IT Book

Class X

INDEX

Chapter-1
Introduction to Computer Fundamentals

Understanding the basic concepts of IT

An Information Technology (IT) system concerns the processing , storage and/or transfer of information. Information can take many different forms such as words , numbers , pictures, sounds or video . An IT System can consist of computers, the telecommunications network and other programmable electronic devices.

What is a Computer ?

A programmable machine. The two principal characteristics of a computer are: It responds to a specific set of instructions in a well-defined manner. It can execute a prerecorded list of instructions (a program)

Characteristics of Computer

1 Speed : Computer provides speed incredibly faster than what man can possibly record or calculate normally .

2 Storage : One of man's failings is perhaps his inability to remember and store large volumes of information is his brain . In computer the terminology in regard to storages capacity applies to both primary and secondary storages. It is normally measured in terms of Nibble , Byte, Kilobyte[1KB] Mega Byte [MB], Giga Byte [GB] AND Tera Byte [TB]. Example : Floppy disks, Magnetic disks & Tapes etc.

3 Accuracy And Reliability : Computer's are quite reliable in its calculation. The accuracy of operation of computer is always 100%. Computer is only a machine and does not make errors on its own. It is thus reliable .

4 Automatic : The computer is quite capable of functioning automatically , once the process has been initiated.

5 Diligence / Endurance: The computer is capable of operating at exactly the same level of speed and accuracy even if it has to carry out the most voluminous and complex operations for a long period of time.

6 Versatility: The wide use of computer in so many areas such as scientific, commercial applications, Educational industrial areas in day –to –day life there is an ample evidence of its versatility.

Application of Computer

Computers have their application or utility everywhere. We find their applications in almost every sphere of life–particularly.

In Tourism: Hotels use computers to speed up billing and checkout the availability of rooms. So is the case with railways and airline reservations for booking tickets.

In Banks: Banks also have started using computers extensively.

In Industry: Computers are finding their greatest use in factories and industries of all kinds.

In Education: Computers have proved to be excellent teachers. They can possess the knowledge given to them by the experts and teach you with all the patience in the world. You may like to repeat a lesson hundred times, go ahead, you may get tired but the computer will keep on teaching you.

In Entertainment: Computers are also great entertainers. Many computer games are available which are like the traditional games like chess, football, cricket, etc.

Concept of Hardware and Software

Hardware:

Personal computer hardware are component **devices** which are typically installed into or peripheral to a computer case to create a personal computer. These are devices that can be touch.

Software:

Computer software is a collection of computer programs and related data that provide the instructions for telling a computer what to do and how to do it.

Computer Memory

Computer Memory is internal storage areas in the computer used to either temporarily or permanently store data or instructions to be processed. There are four basic types of computer memory: Cache Memory, RAM, Virtual Memory and Hard Drives. With modern CPU's running at speeds of 1 gigahertz or higher, it is hard for computer memory to keep up with the extreme amount of data being processed. Computer engineers fixed the problem by "tiering" memory.

Types of Computer Memory

1. Computer RAM: Computer RAM is the best known form of memory your computer uses. Every file or application opened is placed in RAM. Any information the computer needs or uses becomes part of a continuous cycle where the CPU requests data from RAM, processes it and then writes new data back to RAM. This can happen millions of times a second. However, this is usually just for temporary file storage, so unless the data is saved somewhere, it is deleted when the files or applications are closed.

2. Hard Drive: A Hard Drive is a form of computer memory that allows you to permanently store data. This is where all of your permanent files and programs are stored. On computers running with Microsoft windows the Hard Drive is often called C-Drive. The size of a Hard Drive is typically measured in gigabytes.

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3. Virtual Memory: Virtual memory typically comes into place when applications are too large for the RAM to handle. The operating System uses the hard drive to temporarily store information and take it back when needed. This is normally a lot slower than actual RAM and can possibly degrade performance if used to heavily.

4. Cache Memory: Cache memory is extremely fast memory that is built into a computer's central processing unit (CPU), or located next to it on a separate chip. The CPU uses cache memory to store instructions that are repeatedly required to run programs, improving overall

system speed. The advantage of cache memory is that the CPU does not have to use the motherboard's system bus for data transfer. Whenever data must be passed through the system bus, the data transfer speed slows to the motherboard's capability. The CPU can process data much faster by avoiding the bottleneck created by the system bus.

Primary and Secondary Memory

Modern electronic computers generally possess several distinct types of **memory**, each of which "holds" or stores information for subsequent use. The vast majority of computer memory can be placed into one of two categories: primary memory and secondary memory.

Primary memory, often called main memory, constitutes that device, or group of devices, that holds instructions and **data** for rapid and direct **access** by the computer's **central processing unit** (**CPU**). Primary memory is synonymous with **random-access memory (RAM)**. As a computer performs its calculations, it is continuously reading and writing information to and from RAM. For instance, instructions and data are retrieved from RAM for processing by the CPU, and the results are returned to RAM. Modern RAM is made of **semiconductor** circuitry, which replaced the magnetic core memory widely used in computers in the 1960s. RAM is a volatile form of information storage, meaning that when electrical power is terminated any data that it contains is lost. There are other semiconductor memory devices accessed by the CPU that are generally considered as being distinct from primary memory (i.e., different from RAM). These memory units include cache memory, **read-only memory (ROM)**, and Programmable Read Only Memory (PROM).

Secondary memory, also called auxiliary memory or mass storage, consists of devices not directly accessible by the CPU. Hard drives, floppy disks, tapes, and optical disks are widely used for secondary storage. The **input and output** of these devices is much slower than for the semiconductor devices that provide the computer's primary memory. Although access times (i.e., the time to read or write information) are slow as compared to that of primary memory, secondary memory devices have important features that are unmatched by primary memory. First, most secondary storage devices are capable of containing much more information than is feasible for primary memory (hence the use of the term "mass storage" as a synonym for secondary memory). A second, and essential, feature of secondary memory is that it is non-volatile. This means that data is stored with or without electrical power being supplied to the device, as opposed to RAM, which can retain its data only so long as electrical power is present.

Like primary memory, many secondary memory devices are capable of storing information, as well as retrieving it. Magnetic technology devices (such as hard drives, floppy disks, and tape) have this read-write capability, as do magneto-optical drives. However, some mass storage devices can only read data, as in the case of **CD-ROM** (Compact Disk-Read Only Memory) drives. CD-ROMs utilize optical technology; however, newer optical technologies, such as CD-RW (compact disk-rewriteable), can both read and write information like magnetic storage devices.

ROM (Read Only Memory): This is a special type of memory which contains all the information the computer needs to switch itself on, check that all its systems are working

and to tell the PC what things are plugged into it. It cannot be changed or overwritten by you, and stays the same even when the PC is switched off. An example of ROM on a PC is the **BIOS** software (Basic Input Output System) that enables the computer to start up and allows components to communicate with each other.

RAM (Random Access Memory): Random access memory is used in a PC to temporarily store data when you are using applications. RAM is also used to store program instructions and feed information to the CPU to process. RAM is not permanent, when you switch off the PC (or shut down), the contents of RAM are lost or emptied. There are two main uses of RAM in a computer system. These are **main memory** and **cache**.

BASIC UNITS OF MEMORY

UNITS	MEANING
Nibble	4 bits
Byte	8 bits
1 kilo Bytes [1KB]	2^{10} = 1024 bytes
1 Mega Byte [1MB]	2^{20} = 1024 KB
1 Giga Byte [1MB]	2^{30}=1024 MB
1 Tera Byte [1TB]	2^{40}=1024 GB

INPUT AND OUTPUT DEVICES

The computer will be of no use unless it is able to communicate with the outside world. Input/output devices are required for users to communicate with the computer. Input devices bring information INTO the computer and output devices bring information OUT of a computer system. These input/output devices are also known as peripherals since they surround the CPU and memory of a computer system. Some Commonly used input/ output devices are listed in table below.

Input Devices	Output Devices
Keyboard	Monitor
Mouse	LCD
Joystick	Printer
Scanner	Plotter
Light Pen	
Touch Screen	

Input Devices

(a) Keyboard

It is a text base input device that allows the user to input alphabets, numbers and other characters. It consists of a set of keys mounted on a board.

Alphanumeric Keypad

It consists of keys for English alphabets, 0 to 9 numbers, and special characters like + – / * ( ) etc.

Function Keys:- There are twelve function keys labeled F1, F2, F3... F12. The functions assigned to these keys differ from one software package to another. These keys are also user programmable keys.

Special-function Keys:- These keys have special functions assigned to them and can be used only for those specific purposes. Functions of some of the important keys are defined below.

Enter:- It is similar to the 'return' key of the typewriter and is used to execute a command or program.

Spacebar:-It is used to enter a space at the current cursor location.

Backspace:-This key is used to move the cursor one position to the left and also delete the character in that position.

Delete:-It is used to delete the character at the cursor position.

Insert:-Insert key is used t toggle between insert and overwrite mode during data entry.

Shift:- This key is used to type capital letters when pressed along with an alphabet key. It can be used to type the special characters located on the upper-side of a key that has two characters defined on the same key.

Caps Lock:- Cap Lock is used to toggle between the capital lock features. When 'on', it locks the alphanumeric keypad for capital letters input only.

Tab:- Tab is used to move the cursor to the next tab position defined in the document. Also, it is used to insert indentation into a document.

Ctrl:- Control key is used in conjunction with other keys to provide additional functionality on the keyboard.

Alt:-Also like the control key, Alt key is always used in combination with other keys to perform specific tasks.

Esc:- This key is usually used to negate a command. Also used to cancel or abort executing programs.

Numeric Keypad:- Numeric keypad is located on the right side of the keyboard and consists of keys having numbers (0 to 9) and mathematical operators (+ – * /) defined on them. This keypad is provided to support quick entry for numeric data.

Cursor Movement Keys:- These are arrow keys and are used to move the cursor in the direction indicated by the arrow (up, down, left, right).

(b) Mouse

The mouse is a small device used to point to a particular place on the screen and select in order to perform one or more actions. It can be used to select menu commands, size windows, start programs etc. The most conventional kind of mouse has two buttons on top: the left one being used most frequently.

Mouse Actions

Left Click : Used to select an item.

Double Click : Used to start a program or open a file.

Right Click : Usually used to display a set of commands.

Drag and Drop : It allows you to select and move an item from one location to another. To achieve this place the cursor over an item on the screen, click the left mouse button and while holding the button down move the cursor to where you want to place the item, and then release it.

(c) Joystick

The joystick is a vertical stick which moves the graphic cursor in a direction the stick is moved. It typically has a button on top that is used to select the option pointed by the cursor. Joystick is used as an input device primarily used with video games, training simulators and controlling robots.

(d) Scanner

Scanner is an input device used for direct data entry from the source document into the computer system. It converts the document image into digital form so that it can be fed into the computer. Capturing information like this reduces the possibility of errors typically experienced during large data entry. Hand-held scanners are commonly seen in big stores to scan codes and price information for each of the items.

(e) Bar codes

A bar code is a set of lines of different thicknesses that represent a number. Bar Code Readers are used to input data from bar codes. Most products in shops have bar codes on them. Bar code readers work by shining a beam of light on the lines that make up the bar code and detecting the amount of light that is reflected back

(f) Light Pen

It is a pen shaped device used to select objects on a display screen. It is quite like the mouse (in its functionality) but uses a light pen to move the pointer and select any object on the screen by pointing to the object. Users of Computer Aided Design (CAD) applications commonly use the light pens to directly draw on screen.

(g) Touch Screen

It allows the user to operate/make selections by simply touching the display screen. Common examples of touch screen include information kiosks, and bank ATMs.

(h) Digital camera

A digital camera can store many more pictures than an ordinary camera. Pictures taken using a digital camera are stored inside its memory and can be transferred to a computer by connecting the camera to it. A digital camera takes pictures by converting the light passing through the lens at the front into a digital image.

Output Devices

(a) Monitor

Monitor is an output device that resembles the television screen and uses a Cathode Ray Tube (CRT) to display information. The monitor is associated with a keyboard for manual input of characters and displays the information as it is keyed in. It also displays the program or application output. Like the television, monitors are also available in different sizes.

(b) Liquid Crystal Display (LCD):- LCD was introduced in the 1970s and is now applied to display terminals also. Its advantages like low energy consumption, smaller and lighter have paved its way for usage in portable computers (laptops).

