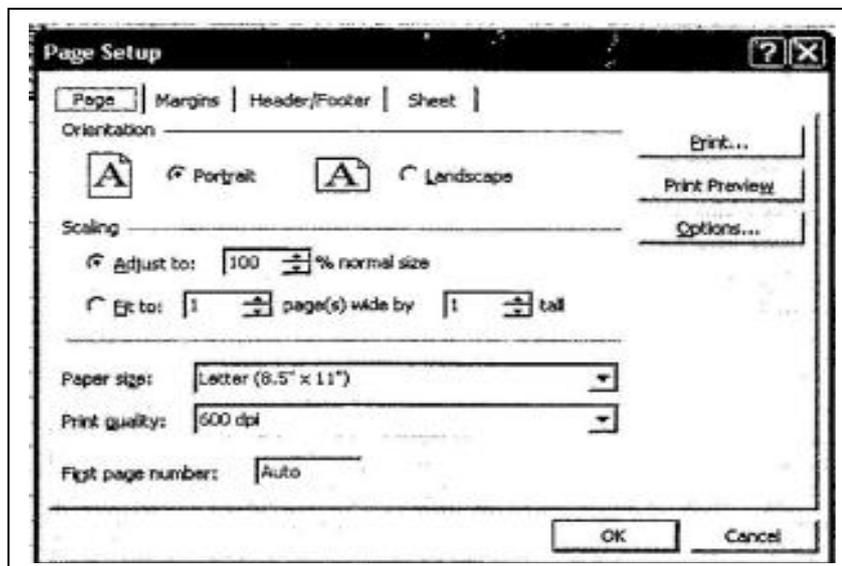


Figure 5.10 : page setup dialog box

Click on the Page tab if it isn't already displayed. Within the Orientation box click on Landscape and then click on the OK button. Observe the dotted line (indicating a page break) at the bottom of your workbook and running horizontal.

Preview your "checks" workbook and then print a copy of it.

[5.2] Self Check Exercise

Question 5.2.1- How to change Width and Height?

Question 5.2.2- How to change the Alignment?

Question 5.2.3- How to fix column and row titles?

Question 5.2.4- How to apply Bold, Italic, and Underline & Emboldening?

Question 5.2.5- How to add colour and patterns?

5.3 PERFORMING CALCULATIONS

One of the main uses of a spreadsheet is to enable you to add up columns and rows of numbers quickly and easily and to apply mathematical formulae to workbook cells. Excel, like most spreadsheets, has statistical, mathematical, financial, string and logical functions, which can be applied. Only the most commonly used functions are described here. Use the Function Wizard or select Help to see a full list of all Excel functions. Formulae and functions always start, with the = sign (although Excel will also accept the @ sign) followed by the calculation you wish to carry out.

5.3.1. Mathematical Operators

The following symbols, known as operators, are used to perform calculations in a workbook:

- + Add -
- Subtract
- * Multiply.
- / Divide (start nesting) end nesting
- % convert to percent ^ exponentiation
(to the power of)
- + positive
- negative

Excel uses the following order of mathematical priority rules to deal with the above operators, listed first to last:

1. Brackets
2. Exponentiation (to the power of)
3. Division or Multiplication
4. Addition or Subtraction

For example:

$=2+2*2$ would give an answer of 6, not 8 as you might expect. This is because the multiplication comes before the addition, so $2*2$ is done first, then 2 is added to the result.

$=(2+2)*2$ would give the answer 8, since whatever is in the brackets gets calculated first.

5.3.2. Using Auto Sum

One of the commonest functions required in a spreadsheet, namely to add up a column or row of figures, has been automated in Excel using a button. Like the Auto fill series, it has an uncanny way of knowing what you want to add. However, attempting to AutoSum data, which includes blank rows, can lead to problems. Rather than using blank rows to separate text, it is better to change cell height and width.

Position the cell pointer where you want the total to appear, and then click the AutoSum button. Excel will outline the numbers it thinks you want to total with a flashing border, and place a selected formula where you asked for the total. If it is 1 correctly selecting the numbers you want, press Return. If the selection is incorrect, amend the range. Use AutoFill, if necessary, to total the remainder of the rows and columns. Alt + = is a shortcut for

the AutoSum button.

5.3.3 Entering Formulae

Simple formulae can involve only two cells. For example, to add the contents of cells A1 and A2 and place the result in A3, position the cell pointer in A3 and type =A1+A2.

The result or the calculation (usually a number) appears in the cell, but the formula appears in the Formula Bar. If either A1 or A2 changed, A3 would automatically change to reflect the new result of the formula other examples of simple formulae:

= A10 *B3 Multiply A10 by B3

= (B4/ C4)* 1.5 Divide B4 by C4 then multiply the result by 1.5 =

(A5*50)/2 Multiply A5 by 50 then divide by 2

A formula is always preceded by =an=sign, then the required formula is entered as follows :

1. begin the formula to be entered, e.g. =
2. Click on the first point in the range, e.g. =A1
3. Enter the Operator you want to use, e.g. =A1 +
4. Click on the next point e.g. =A1 +B3
5. Enter the formula by pressing Return.

Alternatively, position the cell pointer where the formula's result is to be displayed and type in the full text of the formula, e.g. =A1+B3 but this increases the chance of miss-typing a cell address.

5.3.4. Functions

Functions are used to automate commonly used tasks. Functions also start with the = sign, then a range of cells over which to perform the function required, placed within brackets and with a colon in between, in the format =FUNCTION(1stcell:2ndcell)

i. Sum of Values

Used to find the sum of the values in a range of cells, i.e. to add them up, e.g. =SUM(A1:A10). This has the same result as the AutoSum button if used to add up a column or row.

ii. Maximum

Used to find the maximum value of a range of cells, e.g. =MAX(A1:A10)

iii. Minimum

Used to find the minimum value of a range of cells, e.g. =MIN(A1:A10)

iv. Average

Used to find the average of values in a range of cells, e.g. =AVERAGE(A1:A10)

5.3.5. Using Date and Time Functions

Date and time functions allow you to perform calculations such as age, years of service, hours worked etc. All dates are stored as a number, since Excel, by default, works out the number of dates since 01/01/1900. In one of the following formats:

dd/mm/yy e.g.

12/10/95 dd-

mm-yy e.g. 12-

oct-95 dd-mm

e.g. 12-oct mm-

yy

e.g. oct-95.
dd/mm/yy hh:mm
 e.g. 12/10/9513:15

If a date incorrectly appears as a number, select cells from the Format menu and choose the Number tab card, then select the Date category and choose the format required.

= TODAY() can be used to insert today's date into the current cell. For example, if someone's date of birth was in cell A2 you could work out their age using the formula = TODAYQ-A2. Now you would need to divide by 365.25 to work out the years, e.g. =(TODAYQ- A2)/365.25.

=NOW() can be used to insert the current date and time into the current cell, using the internal computer clock. This function can be useful to work out 'number of hours'. Using the keyboard, Ctrl + ; can be used to enter today's date in the current cell.

5.3.6 Using Conditional Formulae

The spreadsheet is able to carry out conditional testing. This means that you can ask IF questions, then do different things according to whether the answer is true or false. The following logical operators can be used :

= equal to < less
 than > greater than
 <> not equal to >=
 greater than or
 equal to <= Less
 than or equal to

The format of the IF function is:

For example, to work out holiday entitlement, where the number of year's service was entered in A1, and where up to 10 years service gets 28 days, more than 10 years service gets 32 days, you could enter:

=IF (A1>=10, "32 days", "28 days")

This if the figure in A1 was 9, the holiday entitlement would be 28 days. If the figure in A1 was 12 , the holiday entitlement would be 28 days. If the figure in A1 was 12, the holiday entitlement would be 32 days. Note that text has to be entered in quotes.

5.3.7. Using the Function Wizard

The Function Wizard button can be used to step through any of the long list of functions available in Excel. Having clicked the button, a screen, which looks as follows, will appear:

Select the function you require, and a description appears at the bottom of the dialogue box. Having selected the function, click Next and a further dialogue box will appear.

Rather than having to type in the cells which you wish to use with the function, you can move the dialogue box out of the way (by clicking on the title bar and dragging) and select the range of cells by dragging over them on the worksheet.

Press the Finish button to complete the function.

[5.3] Self Check Exercise

Question 5.3.1- How to use Auto Sum?

Question 5.3.2- How to enter formulae?

5.4. ADDRESSING MODES

Following are some of the cell addressing modes available in Excel :

5*4.1 Relative Addressing

The most common way to address any cell, or group of related cells, is by using a letter to indicate the column and a number to indicate the row. Excel uses cell references to calculate formulae. If the value in a cell changes, the formula is still correctly calculated. Relative addresses are automatically adjusted when a cell is copied. For example, if cell A6 contains the formula =A5+ 1, if you copy the contents of A6 to B6, then the formula is adjusted to =B5+ 1.

5.4.2. Absolute Addressing

Sometimes the fact that Excel adjusts cell references when you move, copy or AutoFill cells is not desirable. If you want to ensure that a cell reference remains fixed, the solution is to make it an absolute address, defined by prefixing both the column letter and the row number with a \$ sign, e.g. \$A\$2.

For example, if the cell A6 contains the formula, \$A\$5+1, and you copy the contents of A6 to B6, the formula remains \$A\$5+1. When entering a formula, if you press F4 Excel automatically converts relative addresses to absolute addresses.

5.4.3. Mixed Addressing

You can include mixed absolute and relative references. For example, B\$4 is a mixed address referencing relative column B, absolute row 4. Use a mixed address to make a cell reference part relative and part absolute. Either the column name or the row name remains constant.

.5. NAMING CELLS

It can sometimes be useful to assign a name to a cell or a range of cells on the spreadsheet. You can subsequently use the name in any command in place of the usual column or row addressing, giving the range a name which reflects its contents. For example, if a row of entries contains the June overtime figures for all employees, you could name that range June.

To use this feature, you should:

1. Select the cell or range of cells you want to name.
2. Select Name from the Insert menu then choose Define.
3. A dialogue box will appear. Type the name you want to give the selected cells, making sure that the Refers to box has the correct cell range, then click OK.

The F5 key can be used to move to a named range. A dialogue box will appear, where you can click on the range you want to go to. If you want to add up the cells in a named range, for example, you can enter =SUM(June), i.e. you substitute the name for the range of cells you would normally have to enter.

5.6. WORKING WITH SHEETS

Each Excel workbook has, by default, 16 sheets which are like loose-leaf pages in a ring binder. You don't have to use all of them, and you can add more if you need to. The sheet tabs at the bottom of the screen can be clicked on to effectively 'turn the page' to the next worksheet. The current worksheet is always displayed with the sheet tab white, and the name in "bold. To move between sheets, you can use the Ctrl + Page Down or Ctrl + Page Up keys.

5*6.1. Naming or Renaming a Sheet

By default, each sheet is named in ascending number order, e.g. Sheet 1, Sheet2, etc. You can change this name to reflect the contents of the sheet by double clicking on the sheet

name. A dialogue box will appear, which can also be accessed by selecting Sheet from the Format menu :

Type the name, which can have up to 31 characters, including spaces. Avoid characters such as colon, slash /, backslash \, question mark, and asterisk *. It is also best to keep the name as short as possible so that you can see more sheet names at the bottom of the screen, and also so that formulae which work across a number of sheets are not too unwieldy.

5.6.2. Selecting Sheets

This works in the same way as selecting cells, columns or rows.

- * Click selects a sheet.
- * Click then Shift click selects a range of sheets.
- * Ctrl + click selects non-adjacent sheets.

Note that if you want the same information to appear on a number of sheets, you can select the sheets then type the information you want, and it will appear on all the sheets even though you have only typed it once. This is very useful for column or row headings.

5.6.3. Moving and Copying Sheets

To move a sheet, click on the sheet name, then drag to the new location. To copy a sheet, press Ctrl then drag to the new location.

5.6.4. Creating a Summary Sheet

One of the best features of using the sheets is the ability to have a summary sheet, which consolidates all your information. You may, for example, have a sheet for each month of the year, or for each quarter, then a summary of all the totals. Excel uses the sheet name in the formula to reference the cells on a particular sheet. If, for example, you wanted to create a summary sheet, which added other worksheet totals together, you could:

1. Rename one of your sheets to be Summary (or whatever you want to call it).
2. Put the cell pointer where you want the total to go, and click on Autosum - button.
3. Click on the sheet tab containing the first figure, "then click on -the cell you want to include. The formula bar will now read =SUM(SheetName> IXX) where XX is the cell reference you clicked on.
4. Type a comma, then click on the next sheet tab you want to include and click on the cell you want to add in next.
5. Carry on adding in cell references until you have all the entries you require, then press Return.

Note that this method can be used for any formula or function, not just =SUM, . e.g. you could work out the average, maximum, minimum etc using the same method. If any of the figures change on the other sheets, the summary sheet will change automatically.

5.6.5. Linking Documents in Excel

Excel can dynamically link a workbook to source data in another workbook so that any change you make in one work book are immediately reflected in the other workbook.

The following terms apply to linking documents.:

External Reference-A reference to another Excel workbook cell, cell range, or defined name. A formula containing an external reference is called an external reference formula.

- * Dependent Workbook- A workbook that contains a link to another workbook. In other words, a workbook that relies on information in another workbook.

- * Source Workbook- A workbook that is the source of the information referred to in an external reference formula; source workbooks are referred to by dependent workbooks.

5.6.6. Creating Links between workbooks

You will need two workbooks to create a link. The company workbook will serve as your first and as the Source Workbook. The second workbook will be created and serve as the Dependent Workbook. Let's start by creating the Dependent Workbook. Choose New from the File menu to start a new workbook. Create the following workbook and call it budget:

	A	B	C
1	Personal Budget		
2			
3	Revenue		
4		Book Company Net Income	
5		Salary	25000
6		Total	25000
7			
8	Expenses		
9		Mandatory	8000
10		Personal	2500
11		Total	10500
12			
13	Net Income		14500

Figure 5.11 : Creating a workbook for linking

- * Select cell C6 and enter the formula=, C4+C5.
- * Select cell C11 and enter the formula=C9+C10.
- * Select C13 and enter the formula^ C6-C11.

Your budget workbook should look as follows:

	A	B	C
1	Personal Budget		
2			
3	Revenue		
4		Book Company Net Income	
5		Salary	25000
6		Total	25000
7			
8	Expenses		
9		Mandatory	8000
10		Personal	2500
11		Total	10500
12			
13	Net Income		14500

Figure 5.12 : Calculating totals

It is now time to create a link between the workbooks; company and budget. Have both workbooks open. In the Source Workbook: company select cell F18. This is the cell you want to refer. You want to insert this value into your budget workbook. Click the Copy button or choose Copy from the Edit menu. A moving border should appear around cell F18. Switch to the budget workbook. This is the workbook you want to paste the linked data. Select cell C4. This is the cell in which, you want the linked data to appear. Choose Paste Special from the

Edit menu. The following Paste Special dialog box should appear :

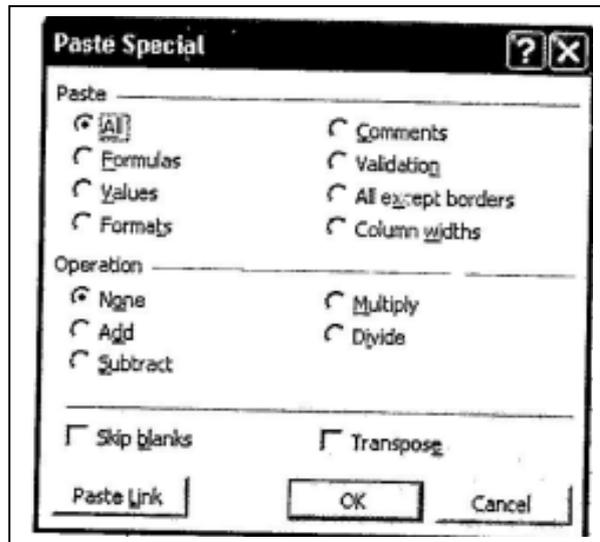


Figure 5.13 : Pasting special dialog box

Choose All in the paste box and None in the operation box. Choose the paste Link button to paste the link into cell C4. Your budget workbook should look as follows:

	A	B	C
1	Personal Budget		
2			
3	Revenue		
4		Book Company Net Income	83336
5		Salary	25000
6		Total	108336
7			
8	Expenses		
9		Mandatory	8000
10		Personal	2500
11		Total	10500
12			
13	Net Income		97836

Figure 5.14 Result of Pasting

Excel created an external reference formula that links the workbooks. This formula appears in the formula bar. You have successfully linked two documents. You can now play around with what if? analysis and see how changes in the book company's income will effect your personal budget. Save your changes.

[5.6] Self Check Exercise

Question 5.6.1- How to create a summary sheet?

Question 5.6.2- How to link documents in excel?

5.7 PROTECTING AND HIDING

It is all too easy to overwrite valuable formulae in your spreadsheet. Once you have completed the spreadsheet design, it is therefore a good idea to protect the cells which you do not want to be able to change, e.g. formulae, column and row heading, etc.

5.7.1. Protecting and Unprotecting Cells

1. Select the cells whose contents you want to be able to change.
2. Select Cells from the Format menu (or use the Ctrl + 1 shortcut) then choose the

Protection card.

3. Remove the X from the Locked check box.
4. Select jiroteetion from the Tools menu, then choose either Protect Sheet or Protect Workbook.

Note that the Protect Sheet or Protect Workbook dialogue box offers you the Chance to put in a password. This means that to be able to change your protected cells you would have to enter this password correctly. If you forget the password you will never be able to make any amendments, so be very careful if you choose to use this option. If you need to make a change to cells you have protected, select Unprotect Sheet or Unprotect workbook from the Tools menu.

5.7.2. Hiding Columns or Rows

It is possible to hide columns or rows in your worksheet. The usual reasons for doing this is either so that you can print a worksheet minus information you do not want, or where you want to perform calculations using figures you do not want anyone to see.

Click on the letter of the column or the number of the row you want to hide, select Column or Row from the Format menu, then select Hide. The column or row will be removed, but the column letters or row numbers will stay as they were to remind you that a column or .row is missing, and the dividing line will be thicker.

To un-hide a column or row, select the two columns either side of your hidden column, or the two rows either side of your hidden row. Select Column or Row from the Format menu, then choose Unhide.

[5.7] Self Check Exercise

Question 5.7.1-Write about Protecting and unprotecting of cells?

Question 5.7.2- How to hide columns or Rows?

5.8. SORTING

Any range of values in the spreadsheet can be sorted and the result displayed in alphabetic or numeric order, at the same location.

5*8.1. Sorting Using the Buttons

The two sort buttons allow you to carry out a simple sort, in either ascending order or descending order, as follows:

1. Save your file.
2. Position the cell pointer in the column you want to sort:
3. Click the Sort Ascending or Sort Descending button.

Remember that you can undo the last action by clicking the Undo button if the sort does not give the results you wanted. It is always a good idea, however, to save your spreadsheet before carrying out any major action like sorting.

5.8.2. Sorting Using the Menu

If you want to sort by more than one column, you need to use a different method which gives you more options. To use this:

1. Save your file.
2. Select all the information you want to sort.
3. Select Sort from the Data menu.

The Sort By box should contain the name of your main first column. If there are duplicates in this column, you can specify the second column in the Then By box, and, if this column, contains duplicates, the third column in the Then By box. Click OK and your sort will be activated.

Since there are only three options in this box, if your data has more duplicates you

can carry out the sort again if required. For example, if you wanted to sort on columns A, B, C, D, E and F, you could sort D, E, F first then A, B, C.

Remember that the Undo button can be used if you do not like the results of the sort. If your data has column headings inside the selection, make sure you use the button for Header Row to ensure that your headings do not get included in the sort.

[5.8] Self Check Exercise

Question 5.8.1- How to sort by using Menu?

5.9. PRINTING

Excel, like other spreadsheets: needs printing techniques to make output readable and comprehensible, since, if the worksheet goes onto more than one page, and thus columns and rows are printed without headings, it can be difficult to make sense of them.

5.9.1. Print Preview

To save paper, time and frustration the Print Preview option allows a view of the spreadsheet prior to putting it on paper. To use this feature, with a worksheet on screen, click on the Print Preview button or select Print Preview from the File menu.

A view of the worksheet will appear showing how it will print on paper. To move up and down, press Page Up or Page Down (or use the scroll bars). The zoom button allows you to magnify a section of the worksheet.

If the worksheet is going to take up more than one page, the Preview : Page X of X line will indicate the number of pages at the bottom left-hand corner of the screen. To change this, and other options, select the Setup button.

5.9.2. Setup

The Setup option allows changes to be made prior to printing. It can be obtained from the Print Preview screen as described above, or by selecting Page Set from the file menu, or by selecting print from the file menu then selecting the Setup button. Any of these methods will produce a four sheets tab card containing the following options:

i. Page

If a spreadsheet is too wide to print on one sheet of A4 paper in portrait orientation, the landscape option can be selected. The Scaling drop-down box can be used to decrease or increase the scale so that more or less text fits on a page: The Fit to X pages wide box can be used to ensure that data fits on the number of pages required. Paper size and Print Quality are normally best left at the default.

ii. Margins

The four page margins can be adjusted and the outcome seen in the Preview area. Information on the page can be centred horizontally, vertically or both.

iii. Header Footer

Excel normally prints 'Sheet X' at the top of the page, and 'Page X*' at the bottom. To change this, click the button beside Header or Footer to see a list of the headers or footers available. If none of these are appropriate, click on Custom Header and enter the text to appear at the left, centre or right-hand side of the page. Buttons then allow you to change font, insert the page number, total number of pages (e.g. Page X of X), the date, the time, the file name or the workbook name. Click OK once the required entries are made. The Custom Footer button has the same options as the Custom Header button.

iv. Sheet

This allows the Print Area to be set, e.g. to print just a range of the workbook. The area can be selected either by typing in the range by selecting text on the worksheet using the mouse. Non-adjacent ranges can be selected by typing them in the box with a comma in between (e.g. A1:BI5, D1:DI5). The Print Titles option allows rows to be repeated at the top

and/ or left-hand sides of pages. Enter row addresses with a colon in between (e.g. 1:2) or select them from the worksheet. Column addresses can be entered in a similar way. Use the Row and Column Headings check box if they are only one line long. Five different Print options can be set, the most useful being Gridlines, which you can choose to have on or off. Black and White is useful if you have asked for colours on screen but don't have access to a colour printer. The Page Order options allow you to select from Down then Across or Across then Down, affecting the way the pages will be numbered on printing.

5.9.3. Printing

Having ensured that the spreadsheet layout is as you require using the Print Preview option, and having made any necessary changes to the Setup, both described above, the spreadsheet can be printed. Both Print Preview and Page Setup offer a print button. Printing can also be requested by selecting print from the file menu. Having selected any of these methods, a dialogue box will appear:

This also offers the Print Preview and Page Setup options described above. Click OK when you have specified your requirements. If you use the Print button, the sheet currently on screen will be printed, according to the options currently set in Page Setup, without the above dialogue box being displayed.

If you want to print the formulas in a worksheet, rather than the calculated results of the formulas, select, Options from the tools menu, then select the View tab card. Put an X in the Formulas check box, then click OK. You can also include column letters and row numbers by selecting the Row and Column Headings check box from the Sheet tab card on the Page Set- dialogue box. Once the workbook is printed, you can reverse these options by unchecking both boxes.

[5.9] Self Check Exercise

Question 5.9.1- Write about Setup?

5.10. FILE MANAGEMENT

Following are the activities related to file management in Excel:

5.10.1. Creating a Workbook

To create a new workbook, press the New Workbook button or select new from the me menu or press Ctrl + N.

5.10.2 Saving a Workbook

To save a workbook for the first time, click on the Save button or select save from the me menu or press Ctrl + S or press Shift F12. The Save As dialogue box will appear, where you can type the name with which the workbook is to be saved then click OK. The workbook name will then be displayed at the "top of the screen in the Title Bar.

5.10.3 Saving for a Second Time

As you continue typing, it is very important to save everything so often (as often as you would not want to lose what you have typed!). The easiest and fastest way is to press Ctrl + S. The new version of the workbook will replace the old version.

5.10.4 Naming files

Filenames can be up to eight letters long, can include letters (in upper or lower case) or numbers, and are concluded with a .(full stop or dot) then a three letter ending known as an extension. This is always .XLS for a Excel workbook. A workbook you name as. BMONTH it will thus be named BMONTH.XLS by Excel. It is not recommended that you change this extension.

5.10.5 Closing a Workbook

Once you have finished with a workbook it should be closed by selecting close from the file menu or pressing Ctrl + F4. If you have made no changes to the workbook since the last time it was saved, the workbook will be closed. If you have made changes, Excel will ask if you want to save them. Click on Yes or press Return to do so, click on No if for some reason you do not want to save the changes - typically if you have made a mistake since the last save and want to get back to where you were. Cancel will return to the workbook.

5.10.6. Opening a Workbook

Opening a workbook means that you want to look at your workbook again, either to make a change, to print it or to simply read it over. To do this click the Open button or select Open from the file menu or press Ctrl + O. The Open dialogue box will appear. Double click on the name of the required file, or click once then click OK and the workbook will appear on the screen.

[5.10] Self Check Exercise

Question 5.10.1- How to create a workbook?

Question 5.10.2- How to close the workbook?

5.11. STYLES AND THE FORMAT PAINTER

A style in Excel is a set of stored commands dealing with font, and/or cell formatting. These styles can then be applied to cells, which means that if you change your mind about an aspect of the formatting, you just need to change the style and all the appropriate text will be amended accordingly. Using styles therefore makes the creation of worksheets much easier. Rather than having to constantly access the font menu, the format menu and the buttons, you can incorporate all the necessary instructions into a style. It also means that all your worksheets can have a consistent appearance.

5.11.1. Applying Styles

To access the style dialogue box, you select the cells you want to format then select Style from the Format menu. A dialogue box will appear. The Styles name drop-down list shows you all the styles which are available.

5.11.2. Creating Your Own Style

The easiest way to create your own styles is as follows:

1. Type some cells, and apply to them all the formatting instructions you want, e.g. font, column width, number format, etc.
2. Select the cells.
3. Select Style from the Format menu and type in the name you want to give your style.

5.11.3. Using the Format Painter

An alternative method of applying formatting instructions to cells is using the Format Painter. To use this:

1. Apply all the formatting instructions you require to a sample cell.
2. Position the cell pointer in this sample cell.
3. Click on the Format Painter button.
4. Use the white cross and paint brush pointer through all the cells you want to format.

[5.11] Self Check Exercise

Question 5.11.1- How to create your own style?

5.12. USING AUTOFILTER

AutoFilter is the name Excel gives to an extremely useful feature, namely the ability to select and view data in a list. This allows you to view only data which meets specified

criteria. Select the first row of the data list you want to filter, then choose filter from the Data menu and select Autofilter. Drop-down arrows will appear next to each column of data you- have selected. Click the drop-down arrow next to the column whose data you wish to filter, then click on the option you require:

- i.** All
Displays all the records.
- ii.** Custom
Display the Custom AutoFilter dialogue box so that you can perform a more complex filter.
- iii.** Blanks
Displays all-the records which have this field blank.
- iv.** Non Blanks
Displays all the records in which this field is not blank.

Once you have filtered the information you require, you can print it, copy it to another location in the workbook, or copy it to another workbook. Note that in each case you should select the data first. To remove AutoFilter, choose Filter from the Data menu and click on AutoFilter, which will have a tick beside it. Your workbook will be returned to normal.

.5.13. LESSON SUMMARY

You can change the width for one column, a selection of columns, or all columns. If you double click on the right column border, Excel will make the column wide enough to match the widest entry in the column. Column width can also be set by selecting Column from the format menu, then selecting the width option. Click on the column letter of the first column, then drag to include the other columns required (use Ctrl + click to select non- adjacent columns). Information can be left aligned in cells by selecting then clicking the Left Align button. Information can be centred in cells by selecting the range and then clicking the Centre button. Information can be aligned to the right in cells by selecting then clicking the Right Align button. Select the heading and the columns across which it is to be centred, then click the Centre Across Columns button.

Excel will automatically split the page on printing a worksheet. Position the cell pointer in the row under which your column headings finish, and in the column after where your row headings finish. If you have column headings only in column A, and row headings only in row 1, you should therefore put your cell pointer in B2. Select Freeze Panes from the window menu. Click on the Bold button or press Ctrl + B or select Cells from the Format menu then select Bold from the Font tab card. Click on the Italic button or press Ctrl + I or select Cells from the Format menu then select Italic from the Font tab card.

Click on the underline button or press Ctrl + U or select Cells from the Format menu then select type of underlining you require from the Font tab card. To use the dialogue box, select the cells around which you want a border, then select Cells from the format menu, and click on the Border card.

Excel can use scaleable, printer and screen fonts. If the screen font has a matching printer font, the screen display on the worksheet will closely match the printed workbook. An alternative way of changing font is to use the Cells option from the Format menu, and select the Font tab card.

Note that within the Format Cells dialog box you can format the borders of the cells, change the color, pattern, and shading of the cells and protection of cells can be set there

too. Choose Page Setup from the File menu. Click on the Page tab if it isn't already displayed. Simple formulae can involve only two cells. Enter the formula by pressing Return. If a date incorrectly appears as a number, select cells from the Format menu and choose the Number tab card, then select the Date category and choose the format required. The format of the IF function is:

=IF (LOGICALTEST, value-if-true, value-if-false)

Excel uses cell references to calculate formulae. If the value in a cell changes, the formula is still correctly calculated. When entering a formula, if you press F4 Excel automatically converts relative addresses to absolute addresses.

Select the cell or range of cells you want to name. Select Name from the Insert menu then choose .Define. Type the name you want to give the selected cells, making sure that the Refers to box has the correct cell range, then click OK. By default, each sheet is named in ascending number order, e.g. Sheet1, Sheet2, etc. You can change this name to reflect the contents of the sheet by double clicking on the sheet name.

This works in the same way as selecting cells, columns or rows.

To move a sheet, click on the sheet name, then drag to the new location. Excel uses the sheet name in the formula to reference the cells on a particular sheet. Summary sheets are used for consolidating the workbook contents. If any of the figures change on the other sheets, the summary sheet will change automatically.

Excel can dynamically link a workbook to source data in another workbook so that any changes you make in one workbook are immediately reflected in the other workbook.

External Reference- A reference to another Excel workbook cell, cell range, Or defined name.

Dependent Workbook- A workbook that contains a link to another workbook.

Source Workbook- A workbook that is the source of the information referred to in an external reference formula; source workbooks are referred to by dependent, workbooks. Excel created an external reference formula that links the workbooks.

Select cells from the Format menu (or use the Ctrl + 1 shortcut) then choose the Protection card. Select Protection from the Tools menu, then choose either. ProtectSheet or Protect Workbook.

If you need to make a change to cells you have protected, select UnProtect Sheet or Unprotect workbook from the Tools menu. Click on the letter of the column or the number of the row you want to hide, select Column or Row from the Format menu, then select Hide. To un-hide a column, or row, select the two columns either side of your hidden column, or the two rows either side of your hidden row. Select Column or row from the Format menu, then choose Unhide.

For sorting the worksheet contents, position the cell pointer in the column you want to sort. Click the Sort Ascending or Sort Descending button. Alternatively select. Sort from the Data menu and perform sorting in ascending or descending order. If there are duplicates in this column, then you can specify the second column in the Then By box.

For viewing the look of, to be printed, document click on the Print Preview button or select Print Preview from the File menu.

It is possible to change font, insert the page number, total number of pages (e.g. Page X of X), the date, the time, the file name or the workbook name.

Both Print Preview and Page Setup offer a print button. Printing can also be requested by selecting Print from the file menu. If you use the Print button, the sheet currently on screen

will be printed, according to the options currently set in Page Setup, without the above dialogue box being displayed.

You can also include column letters and row numbers by selecting the Row and Column Headings check box from the Sheet tab card on the Page Setup dialogue box. Once the workbook is printed, you can reverse these options by unchecking both boxes.

To save a workbook for the first time, Click on the Save button or select Save from the file menu or press Ctrl + S or press Shift F12. If you have made changes, Excel will ask if you want to save them.

5.12- KEYWORDS

Alignment, Auto Sum, Average, Bold, Borders, Calculations

5.13-Review Questions:-

5.13.1-Short Questions

1. What are the functions for date entries in Excel?
2. What are the different methods of formatting the cell entries in Excel?
3. Write the procedure of applying colours and patterns to fonts in Excel.
4. What are the different formats available in Excel for formatting Date entries?
5. What are the different formats available in Excel for formatting numbers?

5.13.2- Long Questions

1. Explain the difference between protecting a cell and hiding a cell?
2. How sorting of data is done in Excel? Explain.
3. Is it possible to view the printable version of the document without actually printing the document? How?
4. What is the purpose of format painter?
5. What is the purpose of filtering the data? Is it possible to automatically filter the data?

5.16 SUGGESTED READINGS

Windows Based Computer Courses, G. Singh and R. Singh, Kalyani Publishers.

Solutions to Self Check Exercise

[CHAPTER 5]

5.2.1- The default cell width is often not wide enough for the information to be entered, especially for row headings down the left of the screen. You can, however, change the width for one column, a selection of columns, or all columns, along with methods of aligning the values contained in the cells.

5.2.2- The alignment buttons can be used to align text to the left, centre or right of a cell, or aligned across columns.

v. Left Align

Information can be left aligned in cells by selecting then clicking the Left Align button.

vi. Centre

Information can be centred in cells by selecting then clicking the Centre button.

vii. Right Align

Information can be aligned to the right in cells by selecting then clicking the Right Align button.

This can be particularly useful to make text column headings line up with numbers typed in the column.

viii. Centre Across Columns

This button is used to centre information over columns, usually text used for a heading. Select the heading and the columns across which it is to be centred, then click the Centre Across Columns button. An alternative method of changing alignment is to select Cells

5.2.3- Row and column titles can be fixed in place as follows:

4. Position the cell pointer in the row under which your column headings finish, and in the column after where your row headings finish. If you have column headings only in column A, and row headings only in row 1, you should therefore put your cell pointer in B2.

5. Select Freeze Panes from the Window menu.

6. A thin vertical and horizontal line will appear, and the column and row heading will now remain in place, allowing for easier entering of column and row data. To remove the split, select Unfreeze Panes from the window menu.

5.2.4- Click on the Bold button or press Ctrl + B or select Cells from the Format menu then select Bold from the Font tab card.

iv. Italicising

Click on the Italic button or press Ctrl + I or select Cells from the Format menu then select Italic from the Font tab card.

v. Underlining

Click on the underline button or press Ctrl + U or select Cells from the Format menu then select type of underlining you require from the Font tab card.