(c) Printer:- Printers are used to produce paper (commonly known as hard copy) output. They can be classified as Impact or Non-impact printers. Impact printers use the typewriting printing mechanism wherein a hammer strikes the paper through a ribbon in order to produce output. Dot-matrix and Character printers fall under this category. Non-impact printers do not touch the paper while printing. They use chemical, heat or electrical signals to draw the symbols on paper. Inkjet, DeskJet, Laser, Thermal printers fall under this category of printers.

Classification of Software

Software is the interface between the user and the hardware. Users mainly interact with the computer through the software. Software is an important basis for computer system design. To facilitate the users, in order to make the computer system has a higher overall utility, in the design of computer systems must take into account the global combination of software and hardware, and user requirements and software requirements.

System Software

System software is to provide the most basic function of computer, and it can be divided into the operating system and support software, of which operating system is the basic operating system software. System software is responsible for managing the systems. System software enables computer users and other software take the computer as a whole without the need to take into account how each of the underlying hardware works.

Application Software

Application is developed for a certain purpose. It can be a specific program, such as an image browser. It can also be a set of functions that can be closely linked, you can collaborate with each other a collection of programs, such as Microsoft's Office software. It can also be a separate program consisting of many large software systems, such as database management systems.

Operating Systems and its functions

An operating system is the most important software that runs on a computer. It manages the computer's memory, processes, and all of its software and hardware. It also allows you to communicate with the computer without knowing how to speak the computer's "language." Without an operating system, a computer is useless.

COMPUTER LANGUAGES

Machine Language:-A set of instructions for a specific central processing unit, designed to be usable by a computer without being translated. The set of instructions, encoded as strings of binary bits, interpreted directly by a computer's central processing unit. Each different type of central processing unit has its own machine language. For a given machine language, each unique combination of 1's and 0's in an instruction has a unique interpretation, including such operations as arithmetical operations, incrementing a counter, saving data to memory, testing if data has a certain value, and so on. Computer programs are rarely written directly in machine language; instead, higher-level programming languages are used.

Assembly Language:- This language uses ' mnemonic codes ' or symbols in place of 0's AND 1's .Instead of remembering the exact memory the exact memory location where data and instruction are stored , symbolic memory addresses are used for data .Translator programs

known as Assemblers were developed to convert the assembly language program into machine language . Assembly language is also machine – dependent and programming in this language is also very time consuming. Thus, it is also programming as a low level language.

High Level Language

High level language is quite similar to English language. Basic, C, C++, java etc. are some of the very popular high level languages. High Level languages programs needs to be translated into machines language by using .Translator Programs .There are two types of translator programs.

ROLE OF ASSEMBLER AND COMPILER

ASSEMBLER

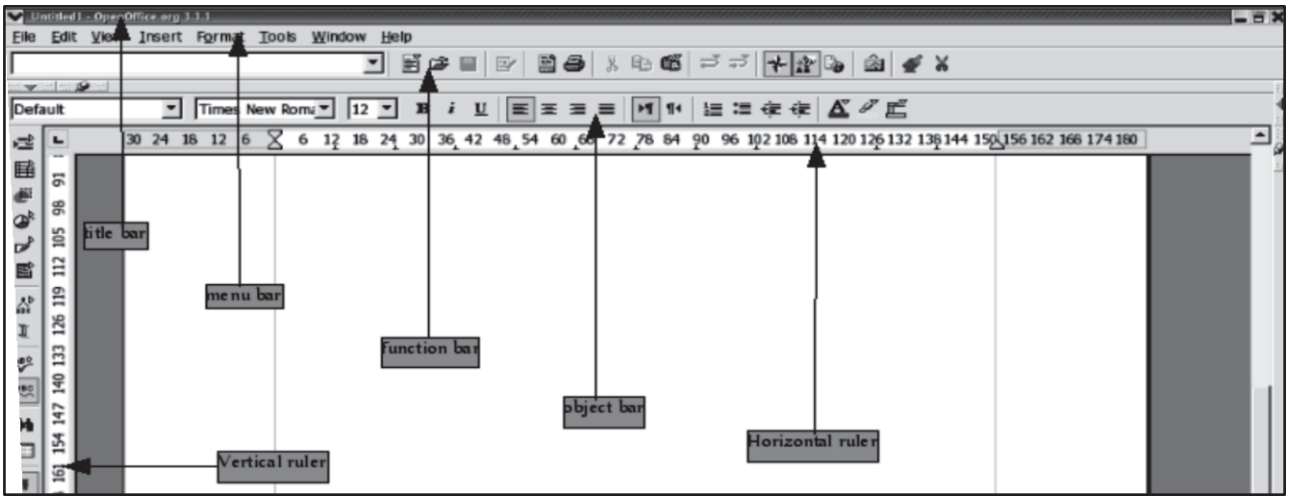
An assembler is used to translate assembly language statements into the target computer's machine code.

COMPILER

It is a translator program to convert a high level language program into machine language. It translates whole program at once, i.e., it generates the object code for the program along with a list of errors, if any .The execution is very fast.

Chapter-2
Open Office Writer

Open Office.org is reasonably intuitive but is sufficiently different to other suites that a period of familiarization required before use is fluid and effective. This chapter starts with a general explanation of the most common control features in Open Office.org, such as toolbars, floating toolbars and dockable windows. This is followed by information on functions that can be used in most of the program modules of Open Office.org.



Creating & Editing Text

A text document is displayed and edited in the Writer window. Spreadsheet, presentations or drawings are displayed in very similar windows, except the menus and icons change automatically depending on the context.

Entering and Formatting Text

There is no prescribed sequence in which to work. One can enter text and, let us say, underline it or italicize it while typing or choose to do this later. Users can also decide whether or not to split a section of text into two columns immediately or to delay the action. Text never has to be deleted and retyped simply because formatting needs changing. Basically, to edit text, first select it and then choose the relevant command, such as the one to format the text in italics. There are several ways of selecting text, for example, using the arrow keys whilst holding down the Shift key, or with the mouse whilst keeping the mouse button depressed. Often there are different ways of choosing a command, for example, with a menu command, with a toolbar icon or with shortcut keys.

Entering New Text

To enter new text:

1. Open an existing text document or create a new one.
2. Enter text using the keyboard. When special characters, such as the copyright symbol or accented characters that are not available on the keyboard are to be entered, select **Insert > Special Character** and chose what is needed from the table.
3. Press Enter to begin a new paragraph.

Line breaks

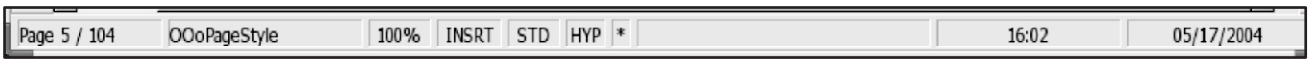
Users never need to worry about line breaks as the software inserts these automatically. Only press Enter at the point to start a new paragraph.

Inserting Text

1. Open an existing document.

2. Place the cursor at the point where text is to be added using either the mouse or the arrow keys, and enter the new text.

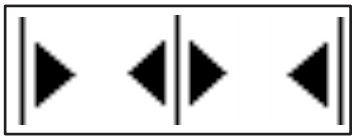
Insert mode is enabled by default, thus any text, following the insertion point, is shifted as new text is entered. To overwrite the existing text at this point, select **Overwrite mode** by clicking the INSRT field in the status bar as shown below.



Entering Text Anywhere on a Page

Writer enables one to enter text at any position within the type area in the text document. This is the direct cursor function:

Click the **Direct Cursor on / off** icon on the main toolbar. Clicking the icon turns the direct cursor on and off. When the icon appears pressed, the direct cursor is enabled. Click on a free space in the text document. The shape of the mouse pointer shows how the text that is entered will be aligned



Enter the text. OpenOffice.org automatically inserts the requisite number of blank lines, tabs and spaces.

Selecting and Deleting Text

Some basic steps to start:

Deleting characters

To delete one character to the left of the cursor., press Backspace (above the Enter key).

To delete one character to the right of the cursor, press the Delete key (may be labeled Del).

Deleting text

Selecting text to delete with the mouse

1. Left-click to set the cursor on the first character to be deleted.
2. Keeping the mouse button depressed, drag the pointer to the last character to be deleted. The characters will be highlighted.
3. Release the mouse button.
4. Press the Delete key to delete the selected text.

Selecting text to delete with the keyboard

1. Use the arrow keys to go to the first character to be deleted.
2. Hold down the Shift key.
3. Using, the arrow keys, move the cursor to just after the last character to be deleted.
4. Release the Shift key. The text is highlighted.
5. Press the Delete key to delete the selected text.

Inserting Special Characters

This is how to insert special characters (such as check marks, boxes, telephone symbols etc.) in text:

Select **Insert > Special Characters**. view the selection of characters available.

In the large selection field select the desired character or more than one by clicking with the mouse or by navigating by keyboard in succession. The characters are displayed at the bottom of the dialogue box. Upon closing the dialogue with **OK**, all displayed characters in the selected font are inserted in the current document at the cursor.

If a special character is required in any text input field (such as in the URL field of the function bar or in the input fields in the Find & Replace dialogue), press Shift + Ctrl + S to pop up the **Special Characters** dialogue.

Emphasizing Text

There are many ways of emphasizing text in a special way. Here are some of them:

- Use the icons in the Object bar for regular **Formatting** needs. For example, change the text to bold or to another font style, change the text color and background, or center the text.
- Whole paragraph can be emphasized using borders. Place the cursor in the paragraph that is to be emphasized, right-click to its context menu and select **Paragraph**, then click on, for example, the **Borders** tab. At this point, a border may be selected to frame the paragraph, and also with shadow shading, if desired. If necessary the distance between the border and the paragraph text can be adjusted under **Spacing to contents**.
- Using a **Text Frame** provides the following possibilities:

a) Text can receive a border

b) Text can be placed outside of the text margin on the side of the page.

c) Text frames can be linked when text should flow from one frame to another.

- Choose **Format > Paragraph > Background** to apply a background color to the paragraph.
- Use the **Draw** Text **"**function: Open the **Draw function** toolbar (on the main toolbar), select the **Text** icon, drag open a frame and enter the text. This text can be positioned as desired, which includes rotating at various angles, or curving and slanting the text with the help of **Format > Font Work**.

Changing the color of Text

Click the **Font color** icon in Writer and other modules, and keep the mouse button pressed to obtain a floating toolbar from which to choose a color from the range of colors. Note the color shown in the bar at the bottom. When using a short-click with no text selected, the mouse pointer changes its appearance to a watering can. Drag this watering can symbol while keeping the mouse key pressed, across the target text area. This text area now takes on the selected color. The function remains active for as long as the icon is active (looks depressed), or until simply clicking without dragging, or until the (Esc) key is pressed.

Working with tables

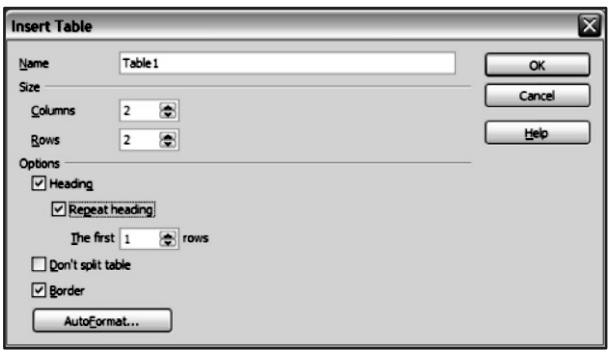
Inserting a new table

To insert a new table, position the cursor where you want the table to appear, then use any of the following methods to open the Insert Table dialog box:

From the main menu, select Table > Insert > Table.

Press Control+F12.

From the Standard toolbar, click the Table icon



Inserting rows and columns

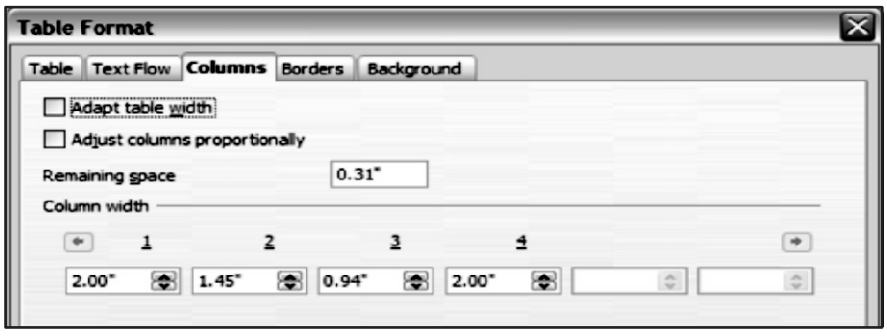
1. Place the cursor in the row or column where you want to add new rows or columns and right-click.
2. On the pop-up menu, select Row > Insert or Column > Insert. This will display a dialog box where you can select the number of rows or columns to add, and whether they appear before or after the selected one.
3. Set Amount to the number of rows or columns to insert, and Position to Before or After.
4. Click OK to close the dialog box.

Deleting Rows Or Columns

1. Click in one of the empty rows you just added. Click **Table > Delete, > Rows** or click the **Delete Row** icon on the **Table Toolbar.**(The row is deleted.)
2. Click in the empty column you just added. Click **Table > Delete > Columns** or click the **Delete Column** icon on the **Table Toolbar.**

Resizing rows and columns

1. You can adjust the height of rows and the width of columns in a table in several ways.
2. Move the mouse next to the edge of the cell and when a double-headed arrow appears, click and hold the left mouse button, drag the border to the desired position, and release the mouse button.
3. On the horizontal ruler, column dividers are marked by a pair of thin gray lines; the vertical ruler indicates row dividers in the same way. You can resize a row or column by holding the mouse button down on the appropriate divider and dragging it to the desired location.
4. Use the keyboard as described below.
5. Selecting Table >Auto fit from the main menu also offers some resizing options:
6. The Optimal Column Width or Optimal Row Height options make the columns or rows as narrow as possible while still fitting their contents.
7. Columns and rows can be distributed evenly to quickly bring them back to all being the same width or height.



For greater control over the width of each column, use the Columns page of the Table Format dialog box. Right-click on the table and select Table from the pop-up menu or select Table > Table

Properties from the menu bar. On the Table Format dialog box, select the Columns tab.

MERGING AND SPLITTING CELLS

To merge a group of cells into one cell:

1. Select the cells to merge.

2. Right-click and select Cell > Merge on the pop-up menu or select Table > Merge Cells from the menu bar. To split a cell into multiple cells:
3. Position the cursor inside the cell.
4. Right-click and select Cell > Split on the pop-up menu or select Table > Split Cells from the menu bar.
5. Select how to split the cell. A cell can be split either horizontally (create more rows or vertically (create more columns), and you can specify the total number of cells to create.

DELETE A TABLE

1. Click in the table you want to delete.
2. Click **Table > Delete > Table**.;The table is deleted.
3. To undo **Delete Table**, click on the **Undo**  , icon on the **Standard Toolbar**.

Mail Merge

The Mail Merge feature includes the following

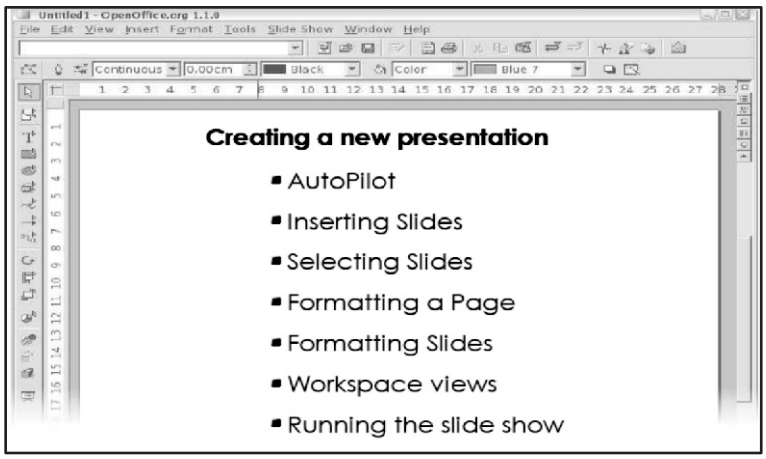
1. **Address Book:** An Address Book is created that can be used in very many different ways.
2. **Form Letters:** One document is created that is sent by regular mail to multiple recipients. Each individual who receives a letter will have their name and address printed within their letter.
3. **Labels:** Address Labels are created that are placed on envelopes. Return Labels can be created and can have various images such as for a company or the Holiday Season.
4. **Envelopes:** Envelopes are printed with the recipient's name and address. The senders name and address may also be printed on the envelope.

Print An Envelope

1. Have an envelope in your printer feed tray. Be sure that your printer is expecting the correct size of the envelope.
2. Click **File > Print**.

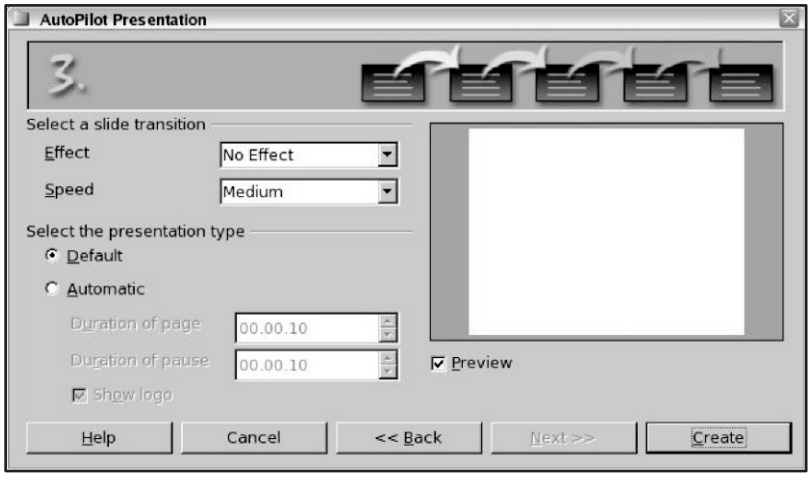
Chapter-3
Open Office Impress

The Open Office suite of tools-Writer, Calc, Impress, and Draw- offers comparable capabilities to Microsoft Office's suite of tools-Word, Excel, and PowerPoint.

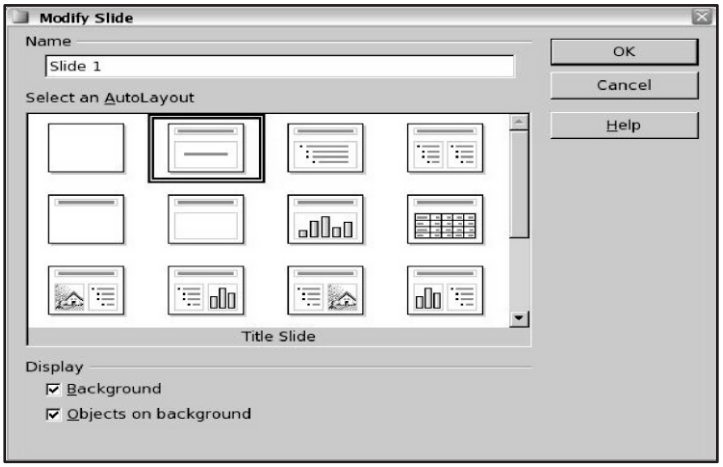


After launching OpenOffice.org. An Auto Pilot Presentation window appears. **Empty presentation** creates a presentation from scratch.

Creating a new presentation

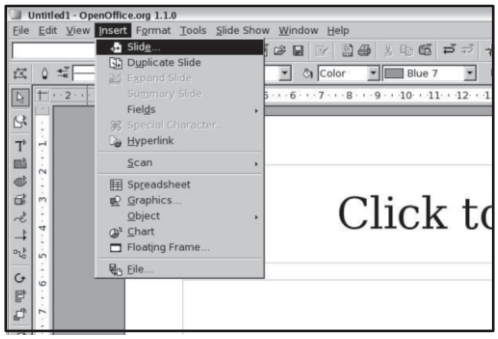


The Effect option creates transitions between all the slides in the presentation. Select No Effect for no transition effect. Transitions can be added and changed later. Click "Create" to end the Autopilot.

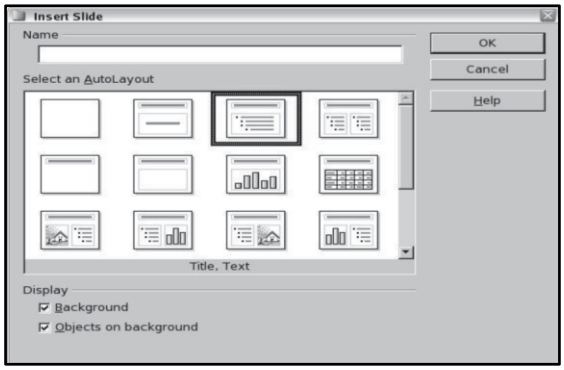


Type in a title for the slide in the area marked Name. Click a thumbnail slide from a "Select an Autolayout" section to select that layout. Click OK.

Inserting Slides



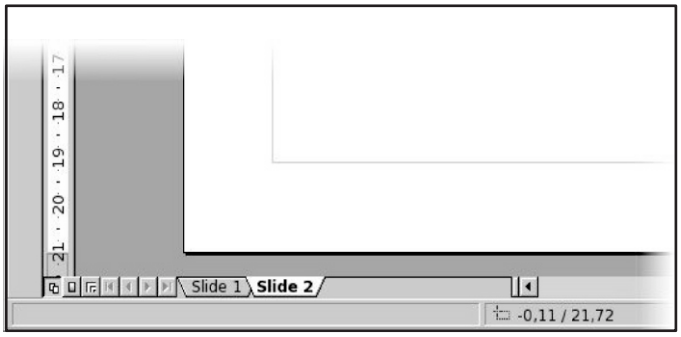
To add a slide to the new presentation, go to the Insert menu and select "Slide..."



Insert a title for the slide in the Name field. Choose the slide layout from the "Select an Auto Layout" section.

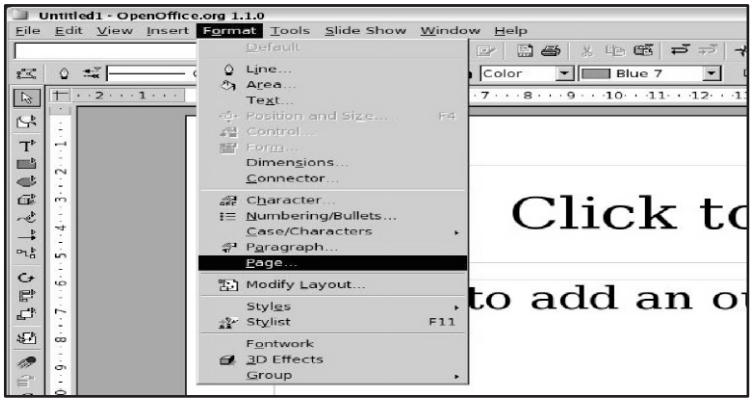
Click OK.

Selecting Slides

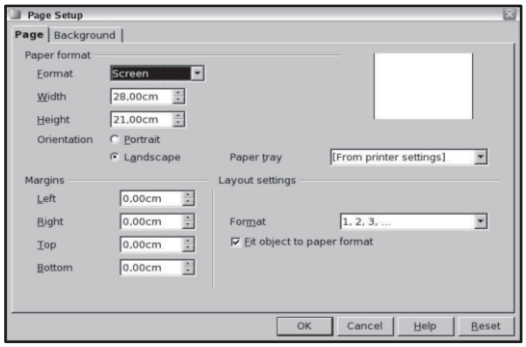


A new slide tab appears at the bottom of the workspace for each inserted slide. Click on a slide tab to select and display that tab.

Formatting a Page

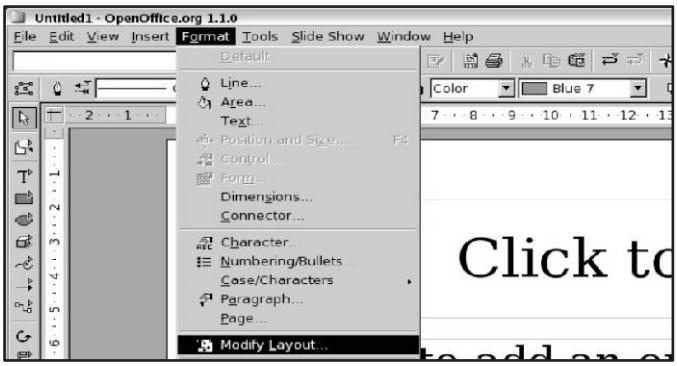


Go to the Format menu and click "Page..."
In this window you can change the format, the orientation and the margins of the page.