5.2.5- There are three main ways in Excel that you can add colour or patterns to your worksheet:

iv. Font Colour

This button will change the colour of the selected font, but leave the background white.

v. Colour

This button will change the colour of the background, leaving the text in black.

vi. Patterns

This card can be displayed by selecting Cells from the Format menu, then selecting the Pattern card, which will change the background colour or pattern and leave the text black.

5.3.1- Position the cell pointer where you want the total to appear, and then click the AutoSum button. Excel will outline the numbers it thinks you want to total with a flashing border, and place a selected formula where you asked for the total. If it is 1 correctly selecting the numbers you want, press Return. If the selection is incorrect, amend the range. Use AutoFill, if necessary, to total the remainder of the rows and columns. Alt + = is a shortcut for

5.3.2- Simple formulae can involve only two cells. For example, to add the contents of cells A1 and A2 and place the result in A3, position the cell pointer in A3 and type =A1+A2. The result or the calculation (usually a number) appears in the cell, but the formula appears in the Formula Bar. If

either A1 or A2 changed, A3 would automatically change to reflect the new result of the formula

5.6.1- create a summary sheet, which added other worksheet totals together:

6. Rename one of your sheets to be Summary (or whatever you want to call it).
7. Put the cell pointer where you want the total to go, and clicks on Autosum - button.
8. Click on the sheet tab containing the first figure, “then click on -the cell you want to include. The formula bar will now read =SUM(.SheetName> IXX) where XX is the cell reference you clicked on.
9. Type a comma, then click on the next sheet tab you want to include and click on the cell you want to add in next.
10. Carry on adding in cell references until you have all the entries you require, then press Return.

5.6.2- The following terms apply to linking documents.:

External Reference-A reference to another Excel workbook cell, cell range, or defined name. A formula containing an external reference is called an external reference formula.

- * Dependent Workbook- A workbook that contains a link to another workbook. In other words, a workbook that relies on information in another workbook.
- * Source Workbook- A workbook that is the source of the information referred to in an external reference formula; source workbooks are referred to by dependent workbooks.

5.7.1- Protecting and Unprotecting Cells

5. Select the cells whose contents you want to be able too change.
6. Select Cells from the Format menu (or use the Ctrl + 1 shortcut) then choose the Protection card
7. Remove the X from the Locked check box.
8. Select jirotection from the Tools menu, then choose either Protect Sheet or Protect Workbook

5.7.2- Click on the letter of the column or the number of the row you want to hide, select Column or Row from the Format menu, then select Hide. The column or row will be removed, but the column letters or row numbers will stay as they were to remind you that a column or .row is missing, and the dividing line will be thicker.

5.8.1-If you want to sort by more than one column, you need to use a different method which gives you more options. To use this:

4. Save your file.
5. Select all the information you want to sort.
6. Select Sort from the Data menu.

The Sort By box should contain the name of your main first column. If there are duplicates in this column, you can specify the second column in the Then By box, and, if this column, contains duplicates, the third column in the Then By box. Click OK and your sort will be activated.

5.9.1- The Setup option allows changes to be made prior to printing. It can be obtained from the Print Preview screen as described above, or by selecting Page Set from the file menu, or by selecting print from the file menu then selecting the Setup button.

5.10.1-To create a new workbook, press the New Workbook button or select new from the me menu or press Ctrl + N

5.10.2-Once you have finished with a workbook it should be closed by selecting close from the file menu or pressing Ctrl + F4. If you have made no changes to the workbook since the last time it was saved, the workbook will be closed.

5.11.1- The easiest way to create your own styles is as follows:

4. Type some cells, and apply to them all the formatting instructions you want, e.g. font, column width, number format, etc.
5. Select the cells.
6. Select Style from the Format menu and type in the name you want to give your style.

CHART AND GRAPHS

STRUCTURE

- 6.1 Introduction
- 6.2 Charts
 - 6.2.1 Using the Chart Wizard
 - 6.2.2 Changing Charts
- 6.3 Steps in Creating a Chart
 - 6.3.1 Creating a Pie Chart
 - 6.3.2 Formatting a Chart
 - 6.3.3 Activating a Chart Sheet
 - 6.3.4 Selecting Items in a Chart Using a Mouse
 - 6.3.5 Column Chart
- 6.4 Summary
- 6.5 Keywords
- 6.6 Short answer type questions
- 6.7 Long answer type questions
- 6.8 Suggested Readings
- 6.9 Solution to Self Check Exercise

OBJECTIVE

This lesson discusses the methods of creating and alter chart available in Excel. Charting is a vey useful facility in Excel through which pictorial or graphical presentation of data is possible. In the lesson you will learn the creation, formatting, and printing of charts.

6.1. INTRODUCTION

One of Excel's major features is its ability to produce charts that illustrate the numbers on the worksheets you produce. Chart and graphs are very effective ways of presenting data value, as these are precise and easily and readily understandable. With charts and graphs any explanation becomes very interesting and impressive. When we explain anything, to make it more attractive graphs and charts are inserted. With a glimpse on graph we can see the variables are increasing, decreasing or interrelated. On charts whole of the explanation can be summarized.

6.2. CHARTS

Excel has 15 types of charts or graphs, with many built-in formats. A chart can be created on a worksheet so that it appears Alongside the data it represents (called an embedded chart), or as a separate sheet. Both embedded charts and separate chart sheets are linked to the worksheet data they were created from, and will be updated when you update the worksheet. To create a chart on a separate sheet, select the data to be charted and press F11.

Note that attempting to chart data, which includes blank rows, can lead to problems. Rather than using blank rows to separate text, it is better to change cell height and width.

6.2.1 Using the Chart Wizard

The ChartWizard automates the creation of charts, using the following steps :

1. Select the data to be charted, including row or column headings to be used as labels.
2. Click the ChartWizard button.
3. Position the cross-hair pointer at the top left-hand corner of the location where you want the chart to appear and drag till the outline is the required size.
4. Step 1 of 5 of the Chart Wizard will appear. Amend the range if it is incorrect, then click Next>.
5. Select the type of chart required from Step 2, then click Next>.
6. At Step 3, choose the format for the type of chart selected at Step 2, then click Next>.
7. At Step 4, if the chart is not as expected, change the column and row drop-down lists or, if this does not improve matters, click <Back and change the area for your chart on Step 1, since that is where the likely problem lies. Click Next> when this screen is correct.
8. At Step 5, add in a title for the chart and the titles for the X Axis (horizontal) and the Y Axis (vertical). Then click Finish and the chart will appear in the specified area of the worksheet.

6.2.2 Changing Charts

Clicking once on a chart selects it and places sizing handles around it so that you can change its location or size on the screen.

Clicking twice on a chart selects it (and puts a blue cross-hatch border around the chart) and also changes the Menu Bar to deal with charts. The right mouse button can also be used to make changes to the chart. Having double clicked on a chart, click once on an item (e.g. the chart title) to change the text or twice to change the layout, e.g. font, colour etc.

i. Deleting the Chart

Select the chart by clicking once so that black 'handles' appear and press the Delete key.

ii. Moving the Chart

To move the chart, select it by clicking once so that black 'handles' appear. Use the arrow pointer of the mouse to drag the chart to the new position.

iii. Re-Sizing the Chart

To re-size the chart, select it so that the black 'handles' appear, then drag on the handle appropriate to the new size. For example, to widen the chart, drag on the handle in the middle of the right-hand vertical line. Using the Shift key while dragging maintains the same proportions as the original chart.

iv. Changing Chart Type

The easiest way to change the type of chart in use is to display the chart toolbar, by selecting Toolbars from the View menu and selecting Chart. The first button displays a dropdown list of chart types; click on one of these and the chart will change to the newly selected type. Pointing the cursor at the buttons displays what each of them does.

v. Changing the Data in the Chart

Select the chart then click the ChartWizard button. At Step 1, re-define the range for the chart if necessary, then click Next>. Make any necessary changes to Step 2 then click Finish, and the new chart will be displayed.

vi. Creating Charts

Before you can draw a chart using Excel, the numbers that compose the chart must be

entered in a workbook. There are five general steps in defining a chart.

[6.2] Self Check Exercise

Question 6.2.1- What are CHARTS?

Question 6.2.2- How to Re-size the chart?

6.3 STEPS IN CREATING A CHART

1. Enter the numbers into a workbook.
2. Select the data to be charted.
3. Choose Chart from the Insert menu.
4. Choose either Chart Type from the Format menu or click on the ChartWizard button.
5. Define parameters such as titles, scaling color, patterns, and legend.

These five steps should be performed in this order. Note that since the chart is linked to the workbook data, any subsequent changes made to the workbook are automatically reflected in the chart. We will make two charts the first chart will be a pie chart and the . second chart will be a column chart.

6.3.1 Creating a Pie Chart

Pie charts are used to show relative proportions of the whole, for one data series only. Data series are a group of related data points. A data point is a piece of information that consists of a category and value. For example, if you were collecting data on how couples first meet, then the number of couples who met through friends would be a data point. In this case the category is "through friends" and the value is the number of couples who met that way.

When you create a chart with Excel, the categories are plotted along the horizontal or X-axis, while the values are plotted along the vertical or Y-axis.

Data series originate from single worksheet rows or columns. Each data series in a chart is distinguished by a unique color or pattern. You can plot one or more data series in a chart except for pie charts.

An example of a data series is the population of the United States over ten years. Each data point would be made up of a year (the category) and the population in that year (value). The first step in creating any chart is to enter the data on a workbook.

Find and open Excel if it is not already open. Make sure your toolbars and formula bar is displayed. Open a new workbook. Save your workbook and name it "expenses". Enter the following into your expenses workbook :

	A	B
1		Weekly
2	Food	40
3	Clothes	20
4	School Supplies	15
5	Bills	45
6	Recreation	25
7	Gas	10

Figure 6.1 : Workbook for creating chart

You will be using the ChartWizard to create your pie chart.

The ChartWizard is a series of dialog boxes that guides you through the steps required

to create a new chart or modify settings for an existing chart.

When creating a chart with the ChartWizard, you can specify the worksheet range, select a chart type and format, and specify how you want your data to be plotted. You can also add a legend, a chart title, and a title to each axis.

There are two commands and two buttons that start the ChartWizard. The command you choose or the button you click will create either an embedded chart or a chart sheet.

An embedded chart is a chart object that has been placed on a worksheet and that is saved on that worksheet when the workbook is saved. When it is selected you can move and size it. When it is activated, you can select items and add data, and format, move, and size items in the chart.

A chart sheet is a sheet in a workbook containing a chart. When a chart sheet is created, it is automatically inserted into the workbook to the left of the worksheet it is based on. When a chart sheet is activated, you can select items and add data, and format, move and size items in the chart. Select the data you just entered. Choose Chart from the Insert menu. Observe that the ChartWizard's first dialog box appears as shown in figure 6.2:

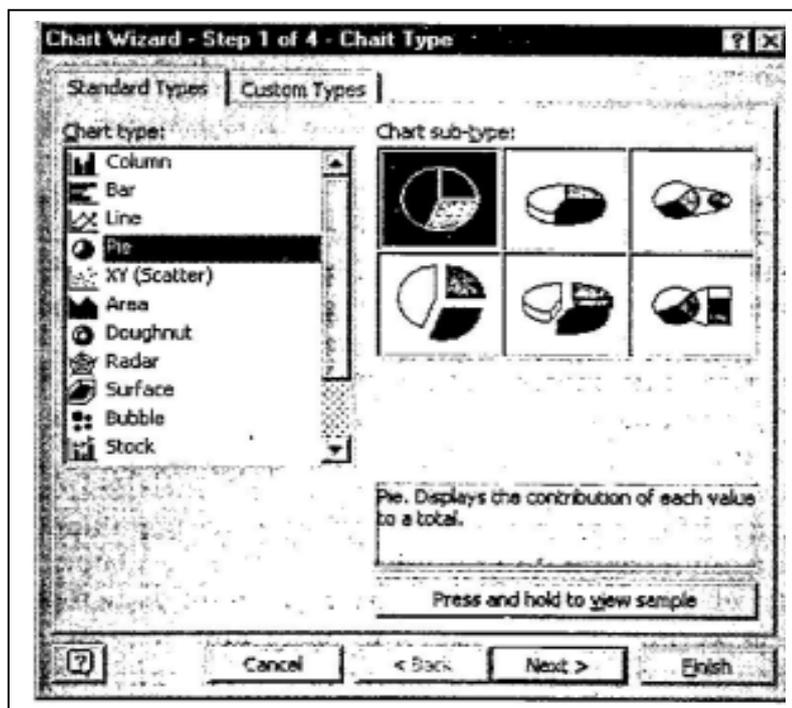


Figure 6.2 : Chart wizard for selecting the chart type

You want a regular pie chart not a 3-D pie chart. Select the chart type: Pie and click on the Next button. The following dialog should appear :

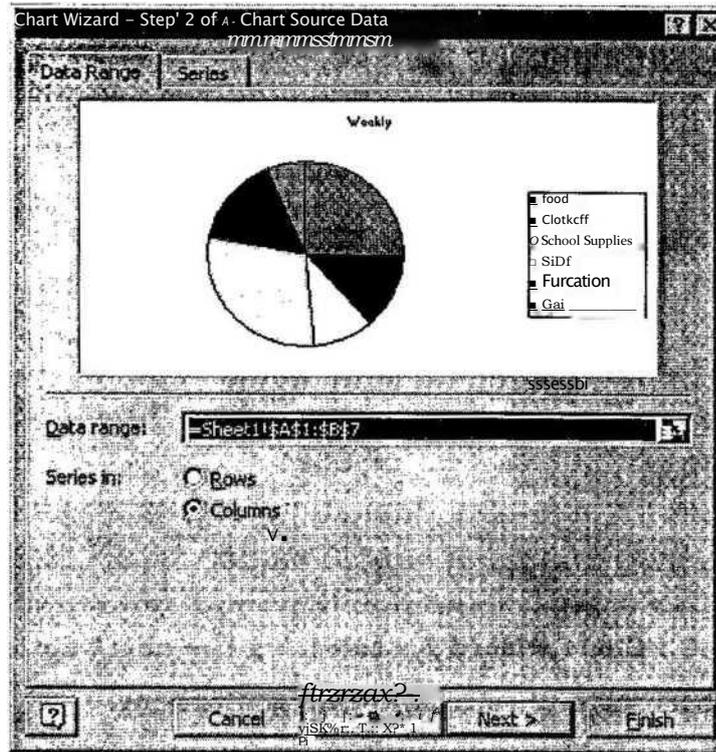


Figure 6.3 : Chart wizard for selecting range of cells

Read the dialog box, make sure the range is correct and then click the Next button. The following dialog should appear:

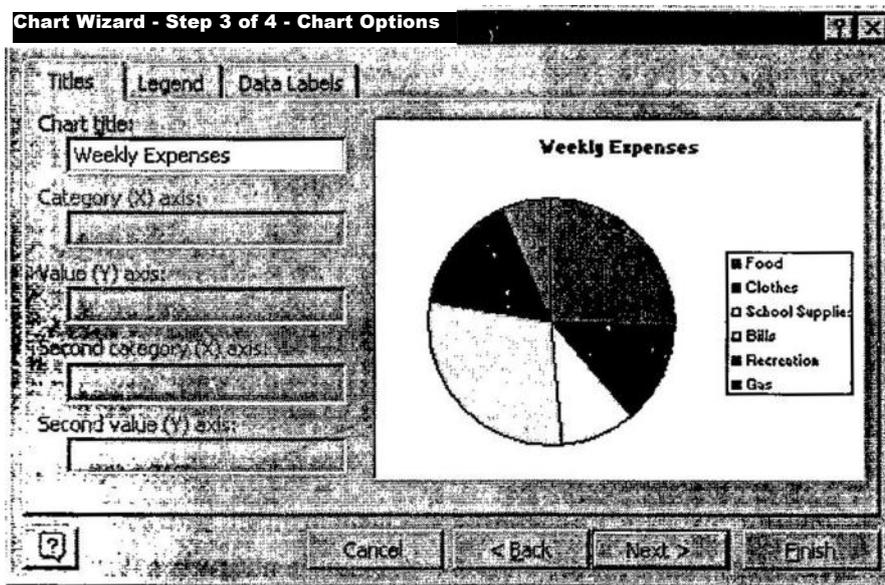


Figure 6.4 : Chart wizard for selecting the chart options

Select the Titles tab and then enter "Weekly Expenses" as the chart title. Select the Legend tab and make the following adjustments :

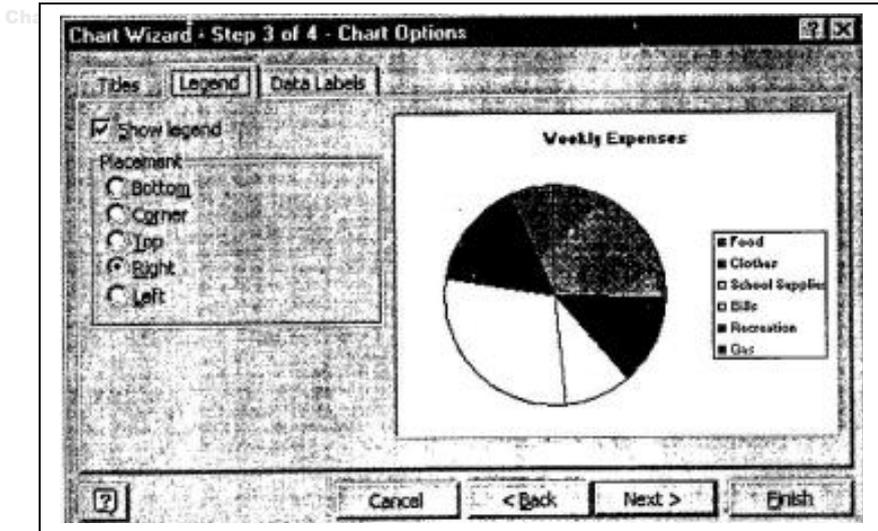


Figure 6,5 : Chart wizard for selecting the chart options
 Select the Data Labels tab and select the following options:

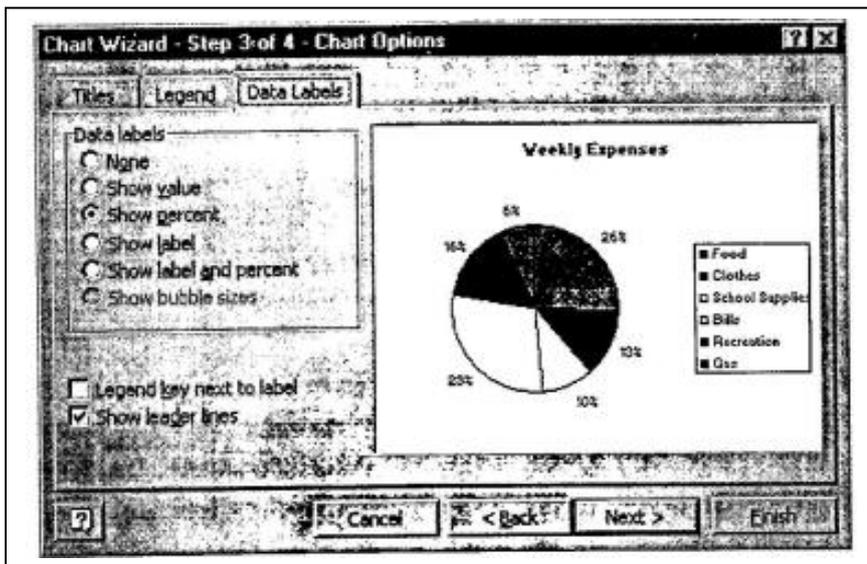


Figure 6.6 : Chart wizard for selecting the chart options
 Select the following options and then click the Finish button.

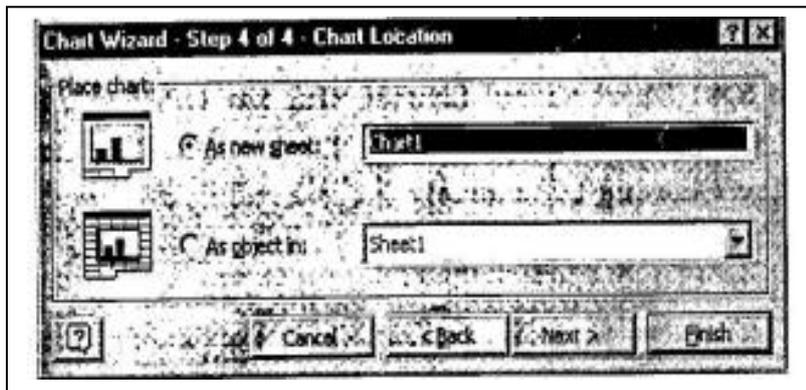


Figure 6.7 : Chart wizard for selecting the chart location

Your expenses workbook should look as follows:

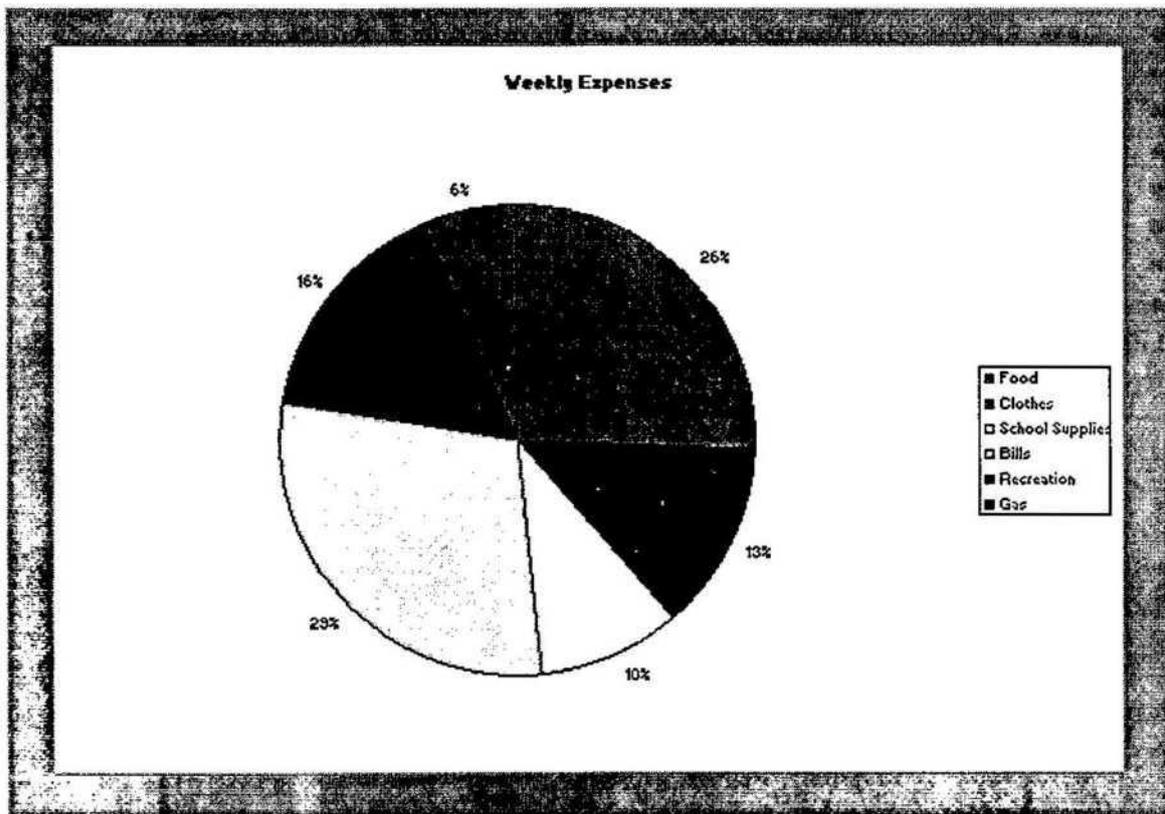


Figure 6.8 : View of the created pie chart

Once you complete the ChartWizard, Excel displays the new chart sheet, the Chart

toolbar (^{t*}ie chart menu bar. Note that if the chart toolbar

is not displayed; simply choose Toolbars from the View menu and check of the chart box. The chart menu bar is similar to the worksheet menu bar, except the Insert and Format menus have some different commands- Now that the initial chart is created, it is time to learn how to format it.

6.3.2. Formatting a Chart

Before we can discuss the details of how to edit and format a chart, you need to know how to activate the chart and select items in the chart using a mouse.

6.3.3. Activating a Chart Sheet

When you activate a chart, the chart menu commands become available and the Chart toolbar is displayed. To activate a chart sheet, select the chart sheet tab you want. Select the chart sheet tab to activate the pie chart.

Once a chart is active, you can use the mouse to select chart items one at a time. To confirm what you have selected, refer to the name box on the formula bar.

Note that many items in a chart are grouped together. For some grouped items, such as data series, you click once to select the entire group, and then click the individual item you want to select within the group. The following list is a brief overview on how to select items in a chart using a mouse.

6.3.4. Selecting Items in a Chart Using a Mouse

To select one of the following items in an Excel chart :

- Data Series- click any data marker belonging to a data series.
- Pie slice-, select the pie ring, and then click the slice.
- Data labels- click any data label associated with a data series.
- Single data label- select the data labels, and then click an individual label.
- Legend- click anywhere in the legend, or click its border.
- Single legend entry- select the legend, and then click the legend entry.
- Title- click the chart title, axis title, or text box.
- Axis- click the axis or a tick-mark label to format or modify the axis.

Let's change the colors of the pie slices. Select the Pie ring. Your pie chart should look similar to the following :

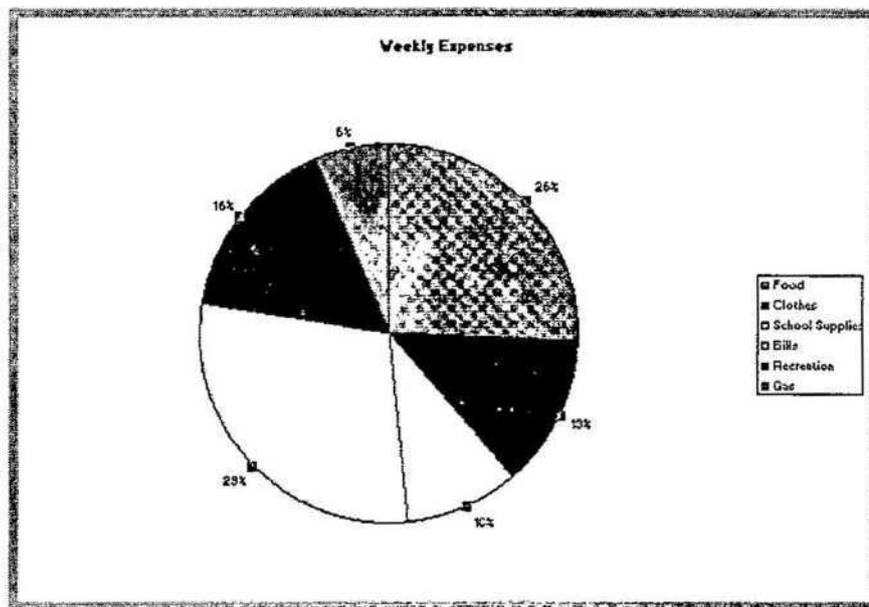


Figure 6.9 : Chart wizard for selecting the chart options

Select the 29% pie slice.

Observe :

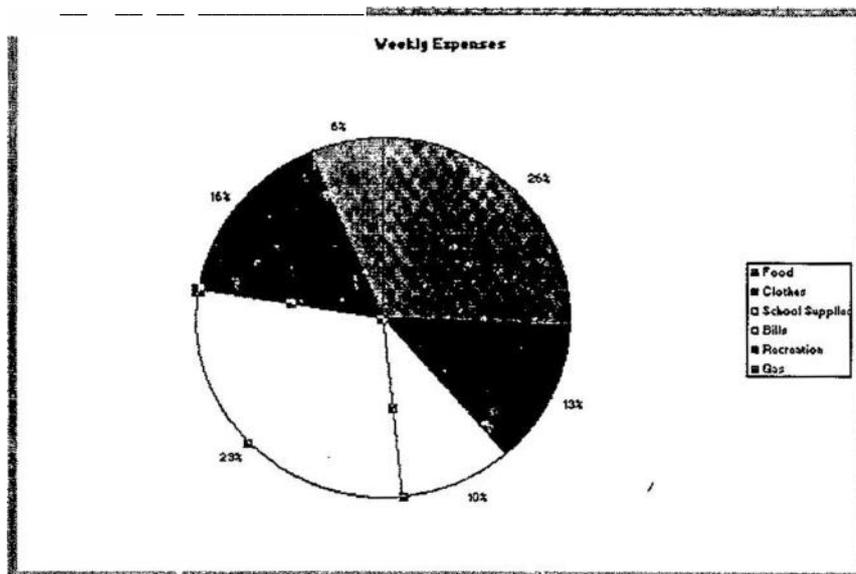


Figure 6.10: Chart wizard for selecting the chart options

Choose Selected Data Point from the Format menu. The following Format Data Point dialog box should appear :

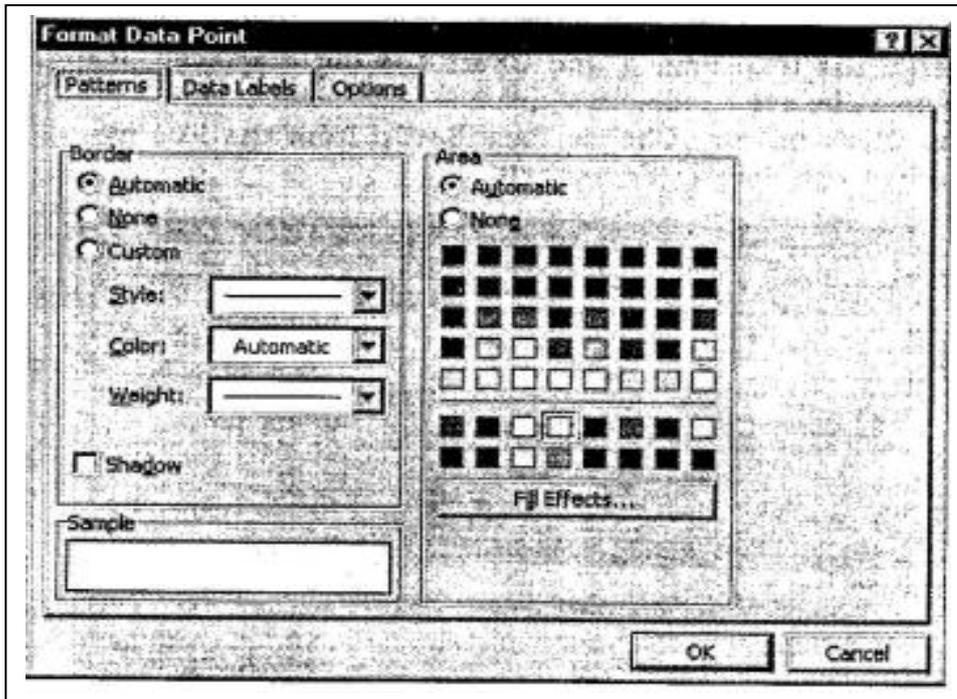


Figure 6.11: Chart wizard for selecting the chart options

Select the Patterns tab and choose a different color and pattern for the slice. Select another pie slice and change its color. Select the Chart title.

Observe :

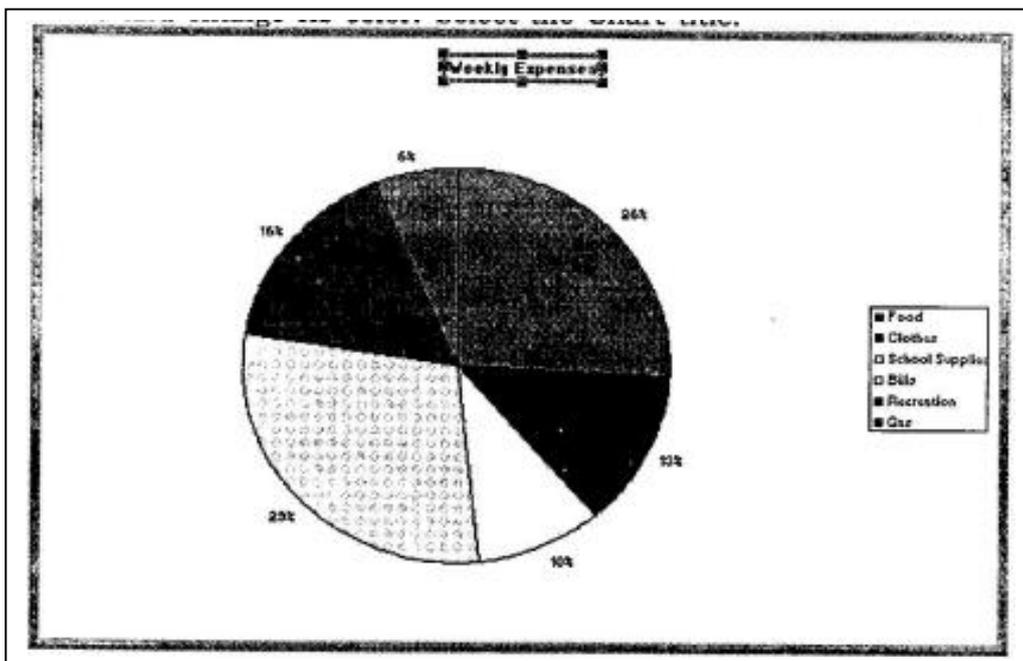


Figure 6.12 : Chart wizard for selecting the chart options

Choose a different color from the Font Color button ()- Select the chart. Observe the ChartWizard toolbar that is displayed on your screen. There is a Legend button located

on the toolbar. If you want to add or delete a legend to a chart just press that button.

Now that you have completed your weekly expenses pie chart let's print it out. Before you print it out let's preview it. Save all your changes. Choose Print Preview from the File menu.

Make sure that the text: Page 1 and Chart 1 is not displayed, if this text appears the layout of the page must be set.

Click on the Close button. Choose Page Setup from the File menu. Within the Page Setup dialog box select the Header/Footer tab.

Observe :

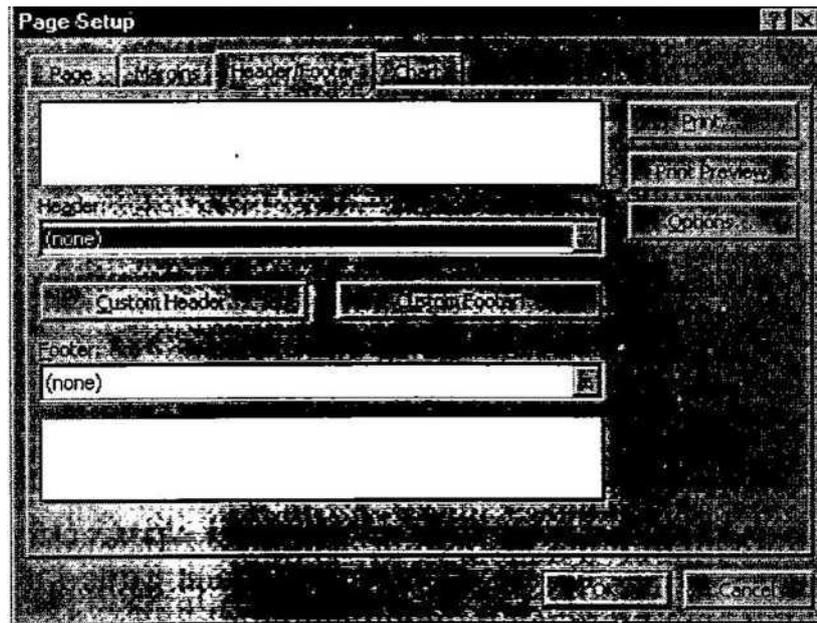


Figure 6.13 : Chart wizard for selecting the chart options

Within the Header/Footer box select none from the Header and Footer pull-down menus. This will clear the text: Chart1 at the top of your pie chart and it will also clear the text: Page 1 at the bottom of your pie chart.

Within the Page Setup dialog box, select the Chart tab and select the following setting:

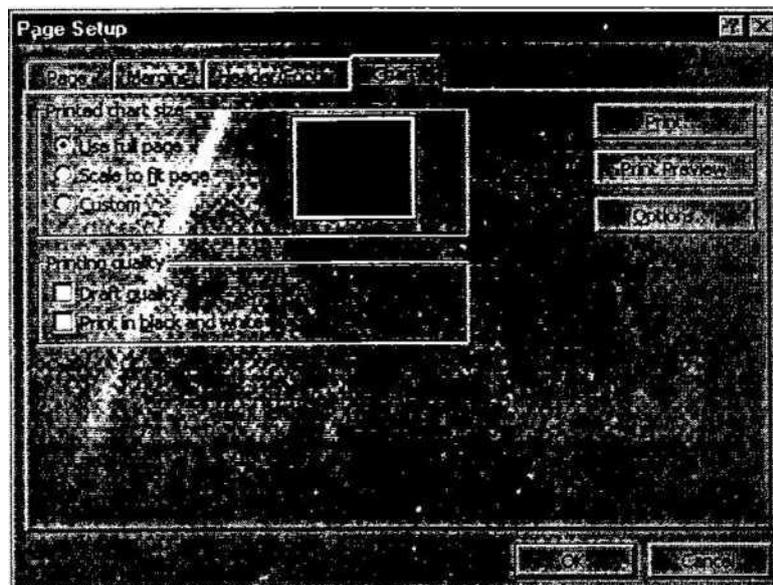


Figure 6.14 : Chart wizard for selecting the chart options

Click on the OK button. Click on the Print button.

SELF CHECK EXERCISE

Q3. What are Legends?

Q4. How headers and footers can be inserted in a Chart sheet?

6.3.5 Column Chart

Now for creating a column chart Create a worksheet that looks as follows:

	A	B	C	D
1	Month	General	Business	
2	Jan	225	12	
3	Feb	747	748	
4	Mar	100	422	
5	Apr	987	991	
6	May	45	211	
7	Jun	789	1000	
8	Jul	142	345	
9	Aug	55	881	
10	Sep	640	33	
11				
12				

Figure 6.15 : Chart wizard for selecting the chart options

Select the data to be charted. Choose Chart from the Insert menu. The following should appear on your screen :

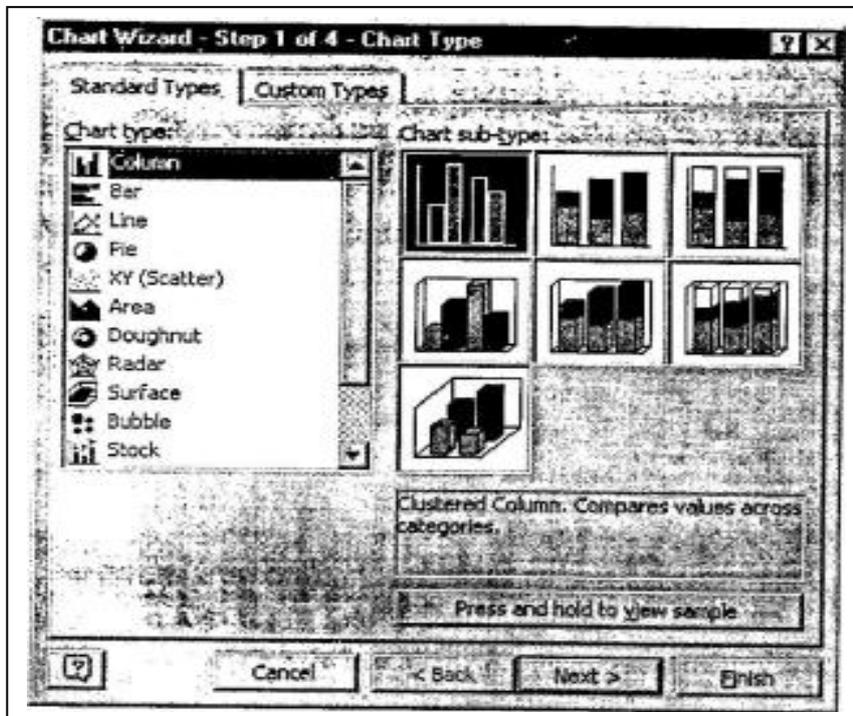


Figure 6.16 : Chart wizard for selecting the chart options

Choose the chart type : Column and click on the Next button. Choose following format

type and click on the Next button. The following should appear on your screen:

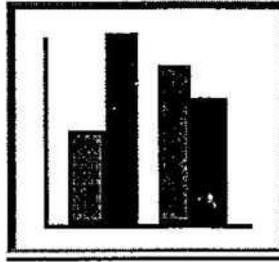


Figure 6.17 : Chart wizard for selecting the chart options

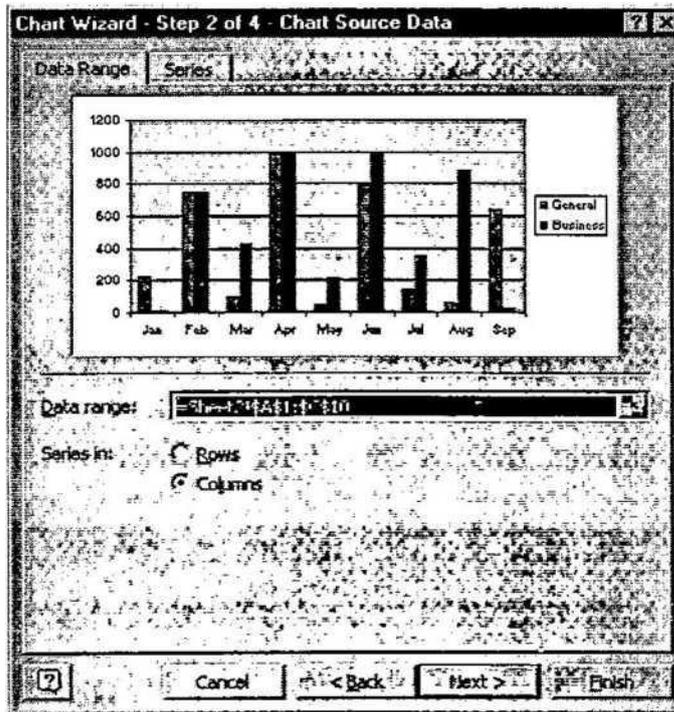


Figure 6.18 : Chart wizard for selecting the chart options

If the range is correct, click on the Next button. Insert the following on the titles tab and click the Next button. Observe :

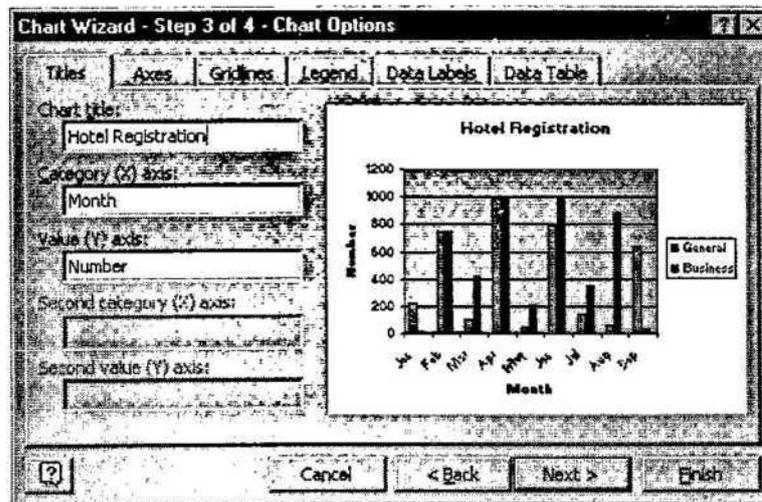


Figure 6.19 : Chart wizard for selecting the chart options.

Select the following options and click the Finish button.

Observe :

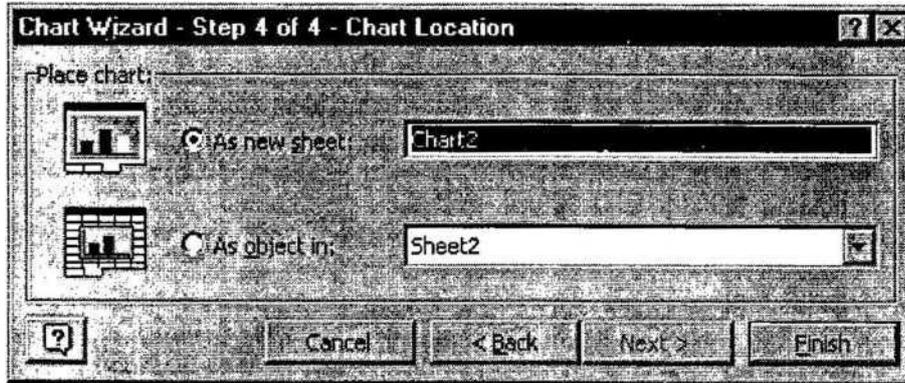


Figure 6.20 : Chart wizard for selecting the chart options

Your column chart should look as follows:

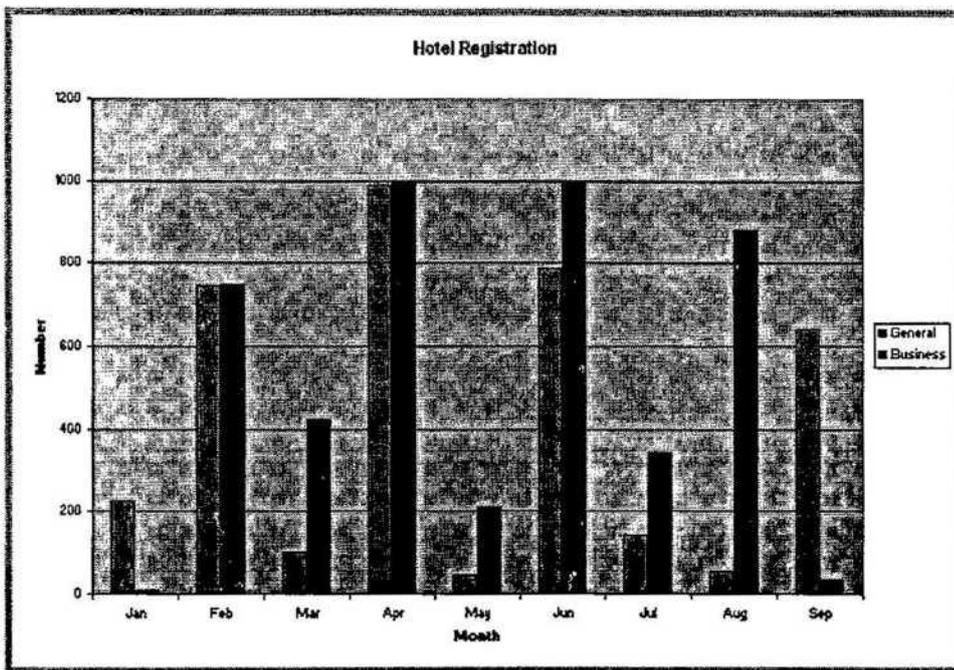


Figure 6.21 : Chart wizard for selecting the chart options

Let's format the column chart. Select the business (data series) columns and make them yellow. Select the general (data series) columns and make them green. Your column chart should look similar to the following :

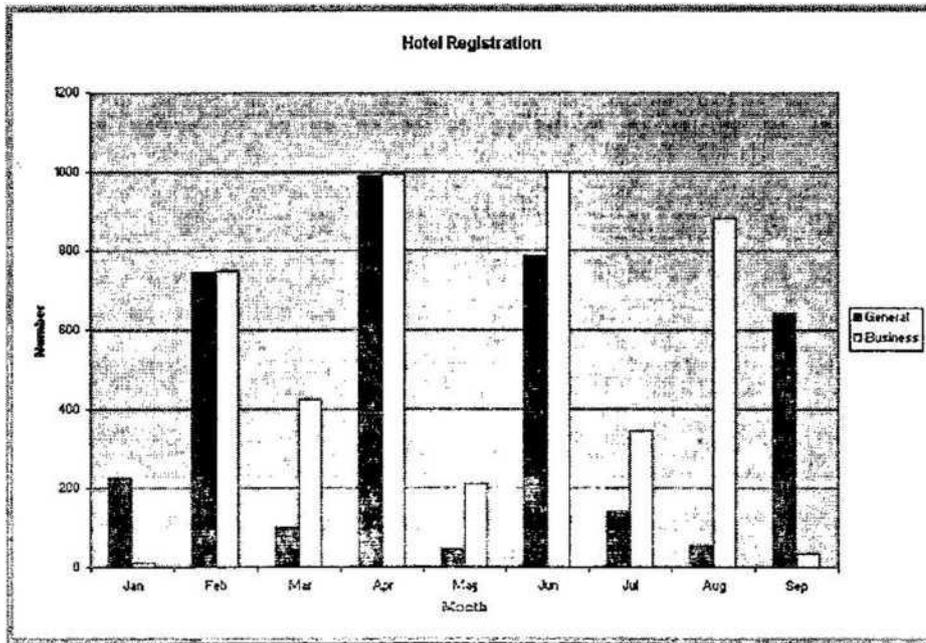


Figure 6=22 : Chart wizard for selecting the chart options

Select a grid line and choose Selected Gridlines from the Format menu. The following Format Gridlines dialog should appear :

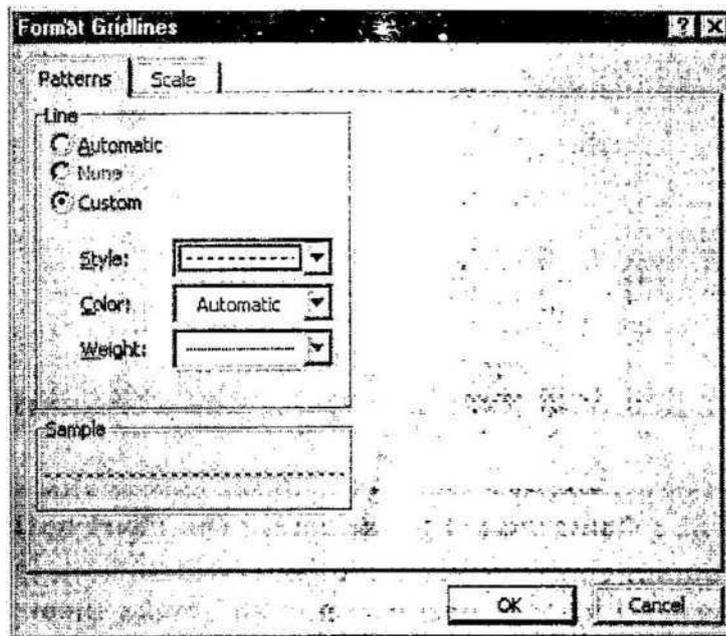


Figure 6,23 : Chart wizard for selecting the chart options

Choose a different style for the line and click the OK button. Lastly, let's change the alignment of the text that makes up the months. Select the X-axis. Choose Selected Axis from the Format menu. Within the Format Axis dialog box click on the Alignment tab. select the following option and click the OK button.

Observe:

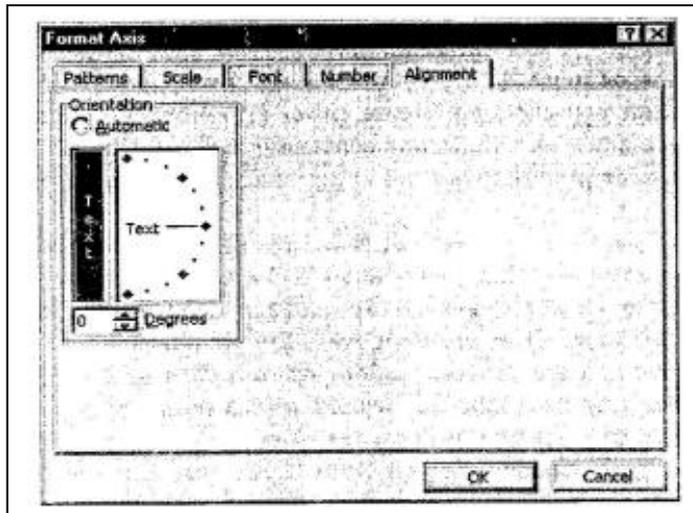


Figure 6.24 : Chart wizard for selecting the chart options

Your column chart should look similar to the following :

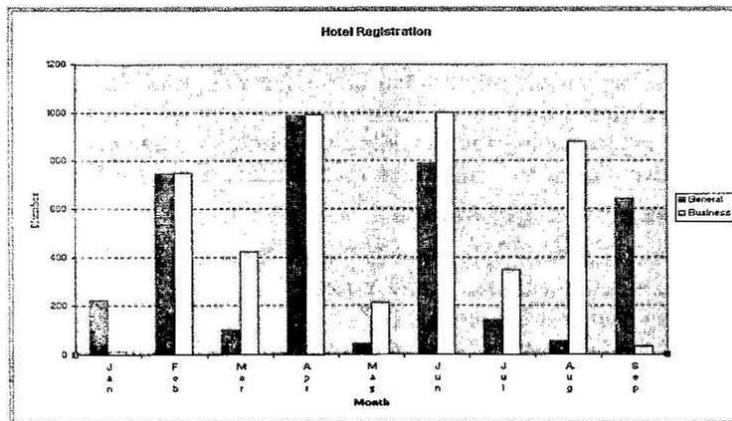


Figure 6 c 25 i Chart wizard for selecting the chart options

Preview your chart.

Clear the Chart 2 and Page 1 text in the Header and Footer respectively using the Page Setup command.

[6.3] Self Check Exercise

Question 6.3.1-What are the various steps to create a CHART?

Question 6.3.2- How to create a Pie Chart?

6.4 SUMMARY

To create a chart on a separate sheet, select the data to be charted and press F11. Click the ChartWizard button. Select the type of chart required from Step 2, then click Next>. At Step 3, choose the format for the type of chart selected at Step 2, then click Next>. Clicking twice on a chart selects it (and puts a blue cross-hatch border around the chart) and also changes the Menu Bar to deal with charts. The easiest way to change the type of chart in use is to display the chart toolbar, by selecting Toolbars from the View menu and selecting Chart. Select the chart then click the ChartWizard button. Select the data to be charted. Choose

Chart from the Insert menu. Choose either Chart Type from the Format menu or click on the ChartWizard button.

You can plot one or more data series in a chart except for pie charts. The command you choose or the button you click will create either an embedded chart or a chart sheet.

A chart sheet is a sheet in a workbook containing a chart. Choose Chart from the Insert menu. You want a regular pie chart not a 3-D pie chart. Select the chart type: Pie and click on the Next button.

Once you complete the ChartWizard, Excel displays the new chart sheet, the Chart toolbar and the chart menu bar. When you activate a chart, the chart menu commands become available and the Chart toolbar is displayed. To activate a chart sheet, select the chart sheet tab you want. Select the chart sheet tab to activate the pie chart.

Data Series- click any data marker belonging to a data series.

Data labels- click any data label associated with a data series.

Title- click the chart title, axis title, or text box.

Select the Pie ring. Choose Selected Data Point from the Format menu. Select the Chart title.

For creating a column chart select the data to be charted. Choose Chart from the Insert menu. Choose the chart type: Column and click on the Next button and follow the same steps as were followed while creating a bar chart.

6.4- Key Words

Chart, wizard

6.5 Review Questions:-

6.5.1-Short Questions

1. What are Legends?
2. How can we define title for X and Y axis?
3. How chart sheet can be activated?
4. Is it possible to change the type of chart once it has been created? If yes, then How can it be done?

6.5.2- Long Questions

1. What are the various Charts and graphs available in MS-Excel?
2. Explain the various steps in creating a Chart?

6.6. SUGGESTED READINGS

1. Windows Based Computer Courses, G. Singh and R. Singh, Kalyani Publishers.
2. Mastering Excel for Windows, Carl Townsend, BPB Publications.

Solutions Solution to Self check Exercise

[Chapter-6]

6.2.1 Excel has 15 types of charts or graphs, with many built-in formats. A chart can be created on a worksheet so that it appears Alongside the data it represents (called an embedded chart), or as a separate sheet. Both embedded charts and separate chart sheets are linked to the worksheet data they were created from, and will be updated when you update the worksheet. To create a chart on a separate sheet, select the data to be charted and press F11.

6.2.2 To re-size the chart, select it so that the black 'handles' appear, then drag on the handle appropriate to the new size. For example, to widen the chart, drag on the handle in the middle of the right-hand vertical line. Using the Shift key while dragging maintains the same proportions as the original chart.

6.3.1-1. Enter the numbers into a workbook.

2. Select the data to be charted.
3. Choose Chart from the Insert menu.
4. Choose either Chart Type from the Format menu or click on the ChartWizard button.
5. Define parameters such as titles, scaling color, patterns, and legend.

6.3.2- When you create a chart with Excel, the categories are plotted along the horizontal or X-axis, while the values are plotted along the vertical or Y-axis.

Data series originate from single worksheet rows or columns. Each data series in a chart is distinguished by a unique color or pattern. You can plot one or more data series in a chart except for pie charts.

Lesson No. 7

AUTHOR: DHARAM VEER SHARMA

POWER POINT BASICS

STRUCTURE

- 7.1. Introduction
- 7.2. Uses and Advantages of PowerPoint
- 7.3. Getting Started
- 7.4. Power Point Screen Layout
- 7.5. Working with Slides
- 7.6. Adding Contents
- 7.7. Working with Text
- 7.8. Colour Schemes
- 7.9. Summary
- 7.10. Keywords
- 7.11. Short Answer Type Questions
- 7.12. Long Answer Type Questions 7.13*.
Suggested Readings
- 7.13. Solution to Self Check Exercise

OBJECTIVE

In this lesson, we will discuss the Microsoft PowerPoint, its uses, advantages, and how to work in PowerPoint. Mainly, we will discuss the different ways of creating presentations and various tools available for creating efficient PowerPoint presentations.

7.1. INTRODUCTION

Microsoft PowerPoint is a powerful tool to create professional looking presentations and slide shows. PowerPoint allows you to construct presentations from scratch or by using the easy to use wizard.

PowerPoint is an application that lets you build, print, and deliver presentations. You have several options for the delivery of a presentation, but you only have to develop it once. You can print slides (a "slide" is what PowerPoint calls each screen of information), print handouts, print notes pages, prepare for 35mm slides, or deliver an on-screen presentation. Only the on-screen presentation allows you to use the full range of PowerPoint's features.

As you develop a PowerPoint presentation, it is important to remember that you should not try to include every piece of information you wish to deliver. PowerPoint slides should contain brief, concise, descriptive phrases that will help you remember what you want to present and to serve as a reminder for your audience.

What is PowerPoint?

PowerPoint is a complete presentation graphics package. It gives you everything you need to produce a professional-looking presentation. PowerPoint offers word processing, outlining, drawing, graphing, and presentation management tools- all designed to be easy to use and learn, or in other words we can say that PowerPoint is a versatile presentation tool. This software has an outliner to help organize your presentation to an on-screen slide show complete with special effects. You should find this tool useful for both your presentation and your students' presentations.

[7.1] Self Check Exercise

Question 7.1.1- What is PowerPoint?

Question 7.1.2- What are the different uses and advantages of PowerPoint?

7.2. USES AND ADVANTAGES OP POWERPOINT

PowerPoint....

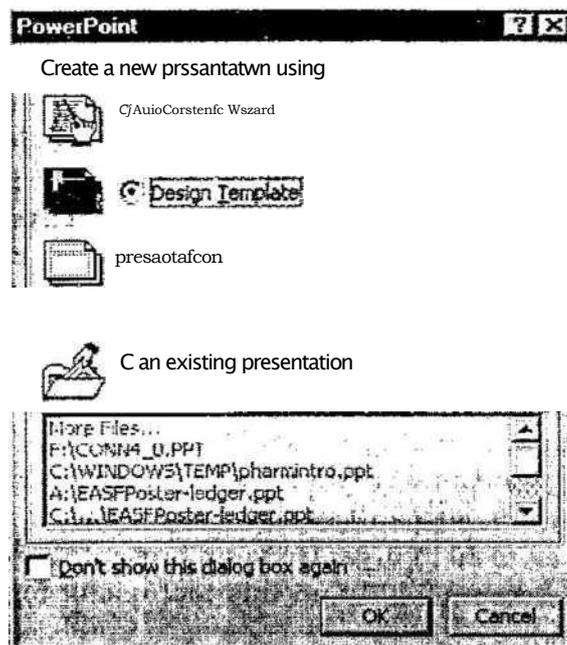
- Enhances the level of learning, enjoyment, and excitement in the classroom
- Offers teachers a new way of presenting information to the students
- Stimulates students
- Gives an alternative to overheads, easels, and blackboards
- Allows teachers to incorporate multimedia in the classroom with ease
- Gives teachers greater control over the presentation of the material
- Allows the teacher to modify a lesson midstream with ease
- Saves time, resources, and money
- Gives teachers the ability to present complex concepts in a concrete manner
- Increases the number of manipulative available in the classroom
- Adds a liveliness to the classroom learning environment

With PowerPoint Students Can...

- Express their ideas with confidence
- Create lively presentations on history, science, math, art, geography, etc.
- Save time and resources by creating presentations digitally , • Understand complex ideas
- Have fun with learning
- Professional appearance
- Slides can't get lost
- Can be used in a large auditorium
- Can easily be exported to web for viewing
- You can easily print copies of your slides ar.d hand them out to your audience.

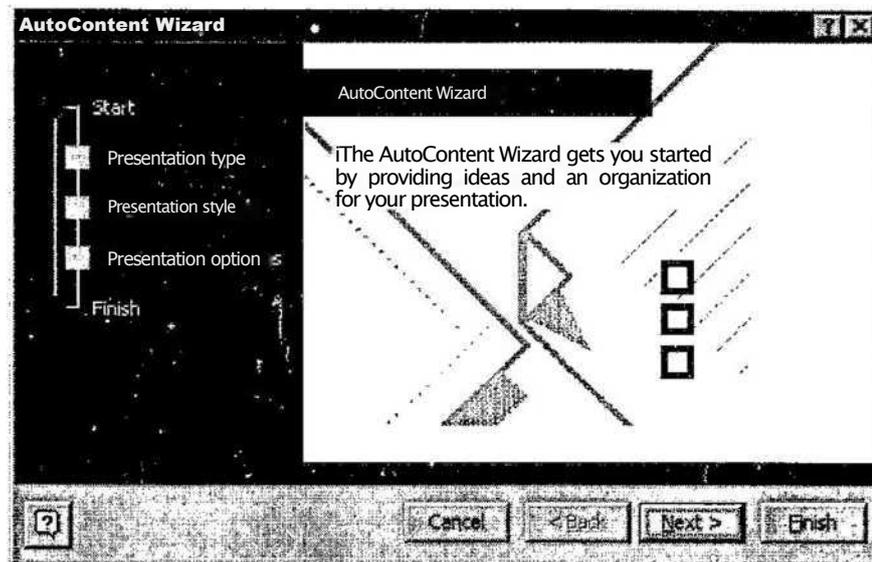
7.3. GETTING STARTED

Open Power Point and you will be prompted by a dialog box with four choices. Each of these options is explained on this page. If Power Point is already open or this box does not appear, select File j New from the menu bar.



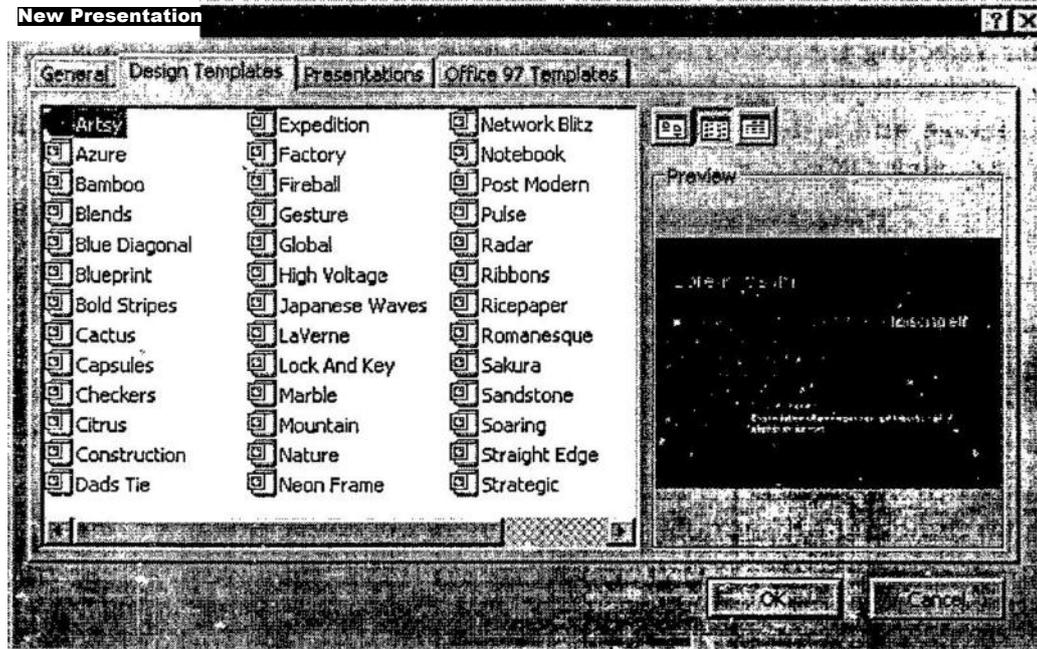
7.3.1 Auto Content Wizard

The AutoContent Wizard provides templates and ideas for a variety of presentation vT-s. Page through the wizard by clicking the Next button on the bottom of each page after ~cl-;;r_g necessary choices.



7.3.2 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.

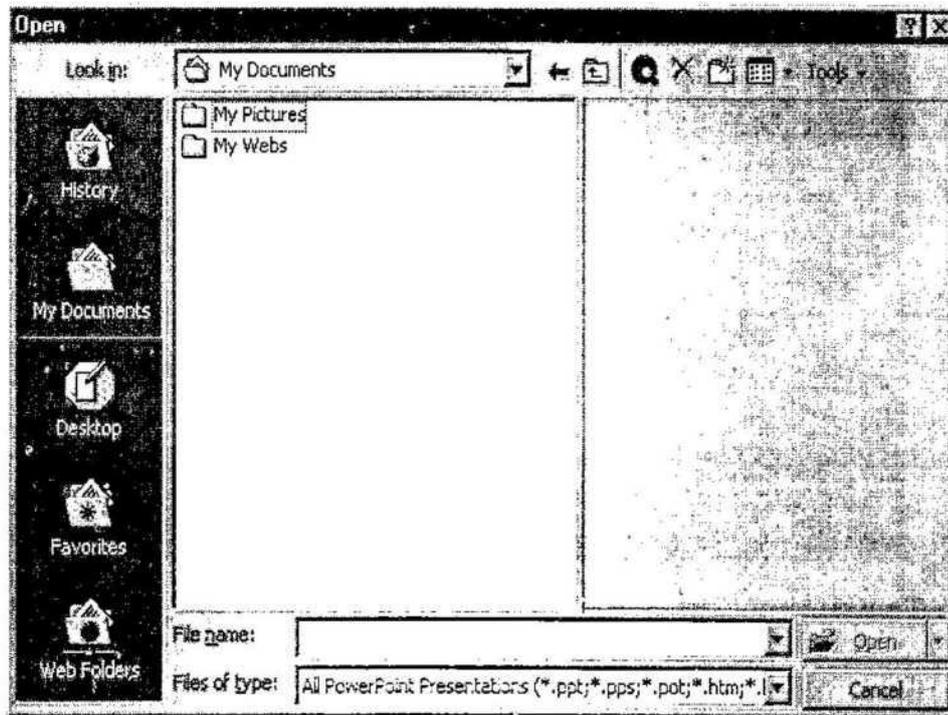


7.3.3 Blank Presentation

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

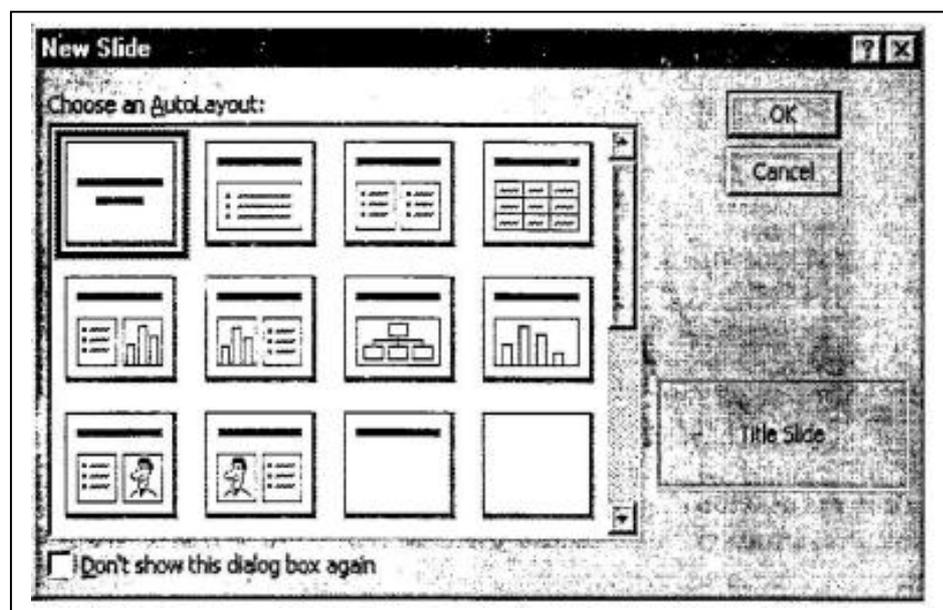
7.3.4. Open an Existing Presentation

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.