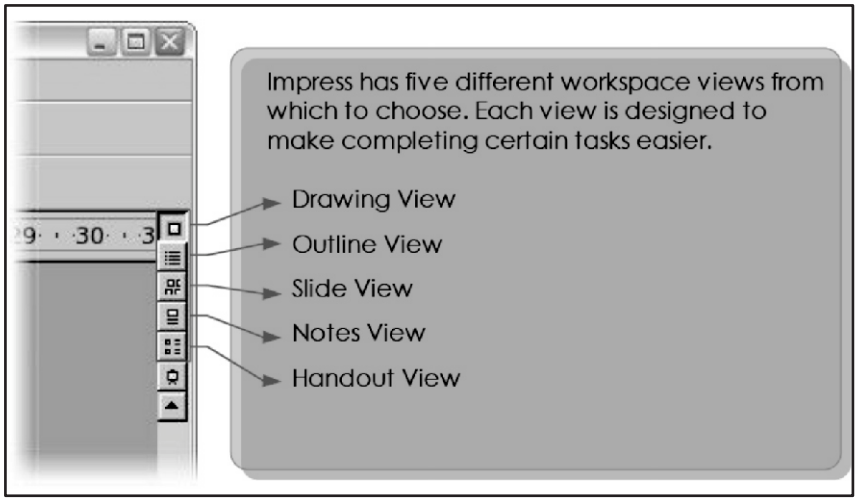
Formatting Slides

Select "Modify layout..." from the Format menu. The Modify Slide window appears.

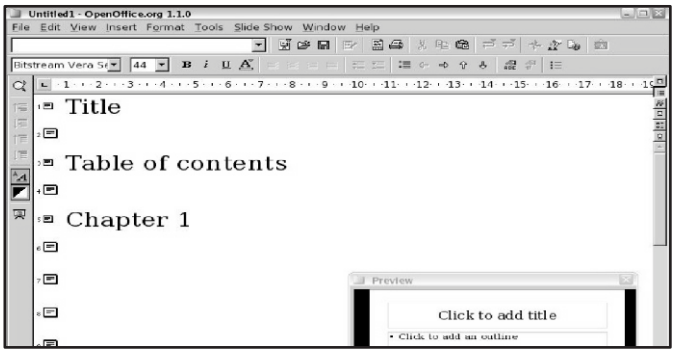


Modify the layout by choosing a new layout from the "Select an Auto Layout" section.

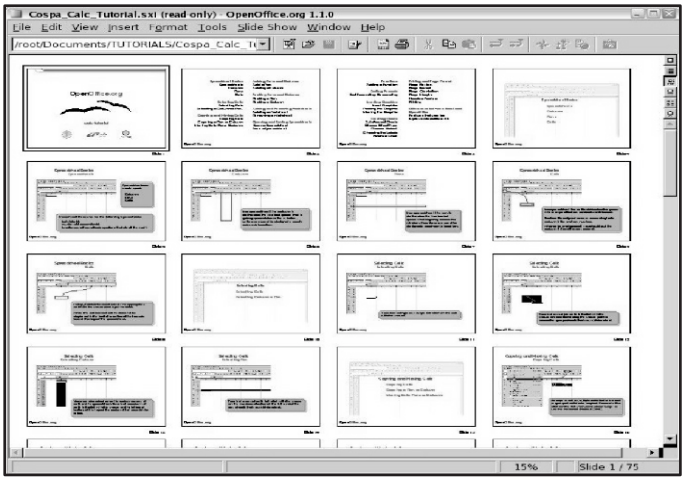
Workspace views



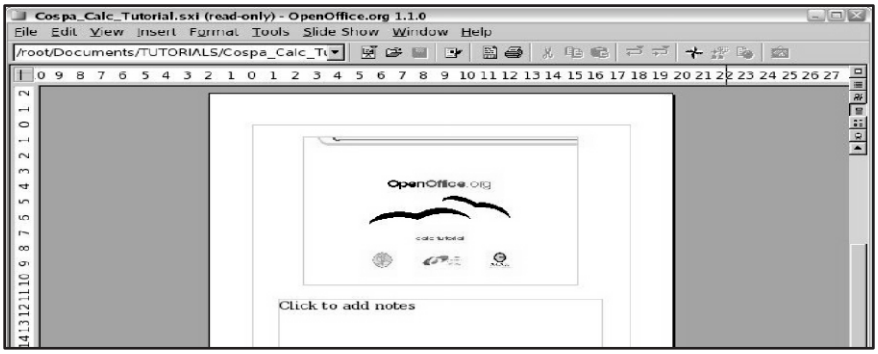
Drawing View is the main view for creating individual slides. Use this view to format and design, add text, graphics, and animation effects.



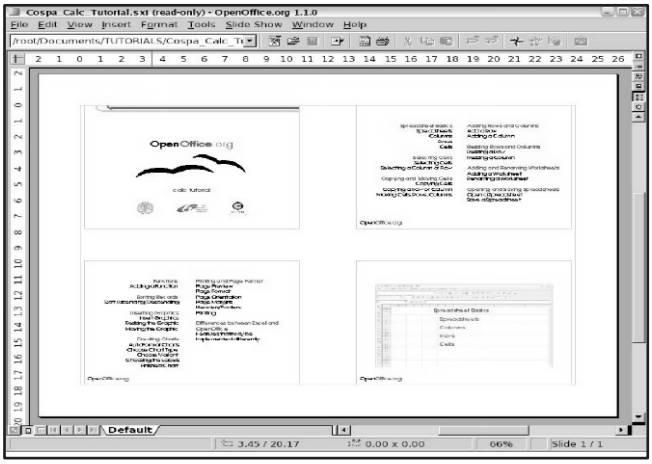
Outline View shows topic titles, bulleted lists, and numbered lists for each slide in outline format. This view lets you rearrange the order of the slides, edit titles and headings, rearrange the order of items in a list, and add new slides.



Slide View shows a small version of each slide in order to rearrange the order of slides, produce a timed slideshow, or add transitions between slides.

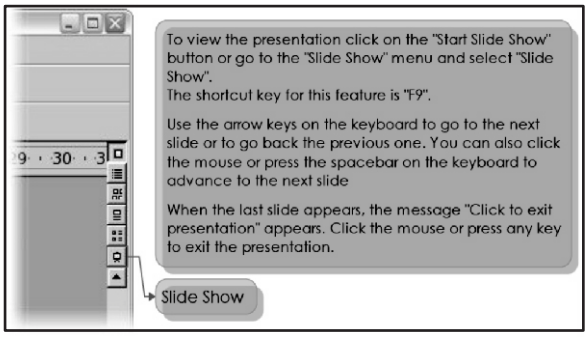


Notes View lets you add notes to each slide that are not seen when the presentation is shown. You can print these notes and refer to them while giving a presentation.

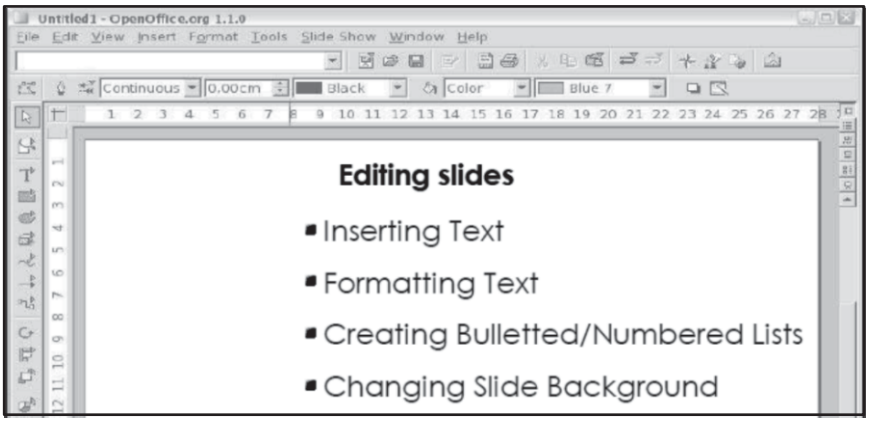


Handout View reduces several slides of the presentation and efficiently rearrange slides in this view by simply dragging and dropping them.

Running the slide show



Editing slides



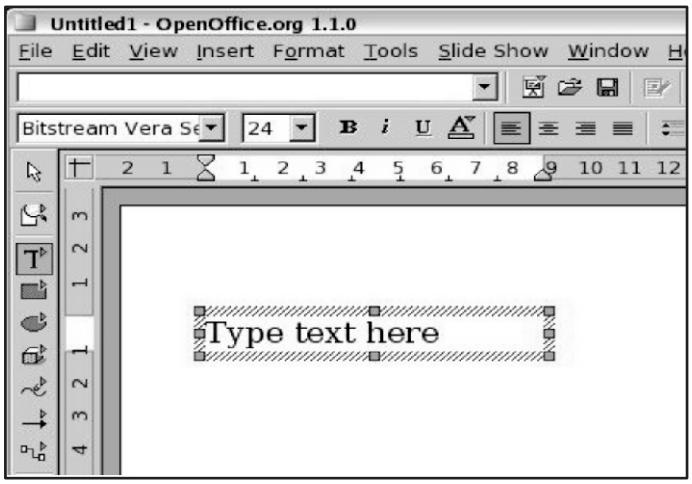
Inserting Text

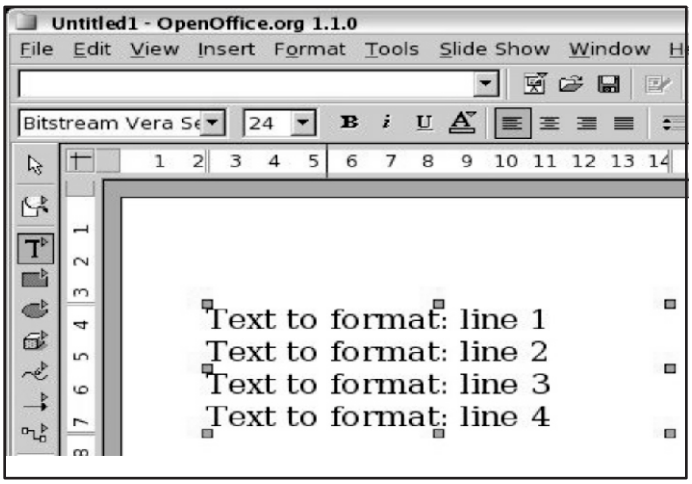
Click on Text icon in the main toolbar. Click on the slide and drag to draw a box, release the mouse when finished. The cursor appears in the text box which is now in edit mode. Type the text in the box. Click outside the text box to deselect it.

Formatting Text

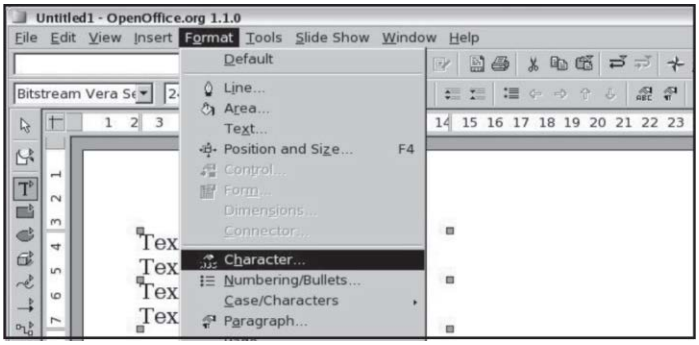
The text must be selected before it can be formatted:

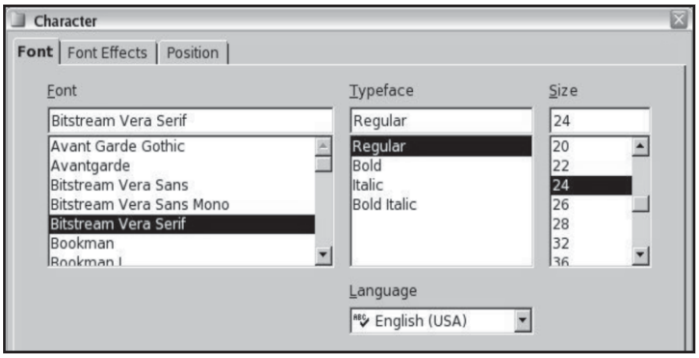
To format all text in a text box, click on the text, then click once on the border of the text box. Now any formatting changing will apply to all text in the box. To format only a part of the text, click once on the text, then select the part to be formatted by clicking and dragging (highlighting) over it. Formatting changes will apply only to the selected text.