7.3.5. Auto Layout

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.

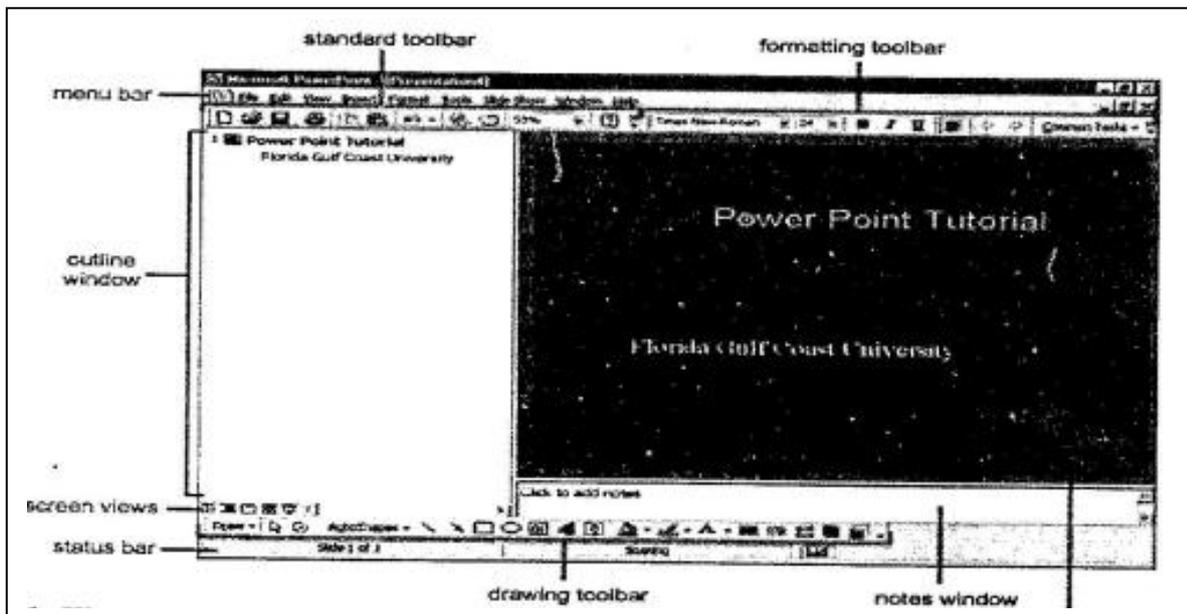


[7.3] Self Check Exercise

Question 7.3.1- What is Auto content wizard?

7.4. POWER POINT SCREEN LAYOUT

The Power Point screen layout in Normal View :



7.4.1. Views

slide window-

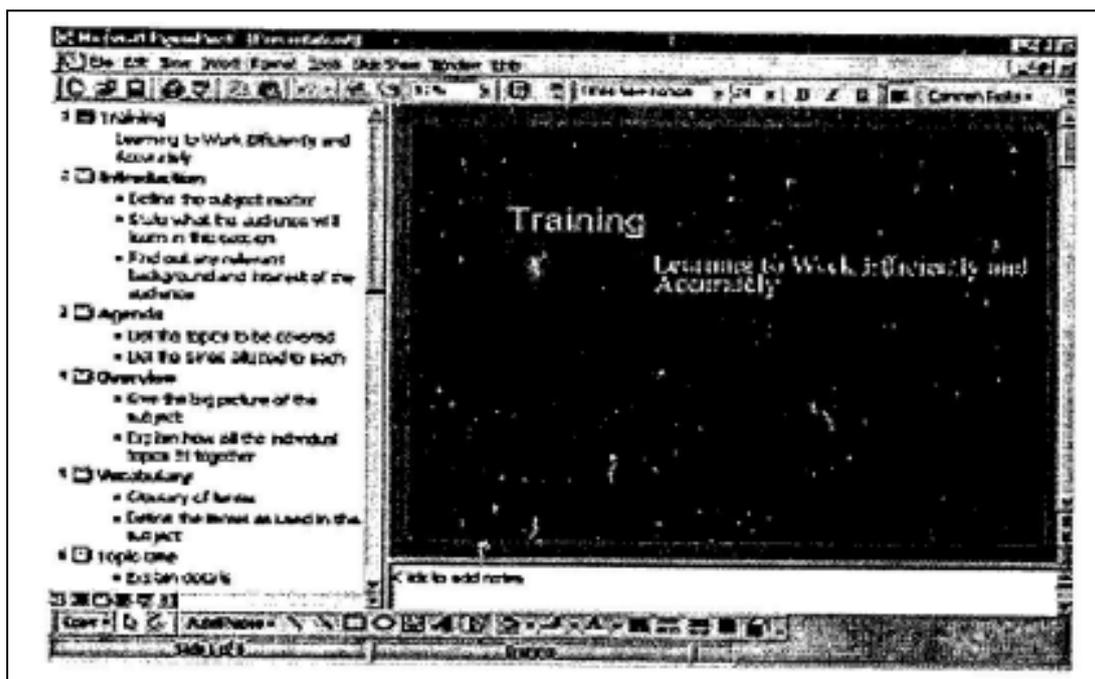
Power Point gives you four screen layouts for constructing your presentation in normal slide slide show

addition to the Slide Show. You can select the page view by clicking the



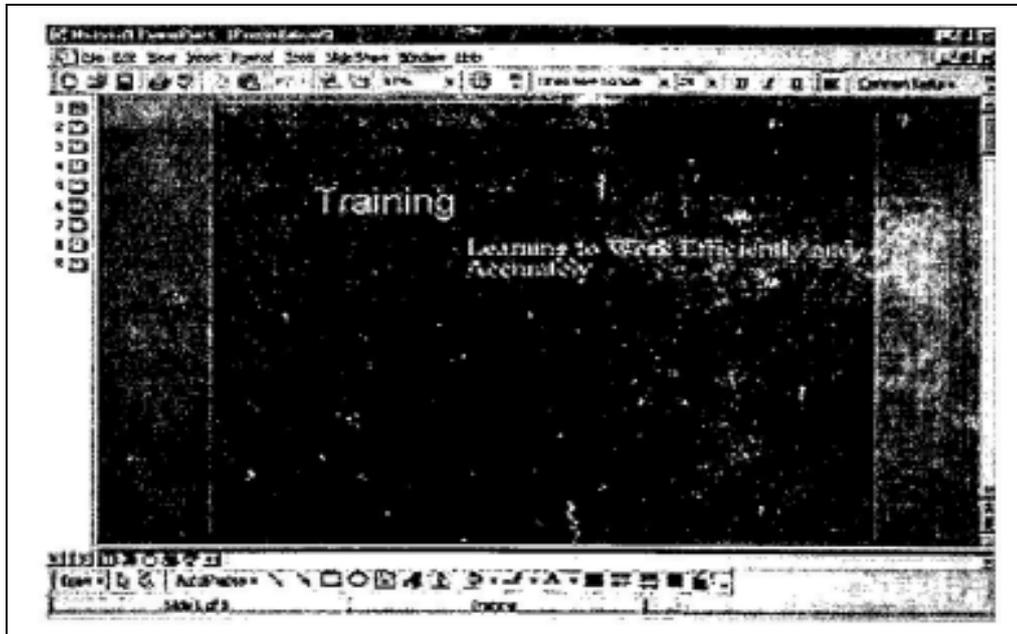
outline slide sorter

buttons just above the formatting toolbar and the bottom of the page.



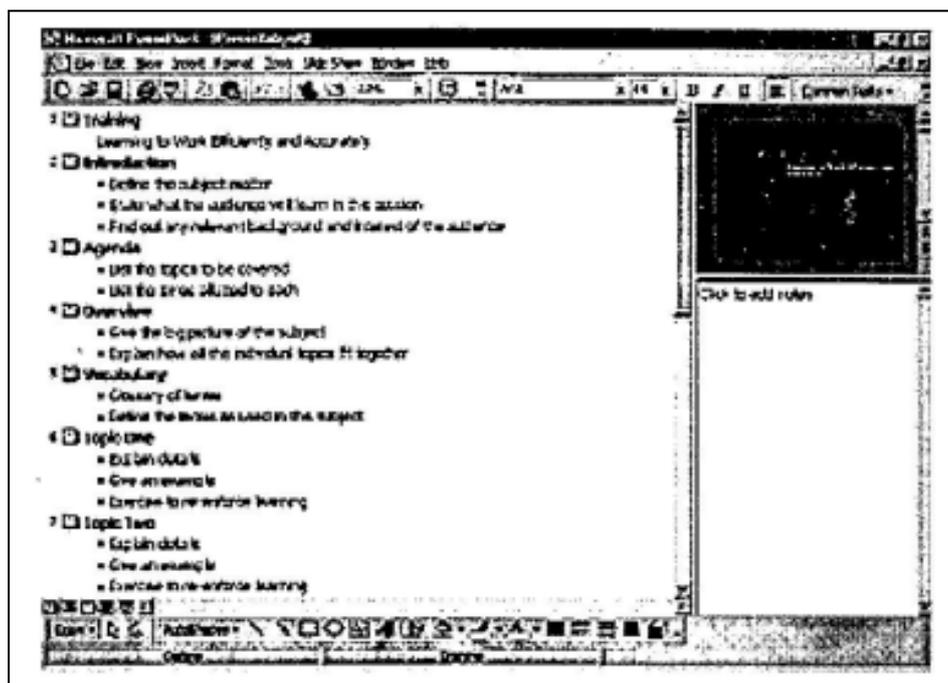
Normal View

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.



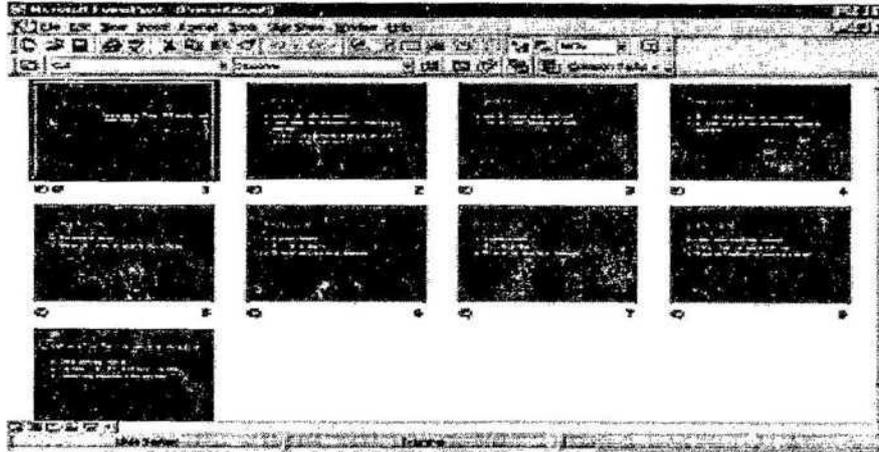
Slide View

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.

7.5. WORKING WITH SLIDES

7.5.1. Insert a New Slide fg

Follow these steps to insert a new slide into the presentation :

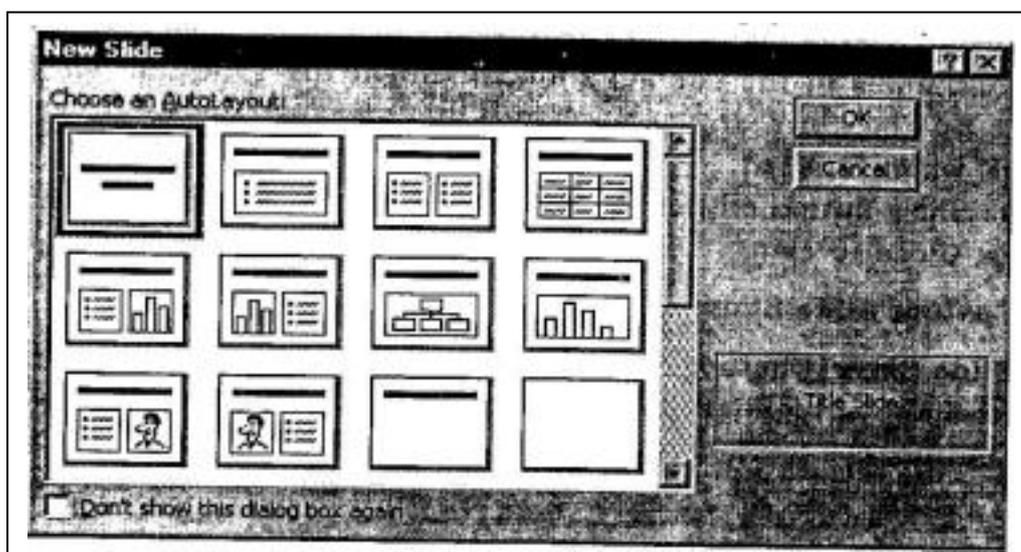
- In the Outline window, select the slide you want the new slide to appear after by clicking the slide's number.
- Select Insert > New Slide from the menu bar or click the new slide button on the standard toolbar.
- Choose the page layout from the window and press OK.

7.5.2 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.

7.5-3 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.



7.5.4 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.

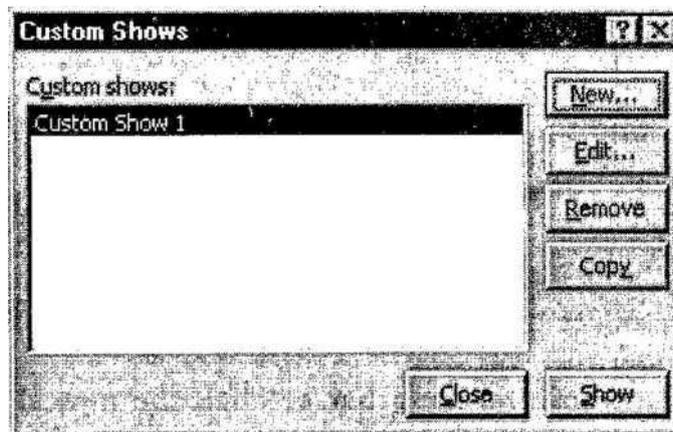
7.5.5 Hide Slides

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 f Hide Slide again.

7.5.6 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 j Custom Slide Show from the menu bar.

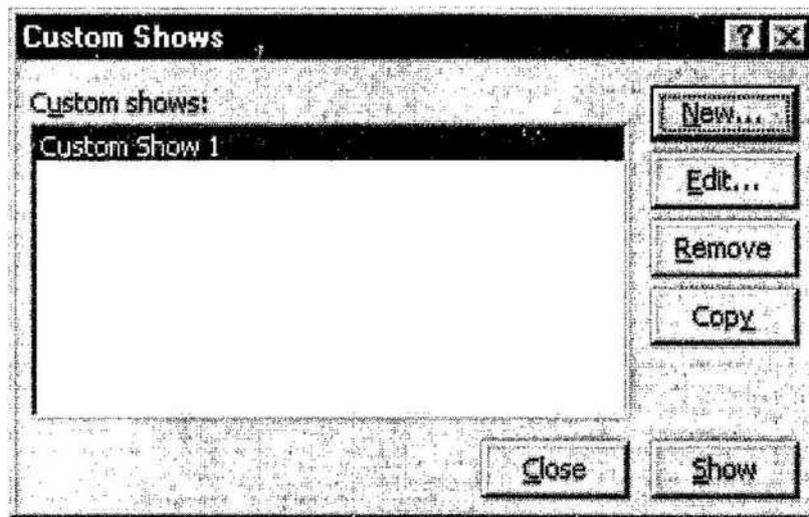


Click the New... button in the Custom Shows window.

- 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.

7.5.7 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.

[7.5] Self Check Exercise

Question 7.5.1- How to change Slide Layouts?

7.6 ADDING CONTENTS

The various contents like bulleted lists, numbered lists, text boxes, notes etc can be added to a power point presentation.

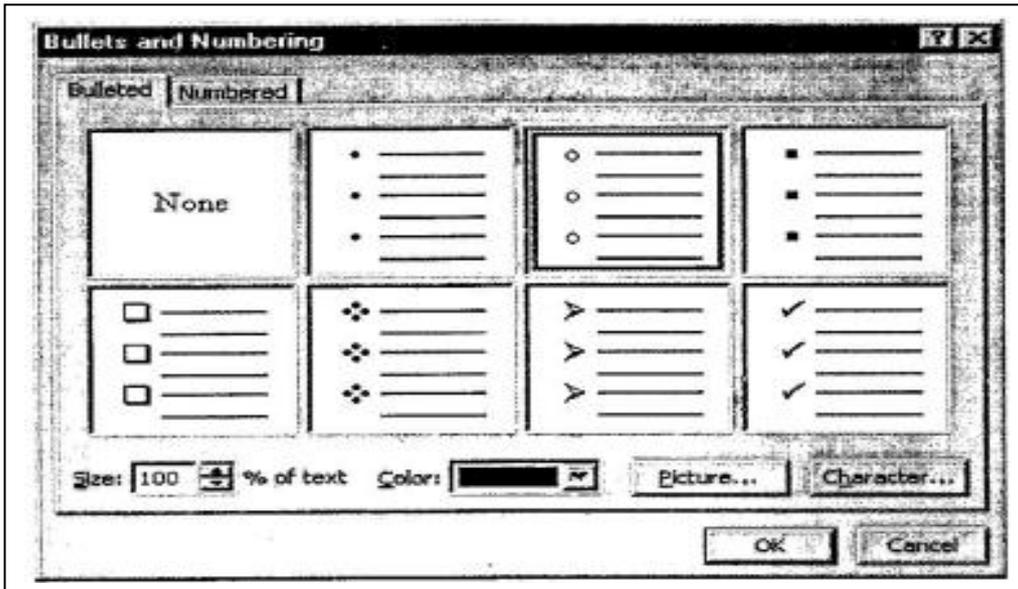
7.6.1 Bulleted Lists on Design Templates

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.

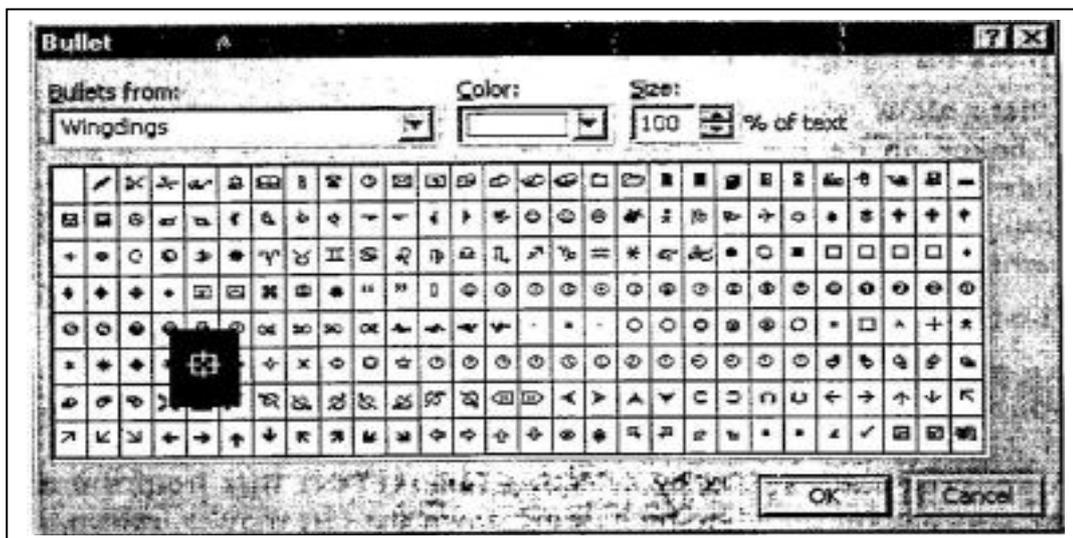
7.6.2 Bulleted List from a Text Box

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.

7.6.3. 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

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 or click the demote button & cr_ the More Buttons menu accessible by clicking the "triple arrow" button at the end :: the formatting toolbar

- OR -

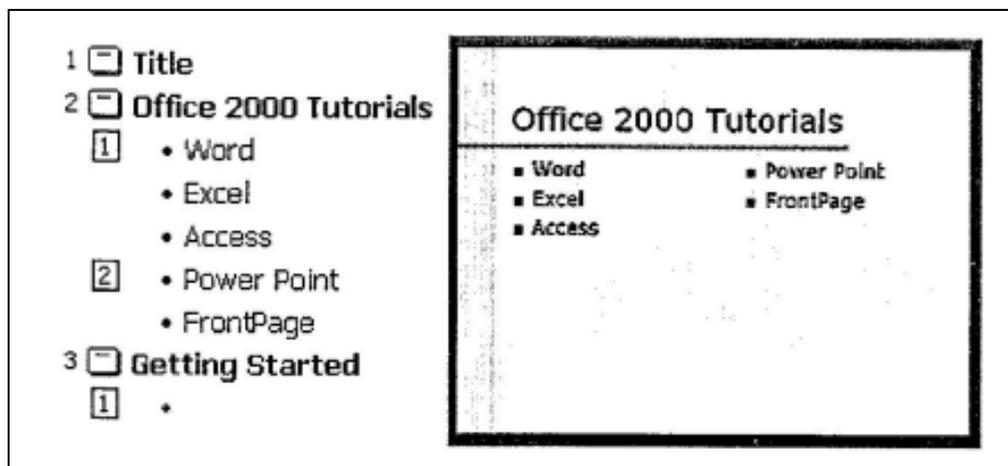
Press ALT-j-SHIFT+Right Arrow to demote the selection to a bulleted list item. Continue entering text for the bulleted list, pressing ENTER at the end of each line to create a new bullet.

For a multilevel list by executing the demote action again to create a bulleted = U"l:s:. Press the promote button ^ on the More Buttons menu or press' ALT-SHIFT-Left Arrow to return to the original list.

For creating new slides and bulleted lists by using the demote and promote L;:;.-.: until presentation is completed. Use the formatting instructions below to

For creating a bulleted list on the slide, the lists will be designated by their section number. The example below shows the slide created from the outline : left. The bulleted list on the left side of the slide is labeled list "1" on the outline and

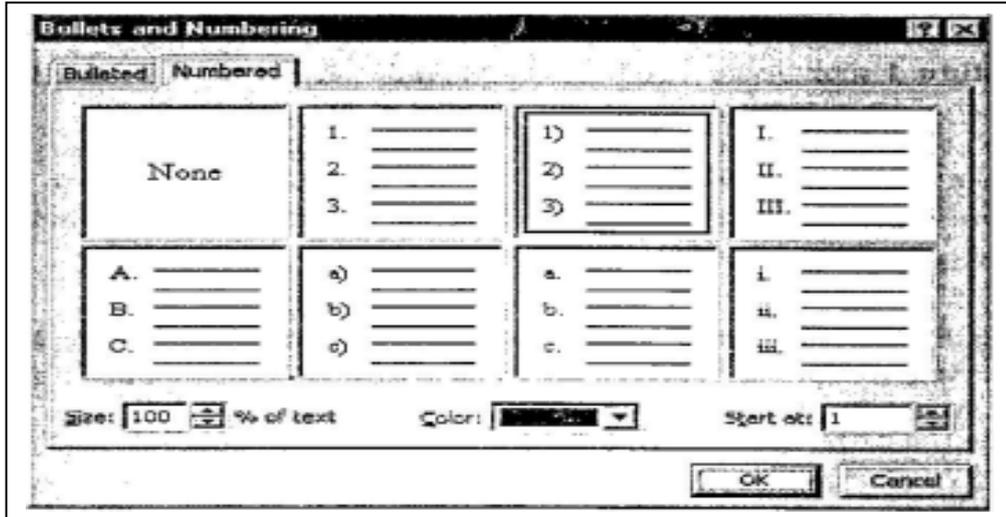
■ on the right is labeled list 2. When typing the outline, begin typing in the new list using CTRL+ENTER. In this example, CTRL+ENTER was pressed after typing "Access".



7.6.4 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.

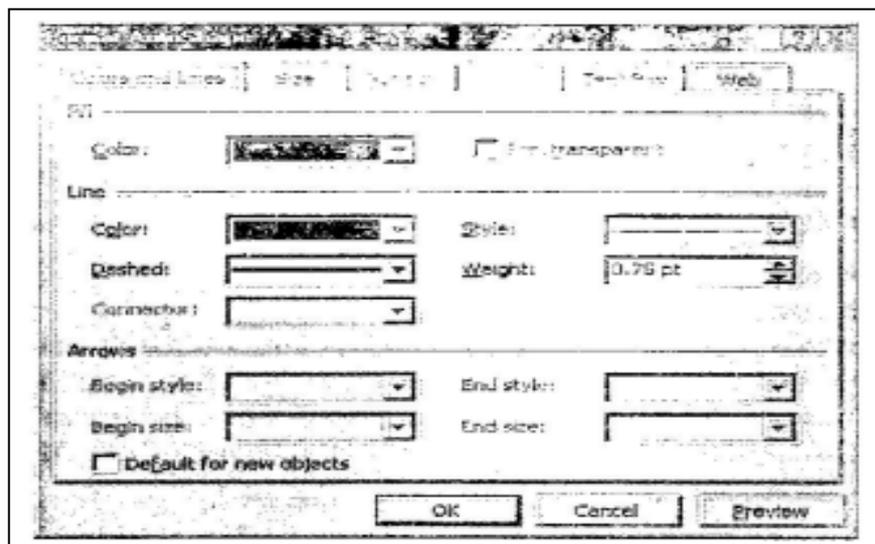
7.6.5 Resizing a Text Box

Select a text box by clicking cr. 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. ^

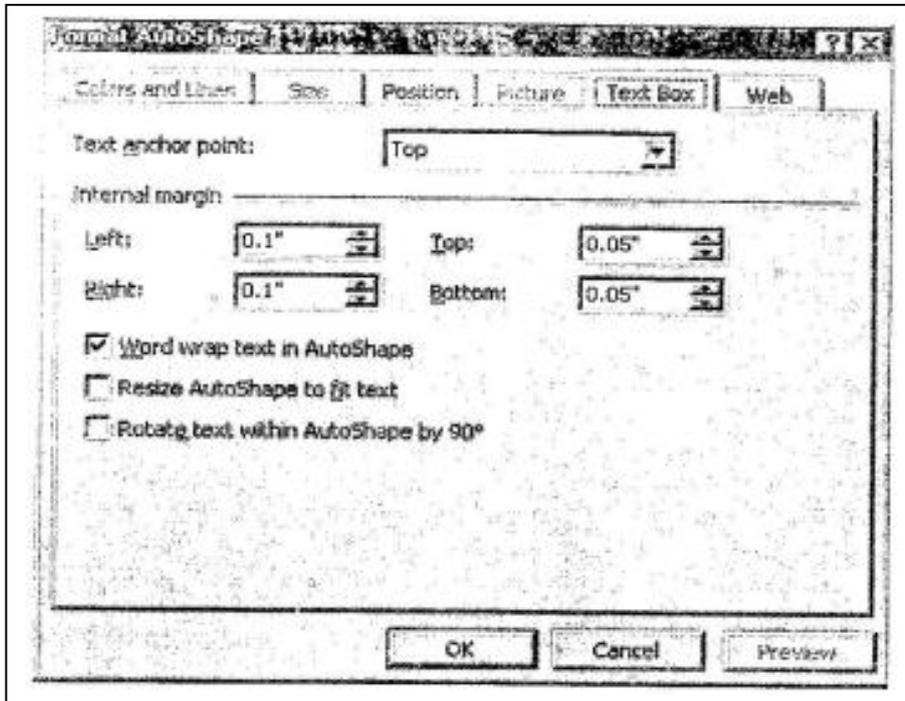


7.5.6 Text Box Properties

st box from the Format Auto Shape



- Ⓜ 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.



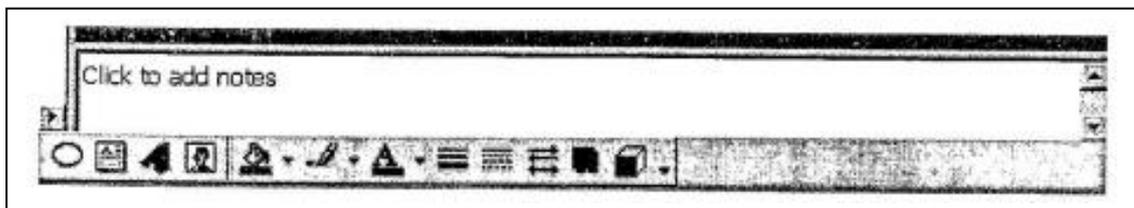
- Ⓞ Change the Text anchor point to reposition the text within the text box.
- Ⓞ Set Internal margins to the distance the text should be to the text box edges.
- Ⓜ Click OK to add the changes to the text box.

7.6.7. 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.

7.6.8. 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.



7.6.9 Video

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.

7.6.10 Audio

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.

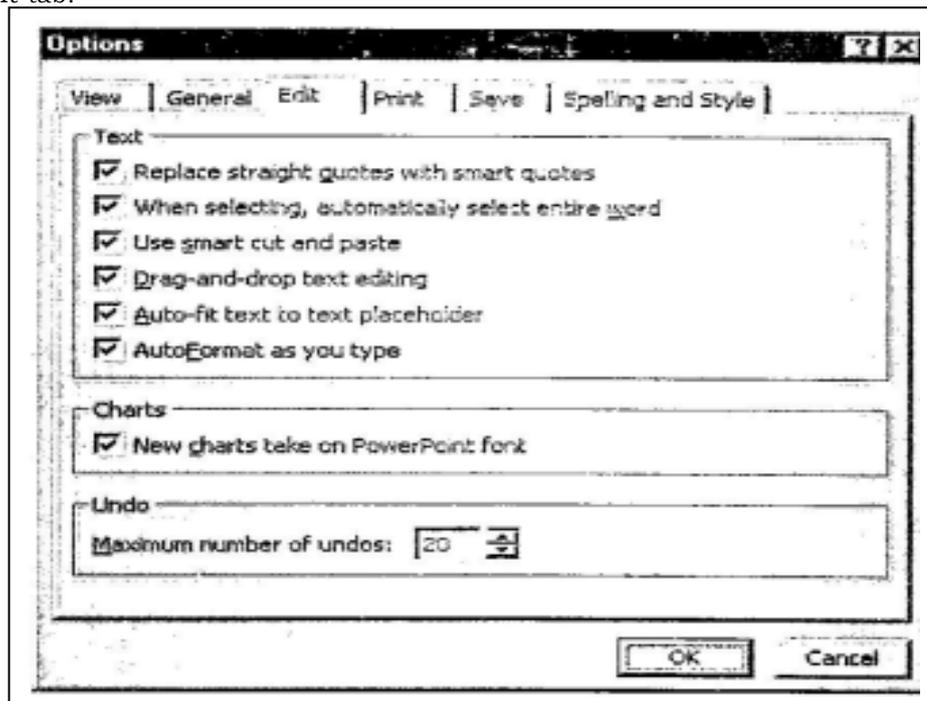
[7.6] Self Check Exercise

Question 7.6.1- How to Resize a Text box?

7.7 WORKING WITH TEXT

7.7.1 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.

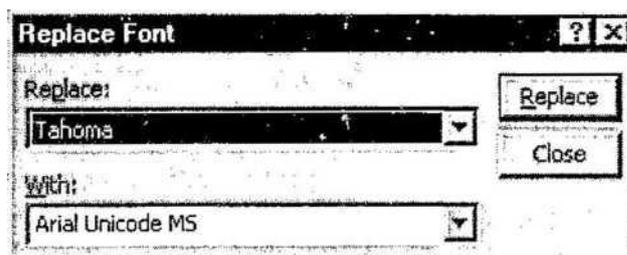


7.7.2 Formatting Text

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.

7.7.3 Replace Fonts

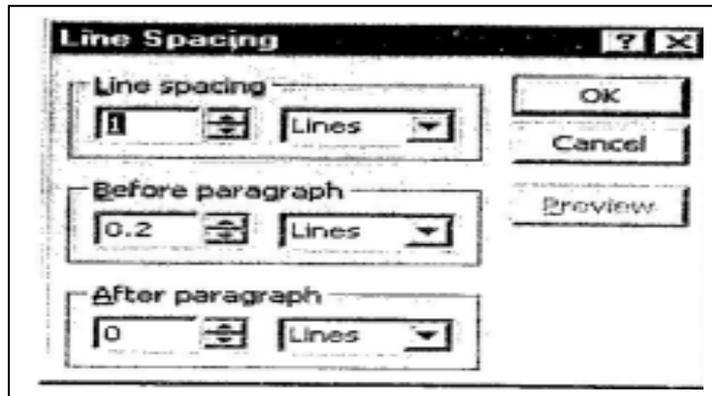
Design templates have a preset font that you may want to change or you may want to change the font used on for the entire presentation for a number of reasons. This can be



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.

7.7.4 Line Spacing

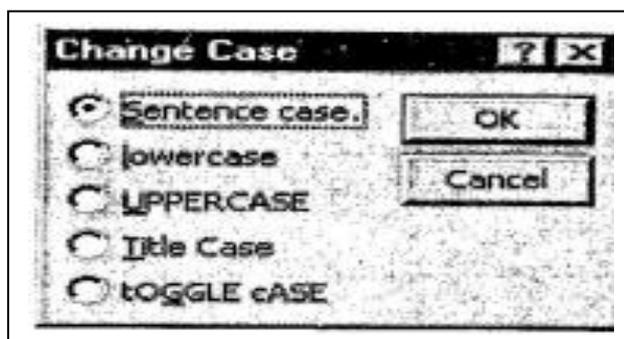
Change the amount of space between lines in a text box by selecting Format | Line Spacing from the menu bar.



- © * 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.

7.7.5. 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.

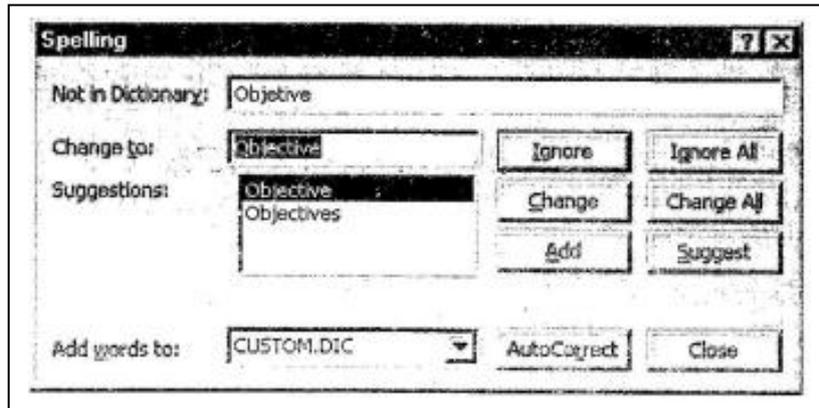


- » Sentence case - Capitalizes the first letter of the first word in each sentence.
- ® Lowercase and Uppercase - Changes the case of all the letters.
- ® Title case - Capitalizes the first letter of every word and reduces the rest to lowercase.
- Toggle case - The opposite of Title case, it makes the first letter of every word lowercase and capitalizes the remaining letters.

7.7.6 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.

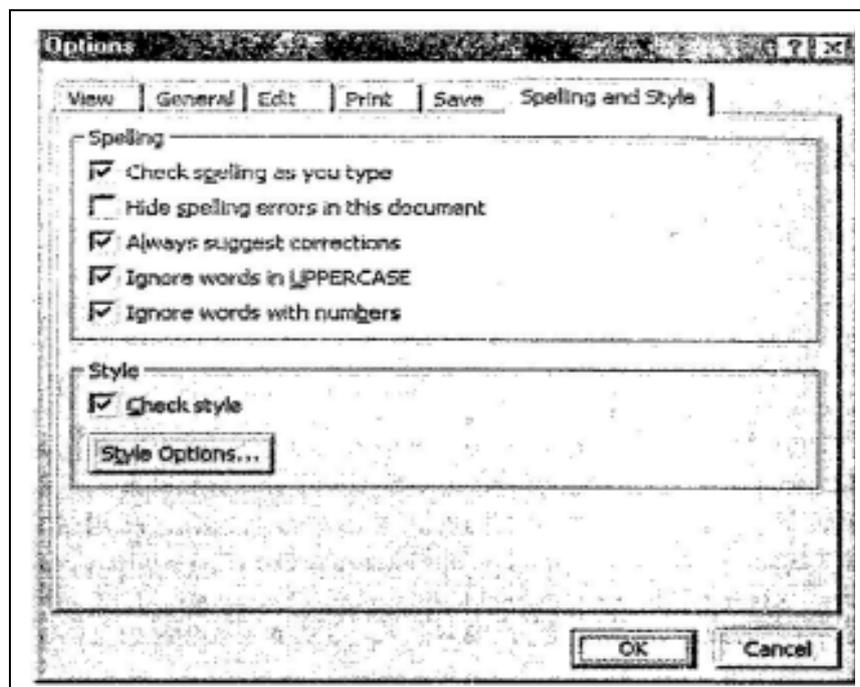
- « The spell checker will prompt you to make corrections of the first word that is spelled wrong.



- © 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 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.

7.7.7. 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.

SELF CHECK EXERCISE

Q5. How notes can be added in slides?

C5. How text can be added and formatted in slides?

3. COLOR SCHEMES

The colors of predesigned slide templates can be changed and a color scheme can be applied to blank presentations. This page explains how to add color schemes and background images to slides.

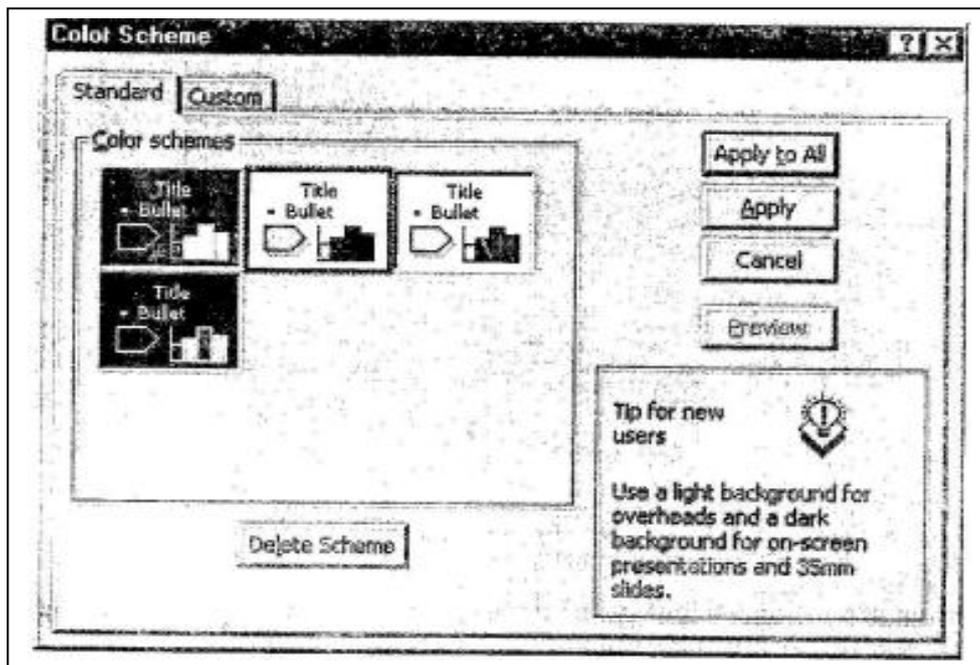
1.8.1 Available Color Schemes

Click Format | Slide Color Scheme from the menu bar.

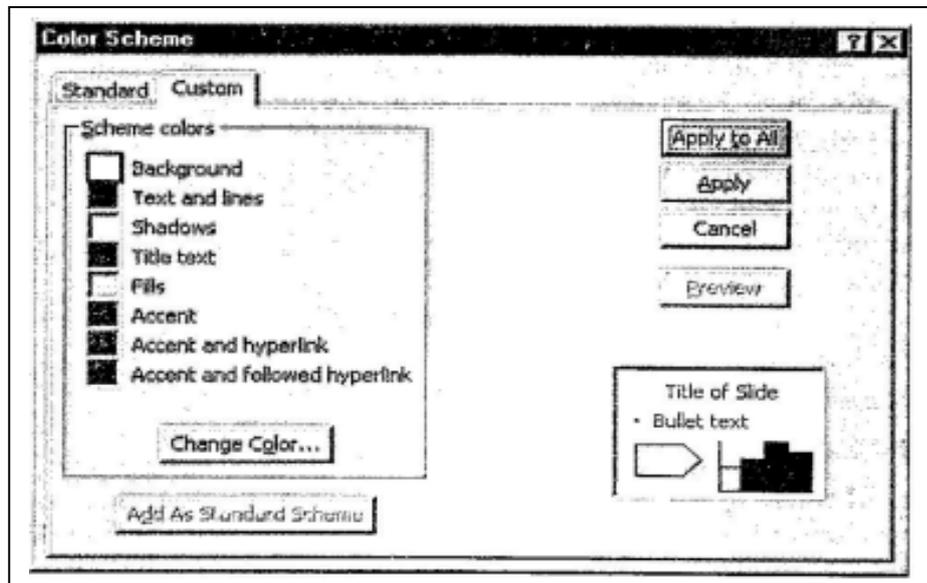
Click one of the preset color scheme thumbnail images in the Color schemes box.

m.c)

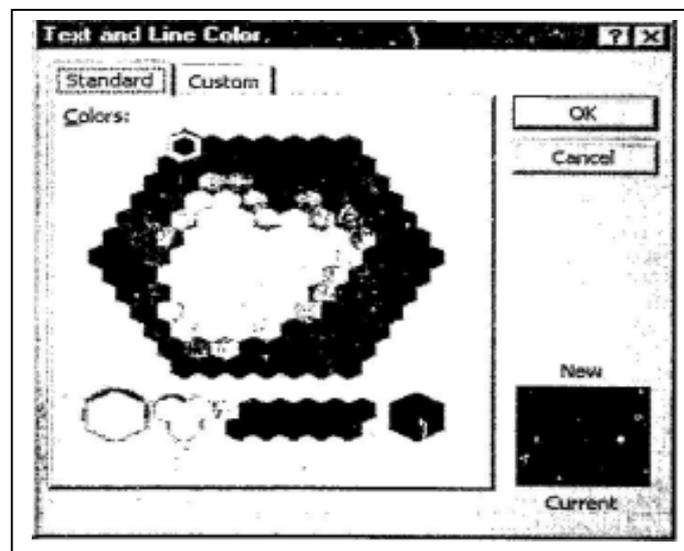
TFx|



© 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.

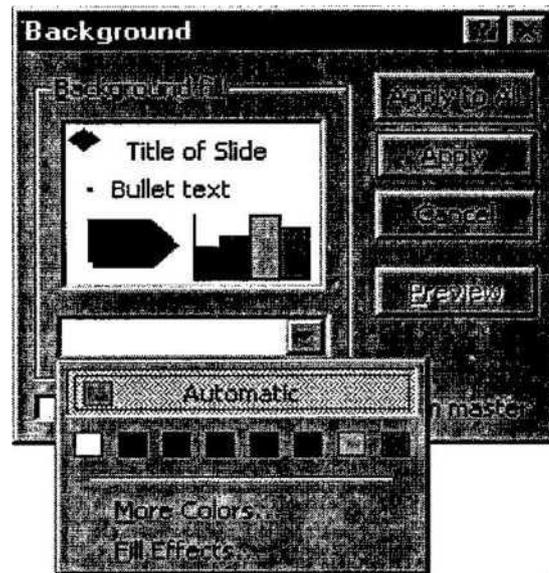


When you have finished all color formatting, click Apply to All to apply the color scheme to all the slides in the presentation or Apply to add the scheme only to the current slide.

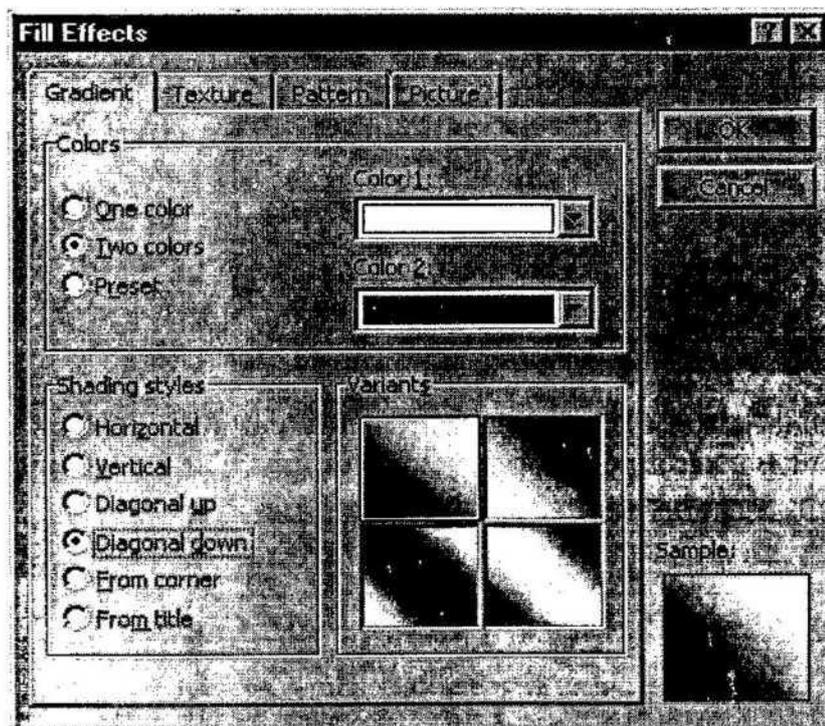
7.8.2 Backgrounds

Follow these steps to add background colors and patterns to a slide

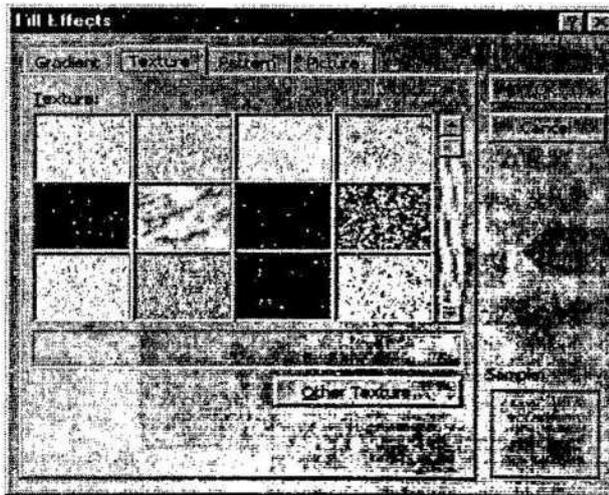
- Select Format | Background from the menu bar.



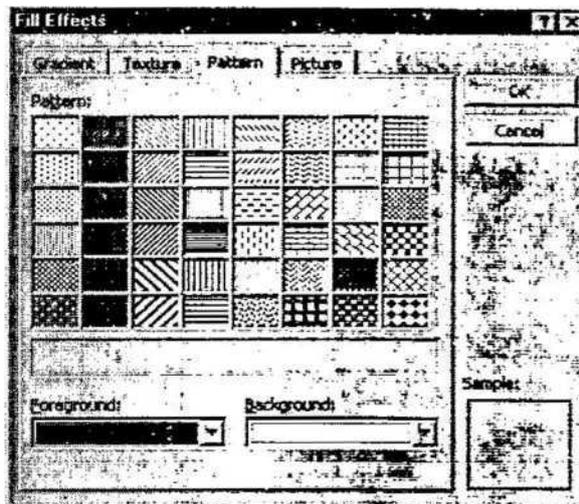
- Select a color from the drop-down menu below the Background fill preview or choose More Colors... for a larger selection.
- Select Fill Effects from the drop-down menu to add gradients, texture, patterns, or a picture to the background.



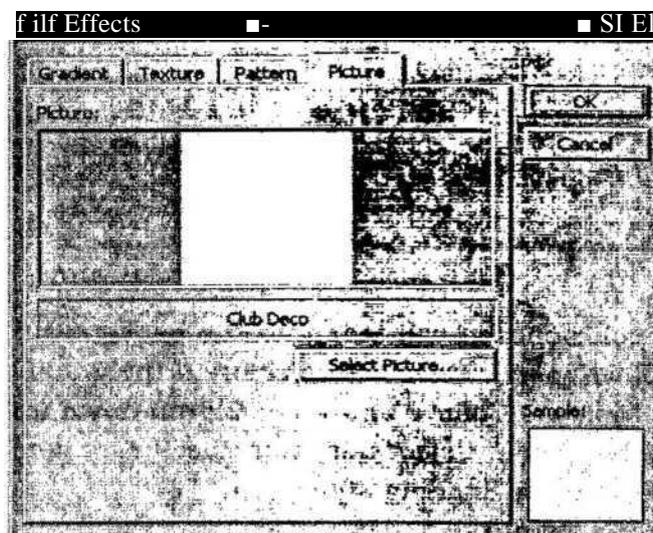
- Gradient tab
 - Select One color if the color chosen will fade into the background and select the color from the Color 1 drop-down menu. Choose Two colors if the gradient will use two colors and select those colors from the Color 1 and Color 2 drop-down menus. Preset provides a selection of color combinations. Select one from the Preset colors drop-down menu.
 - Select the type of gradient from Shading styles.
 - ® 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 switches and selecting the Foreground and Background colors.



- Picture tab
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.
- Click OK to apply the changes made from the Fill Effects windows.
- Click Apply to All to add the changes to every slide or Apply to make changes only to the current slide.

[7.7] Self Check Exercise

Question 7.7.1- What is Line Spacing?

7.9 SUMMARY

In this we have discussed a very powerful tool called Microsoft PowerPoint for creating presentation. Mainly we have discussed the uses, advantages of PowerPoint and the various tools for creating presentations.

We can say that Microsoft PowerPoint is a powerful tool to create professional looking presentations and slide shows. PowerPoint allows constructing presentations from scratch or by using the easy to use wizard. The uses and advantages of PowerPoint are very large in number. We have discussed the PowerPoint screen layout, procedure of adding content to slides, working with text, and various colour schemes.

7.8- Key Words

Template, Custom Slide Show, Spell check

7.9- Review Questions**7.9.1- Short Questions**

1. What is Power Point?
2. Define layouts. How layouts can be applied?
3. How text can be added and formatted in slides?
4. How to add the context?

7.9.2- Long Questions

1. What is PowerPoint? How Slide shows can be customized? And what is the procedure of setting color and background of slides?
2. How various contents can be added to PowerPoint presentations?
3. How to add colour schemes and background images to slides? Explain

7.10- SUGGESTED READINGS

1. Sams teach yourself Microsoft powerpoint 2003 in 24 hours by Tom bunzel.
2. Microsoft powerpoint2002 by Rachel Bunin.

Solutions to Self Check Exercise

[CHAPTER 7]

7.1.1- PowerPoint is a complete presentation graphics package. It gives you everything you need to produce a professional-looking presentation. PowerPoint offers word processing, outlining, drawing, graphing, and presentation management tools- all designed to be easy to use and learn, or in other words we can say that PowerPoint is a versatile presentation tool.

7.1.2-

- . Enhances the level of learning, enjoyment, and excitement in the classroom
- Offers teachers a new way of presenting information to the students
- Stimulates students
- Gives an alternative to overheads, easels, and blackboards
- Allows teachers to incorporate multimedia in the classroom with ease
- Gives teachers greater control over the presentation of the material
- Saves time, resources, and money
- Gives teachers the ability to present complex concepts in a concrete manner

7.3.1- The AutoContent Wizard provides templates and ideas for a variety of presentation vT-s. Page through the wizard by clicking the Next button on the bottom of each page after ~cl-;r_g necessary choices.

7.5.1- To change the layout template of the slide select Format j Slide Layout from the menu bar. Select one of the layout thumbnail images and click Apply.

7.6.1- Select a text box by clicking cr. it with the mouse. A border with nine handles will appear around the text box. The four handles cn the corners will resize the length and the width of the box at once while the handles or. 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 'ey clicking and dragging the thick, dotted border with the mouse.

7.7.1- Change the amount of space between lines in a text box by selecting Format | Line Spacing from the menu bar.

Lesson No. 8 _____AUTHOR : DHARAM VEER SHARMA

PREPARING AND CUSTOMIZING SLIDE SHOWS

STRUCTURE

- 8.1 Introduction
- 8.2 Graphics
- 8.3 Slide Effects
- 8.4 Slide Master
- 8.5 Saving and Printing
- 8.6 Design Tips
- 8.7 Presentation Basics
- 8.8 Keyboard shortcuts
- 8.9 Summary
- 8.10 Keywords
- 8.11 Short Answer Type Questions
- 8.12 Long Answer Type Questions
- 8.13 Suggested Readings
- 8.14 Solution to Self Check Exercise

OBJECTIVE

In this lesson we will discuss the various tools available for creating PowerPoint presentations, apart from those already been discussed in the previous lesson such as addition of graphics, slide animation, use of slide master etc. we will also discuss some design tips, presentation basics and keyboard shortcuts.

8.1. INTRODUCTION

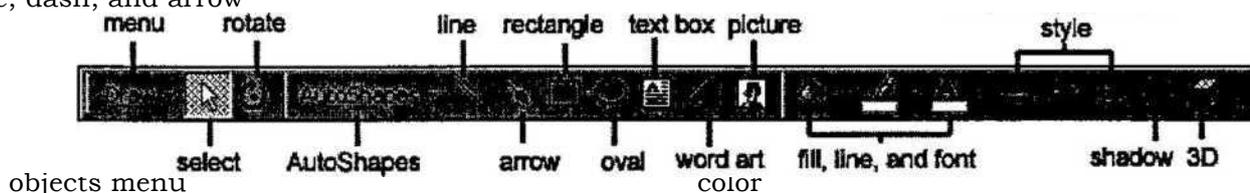
As we have already discussed that Microsoft PowerPoint is a very powerful tool to create professional looking presentations and slide shows. In this Lesson we are going to discuss the tools (other than lesson. No. 17) for adding graphics and clip art, slide effects etc.

8.2. 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.

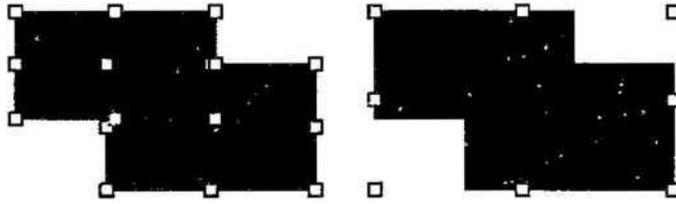
8.2.1 Drawing Toolbar

line, dash, and arrow

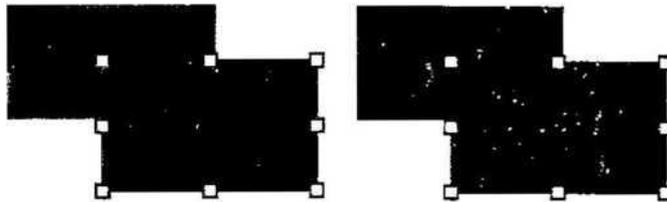


- Grouping - Images can be grouped together so they become one image and can be moved together or the same formatting changes can be applied to both at once. Select all the images that will be grouped by holding down the SHIFT key and clicking once

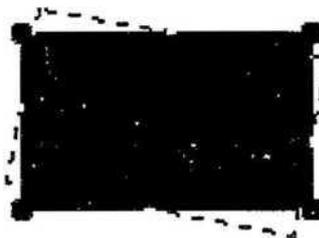
on each image. Then select Group from the Draw menu. The images can be ungrouped by selecting Ungroup from the same menu. The rectangles in the image to the left are separate images with their own sets of handles and they are grouped together in the image to the right :



- 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.



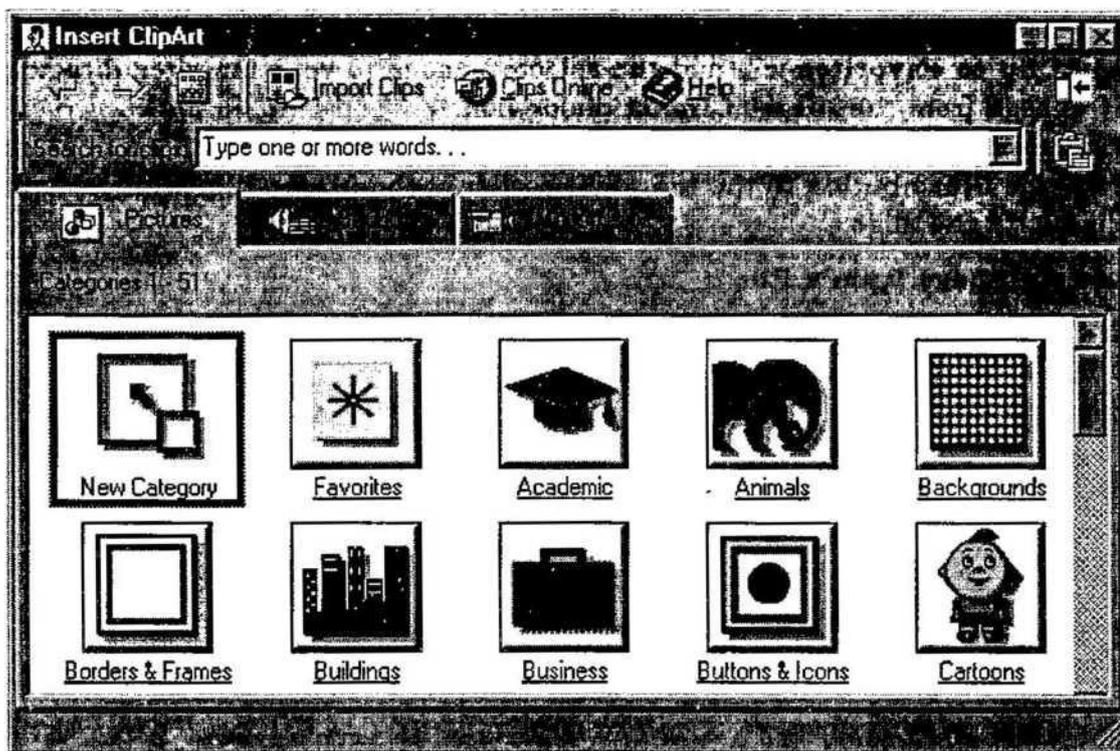
- AutoShapes menu - Click the small down arrow to the right of the "AutoShapes" text to select a shape.
- Line and Arrow - Click and drag the mouse on the slide to add lines. Hold down the SHIFT key to draw a straight line. Use the end points of the completed line to stretch and reposition the line.
- 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.
- 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.

8.2.2 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.

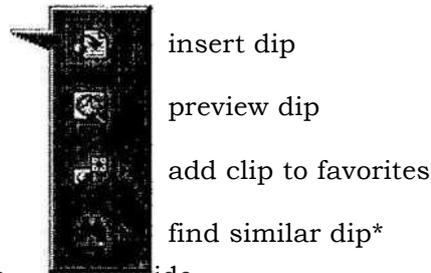


- To find an image, click in the white box following Search for clips and enter keywords describing the image you want to find.

- 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 dip

preview dip

add clip to favorites

find similar dip*

- 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 ClipAxt 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.

8.2.3 Add 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.

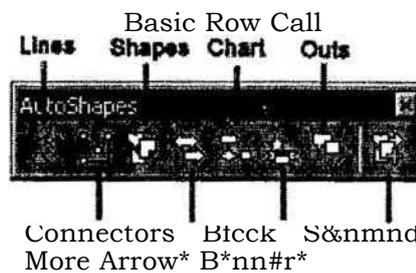


8.2.4 Editing a Graphic

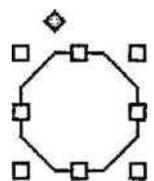
Activate the image you wish to edit by clicking on it once with the mouse. Several handles will appear around the graphic. Click and drag these handles to resize the image. The handles on the corners will resize proportionally while the handles on the straight lines will stretch the image. More picture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

8.2.5 Auto Shapes

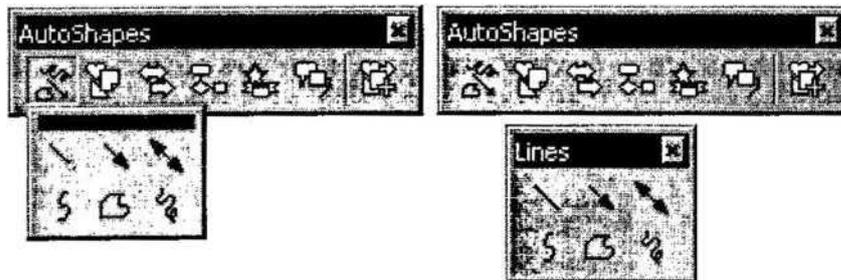
The AutoShapes toolbar allows you to draw a number of geometrical shapes, arrows, flow chart elements, stars, and other graphics on a slide. Activate the AutoShapes toolbar by selecting Insert | Picture | AutoShapes or View | Toolbars | AutoShapes from the menu bar. Click the buttons on the toolbar to 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. 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 slide 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 slide. 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 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.



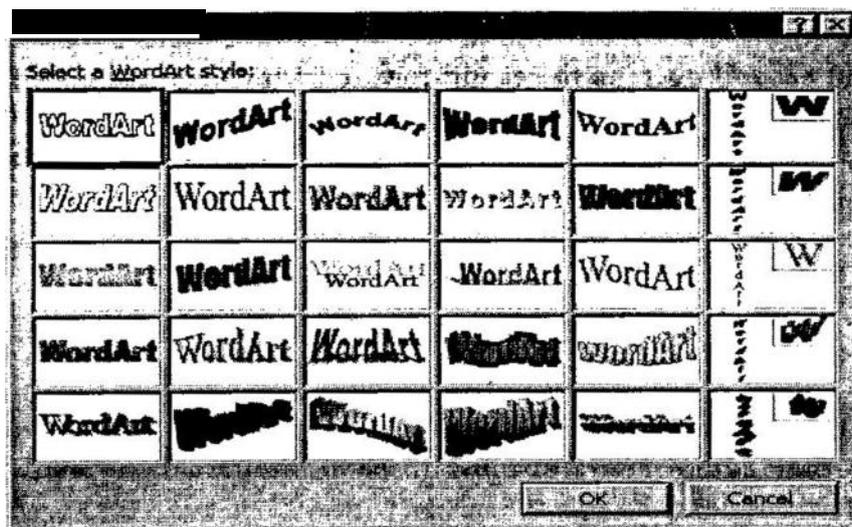
- Flow Chart - Choose from the flow chart menu to add flow chart elements to the slide and use the line menu to draw connections between the elements.
- Stars and Banners - Click the button to select stars, bursts, banners, and scrolls.
- Call Outs - Select from the speech and thought bubbles, and line 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.



8.2.6 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.

[8.2] Self Check Exercise

Question 8.2.1- Explain GRAPHICS?

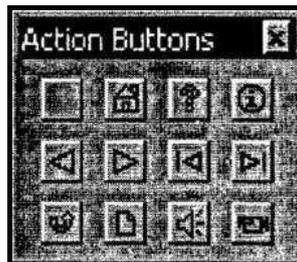
Question 8.2.2-How to add an image from a file?

8.3 SLIDE EFFECTS

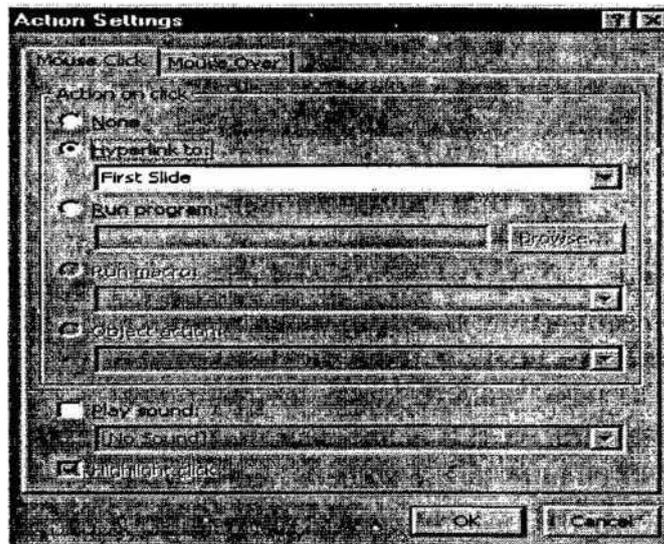
8.3.1 Action Buttons

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.

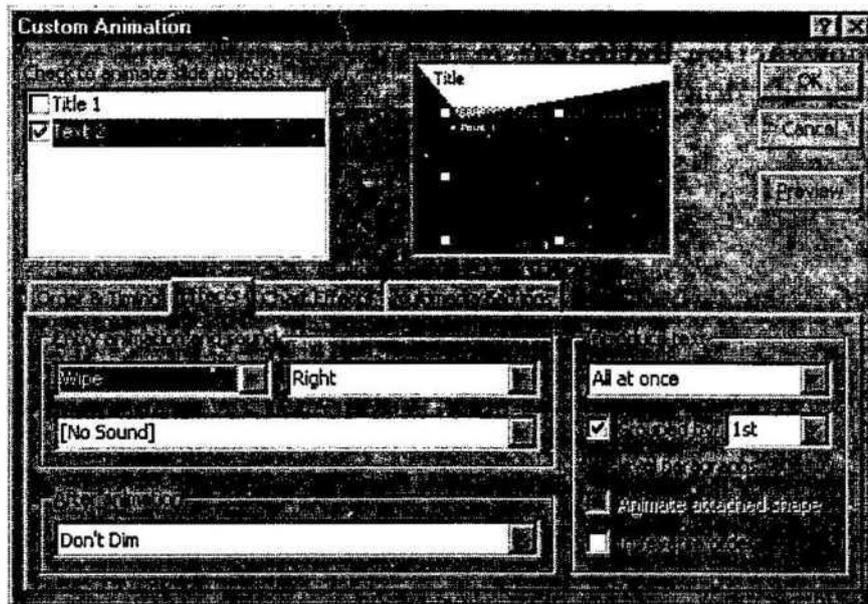


- Set the actions under either the Mouse Click or Mouse Over tabs. Actions specified for Mouse Click will execute when the button is clicked on the slide while actions for Mouse Over will occur when the mouse pointer hovers over the button.
- Select an action for the button by choosing a Hyperlink to 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.

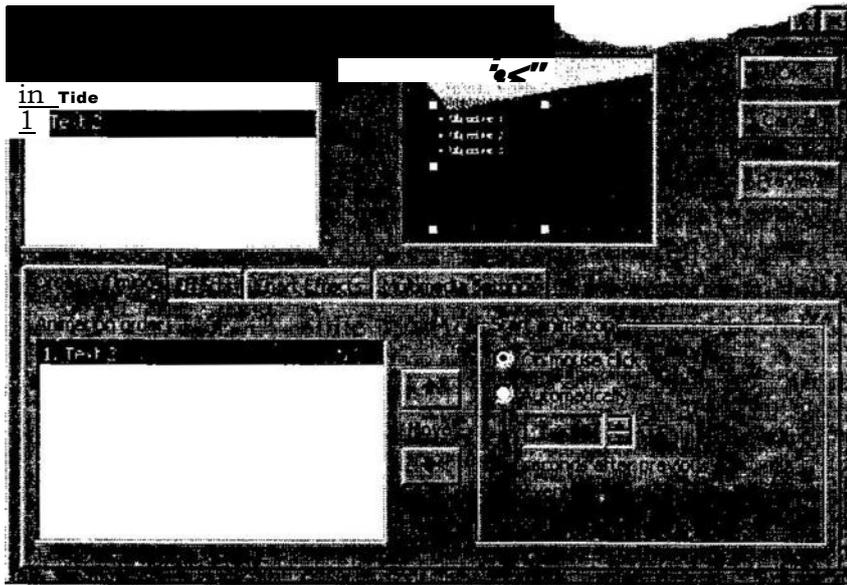
8.3.2. Slide Animation

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 dropdown 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 numu



- Click the Preview button at any time to preview the animation on the slide and click * OK when finished.

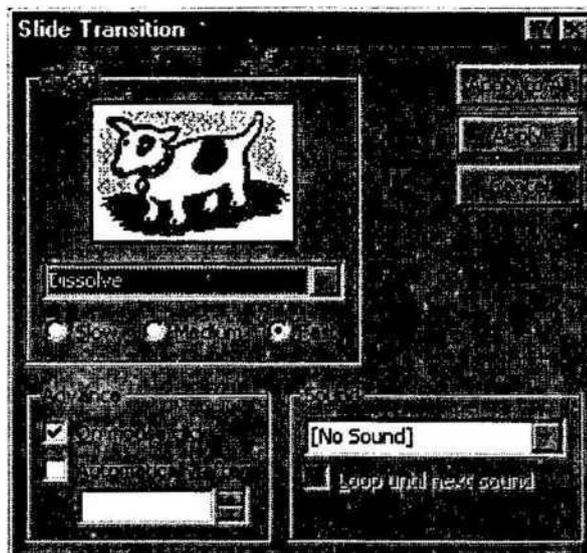
8.3.3. Animation Preview

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.