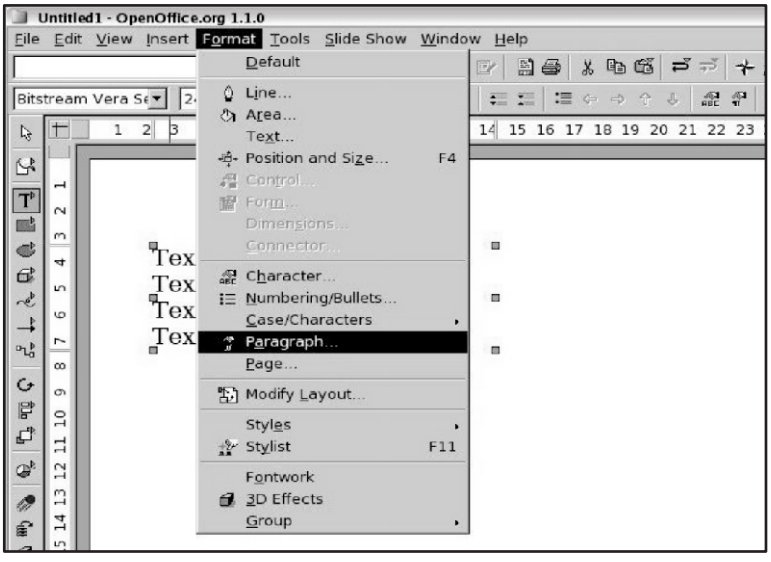


To view the Character Formatting options, select "Character..." from the Format menu or click the Character button on the Object Bar.

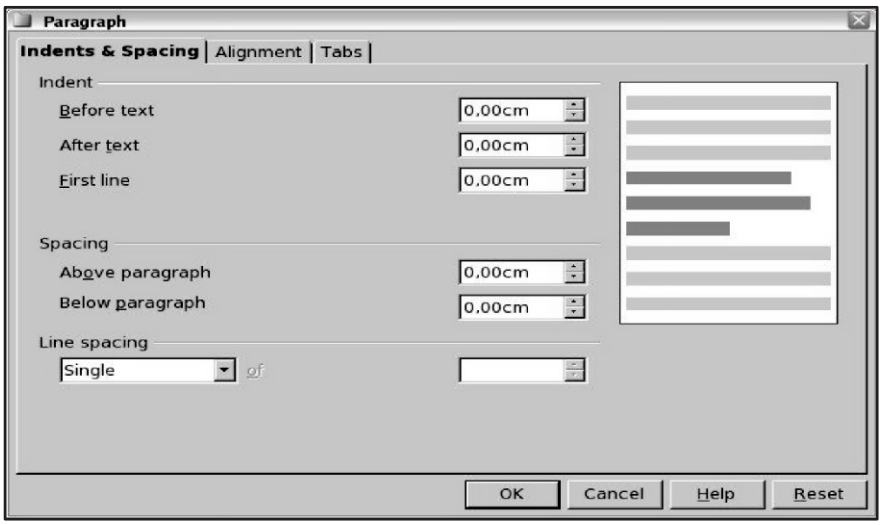




In this window you can specify the font, the typeface and the size of the text. At the bottom of the window there is a preview of the selected font.

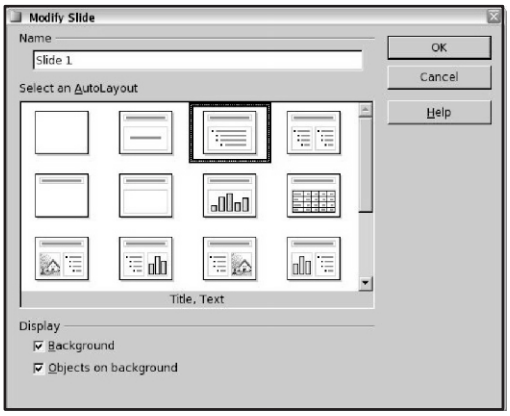


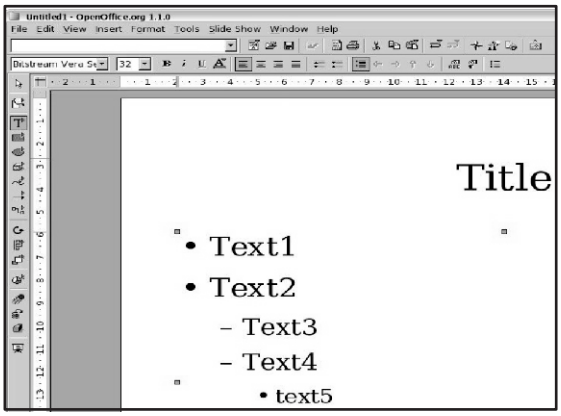
To view the Paragraph Formatting options, select “Paragraph..." from the Format menu or click the Paragraph button on the Object Bar.



In this window you can specify options about paragraphs.

Creating Bulleted / Numbered Lists





To create a bulleted or numbered list from AutoLayout text boxes, insert a new slide or modify the current one and then select an AutoLayout that contains a numbered list.

Click in the box that reads "**Click to add an outline**" Type the the text, then press *Enter* to start a new bulleted line or the next sequential numbered line. Press *Shift* + *Enter* to start a new line without creating a new bullet or number.

Creating a new outline level

Press *tab*. Each time you press *tab* the line indents to the new outline level. Pressing *Enter* creates a new line at the same level as the previous one.

Changing bullet type

Click in the list, and then click on the gray border of the text box so that just the green resizing handles are displayed. Select Numbering/Bullets from the Format menu or click on the Numbering Symbols button. Click a bullet style to choose it. Click OK.

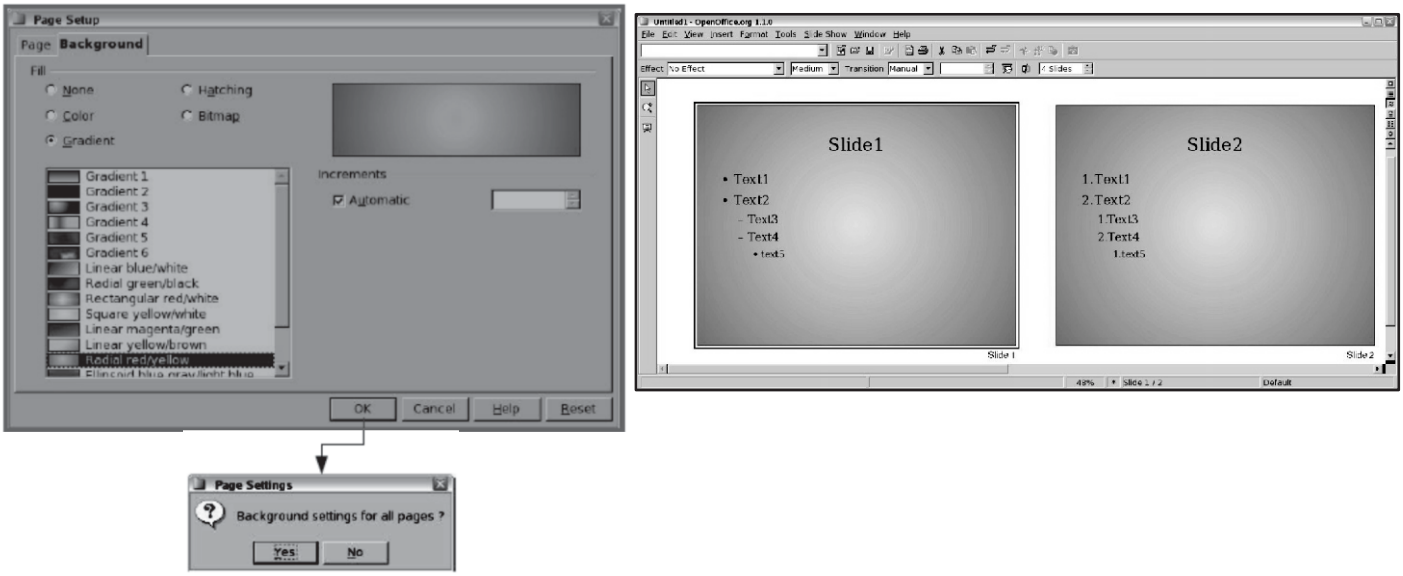
Changing the Slide Background

To change the slide backgrounds select "Page..." from the format menu and then select on the background tab.

Choose the type and style of background desired. Click OK. A message box appears asking:

"Background settings for all Pages?"

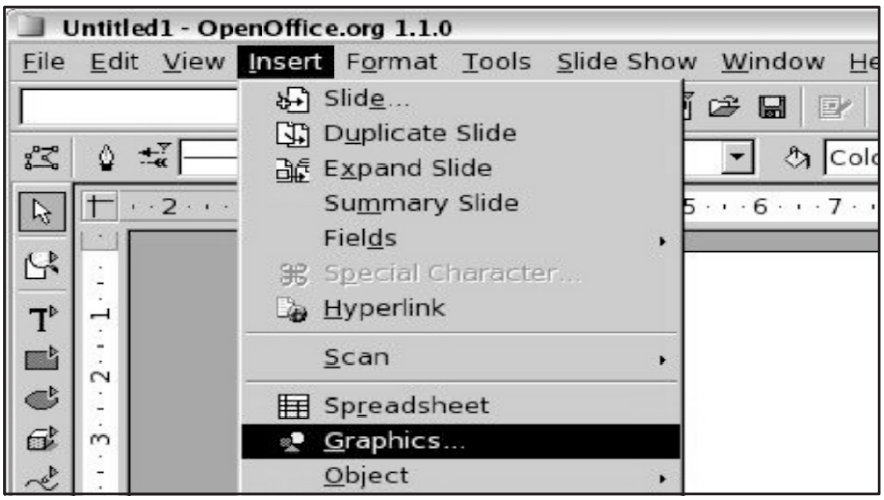
Click Yes if you would like the background appear on all the pages, or No if you would like the background to only appear on the selected slide.



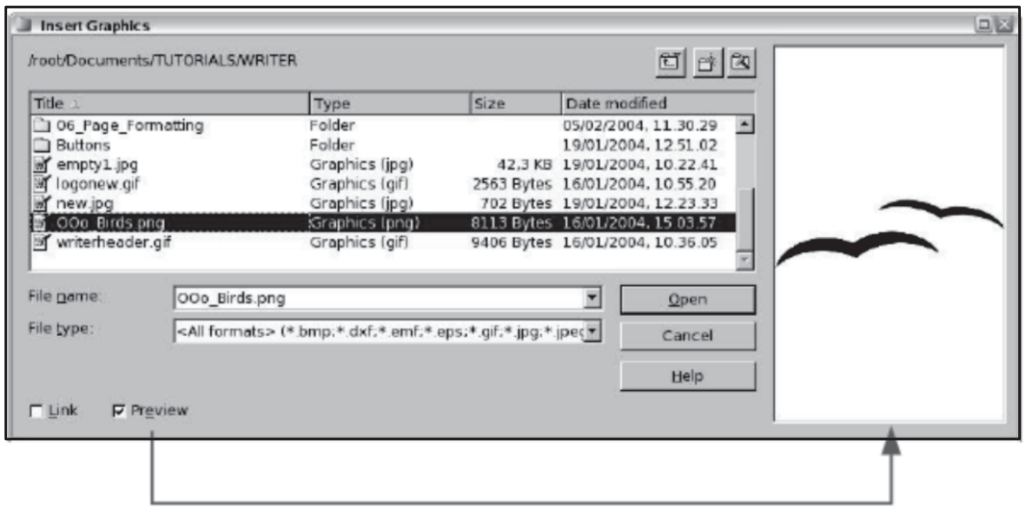
If you choose Yes all slides have the same background.

Importing Graphics

To insert an image select "Graphics..." from the Insert menu.

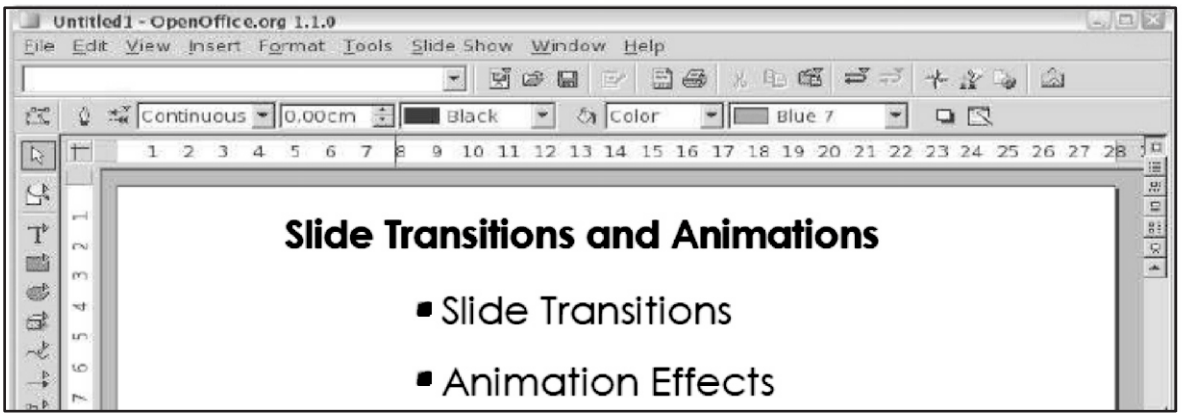


Choose an image to insert in your document and click Open. If the preview checkbox is selected, a preview of the image content is displayed on the right.