8.3.4. Slide Transitions

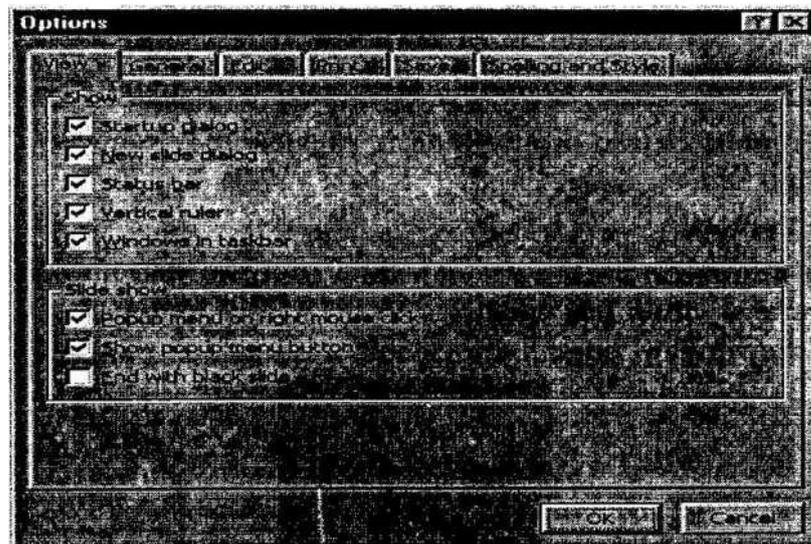
Add transition effects when changing slides by following these steps :



- Select Slide wthe merm bar.
- From the Effect sec^.*ansition 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 checks"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.

8.3.5 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.

[8.3] Self Check Exercise

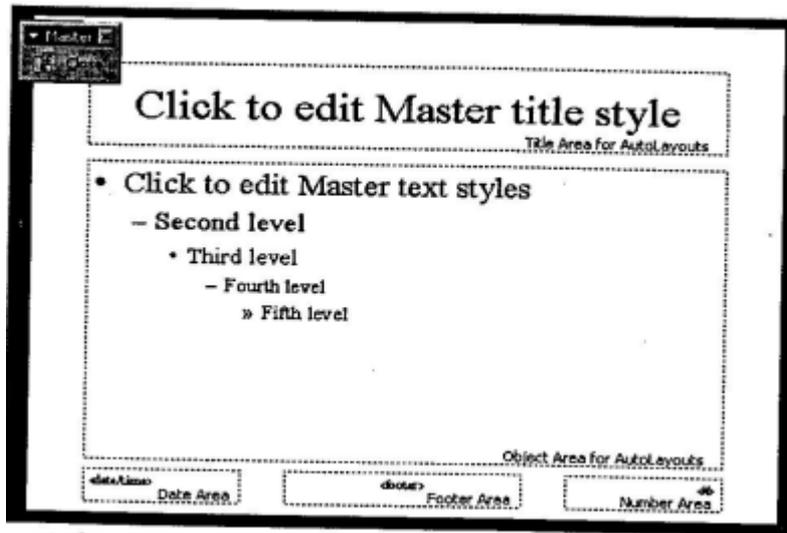
Question 8.3.1- What is slide Animation?

8.4 SLIDE MASTER

8.4.1. 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.

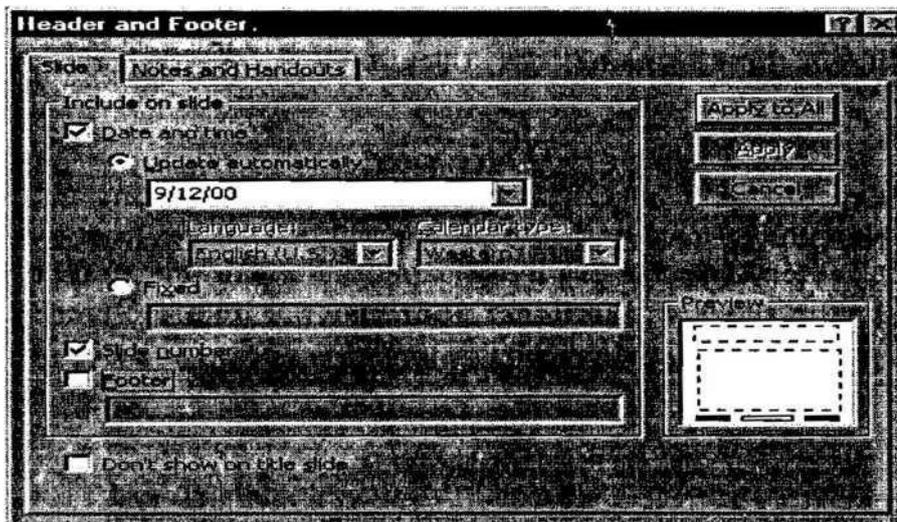


- Format the master slide just as you would format a regular slide by formatting text, formatting lists, adding background patterns and effects, and setting footers.
- Click the Close button on the Master toolbar to quit editing the master slide and return to the presentation.

8.4.2. 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.

8.4.3. 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.

8.4.4. 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.

[8.4] Self Check Exercise

Question 8.4.1- What is Slide Master?

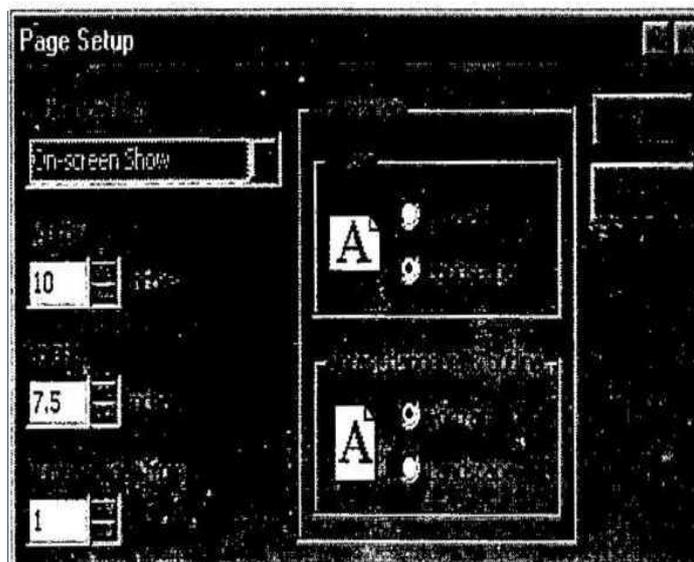
8.5. SAVING AND PRINTING

8.5. X. 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.

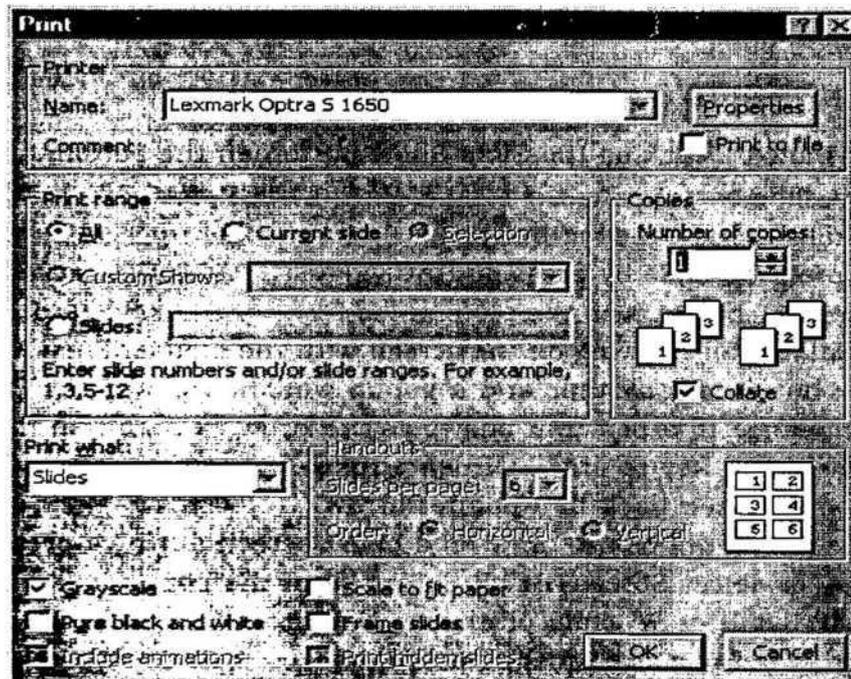
8.5.2. Page Setup

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



8.5.3 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 print a full-page slide on each page.
- Handouts print 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.

8.6 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.
- Don't use dark backgrounds in a poorly-lit room or light backgrounds in a well-lit room. It's hard to read off such backgrounds.
- 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, and larger font size for emphasis within a sentence, or a different font all on the same slide.

- Be familiar enough with the subject of your presentation and its sequence in your presentation slides that you can skip from slide to slide (or skip a slide that's already been covered) without losing your train of thought or your composure;
- Avoid clip-art (as a rule).

[8.6] Self Check Exercise

Question 8.6.1- Write about DESIGN TIPS?

8.7 PRESENTATION BASICS

- Begin the slide show by clicking the Slide Show button on the bottom of the screen |g.
- 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 pen 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.

8.8 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
Document actions	
Open a presentation	CTRL+O
New presentation	CTRL+N
Save As	F12
Save	CTRL+S
Print	CTRL+P
Help	F1
Presentation actions	
Begin slide show	F5
Next slide	ENTER or Down arrow key
Previous slide	BACKSPACE or Up arrow key
Activate pen tool	CTRL+P

Action	Keystroke
Erase pen strokes	E
Deactivate pen tool	CTRL+A
Show/Hide black screen	B
Show/Hide white screen	W
Show/Hide pointer & button	A
End slide show	ESC
Formating	
Select all	CTRL+A
Copy	CTRL+C
Cut	CTRL+X
Paste	CTRL+V

Action	Keystroke	Action	Keystroke
Undo	CTRL+Z	Demote list item	LT+SHIFT+Right arrow or TAB
Redo	CTRL+Y	Editing	~ ...
Bold	CTRL+B	Find	CTRL+F
Italics	CTRL+I	Replace	CTRL+H
Underline	CTRL+U	Insert hyperlink	CTRL+K
Left justified	CTRL+L	New slide	CTRL+M
Center justified	CTRL+E	Spell checker	F7
Right justified	CTRL+R	Macros	ALT+F8
Promote list item	ALT+SHIFT+ Left arrow		

Run the slide show and press the F5 key to view all keyboard shortcuts applicable when running a slide show.

8.9 SUMMARY

In this lesson we have completed the process of learning Microsoft PowerPoint by studying all the tools for creating presentations.

We have discussed the tools for adding graphics and clipart; techniques for creating slide effects and slide master, we have also discussed some important design tips and presentation basics which generally prove very helpful while creating presentations. At last we have discussed some keyboard shortcuts, which help in saving time.

8.10- Key Words

Action button, Slide Animation, Slide Master, Graphics

8.10.1- Review Questions

8.10.2- Short Questions

1. What is the purpose of Slide Master?
2. What is the purpose of saving and printing Presentations?
3. What is the Purpose of Auto Shapes?
4. What is Slide Animation?

8.10.3-Long Questions

1. How graphics can be added to the Slides?
2. What are Slide Effects? How are they used?
3. Write a detail note on Auto shapes.

8.11 - SUGGESTED READINGS

1. Sams teach yourself Microsoft powerpoint 2003 in 24 hours by Tom bunzel.
2. Microsoft powerpoint2002 by Rachel Bunin.

Solutions to Self Check Exercise

[CHAPTER 8]

8.2.1-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.

8.2.2- 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

8.3.1- 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.

8.4.1- 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.

8.6.1-

- 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.
- Don't use dark backgrounds in a poorly-lit room or light backgrounds in a well-lit room. It's hard to read off such backgrounds.
- 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, and larger font size for emphasis within a sentence, or a different font all on the same slide.

FORMATTING THE WORKBOOK AND PERFORMING CALCULATIONS

STRUCTURE

- 9.1 Objective
- 9.2 introduction
- 9.3 Charts
- 9.4 Steps in Creating a Chart
- 9.5 Lesson Summary
- 9.6 Keywords
- 9.7 Review Question
- 9.8 Solution to Self Check Exercise

This chapter discusses the methods of creating and alter chart available in Excel. Charting is a veiy useful facility in Excel through which pictorial or graphical presentation of data is possible. In the lesson you will learn the creation, formatting, and printing of charts.

9.1 INTRODUCTION

One of Excel's major features is its ability to produce charts that illustrate and the numbers on the worksheets you produce. Chart and graphs are very effective ways of presenting data value, as these are precise and easily and readily understandable.

9.2 CHARTS

Excel has 15 types of charts or graphs, with many built-in formats. A chart can be created on a worksheet so that it appears alongside the data it represents (called an embedded chart), or as a separate sheet. Both embedded charts and separate chart sheets are linked to the worksheet data they were created from, and will be updated when you update the worksheet. To create a chart on a separate sheet, select the data to be charted and press F 11.

Note that attempting to chart data, which includes blanks rows, can lead to problems. Rather than using blank rows to separate text, it is better to change cell height and width as described in Section 5.1

9.3.1. Using the Chart Wizard

The Chart Wizard automates the creation of charts, using the following steps:

1. Select the data to be charted, including row or column headings to be used as labels.
you want the chart to appear and drag till the outline is the required Size.
2. Step 1 of 5 of the Chart Wizard will appear. Amend the range if it is incorrect, then click Next>.
3. Select the type of chart required from Step 2, then click Next>.
4. At Step 3, choose the format for the type of chart selected at Step 2, then click Next>.
5. At Step 4, if the chart is not as expected, change the column and row drop-down lists or, if this does not improve matters, click <Back and change the area for your
6. Click the Chart Wizard button.
7. Position the cross-hair pointer at the top left-hand corner of the location where

chart on Step 1, since that is where the likely problem lies. Click Next> when this screen is correct.

8. At Step 5, add in a title for the chart, and the titles for the X Axis (horizontal) and the Y Axis (vertical). Then click Finish and the chart will appear in the specified area of the worksheet.

9.3.2. Changing Charts

Clicking once on a chart selects it and places sizing handles around it so that you can change its location or size on the screen.

Clicking twice on a chart selects it (and puts a blue cross-hatch border around the chart) and also changes the Menu Bar to deal with charts. The right mouse button can also be used to make changes to the chart. Having double clicked on a chart, click once on an item (e.g. the chart title) to change the text or twice to change the layout, e.g. font, colour etc.

i. Deleting the Chart

Select the chart by clicking once so that black 'handles' appear and press the Delete key.

ii. Moving the Chart

To move the chart, select it by clicking once so that black 'handles' appear. Use the Srrrow pointer of the mouse to drag the chart to the new position.

iii. Re-Sizing the Chart

To re-size the chart, select it so that the black 'handles' appear, then drag on the handle appropriate to the new size. For example, to widen the chart, drag on the handle in the middle of the right-hand vertical line. Using the Shift key while dragging maintains the same proportions as the original chart,

iv. Changing Chart Type

The earliest way to xhange the type of chart in use is to display the chart toolbar, by selecting Toolbars from the view menu and selecting Chart. The first button displays a dropdown list of chart types; click on one of these and the chart will change to the newly selected type. Pointing the cursor at the buttons displays what each of them does.

v. Changing the Data in the Chart

Select the chart then click the ChartWizard button. At Step 1, re-define the range for the chart if necessary, then click Next>. Make any necessary changes to Step 2 then click Finish, and the new chart will be displayed.

vi. Creating Charts

Before you can draw a chart using Excel, the numbers that compose the chart must be entered in a workbook. There are five general steps in defining a chart.

[9.3]Self Check Exercise

Question 9.3.1- How to use the chart wizard?

9.3 STEPS IN CREATING A CHART

1. Enter the numbers' into a workbook.
2. Select the data to be charted.
3. Choose Chart from the Insert menu.
4. Choose either Chart Type from the Format menu or click on the Chart Wizard button.
5. Define parameters such as titles, scaling color, patterns, and legend.

These five steps should be performed in this order. Note that since the chart is linked to the workbook data, any subsequent changes made to the workbook are automatically reflected in the chart. We will make two charts the first chart will be a pie chart and the second

chart will be a column chart.

9.4.1 Creating a Pie Chart

Pie charts are used to show relative proportions of the whole, for one data series only. Data series are a group of related data points. A data point is a piece of information that consists of a category and value. For example, if you were collected data on how couples first meet, then the number of couples who met through friends would be a data point. In this case the category is “through friends” and the value is the number of couples who met that way.

When you create a chart with Excel, the categories are plotted along the horizontal or X-axis, while the values are plotted along the vertical or Y-axis.

Data series originate from single worksheet rows or columns. Each data series in a chart is distinguished by a unique color or pattern. You can plot one or more data series in a chart except for pie charts.

An example of a data series is the population of the United States over ten years. Each data point would be made up of a year (the category) and the population in that year (value). The first step in creating any chart is to enter the data on a workbook.

Find and open Excel 97 if it is not already open. Make sure your toolbars and formula bar is displayed. Open a new workbook. Save your workbook and name it “expenses”. Enter the following into your expenses workbook:

	A	B
1.	Weekly	
2.	Food	40
3.	Clothes	20
4.	School Supplies	15
5.	Bills	45
6.	Recreation	25
7.	Gas	10

Figure 9.1 : Workbook for creating chart

You will be using the ChartWizard to create your pie chart.

The ChartWizard is a series of dialog boxes that guides you through the steps required to create a new chart or modify settings for an existing chart.

When creating a chart with the ChartWizard, you can specify the worksheet range, select a chart type and format, and specify how you want your data to be plotted. You can also add a legend, a chart title, and a title to each axis.

There are two commands and two buttons that start the ChartWizard. The command you choose or the button you click will create either an embedded chart or a chart sheet.

An embedded chart is a chart object that has been placed on a worksheet and that is saved on that worksheet when the workbook is saved. When it is selected you can move and size it. When it is activated, you can select items and add data, and format, move, and size items in the chart.

A chart sheet is a sheet in a workbook containing a chart. When a chart sheet is created, it is automatically inserted into the workbook to the left of the worksheet it is based on. Then a chart sheet is activated, you can select items and add data, and format, move and size items in the chart. Select the data you just entered. Choose Chart from the Insert menu. Observe that the ChartWizard’s first dialog box appears as shown in figure 9.2 :



Figures 9.2 ; Chartwizard for selecting the chart type

You want a regular pie chart not a 3-D pie chart. Select the chart type : Pie and Click on the Next button. The following dialog should appear :

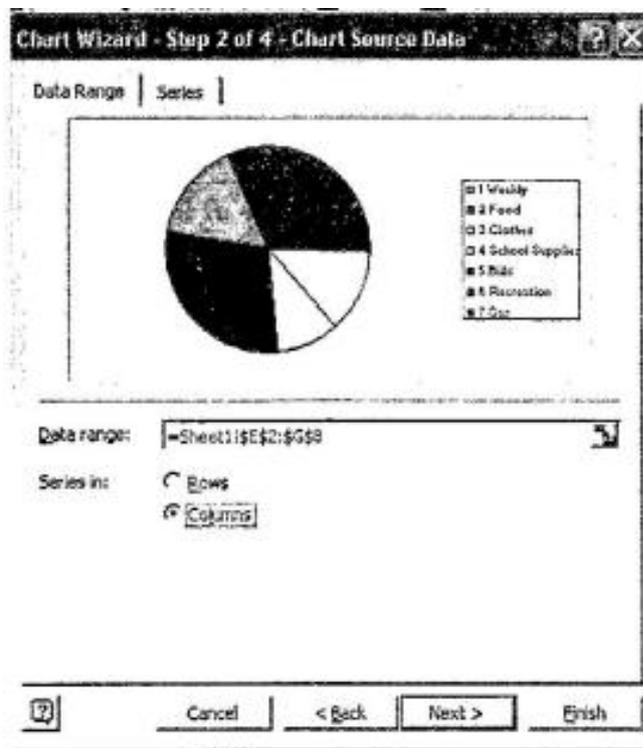


Figure 9.3 : Chartwizard for selecting range of cells

Read the dialog box, make sure the range is correct and then click the Next button. The following dialog should appear :

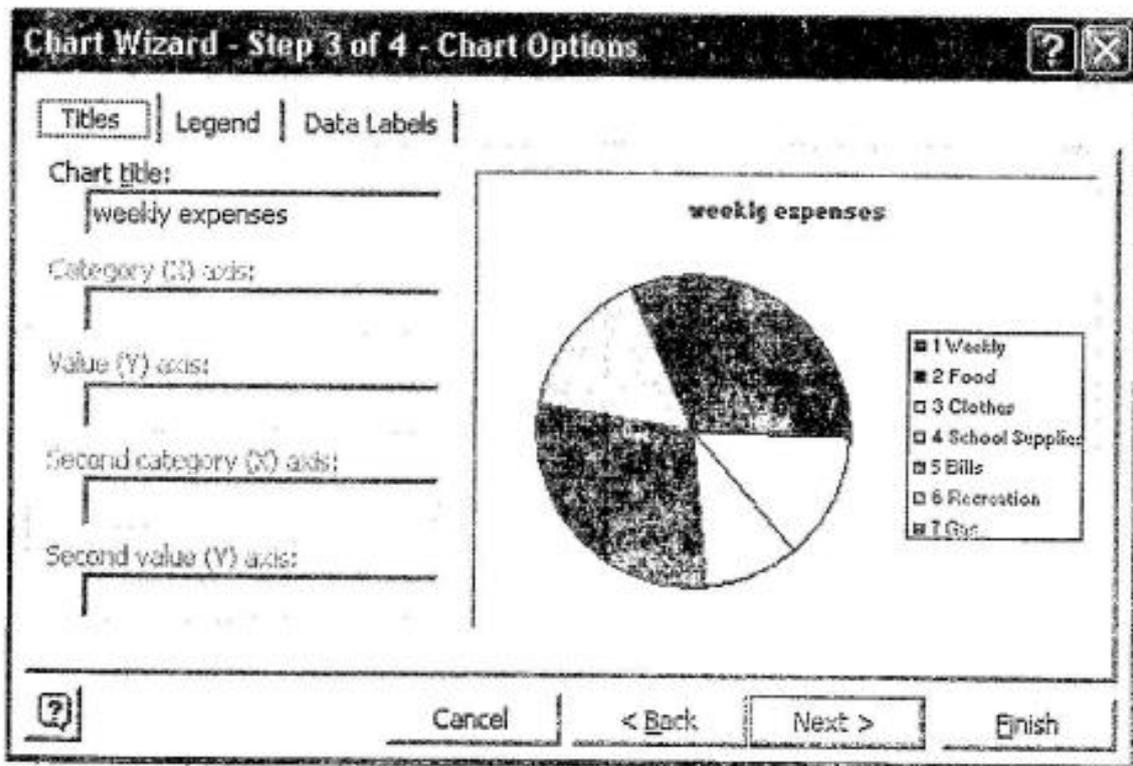


Figure 9.4 ; Chartwisard for selecting the chart options

Select the Titles tab and then enter “Weekly Expenses” as the chart title. Select the Legend tab and make the following adjustments :

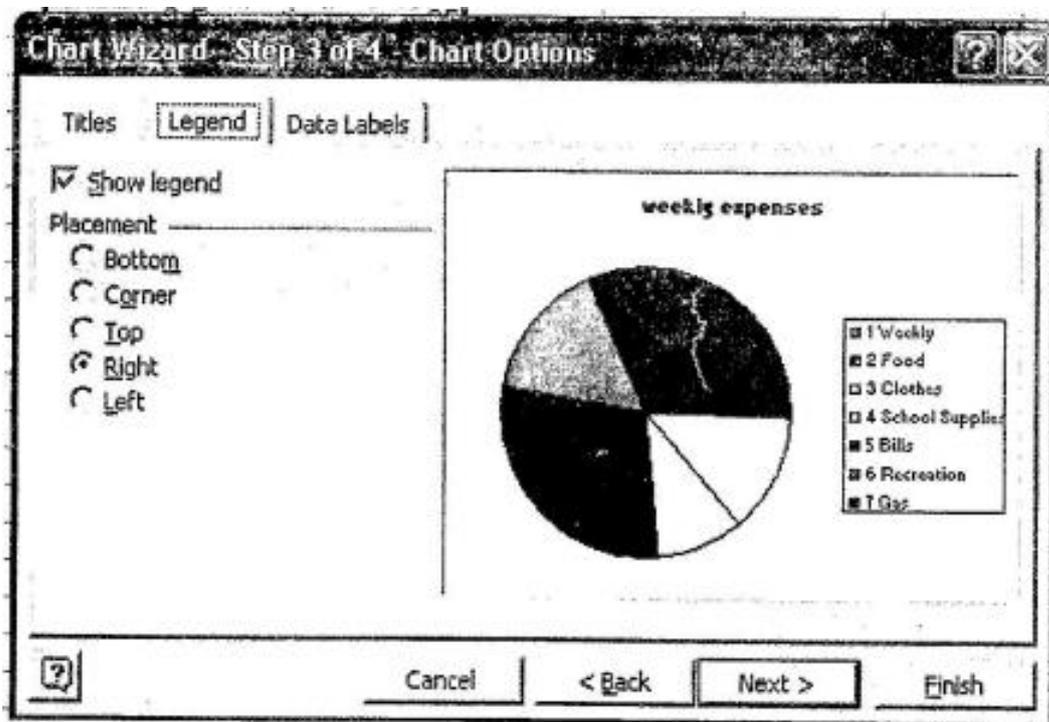


Figure 9.5 t Chartwizard for selecting the chart options

Select the Data Labels tab and select the following options:

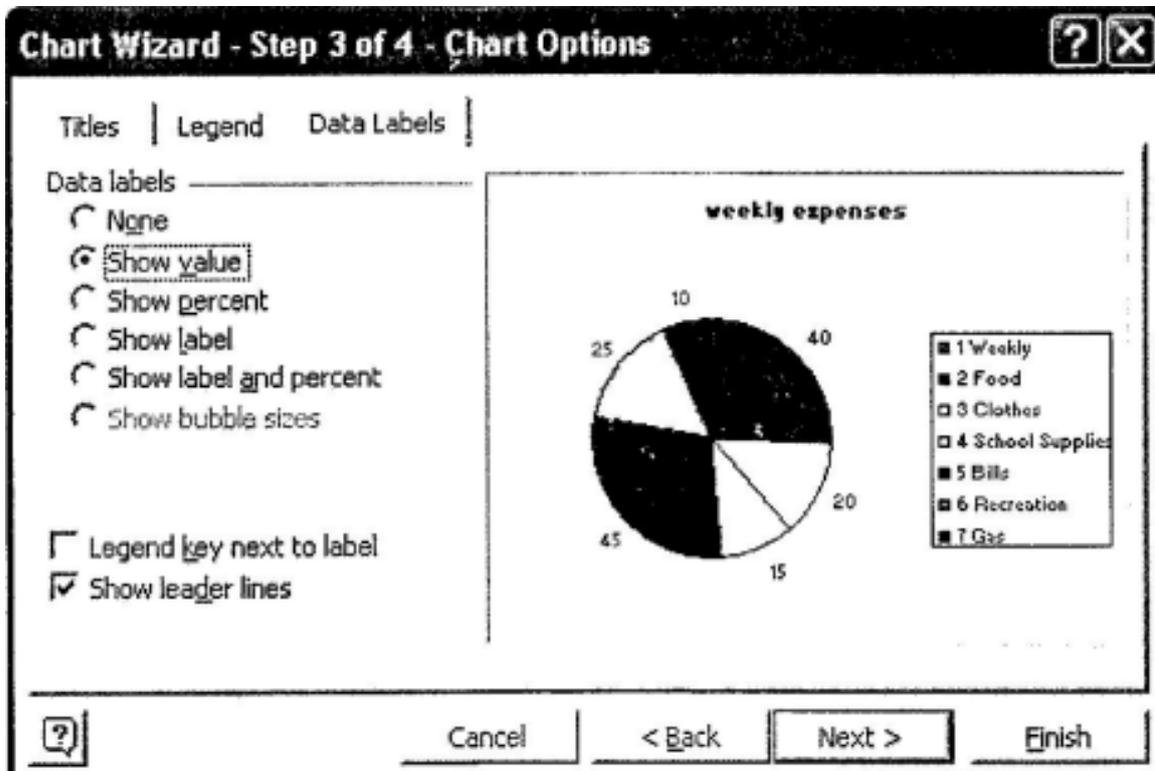


Figure 9.6 : Chartwizard for selecting the chart options

Select the following options and then click the Finish button.

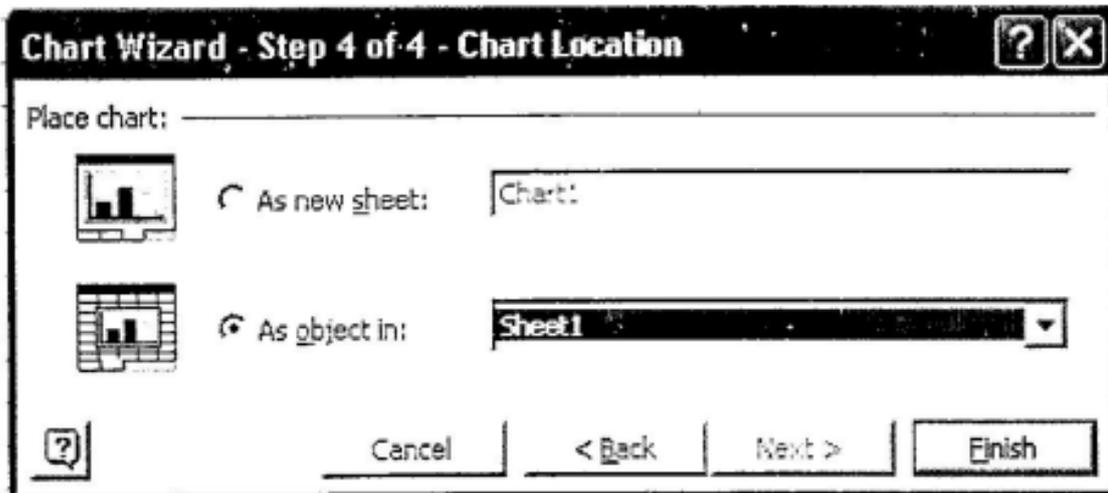
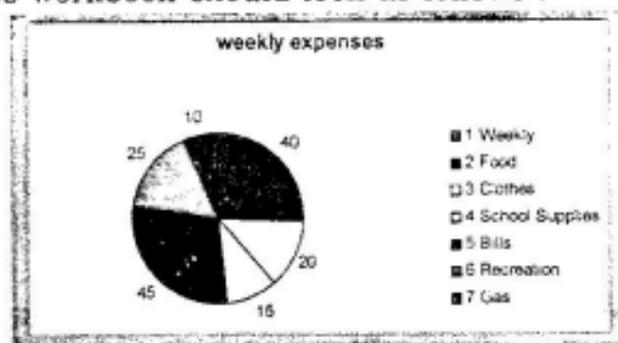


Figure 9.7 : Chartwizard for selecting the chart location

Your expenses workbook should look as follows :



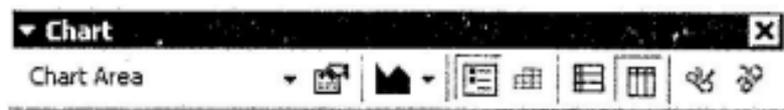


Figure 9.8 : View of the created pie chart

Once you complete the ChartWizard, Excel displays the new chart sheet, the Chart toolbar, and the chart menu bar. Note that if the chart toolbar is not displayed, simply choose Toolbars from the View menu and check of the chart box. The chart menu bar is similar to the worksheet menu bar, except the Insert and Format menus have some different commands. Now that the initial chart is created, it is time to learn how to format it.

9.4.2 Formatting a Chart

Before we can discuss the details of how to edit and format a chart, you need to know how to activate the chart and select items in the chart using a mouse.

9.4.3 Activating a Chart Sheet

When you activate a chart, the chart menu commands become available and the Chart toolbar is displayed. To activate a chart sheet, select the chart sheet tab you want. Select the chart sheet tab to activate the pie chart.

Once a chart is active, you can use the mouse to select chart items one at a time. To confirm what you have selected, refer to the name box on the formula bar.

Note that many items in a chart are grouped together. For some grouped items, such as data series, you click once to select the entire group, and then click the individual item you want to select within the group. The following list is an brief overview on how to select items in a chart using a mouse.

9.4.4 Selecting Items In a Chart Using a Mouse

To select one of the following items in an Excel chart:

- * Data series - click any data marker belonging to a data series.
- * Pie slice - select the pie ring, and then click the slice.
- * Data labels - click any data label associated with a data series.
- * Single data label - select che data labels, and then click an individual label. Legend - click anywhere in the legend, or click its border.

Single legend entry- select the legend, and then click the legend entry.

Title - click the i hart title, axis title, or text box.

Axis - click the axis or a tick-mark label to format or modify the axis. Let's change the colors of the pie slices. Select the Pie ring. Your pie chart should look similar to the following :

10

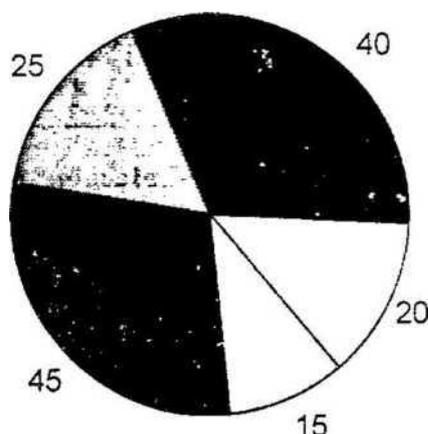


Figure 9.9 : Chartwizard for selecting the chart options

Select the 29% pie slice.