You can resize the image just by dragging one of the eight green points surrounding the picture.
When the move cursor appears over the image you can move the picture. To delete an image, click on it and then press **Delete**.

Slide Transitions and Animations

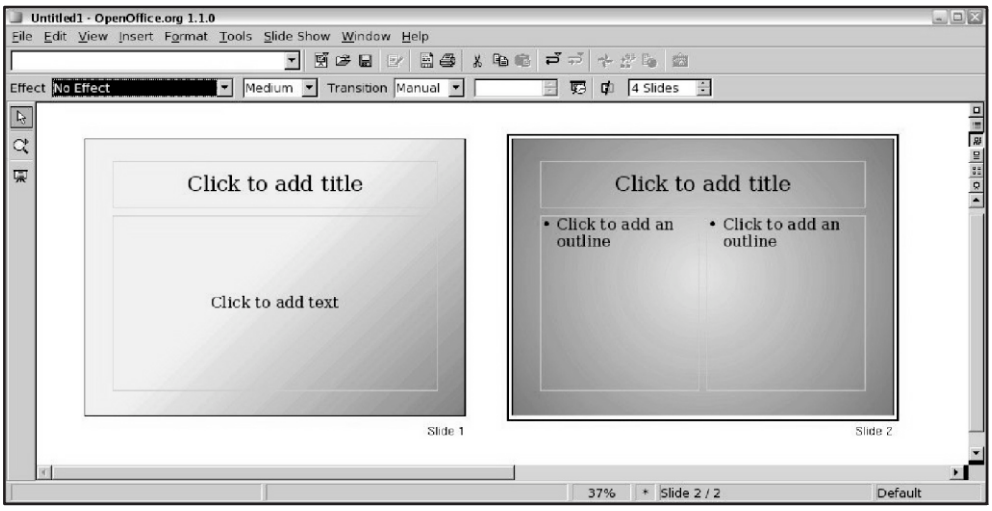


Slide Transitions

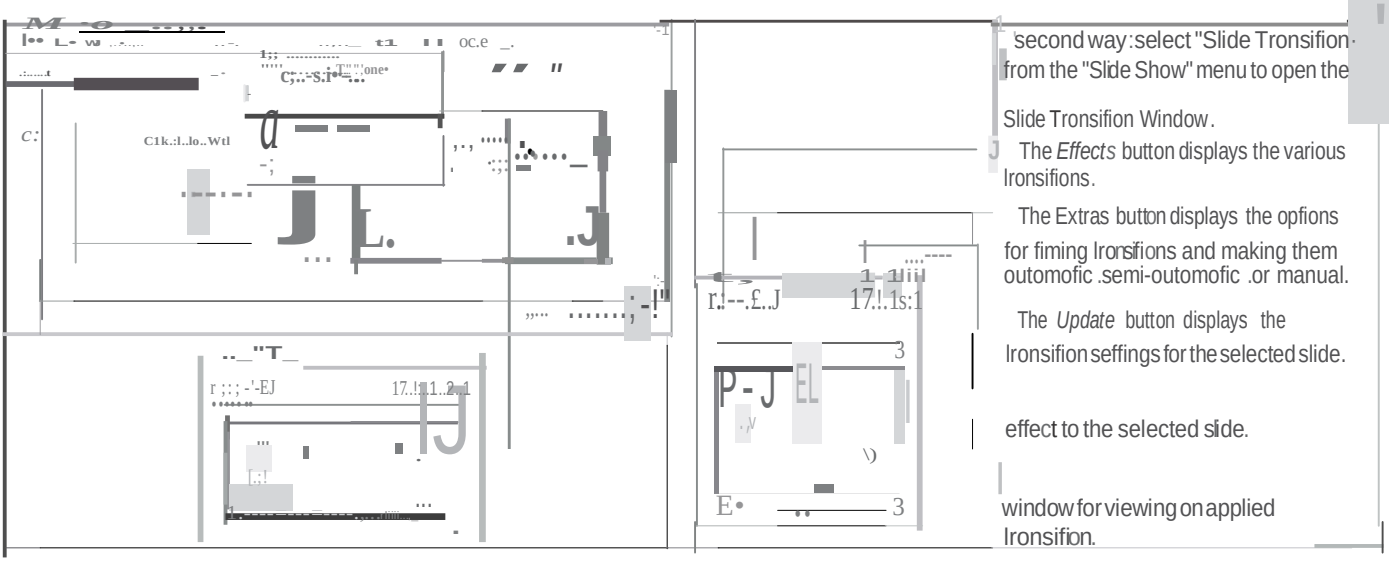
Applying a slide transition effect

- From Slide View, click on a slide to select it. The transition you apply to this slide will appears when the slides comes into view in the slideshow.
- Choose "Slide Transition" from the "Slide Show" menu.
- Choose an effects category from the pop-up menu above the main Effects window.
- Click on a thumbnail image to select that transition.
- Choose a transition speed from the pop-up menu above the main Effects window.
- Click the Assign button.

Slide transitions are the effects that take place when a slide gives way to the next one in the presentation. You can apply a different transition to all slides in the presentation or apply different transition to any single slide.



There are two ways to add a transition. First way: add a transition from the Slide View. When you switch in this mode, the Object Bar presents many options for choosing and controlling slide effects.



'second way: select "Slide Tronsifion from the "Slide Show" menu to open the Slide Tronsifion Window.

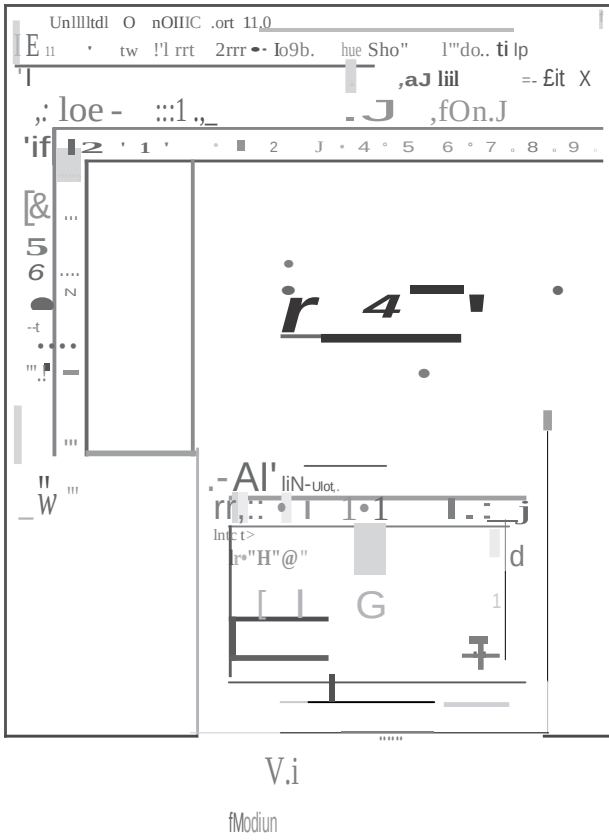
The *Effects* button displays the various Ironsifions.

The Extras button displays the opfions for fiming Ironsifions and making them outomofic .semi-outomofic .or manual.

The *Update* button displays the Ironsifion seffings for the selected slide.

effect to the selected slide.

window for viewing on applied Ironsifion.



To apply the animation, select an from the Animation Effect

effect
window, choose the speed of the animation and then press the *Assign* button.
The *Preview* button shows you the animation preview in a window.

Chapter-4

Open Office Cal-C

OpenOffice is an open source Office Suite package originally designed by Sun Microsystems. OpenOffice is much like Microsoft Office but free to use. The software can be freely downloaded and used. OpenOffice Calc is much like using Microsoft Excel.

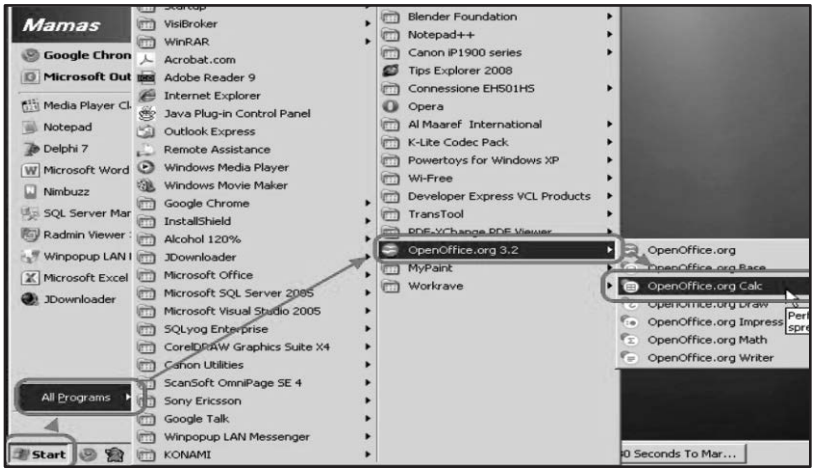
What is a Spreadsheet?

A spreadsheet is the computer equivalent of a paper ledger sheet. It consists of a grid made from columns and rows. It is an environment that can make number manipulation easy and somewhat painless. Spreadsheets are made up of columns, rows, and cells (intersection of a column and row. A cell can contain data including text (strings or labels), numeric data, and formulas.

Starting Open Office Calc

Procedure:

1. Click **Start**, **Programs**, **OpenOffice.org 3.2**, **OpenOffice Calc**.



Creating a New Document

Procedures

1. Type **CTRL+N** on your keyboard (hold down the CTRL key and type N).
2. Select **File, New, Spreadsheet** from the Menu Bar **OR**
3. Click on the **New Document Icon** on the Function Bar and select Spreadsheet.

Entering Data

Procedures

To enter text, values or a formula:

1. Click on the cell you wish to enter information.
2. Type the information.
3. Press the **ENTER** key on the keyboard or press one of the arrow keys.

Selecting (Highlighting) Cell(s)

To Select One Cell

Procedure

1. Click in the cell. (The active cell is already selected.)

To Select a Range of Cells (e.g. A1:G5)

Procedures

1. On the first cell of the range (e.g. A1), click and hold the left mouse button while dragging the mouse to the last cell of the range (e/g. G5).
2. All cells will turn black except the first cell will remain white.

To Select a Column or Row

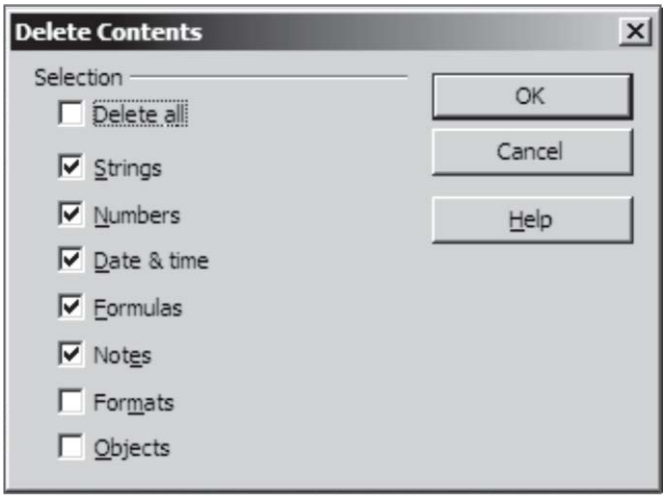
Procedure

1. Click on the column or row heading in gray.

Deleting Cell(s)

Procedures

1. Select the cell(s) you wish to delete.
2. Press the **DELETE** key on the keyboard. The following window will appear.
3. Check the boxes of what you wish to delete (e.g. checking Formats will delete things like bold, italics, font color, borders).
4. Click the **OK** button.