Observe :

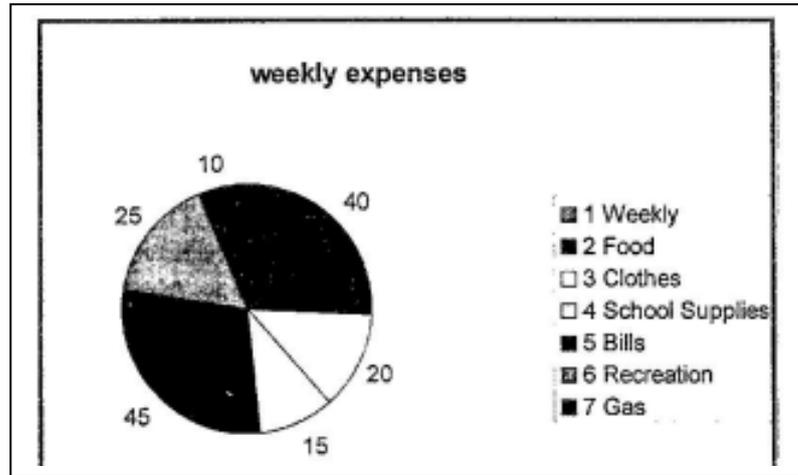


Figure 9.10 : Chartwizard for selecting the chart options

Choose Selected Data Point from the Format menu. The following Format Data Point dialog box should appear:

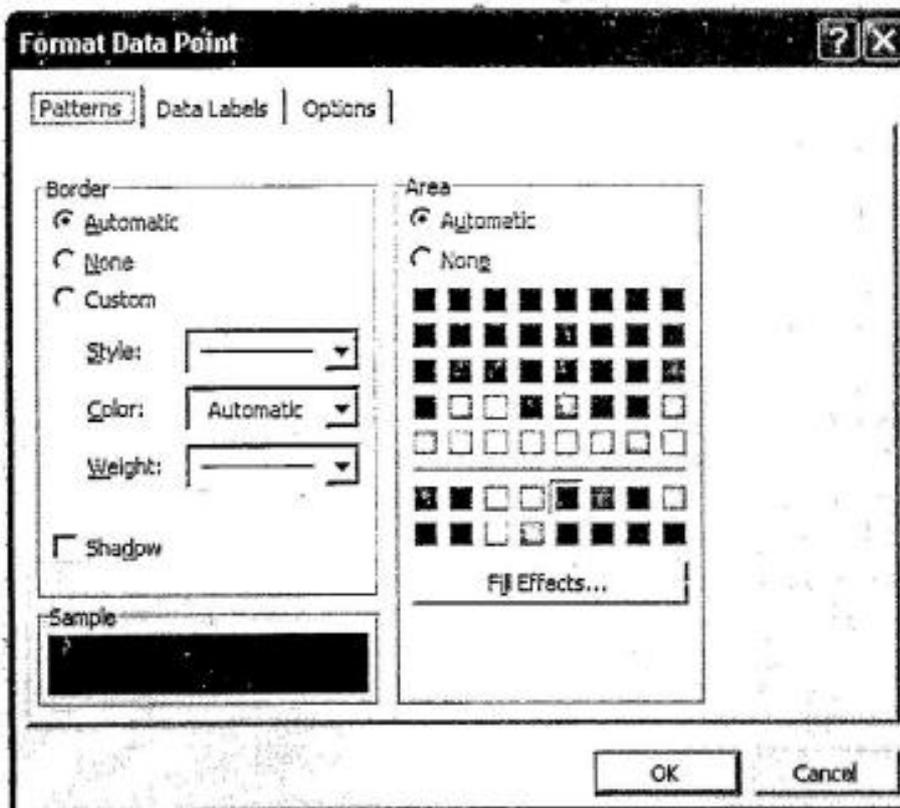
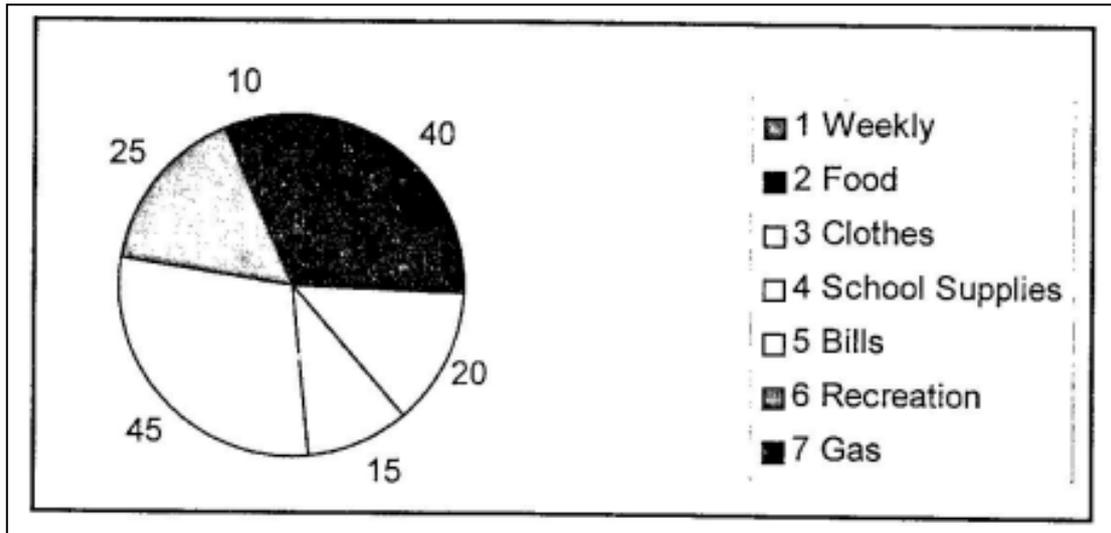


Figure 9.11 : Chartwizard for selecting the chart options

Select the Patterns tab and choose a different color and pattern for the slice. Select another pie slice and change its color. Select the chart title.

Observe :



Choose a different color from the Font Colour button (). Select the chart. Observe the ChartWizard toolbar that is displayed on your screen. There is a Legend button located on the toolbar. If you want to add or delete a legend to a chart just press that button.

Now that you have completed your weekly expenses pie chart let's print it out. Before you print it out let's preview it. Save all your changes. Choose Print Preview from the File menu.

Make sure that the text : Page 1 and Chart 1 is not displayed, if this text appears the layout of the page must be set.

Click on the Close button. Choose Page Setup from the File menu. Within the Page SetUp dialog box select the Header/Footer tab.

Observe

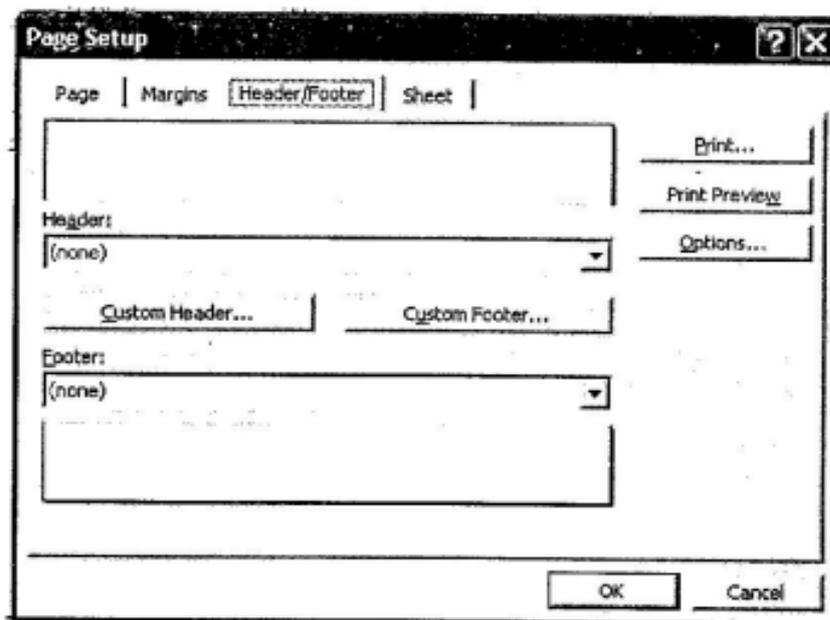


Figure 9.13 : Chartwizard for selecting the chart options

Within the Header/Footer box select none from the Header and Footer pull-down menus. This will clear the text : Chart 1 at the top of your pie chart and it will also clear the text : Page 1 at the bottom of your pie chart.

Within the Page Setup dialog box, select the Chart tab and select the following setting :

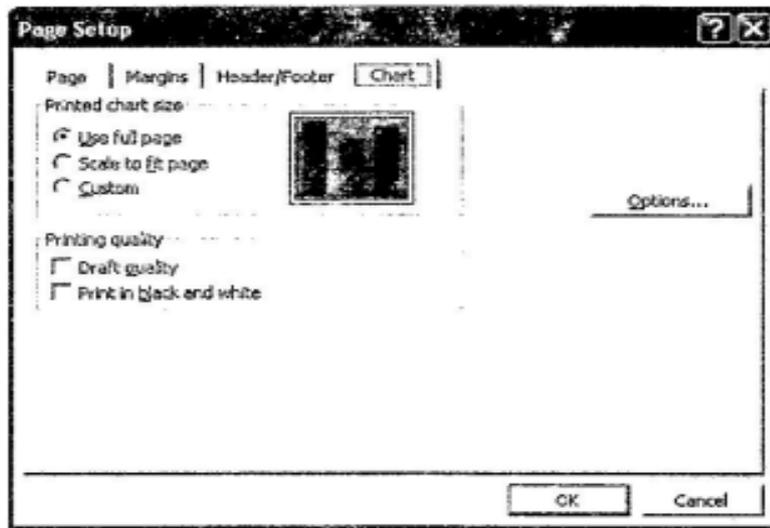


Figure 9.14 : Chartwizard for selecting the chart options

Click on the OK button. Click on the Print button.

9.4,5 Column Chart :

Now for creating a column chart Create a worksheet that looks as follows;

Month	General	Business	
Jan	225	12	
Feb	747	748	
Mar		422	
Apr	987	991	
May	45	211	
Jun	789	1000	
Jul	142	345	
Aug	55	881	
Sep	640	33	
		

Figure 9.15 : Chartwizard for selecting the chart options

Select the data to be charted. Choose Chart from the Insert menu. The following should appear on your screen :

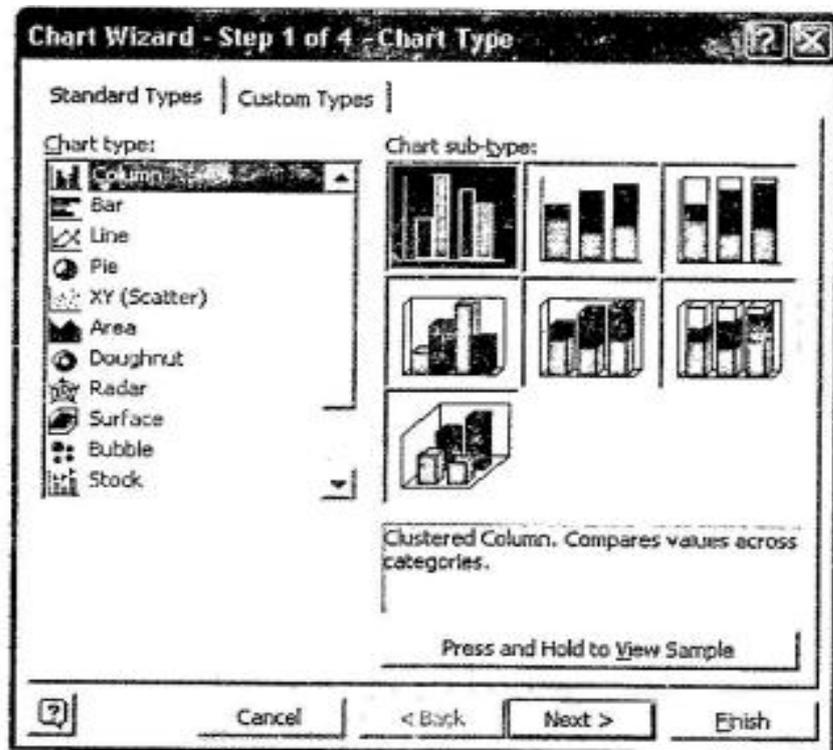


Figure 9.16 : Chart wizard for selecting the chart options

Choose the chart type : Column and click on the Next button. Choose following format type and click on the Next button. The following should appear on your screen :

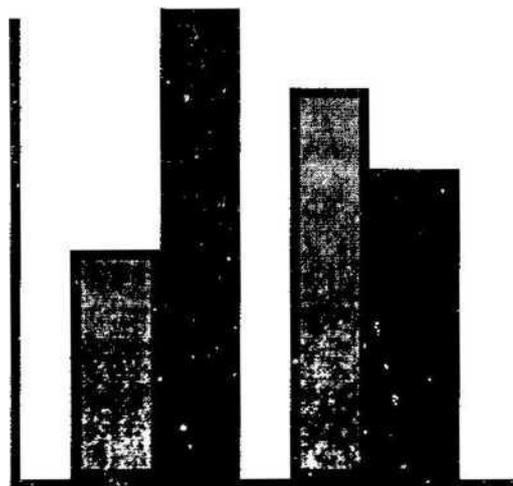


Figure 9.17 : Chart wizard for selecting the chart options

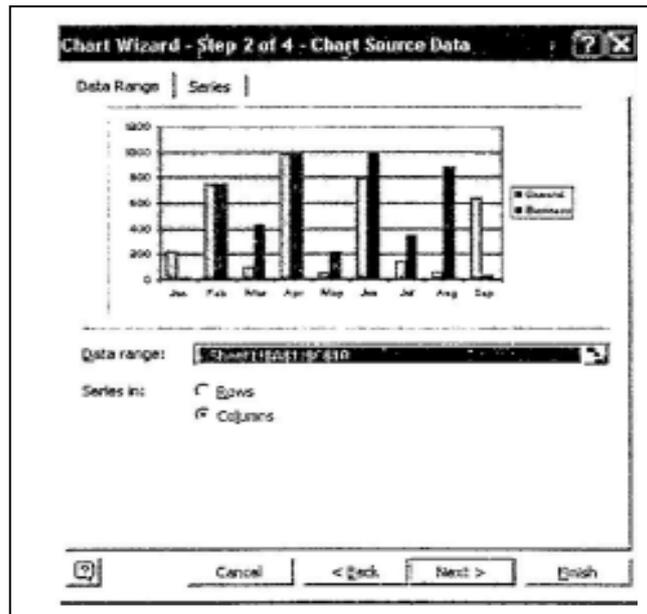
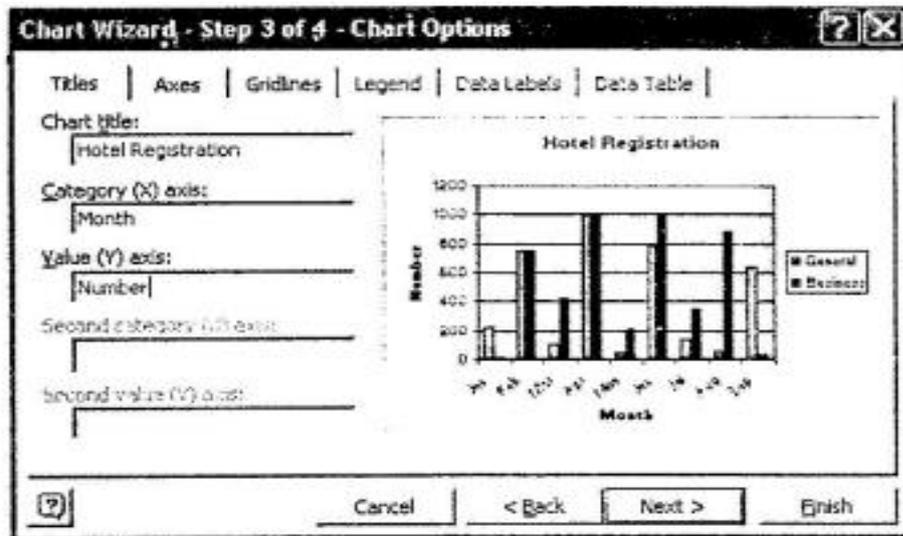


Figure 9.18 : Chartwizard for selecting the chart options

If the range is correct, click on the Next button. Insert the following on the titles tab and click the Next button.

Observe :



9.19 : Chartwizard for selecting the chart options

Select the following options and click the Finish button.

Observe :

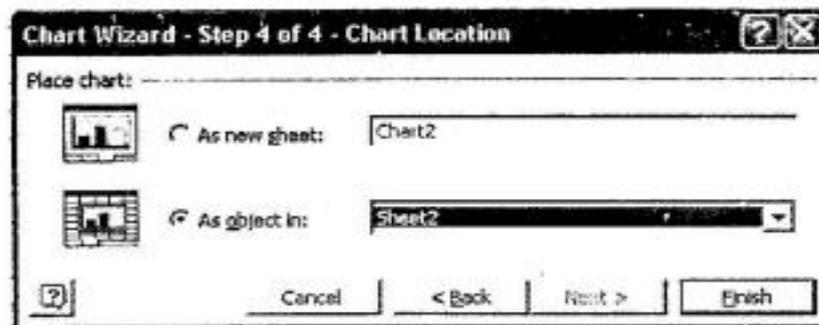


Figure 9.20 : Chartwizard for selecting the chart options

Your column chart should look as follows

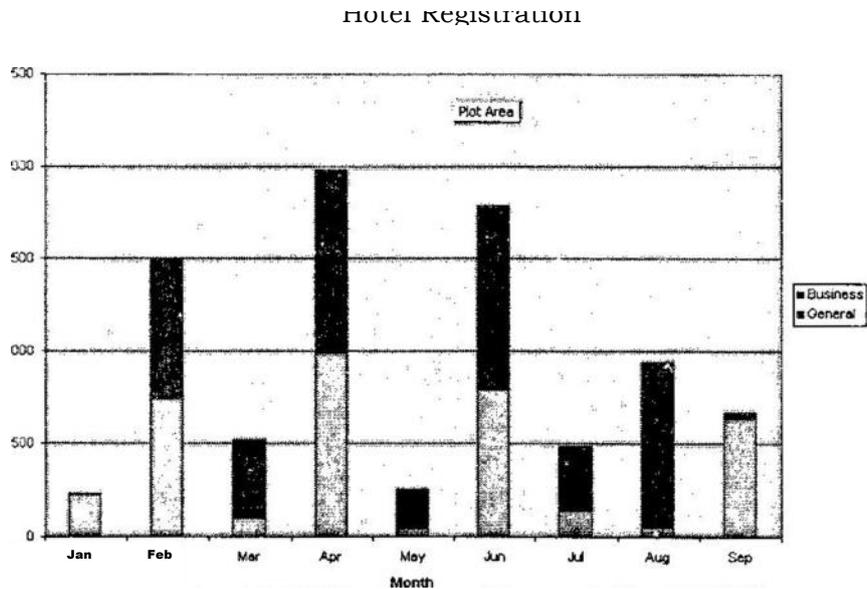


Figure 9.21 : Chartwizard for selecting the data options

Let's format the column chart. Select the business (data series) columns and make them yellow. Select the general (data series) columns and make them green. Your column chart should look similar to the following :

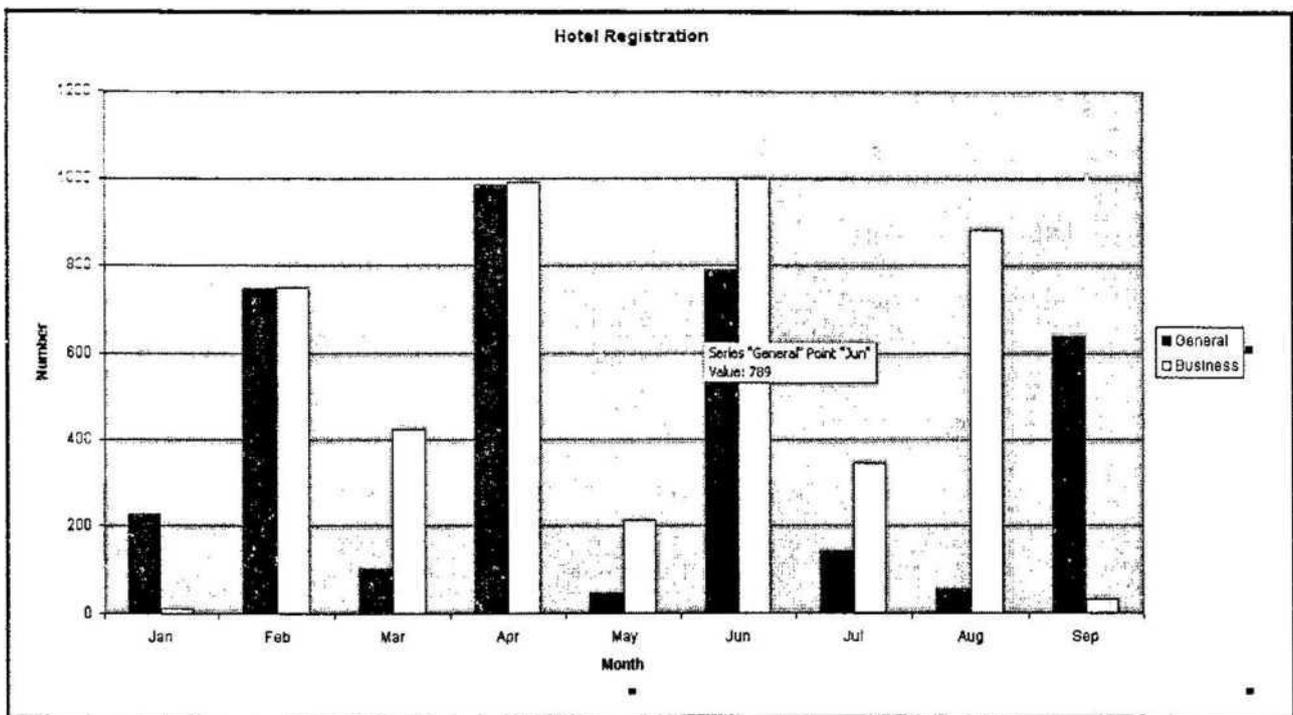


Figure 9.22 : Chartwizard for selecting the chart options

Select a grid line and choose Selected Gridlines from the Format menu. The following Format Gridlines dialog should appear :

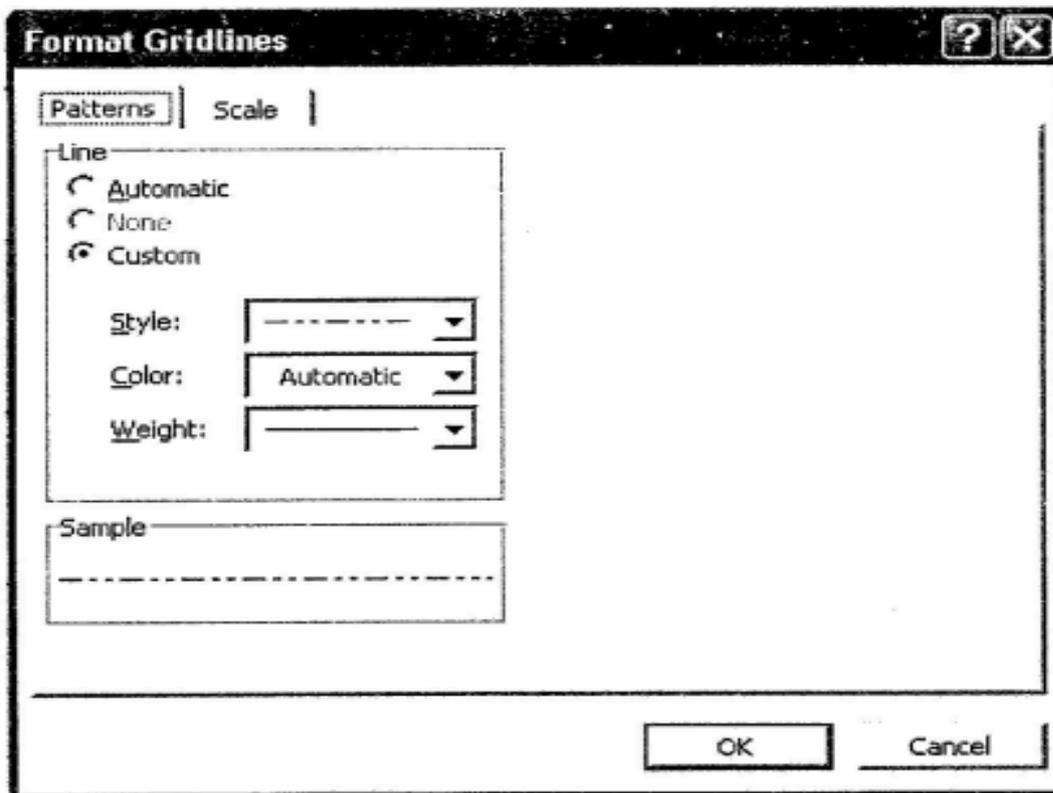


Figure 9.23 : Chartwizard for selecting the chart options

Choose a different style for the line and click OK button. Lastly, let's change the alignment of the text that makes up the months. Select the X-axis. Choose selected Axis from the Format menu. Within the Format Axis dialog box click on the Alignment tab. Select the following options and click the OK button.

Observe :

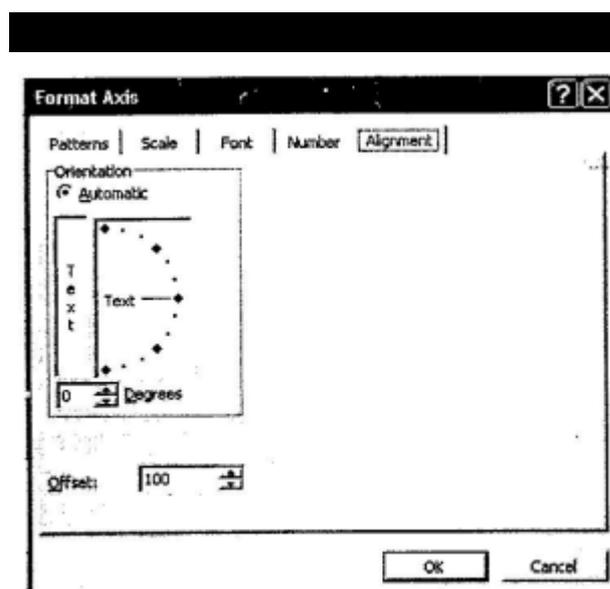


Figure 9.24 : Chartwizard for selecting the chart options

Y:t:r ctlnm chart should look similar to the following :

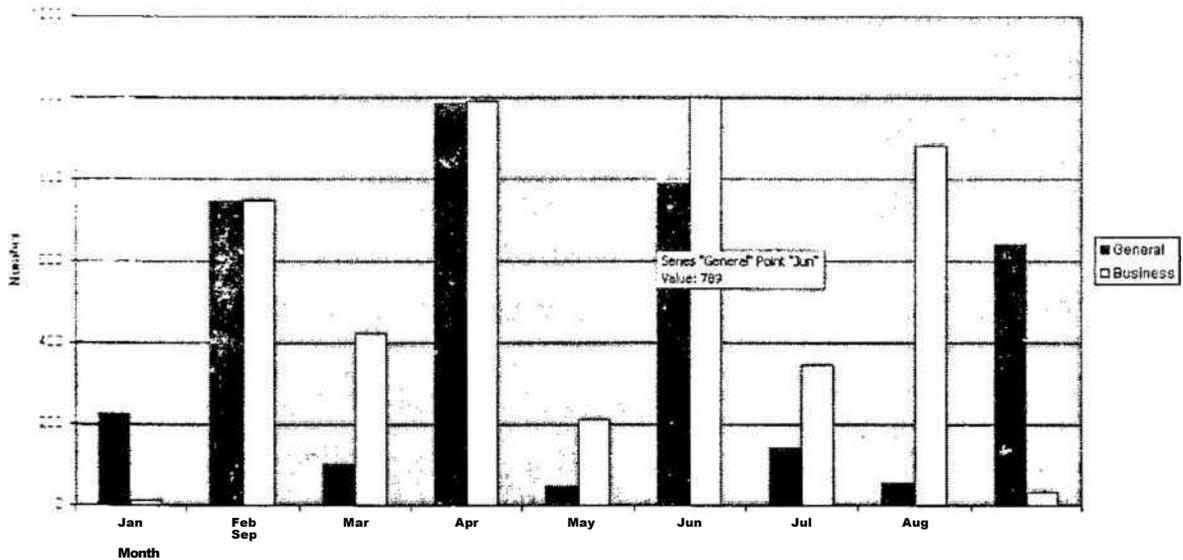


Figure 9.25 : Chartwizard for selecting the chart options

Preview your chart.

Clear the Chart 2 and Page 1 text in the Header and Footer respectively using the Page Setup command.

[9.4]Self Check Exercise

- Question 9.4.1- What are the various steps while creating a CHART?
- Question 9.4.2- How to select items in a Chart using a Mouse?

9.4 LESSON SUMMARY

To create a chart on a separate sheet, select the data to be charted and press F11. Click the Chartwizard button. Select the type of chart required from Step 2, then click Next>. At Step 3. choose the format for the type of chart selected at Step 2, then click Next>. Clicking twice on a chart selects it (and puts a blue cross-hatch border around the chart) and also changes the Menu Bar to deal with charts. The easiest way to change the type of chart in use is to display the chart toolbar, by selecting Toolbars from the View menu and selecting Chart. Select the chart then click the Chartwizard button. Select the data to be charted. Choose Chart from the Insert menu. Choose either Chart Type from the Format menu or click on the ChartWizard button.

You can plot one or more data series in a chart except for pie charts. The command you choose or the button you click will create either an embedded chart or a chart sheet.

A chart sheet is a sheet in a workbook containing a chart. Choose Chart from the Insert menu. You want a regular pie chart not a 3-D pie chart. Select the chart type : Pie and click on the Next button.

Once you complete the Chartwizard, Excel displays the new chart sheet, the Chart toolbar and the chart menu bar. When you activate a chart, the chart menu commands become available and the Chart toolbar is displayed. To activate a chart sheet, select the chart sheet tab you want. Select the chart sheet tab to activate the pie chart.

- Data Series - click any data marker belonging to a data series.
- Data labels - click any data label associated with a data series.
- Title- click the chart title, axis title, or text box.

Select the Pie ring. Choose Selected Data Point from the Format menu.

Select the Chart title.

For creating a column chart select the data to be charted. Choose Chart from the Insert menu. Choose the chart type : Column and click on the Next button and follow the same steps as were followed while creating a bar chart.

9.6- Key Words

Charts, Activating a Chart Sheet, Changing Chart Type, Changing Charts, Changing Data in Chart, Chart Wizard, Column Chart, Creating Charts, Deleting the Chart, Formatting a Chart, Moving the Chart, Pie Chart, Re-Sizing the Chart.

9.7- Review Questions

9.7.1- Short Questions

- 1.What are the various charts and graphs available in MS Excel
- 2.What are legends?
- 3.How to use the chart wizard?

9.7.2- Long Questions

- 1.Is it possible to change the type of the chart once it has been created? If yes, then how can it be done?
- 2.How can we define titles for x-axis and y-axis?
- 3.How headers and footers can be inserted in a chart sheet?
4. How chart sheets can be activated?

9.8-SUGGESTED READINGS

1. Windows Based Computer Courses, G. Singh and R. Singh, Kalyani Publishers.
2. Mastering Excel 97 for Windows, Carl Townsend, BPB Publications.

Solutions to Self Check Exercise

[CHAPTER 9]

9.3.1 -The Chart Wizard automates the creation of charts, using the following steps:

1. Select the data to be charted, including row or column headings to be used as labels.
2. Step 1 of 5 of the Chart Wizard will appear. Amend the range if it is incorrect, then click Next>.
3. Select the type of chart required from Step 2, then click Next>.
4. At Step 3, choose the format for the type of chart selected at Step 2, then click Next>.
5. At Step 4, if the chart is not as expected, change the column and row drop-down lists or, if this does not improve matters, click <Back and change the area for your chart on Step 1, since that is where the likely problem lies. Click Next> when this screen is correct.
6. Position the cross-hair pointer at the top left-hand corner of the location where you want the chart to appear and drag till the outline is the required Size
7. At Step 5, add in a title for the chart, and the titles for the X Axis (horizontal) and the Y Axis (vertical). Then click Finish and the chart will appear in the specified area of the worksheet.

9.4.1- 1.Enter the numbers' into a workbook.

- 2.Select the data to be charted.
- 3.Choose Chart from the Insert menu
- 4.Choose either Chart Type from the Format menu or click on the Chart Wizard button.
- 5.Define parameters such as titles, scaling color, patterns, and legend.

9.4.2- To select one of the following items in an Excel chart:

Data series - click any data marker belonging to a data series.

Pie slice - select the pie ring, and then click the slice.

Data labels - click any data label associated with a data series.

Single data label - select che data labels, and then click an individual label. Legend - click anywhere in the legend, or click its border.

Lesson No. 10

AUTHOR: VIKAS SINGLA

PIVOTTABLE REPORTS AND SCENARIOS FOR WHAT-IF ANALYSIS

STRUCTURE

- 10.1** Overview of PivotTable reports
 - 10.1.1** About PivotTable reports
- 10.2** Ways to work with a PivotTable
 - 10.2.1** Explore the data
 - 10.2.2** Change the Layout
 - 10.2.3** Change the Format
- 10.3** Create a PivotTable
- 10.4** Example
- 10.5** Scenarios for what-if analyses
- 10.6** Overview
 - 10.6.1** Create a scenario
 - 10.6.2** Display a scenario
 - 10.6.3** Create a scenario summary report
- 10.7** Example
- 10.8** Review Questions
- 10.9** Suggested Reading
- 10.10** Solution to Self Check Exercise
- 10.1** OVERVIEW OF PIVOT TABLE REPORTS

Pivot Table report is used to summarize, analyze, explore, and present summary data and PivotChart report is used to visualize this summary data in a PivotTable report, and to easily see comparisons, patterns, and trends. Both a PivotTable report and a PivotChart report enable you to make informed decisions about critical data in your enterprise. The following sections provide an overview of PivotTable reports and PivotChart reports.

10.1.1 About PivotTable reports

A PivotTable report is an interactive way to quickly summarize large amounts of data. Use a PivotTable report to analyze numerical data in depth and to answer unanticipated questions about your data. A PivotTable report is especially designed for:

- Querying large amounts of data in many user-friendly ways.
- Subtotaling and aggregating numeric data, summarizing data by categories and subcategories, and creating custom calculations and formulas.
- Expanding and collapsing levels of data to focus your results, and drilling down to details from the summary data for areas of interest.
- Moving rows to column or columns to rows (or "pivoting") to see different summaries of the source data.
- Filtering, sorting, grouping, and conditionally formatting the most useful and interesting subset of data to enable you to focus on the information that you want.
- Presenting concise, attractive, and annotated online or printed reports.

You often use a PivotTable report when you want to analyze related totals, especially when you have a long list of figures to sum and you want to compare several facts about each figure. In the PivotTable report illustrated below, you can easily see how the third-quarter golf

sales in cell F3 compare to sales for another sport, or quarter, or to the total sales.

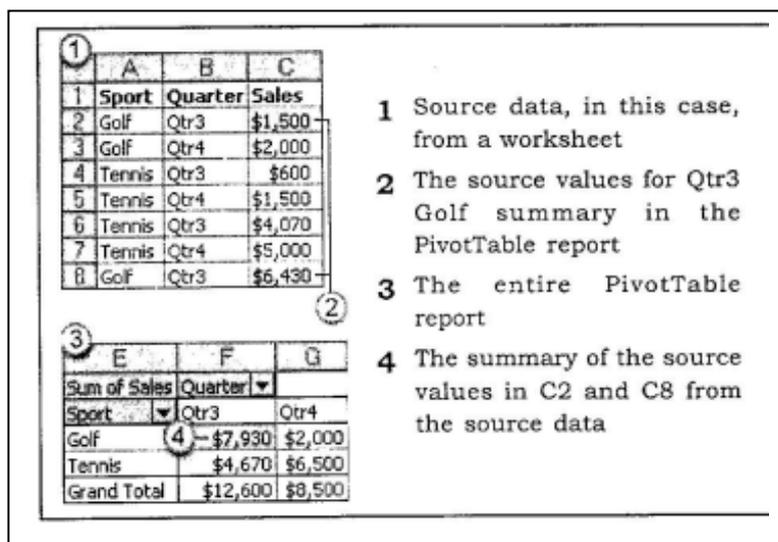


Figure 10.1

In a PivotTable report, each column or field in your source data becomes a PivotTable field that summarizes multiple rows of information. In the preceding example, the Sport column becomes the Sport field, and each record for Golf is summarized in a single Golf item. A value field, such as Sum of Sales, provides the values to be summarized. Cell F3 in the preceding report contains the sum of the Sales value from every row in the source data for which the Sport column contains Golf and the Quarter column contains Qtr3. By default, data in the Values area summarize the underlying source data in the PivotTable report in the following way: numeric values use the SUM function, and text values use the COUNT function. To create a PivotTable report, you must define its source data, specify a location in the workbook, and lay out the fields. For more information, see Create or delete a PivotTable or PivotChart report and Create and change the field layout in a PivotTable or PivotChart report.

[10.1]Self Check Exercise

Question 10.1.1- Write About Pivot table reports?

10.2 WAYS TO WORK WITH A PIVOTTABLE

After you create the initial PivotTable report by defining the data source, arranging fields in the PivotTable field List, and choosing an initial layout, you often do the following tasks when working with a PivotTable report :

10.2.1 Explore the data by doing the following:

- Expand and collapse data, and show underlying details of values.
- Sort, filter, and group fields and items.
- Change summary functions, and add custom calculations and formulas.

10.2.2 Change the layout by doing the following:

- Change the PivotTable report form: compact, outline, or tabular.
- Display subtotals above or below their rows.
- Move a column field to the row area or a row field to the column area.
- Change how errors and empty cells are displayed, and change how items and labels with no data are show.

- Change the order of fields or items, and add, rearrange, and remove fields.
 - Adjust column widths on refresh.
- « Turn column and row field headers on or off, or display or hide blank lines.

10.2.3 Change the format by doing the following :

- Manually and conditionally format cells and ranges.
- Change the overall PivotTable format style.
- Change the number format for

10.3 Create a PivotTable

To create a PivotTable, you need to connect to a data source and enter the report's location.

1. Select a cell in a range of cells, or put the insertion point inside of a Microsoft Office Excel table.

Make sure that the range of cells has column headings.

2. Do one of the following :

- To create a PivotTable report, on the Insert tab, in the Tables group, click PivotTable, and then click PivotTable.

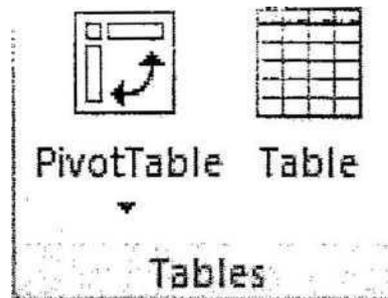


Figure 10.2

The Create PivotTable dialog box is displayed.

3. Select a data source. Do one of the following:

- Choose the data that you want to analyze
- Click Select a table or range.
- Type the range of cells or table name reference, such as ^Quarterly Profits, in the Table/Range box.

If you selected a cell in a range of cells or if the insertion point was in a table before you started the wizard, the range of cells or table name reference is displayed in the Table/ Range box.

- Enter a location.
- To place the PivotTable report in a new worksheet starting at cell A1, click New Worksheet.
- To place the PivotTable report in an existing worksheet, select Existing Worksheet, and then type the first cell in the range of cells where you want to locate the PivotTable report.
- Click OK.

An empty PivotTable report is added to the location that you entered with the PivotTable Field List displayed so that you can start adding fields, creating a layout, and customizing the PivotTable report.

[10.3]Self Check Exercise

Question 10.3.1- How to create a PivotTable?

10.4 EXAMPLE

A pivot table is a great reporting tool that sorts and sums independent of the original data layout in the spreadsheet.

- First, create some data, with 4 or 5 different names, 4 or 5 different activities and a little variety of week numbers and expenses:

Add as many rows as you can stand — around 50 will do.

Who	Week	What	Amount
Joe	3	Beer	18
Beth	4	Food	17
Janet	5	Beer	14
Joe	3	Food	12
Joe	4	Beer	19
Janet	5	Car	12
Joe	3	Food	19
Beth	4	Beer	15
Janet	5	Beer	19
Joe	3	Car	20
Joe	4	Beer	16
Beth	5	Food	12
Beth	3	Beer	16
Joe	4	Food	17
Joe	5	Beer	14
Janet	3	Car	19
Joe	4	Food	17
Beth	5	Beer	20
Janet	3	Food	18
Joe	4	Beer	14
Joe	5	Food	12
Janet	3	Beer	18
Janet	4	Car	17
Janet	5	Food	12

choose any cell in this table and choose Pivot Table wizard in the Data menu. Excel asks for the data source and suggests this table. Click OK.

- Next question is the data range. Excel suggests the table. If you expect to add data in the future, set the data range to include as many rows as you think you will ever need. Rather than A1:D50, you may want to specify \$A\$1:\$D\$500.
- * Now comes the layout wizard, 'shown below :

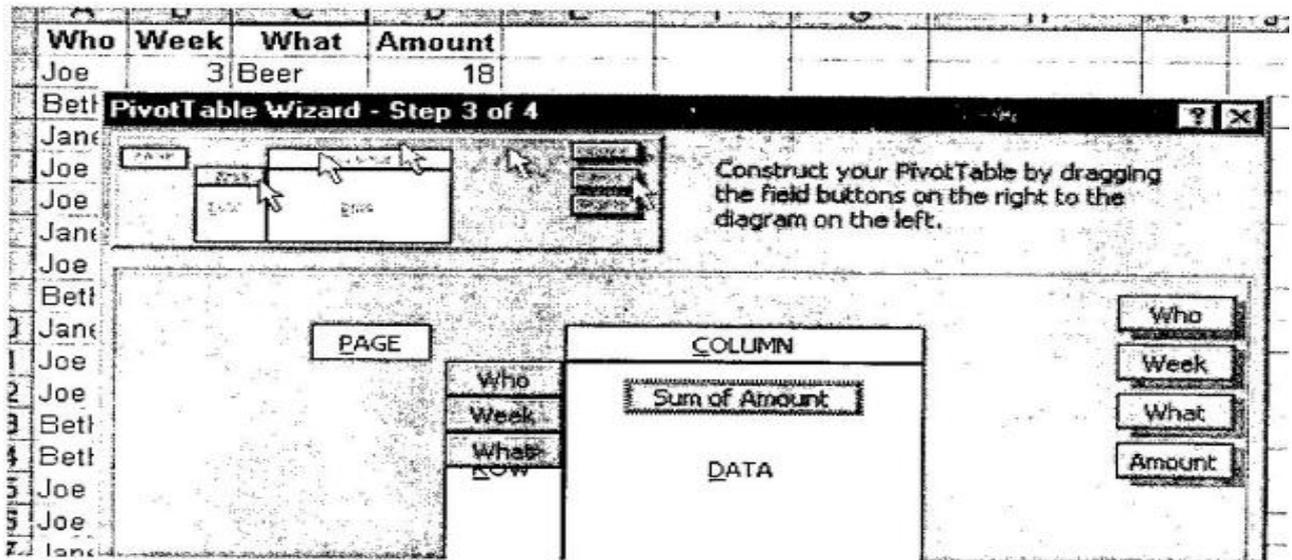


Figure 10.3

Drag the headers Who, Week and What into the ROW area, and the Amount header into the Data area. (Leave the Column area blank for now.) If the Amount tag does not show "Sum of Amount", double-click it and choose the Sum option. Finally Excel asks if the table should be placed in a new worksheet. Click OK.

Now you have your table, and it looks very much like a sorted version of the original data list, except from the automatic subtotals.

1	Sum of Amount			
2	What	Who	Weeknumber	Total
3	Beer	Beth	3	16
4			4	15
5			5	20
6		Janet	3	18
7			5	33
8		Joe	3	18
9			4	49

Figure 10.4

Grab the What header in the table and drag it all the way to the left. When you drop it here, the table re-sorts and re-sums; you have a table of beer costs by person instead. Now drag the Week header to the left and you- have a weekly report. Double-clicking the headers gives options of showing/hiding specific data (like Empty and Beer' may come in handy) and removing subfotalling for this column. Right-clicking gives other options, among them Hide and Show Detail for reading totals only.

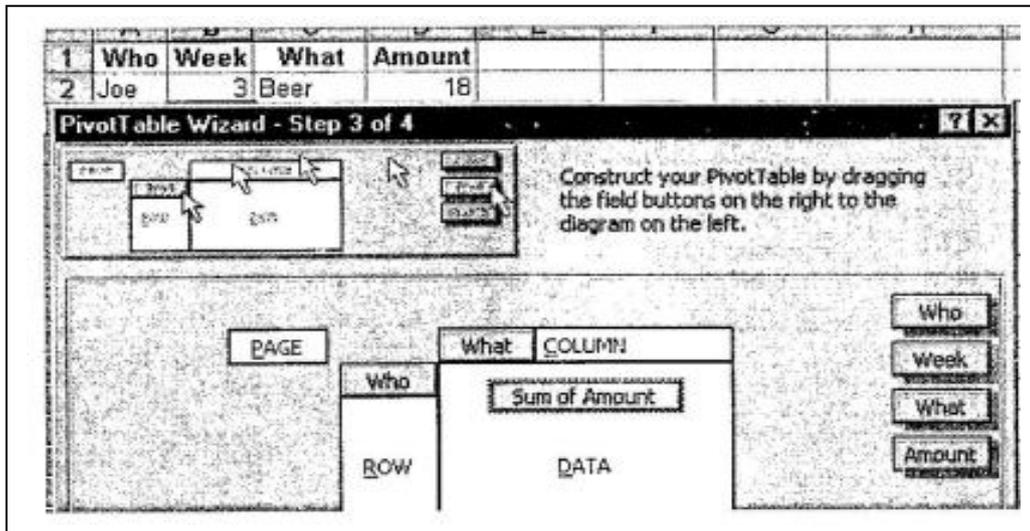


Figure 10.5

- Here comes another useful pivot, made from the same list. Select any item in the original data list and choose Pivot Table wizard again. This time, drag Who into the Row field, What into the Column field and Amount into the Data field.

10.5 SCENARIOS FOR WHAT - IF ANALYSES

Scenarios are part of a suite of commands sometimes called what-if analysis (what-if analysis: A process of changing the values in cells to see how those changes affect the outcome of formulas on the worksheet. For example, varying the interest rate that is used in an amortization table to determine the amount of the payments.) tools. A scenario is a set of values that Microsoft Office Excel saves and can substitute automatically on your worksheet. You can use scenarios to forecast the outcome of a worksheet model. You can create and save different groups of values on a worksheet and then switch to any of these new scenarios to view different results.

10.6 OVERVIEW

Creating scenarios : For example, you might want to use a scenario if you want to create a budget but are uncertain of your revenue. With a scenario, you can define different values for the revenue and then switch between the scenarios to perform what-if analyses.

	A	B
1	Gross Revenue	\$50,000
2	Cost of Goods Sold	\$13,200
3	Gross Profit	\$36,800

Figure 10.6

In the example above, you can name the scenario Worst Case, set the value in cell B1 to \$50,000, and set the value in cell B2 to \$13,200.

	A	B
1	Gross Revenue	\$150,000
2	Cost of Goods Sold	\$26,000
3	Gross Profit	\$124,000

Figure 10.7

You can name the second scenario Best Case and change the values in B1 to \$150,000 and in B2 to \$26,000.

Scenario summary reports : To compare several scenarios, you can create a report that summarizes them on the same page. The report can list the scenarios side by side or summarize them in a PivotTable report.

10.6.1 Create a scenario

- On the Data tab, in the Data Tools group, click What-If Analysis, and then click Scenario Manager.
- Click Add.
- In the Scenario name box, type a name for the scenario.
- In the Changing cells box, enter the references for the cells that you want to change.
 - Under Protection, select the options that you want.
 - Click OK.
 - In the Scenario Values dialog box, type the values that you want for the changing cells.
 - To create the scenario, click OK.
 - If you want to create additional scenarios, repeat the above steps. When you finish creating scenarios, click OK, and then click Close in the Scenario Manager dialog box.

10.6.2 Display a scenario

When you display a scenario, you change the values of the cells that are saved as part of that scenario.

- On the Data tab, in the Data Tools group, click What-If Analysis, and then click Scenario Manager.
- Click the name of the scenario that you want to display.
- Click Show.

10.6.3 Create a scenario summary report

- On the Data tab, in the Data Tools group, click What-If Analysis, and then click Scenario Manager.
- Click Summary.
- Click Scenario summary or Scenario PivotTable report.
- In the Result cells box, enter the references for the cells that refer to cells whose values are changed by the scenarios. Separate multiple references with commas.

[10.6]Self Check Exercise

Question 10.6.1- How to Display a scenario?

Question 10.6.2- How to create a Scenario summary report?

10.7 EXAMPLE

Scenarios come under the heading of "What-If Analysis" in Excel 2007. They are similar to tables in that you are changing values to get new results. For example, What if I reduce the

amount I'm spending on food? How much will I have left then? Scenarios can be saved, so that you can apply them with a quick click of the mouse.

An example of a scenario you might want to create is a family budget. You can then make changes to individual amounts, like food, clothes, or fuel, and see how these changes effect your overall budget. We'll see how they work now, as we tackle a family budget. So, create the spreadsheet below :

	A	B	C	D	E	F
1	The Family Budget					
2		OUTGOINGS		INCOME		
3	Mortgage	440		1200		
4	Fuel Bills	85				
5	Council Tax	45				
6	Credit Cards	29				
7	Food	280				
8	Clothes	150				
9	Phone Bill	45				
10	Direct Debits	80				
11						
12	Total Outgoings	1154				
13	Income Left			46		
14						

Figure 10.8

The figure in B12 above is just a SUM function, and is your total debts. The figure in D3 is how much you have to spend each month. The figure in D13 is how much you have left after you deduct all your debts. We'll create a scenario to see what effect the various budgets cuts have.

- From the top of Excel click the Data menu
- On the Data menu, locate the Data Tools panel
- Click on the What if Analysis item, and select Scenario Manager from the menu:

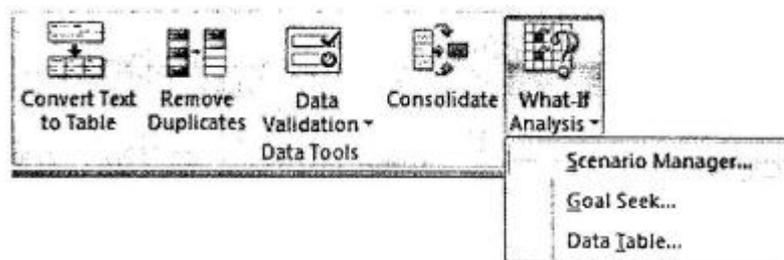


Figure 10.9

- When you click Scenario Manager, you should the following dialogue box:

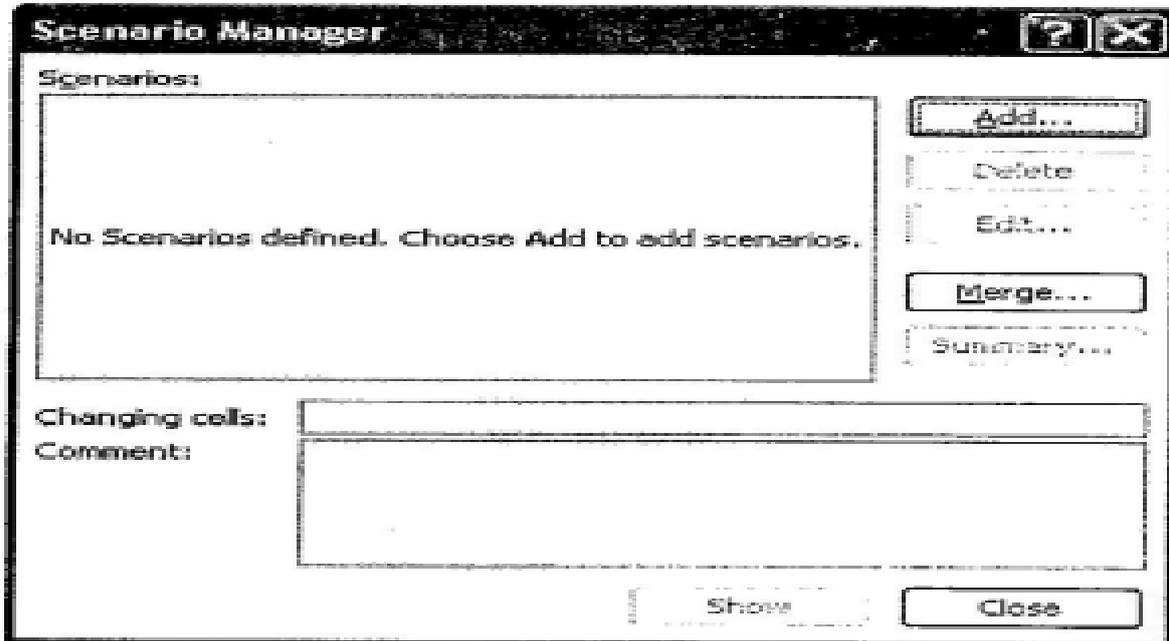


Figure 10.10

- We want to create a new scenario. So click the Add button. You'll then get another dialogue box popping up :

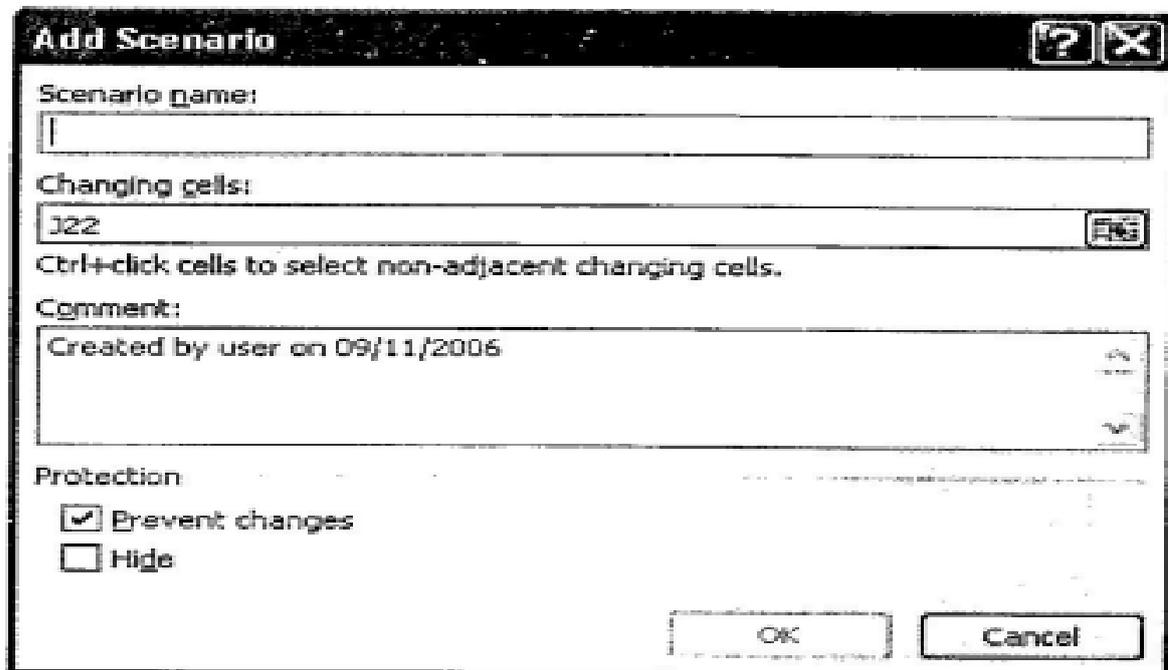


Figure 10.11

- The J22 in the image is just whatever cell you had selected when you brought up the dialogue boxes. We'll change this. First, type a Name for your Scenario in the Scenario Name box. Call it Original Budget.
- Excel now needs you to enter which cells in your spreadsheet will be changing. In this first scenario, nothing will be changing (because it's our original). But we still need to specify which cells will be changing. Let's try to reduce the Food bill, the

Clothes Bill, and the Phone bill. These are in cells B7 to B9 in our spreadsheet. So in the Changing Cells box, enter B7: B9 But your Add Scenario box should look like this :

Add Scenario

Scenario name:
Original Budget

Changing cells:
B7:B9

Ctrl+click cells to select non-adjacent changing cells.

Comment:
Created by Home and Learn

Protection

Prevent changes
 Hide

OK Cancel

Figure 10.12

- Click OK and Excel 2007 will ask you for some values :

Scenario Values

Enter values for each of the changing cells.

1:	\$B\$7	280
2:	\$B\$8	150
3:	\$B\$9	45

Add OK Cancel

Figure 10.13

- We don't want any values to change in this first scenario, so just click OK. You will be taken back to the Scenario Manager box. It should now look like this :

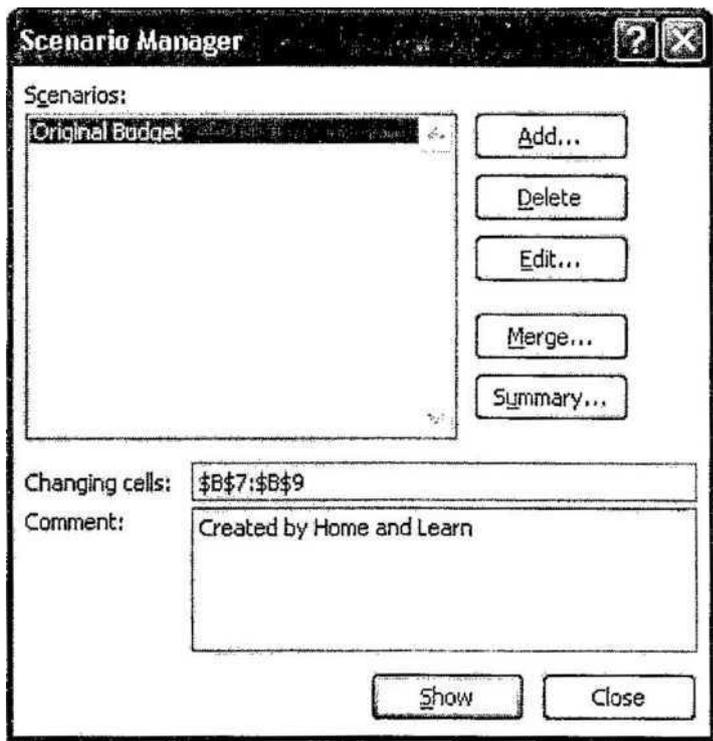


Figure 10.14

Now that we have one scenario set up, we can add a second one. This is where we'll some new values - our savings.

- * Click the Add button again. You'll get the Add Scenario dialogue box back up. Type a new Name, something like Budget Two. The Changing Cells area should already say B7:B9. So just click OK.
- * You will be taken to the Scenario Values dialogue box again. This time, we do want to change the values. Enter the same ones as in the image below:

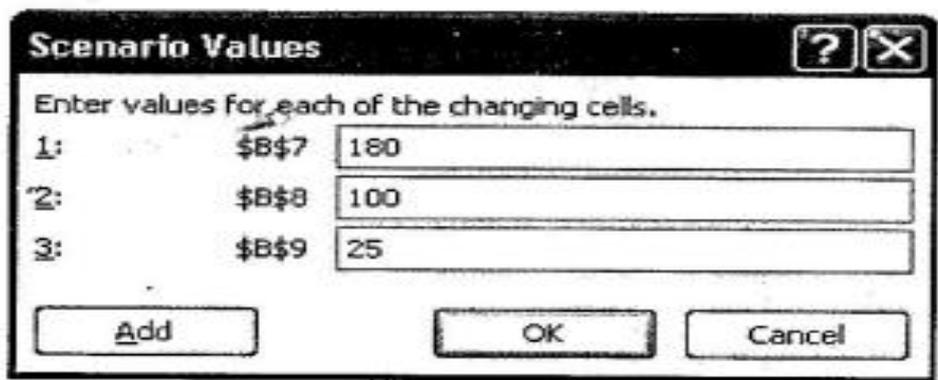


Figure 10.15

- These are the new values for our Budget. Click OK and you'll be taken back to the Scenario Manager. This time, you'll have two scenarios to view:

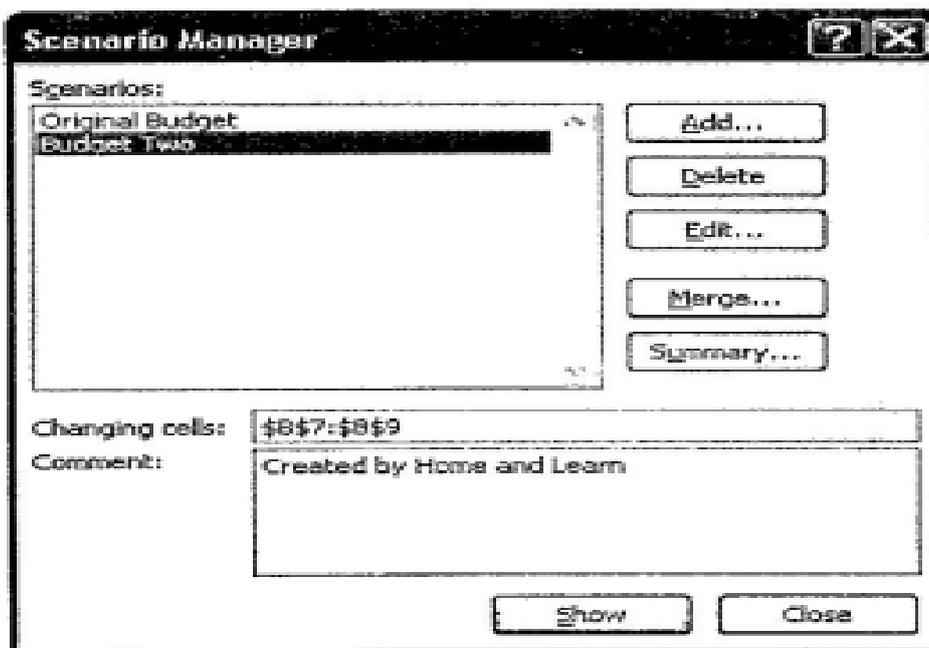


Figure 10.16

As you can see, we have our Original Budget, and Budget Two. With Budget Two selected, click the Show button at the bottom. The values in your spreadsheet will change, and the new budget will be calculated. The image below shows what it looks like in the spreadsheet :

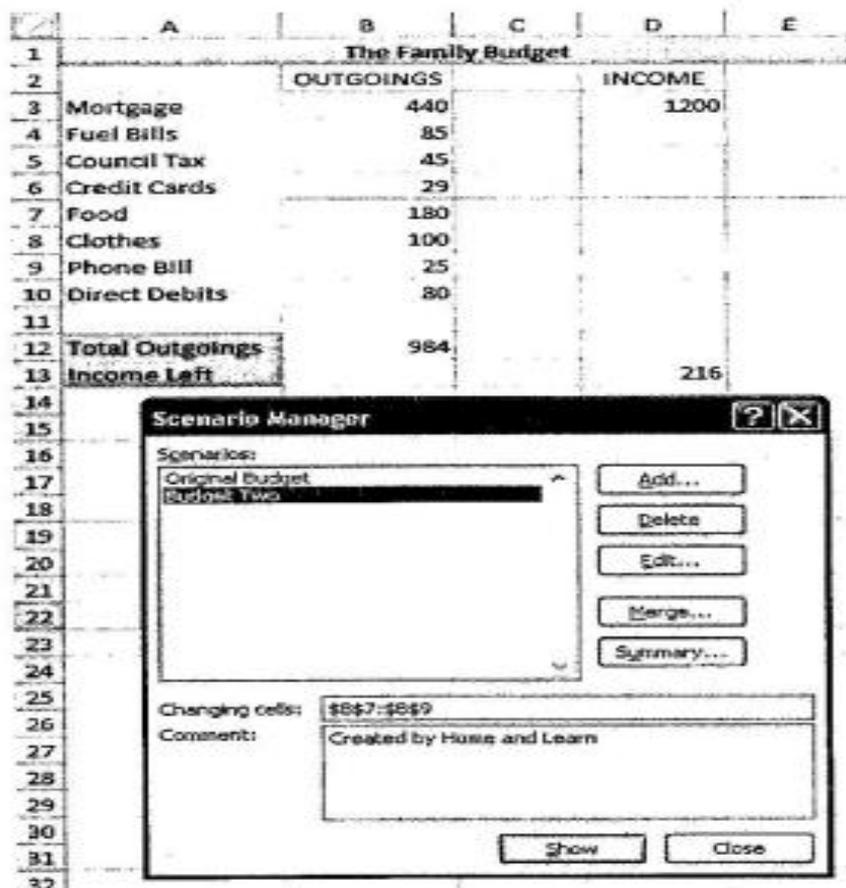


Figure 10.17

- Click on the Original Budget to highlight it. Then click the Show button. The first values will be displayed!
- Click the Close button on the dialogue box when you're done.

So a Scenario offers you different ways to view a set of figures, and allows you to switch between them quite easily.

How to Create a Report from a Scenario

Another thing you can do with a scenario is create a report. To create a report from your scenarios, do the following :

- Click on Data from the Excel menu bar
- Locate the Data Tools panel
- On the Data Tools panel, click What if Analysis
- From the What if Analysis menu, click Scenario Manager
- From the Scenario Manager dialogue box, click the Summary button to see the following dialogue box :

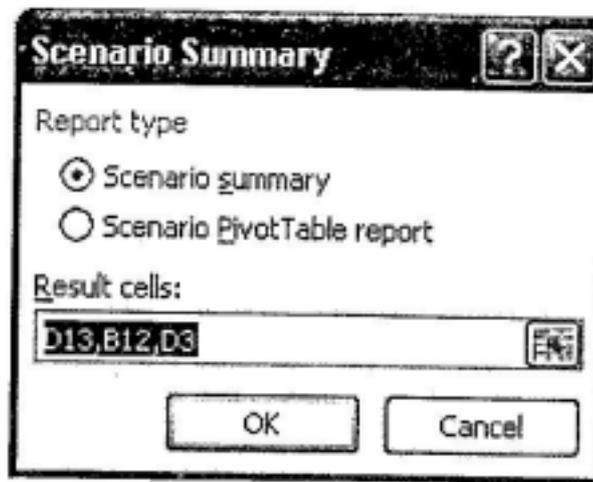


Figure 10.18

What you're doing here is selecting cells to go in your report. To change the cells, click on your spreadsheet. Click individual cells by holding down the CTRL key on your keyboard, and clicking a cell with your left mouse button. Select the cells D3, B12 and D13. If you want to get rid of a highlighted cell, just click inside it again with the CTRL key held down. Click OK when you've selected the cells. Excel will then create your Scenario Summary.

18

Scenario Summary			
	Current Values:	Original Budget	Budget Two
Changing Cells:			
\$B\$7	280	280	180
\$B\$8	150	150	100
\$B\$9	45	45	25
Result Cells:			
\$D\$13	46	46	216
\$B\$12	1154	1154	984
\$D\$3	1200	1200	1200

Figure 10.19

10.8- Key Words

Pivot Table, scenarios, wizard

10.9- Review Questions

10.9.1- Short Questions

1. Write About Pivot table reports.
2. How to Create a Report from a Scenario?
3. How to create a PivotTable?

10.9.2- Long Questions

1. Explain the steps involved in designing the layout and format of a PivotTable report.
2. How can different source data for a PivotTable report be selected?
3. How can the data be created, edited, or deleted in a PivotTable or PivotChart formula?
4. What are scenarios? How can they be used to forecast the outcome of a worksheet model.
5. Explain the steps involved in creating a scenario summary report by giving suitable example.

10.10- SUGGESTION READING

1. Saxena S., MS Office Xp for Everyone, Vikas Publishing House, New Delhi, 2007.
2. Coleman P., Mbas Guide to Microsoft Office Xp, New Age International (P) Limited, New Delhi, 2005.

Solutions to Self Check Exercise

[CHAPTER 10]

10.1.1- Pivot Table report is used to summarize, analyze, explore, and present summary data and PivotChart report is used to visualize this summary data in a PivotTable report, and to easily see comparisons, patterns, and trends. Both a PivotTable report and a PivotChart report enable you to make informed decisions about critical data in your enterprise. The following sections provide an overview of PivotTable reports and PivotChart reports.

10.3.1- To create a PivotTable, you need to connect to a data source and enter the report's location.

4. Select a cell in a range of cells, or put the insertion point inside of a Microsoft Office Excel table. Make sure that the range of cells has column headings.
5. Do one of the following :
 - To create a PivotTable report, on the Insert tab, in the Tables group, click PivotTable, and then click PivotTable.
The Create PivotTable dialog box is displayed.
6. Select a data source. Do one of the following:
 - Choose the data that you want to analyze
 - Click Select a table or range.
 - Type the range of cells or table name reference, such as ^Quarterly Profits, in the Table/Range box.

If you selected a cell in a range of cells or if the insertion point was in a table before you started the wizard, the range of cells or table name reference is displayed in the Table/ Range box.

- Enter a location.
- To place the PivotTable report in a new worksheet starting at cell A1, click New Worksheet.

- To place the PivotTable report in an existing worksheet, select Existing Worksheet, and then type the first cell in the range of cells where you want to locate the PivotTable report.
- Click OK.
10.6.1-When you display a scenario, you change the values of the cells that are saved as part of that scenario.
- On the Data tab, in the Data Tools group, click What-If Analysis, and then click Scenario Manager.
- Click the name of the scenario that you want to display.
- Click Show.

10.6.2- Create a scenario summary report

- On the Data tab, in the Data Tools group, click What-If Analysis, and then click Scenario Manager.
- Click Summary.
- Click Scenario summary or Scenario PivotTable report.
- In the Result cells box, enter the references for the cells that refer to cells whose values are changed by the scenarios. Separate multiple references with commas.