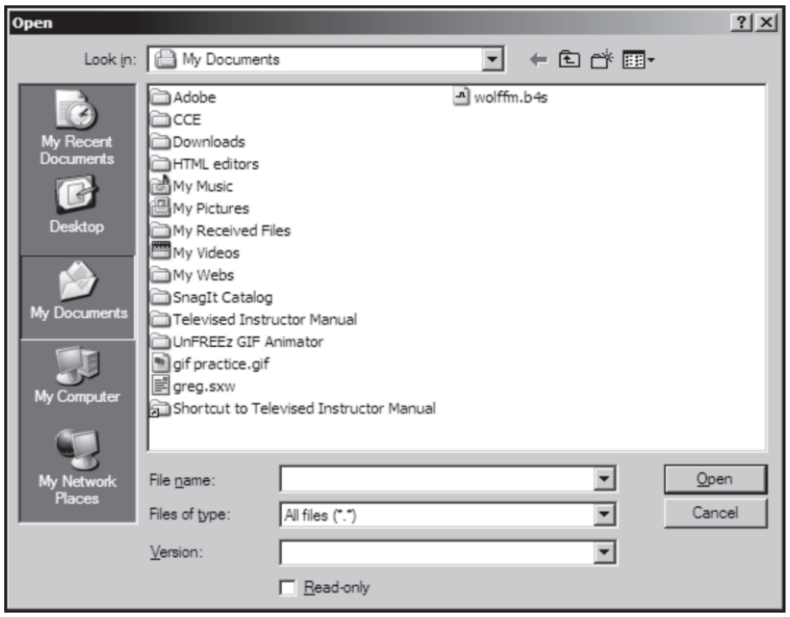
Opening and Saving a File

The opening, saving, and printing of files are the most common actions in a word processor, and therefore, they have to be very easy and accessible.

Opening a File

Procedures

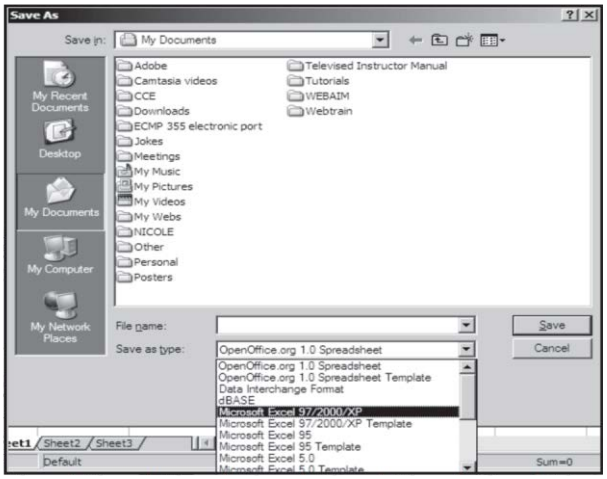
1. Select the **File menu, Open** from the Menu Bar, **OR**
2. Click the **Open File icon** on the toolbar.
3. An **Open File Dialog box** will appear as shown below. From the drop down list (shown by the arrow) indicated below, choose the directory that contains the file you wish to open.
4. When a list of files appears, double click on the filename to open the file.



Saving a File

Procedures

1. Choose **File, Save** from the Menu Bar, **OR**
2. Click the **Save icon** on the Function Bar.
3. If you are saving for the first time, a **Save File Dialog Window** will be displayed.
4. Type a filename and choose a location to save the file.
5. If you wish to save your file as a Microsoft Excel file format, change the Save as type to Microsoft Excel 97/2000/XP.
6. Click the **Save** button.



Cut, Copy, Paste

Cut and Paste

This allows the user to move selected text so that it can be placed somewhere else in the document or in another document.

Procedures

1. Select cell(s) that contain the information you wish to cut (move).
2. Click the **Cut** button on the toolbar or **CTRL + X** on the keyboard.
3. Click in the cell where you want to paste the information.
4. Click the **Paste** button on the toolbar or **CTRL + V** on the keyboard.

Copy and Paste

This allows the user to create a duplicate (copy) of the selected text to be placed somewhere else in the document or in another document.

Procedures

1. Select cell(s) you wish to cut (move).
2. Click the **Copy** button on the toolbar or **CTRL + C** on the keyboard.
3. Place the cursor where to place the cut cell(s).
4. Click the Paste button on the toolbar or **CTRL + V** on the keyboard.

Formatting

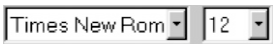
The formatting action in Open Office is slightly different from other Office applications such as Microsoft Office.

Changing the Font / Font Size

Font is the style of writing and font size is the size of the text with a 12-point size being 1/6 of an inch.

Procedures

1. Select the cell(s) you wish to change.

2. On the toolbar, click the  first drop-down arrow to change the font and the second drop down arrow to change the font size.

Bold, Italics, Underline

Procedures

1. Select the cell(s) you wish to format.
2. Click on the attribute icon you wish to apply such as  on the Toolbar. These buttons transform the selected text (in sequence from left to right) into Bold, Italics, and Underlined.

3. With the cell(s) still selected, click the button again to turn the feature off.

Cell Alignment

Procedures

1. Select the cell you wish to change.

2. Click on one of the alignment icons  on the function toolbar to modify the text alignment (left, center, right, or justified).

Font Color

Procedures

1. Select the cell (s) you wish to change.

2. Click the font color button on  the toolbar and pick the color of your choice.

Background (highlighting) Color

Procedures

1. Select the cell (s) you wish to change.

2. Click the background color button  on the toolbar and pick the color of your choice.

Undo / Redo Buttons

If you perform an action that does not give you the desired result, you can use the Undo button  to reverse the last action. Likewise, the Redo button  can be used to redo an action that has been undone.

Spelling / Grammar Check

There is only a spell check available in Open Office. Words spelled incorrectly will be underlined in red if the spell check toggle button is turned on.

Procedures

1. To turn the spell check on/off as you are typing, click the  button on the toolbar.
2. If you wish to spell check the entire document in order to make corrections, click the button on the toolbar.

Inserting Pictures

Follow these steps if you wish to add pictures that are saved in a file.

Procedures

1. Place your cursor where you want to place a picture.

2. Click **Insert** menu, Click **Graphics**, Click **From File .**

3. Pick the location where the file has been saved.

4. Double click filename to insert into document.

Note: Use the following toolbar to modify picture attributes.

Creating Formulas / Calculations

You can enter text, numbers or formulae in the cells. Of course, the whole purpose of a spreadsheet application is to be able to carry out calculations within these cells. A calculation can be simply adding two numbers or taking the average of ten numbers.

Note: A right mouse button click in the box where Sum is written will give you access to a context-sensitive menu that proposes other choices, such as mean, maximum, minimum...

Formula Basics

Just like in Microsoft Excel, formulas are started with an **EQUAL (=)** sign. (e.g. =b3+b4)

Use cell references (e.g. b3) instead of actual values (e.g. 56) wherever possible.

Use FUNCTIONS (e.g. SUM, AVERAGE) to save time when creating formulas. e.g. =SUM(A1:A9)

Instead of =A1+A2+A3+A4+A5+A6+A7+A8+A9

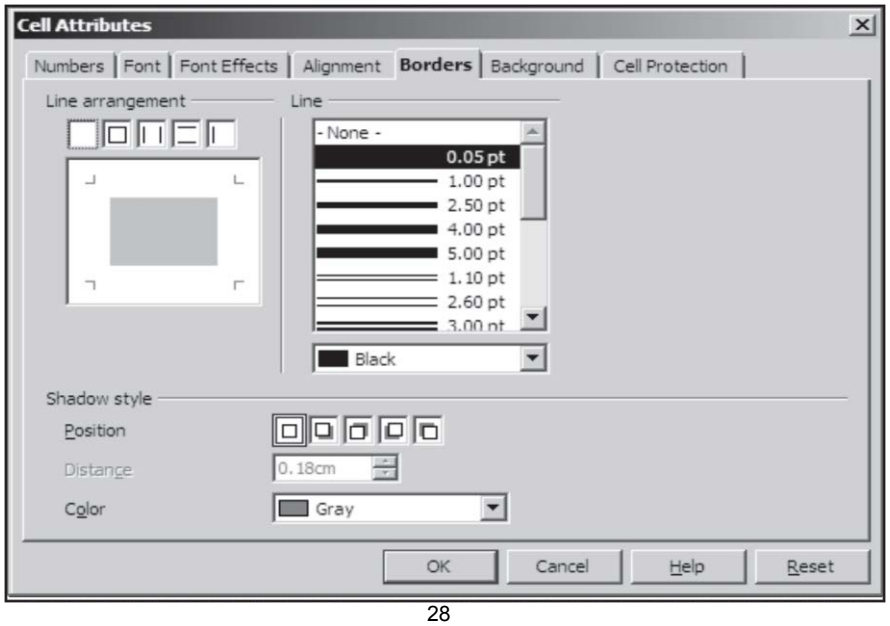
By typing "=sum()", you are telling the software the type of mathematical operation that you want to carry out on the referenced cells that are between parentheses. You can also select the ranges to be added together using the mouse. After having typed "= sum()" into the target cell, click on the first cell and whilst holding the mouse button down, drag the mouse to the last cell of the range, and then let go of the mouse button, and you will see the end of the formula inserted in automatically into the Formula bar.

Cell References: It is important to grasp the basics of references when you want to carry out calculations on cells containing formulae. A relative reference is a range whose references are adjusted when the formula is moved:

e.g. If you copy the formula "=sum(A1:A9)" to column B, it will become "=sum(B1:B9)"

An absolute reference is used when a calculation has to refer to a precise or absolute cell of the spreadsheet. This is written using dollar signs ($) around the cell reference. For example, typing $A$1 will make column A and row 1 absolute or fixed.

e.g. If you copy the formula "=$B$3 * B8" from cell C8 to cell C9, the formula would read "=$B$3 * B9. Notice the first part of the formula (=$B$3) did not changed when copied. A good example of when you might use an absolute cell reference is when you are calculating the tax on an item. The tax (7%) will not change. Each item will be multiplied by the same tax amount.



Formatting Cell(s)

Text Alignment

Use these buttons  found on the toolbar to change the alignment of cell contents.

Merging Cells

Sometimes you might want to center a title between many columns.

Procedures

1. Select all the cells in which the title is to be centered between.
2. In the menu toolbar, select **Format, Merge Cells, Define**.
3. The cells are now merged into one large cell. Click the **Center** button  on the toolbar to center text within this cell.
4. Click the **OK** button.

Other Formatting Hints

The 'Cell Attributes' window (click Format, Cells) below includes other tabs for cell formatting (e.g. **Fonts, Font Effects, Alignment, etc**). The function toolbar also contains some of these formatting functions.

Example: Adding Borders

A border such as a thick dark border can be added to emphasize a range of cells.

Procedures

1. Select the cells for which you want to add a border.
2. Choose the **Format menu, Cells** and click on the tab called `**Borders**'.
3. Choose the style and thickness of the border 

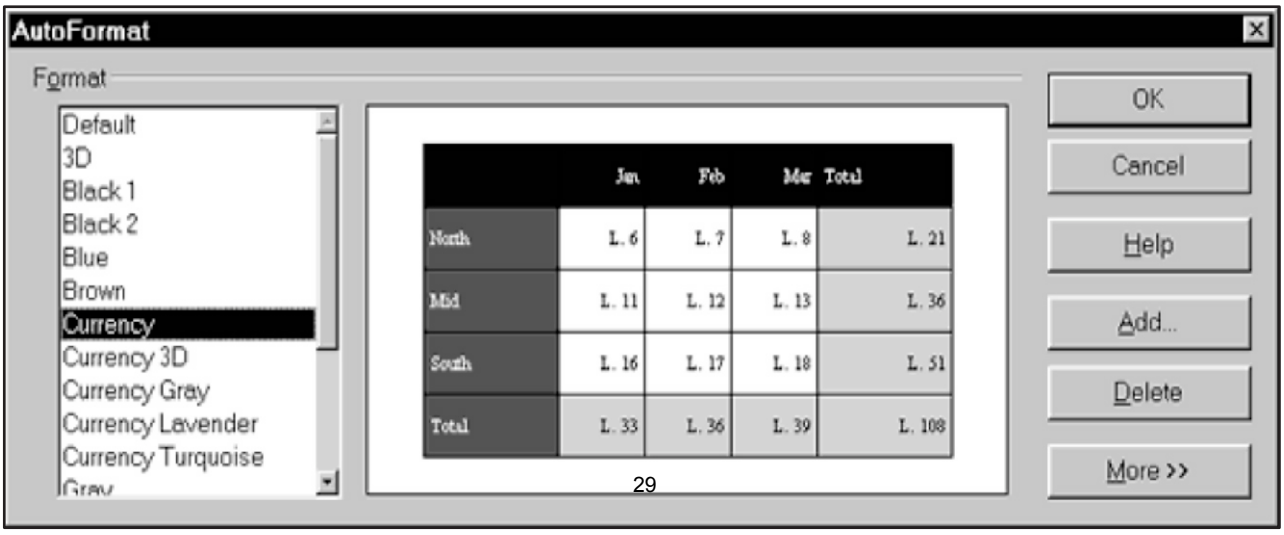
you wish to use.

Using the Auto Format feature

This feature formats a range of cells with color, borders, font, font size, etc. automatically rather than you having to do it one step at a time.

Procedures

1. Select the range of cells you wish to format.
2. Select the **Format menu**, **Auto Format**, or click the Auto Format button  on the toolbar to the left of your screen.
3. Click the format you want from the left side. You can create your own format (see the **Add....** button to the right) and delete it when you do not want it anymore. By clicking on the **More** button, some additional formatting options appear. If you modify them, the result will be presented in the preview image displayed in the Auto Format window.
4. Click **OK**.



Page Settings

Page settings allow you to change settings related to a page as a whole such as changing the page orientation (e.g. portrait - 8.5" x 11" or landscape- 11" x 8.5"), adding headers/footers, and margins.

Changing Page Orientation

Procedures

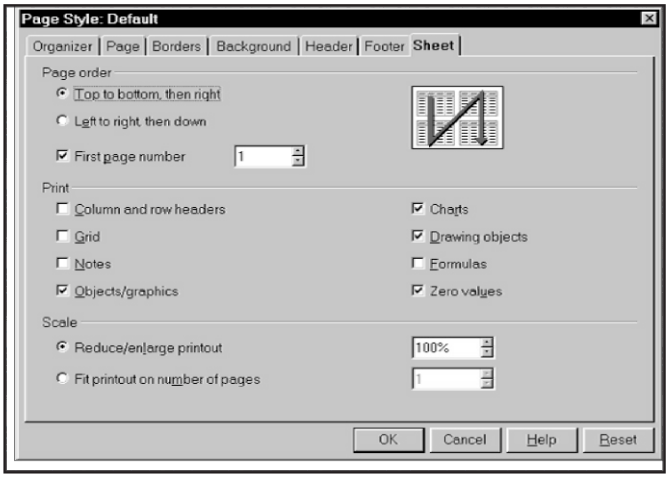
1. From the menu toolbar, choose **Format, Page**.
2. Click on the tab **Page**.
3. At the section *Orientation*, click on the radio button **Landscape**.
4. Confirm with **OK**.

To verify the change in page orientation, click the **File menu, Preview**.

Other Page Setting Options

In the **Margins section** of the **Page tab**, you set the margin sizes. If you set them beyond the printing area, a message will warn you.

In the **Layout settings section** of the **Page tab, Page Layout** lets you select how to align the content of the cells inside the sheet.



In the **Sheet Tab** under **Scale**, the **Reduce/enlarge printout** option allows you to decrease or increase the size of the printed page.

In the **Sheet Tab** under **Scale**, the **Fit printout on number of pages option** allows you to determine the exact number of pages on which the spreadsheet will be printed. The size of the sheets will be adjusted to fit that number of pages.

Creating Charts

A chart (e.g. bar chart, pie chart) is a visual representation of data contained in a spreadsheet.

Procedures

1. Select the cells you wish to include in the chart.
2. Click the **Insert menu, Chart...**
3. **Step 1**: Choose whether you want your chart in the same sheet as your data or a new sheet.
4. Click **Next**.
5. **Step 2**: Choose a chart type from the list.
6. Click **Next**.
7. **Step 3**: Choose a chart sub-type (variant) from the list. Choose data series in rows or columns.
8. Click **Next**.
9. **Step 4**: Add a title to your chart.
10. Click the **Create** button.

Printing a File

It is a good habit to check how the document will look when printed, before printing. It can be done by using the **Page Preview** feature.

Procedures

1. Select **File, Page Preview** from the menu bar to switch to the **Page Preview Mode**.
2. Click **Page Preview**  button in Page Preview to close Page Preview and return to the main document. You may want to print part of your spreadsheet, the entire workbook (all worksheets) or even only one sheet.

Printing a Selected Area of your Worksheet

Procedures

1. Select the cell(s) you wish to print.
2. Select the **File menu, Print**.
3. In the dialog box that appears, click on the box **Selection** in `Print range'.
4. Click **OK**.

Printing a Single Worksheet

Procedures

1. Click the **File menu, Print**.
2. In the dialog box that appears, under **Print Range** click on the radio button Pages and enter the page number that you wish to print. If you wish to print more than one page at a time such page 2 and 3, you would enter 2,3.
3. Click **OK**.

Printing Multiple Worksheets

Procedures

1. Select the worksheets you wish to print by clicking the first sheet tab at the bottom of the page, press and hold the **CTRL** key on the keyboard and select the remaining sheets you wish to print.
2. Click on the icon **Quick printing** in the function toolbar.
3. To undo selected sheets, press and hold the **CTRL** key and click once more on the sheet tab.

Chapter-5
Open Office Base

BASE is a fully featured desktop database management system, designed to meet the needs of a broad array of users, from just tracking your personal CD collection, to producing a corporate monthly departmental sales report. BASE offers wizards to help users new to database design (or just new to BASE) to create Tables, Queries, Forms and Reports, along with a set of predefined table definitions for tracking Assets, Customers, Sales Orders, Invoices and much more.

When a personal use database is all you need, BASE offers the full HSQL relational database engine, configured for single user, with the data stored right in the BASE file, as well as native support for dBase flat files.

For power users in the enterprise, BASE delivers native support drivers for a variety of multi-user database engines: MySQL, Adabas D, MS Access and PostgreSQL. In addition, support for JDBC and ODBC standard drivers allows you to connect to virtually any existing database.

- BASE integrates seamlessly into the rest of the OpenOffice.org suite applications, for example:
- Supplying address book data for mail merge in WRITER using the industry standard LDAP protocol, or common address book formats such as Microsoft Outlook, Microsoft Windows and Mozilla;
- Creating linked data ranges in CALC files for data pilot analysis or as the basis for charts.

What is Data?

Data is a collection of facts, such as values or measurements. It can be numbers, words, measurements, observations or even just descriptions of things.

What is a database?

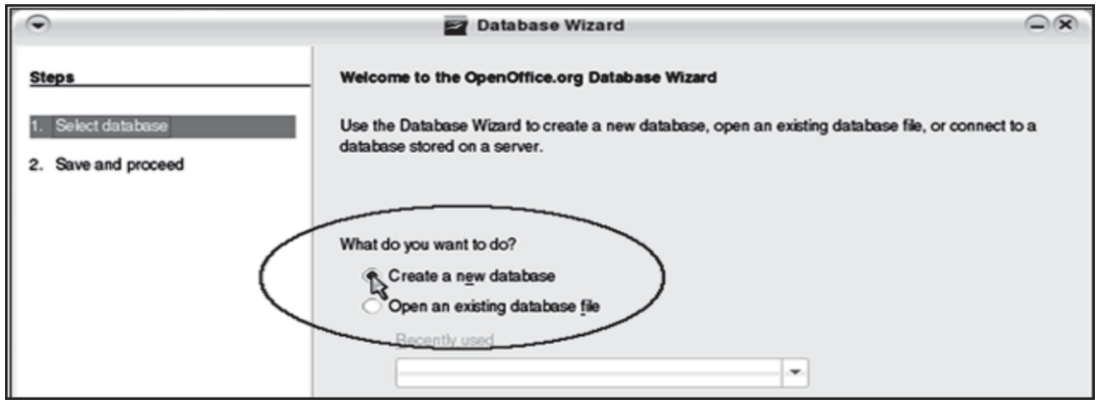
Collection of inter-related data is known as Database.

Create a new database

1. Start Open Office.org Base. Your screen should look like this:

2. In the **Database Wizard** window, click the **Create a new database** radio button.

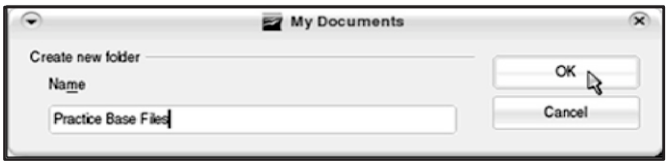
Then click the Finish button.



3. When the **Save as** window appears, create a new folder in the **My Documents** folder called **Practice Base Files**.

TIP: *To create a new folder, make sure the* ***My Documents*** *folder appears as the Save In folder.*

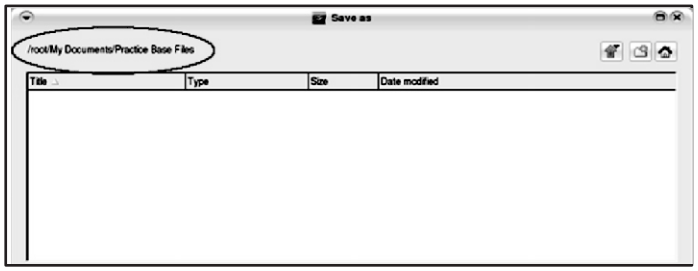
Then click the icon.



4. Double-click the **Practice Base Files** folder. It should appear as the Save In folder.

5. In the **File name** box, type:
Family.odb

TIP: *Base will automatically add a file extension for you when you leave the* ***Automatic file name extension*** *box checked.*



Click the Save button. The window for the **Family** database should open:

Identify database elements

Elements of databases

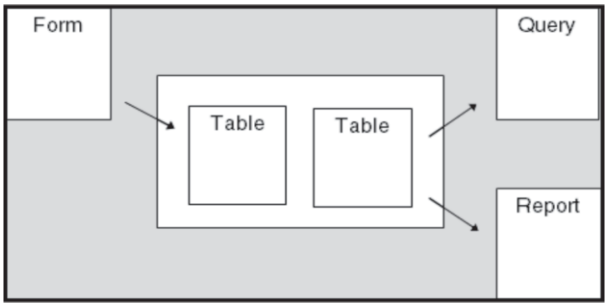
A database stores information in an organized way, and makes it easy to get information in and out.

Tables store data within the database.

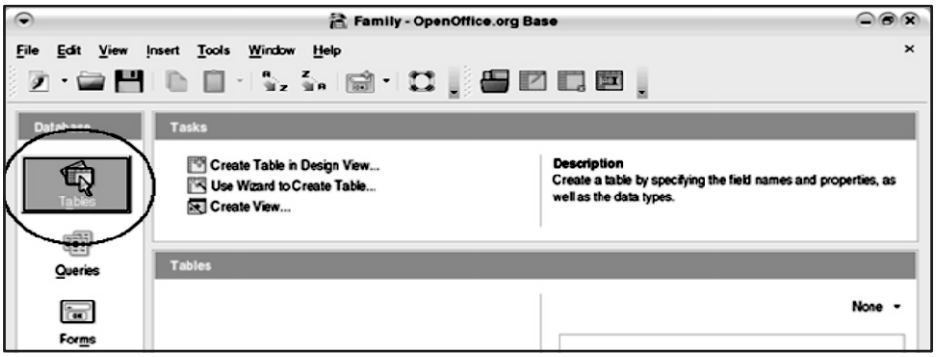
Forms make it easy to put data into tables.

Queries pull out specific data.

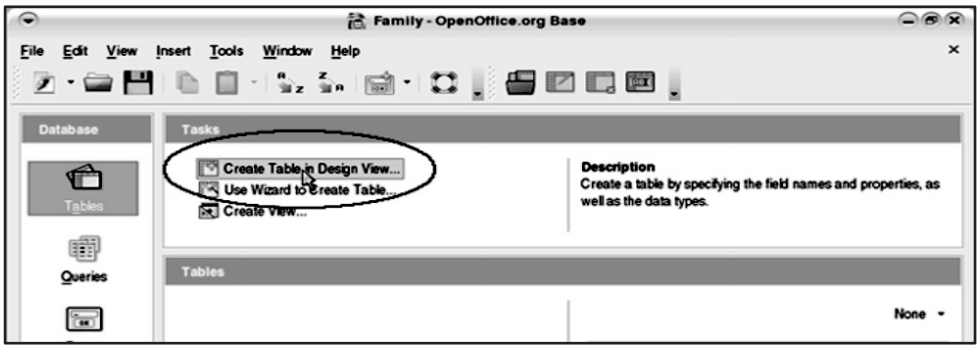
Reports put data in an easily-read format.



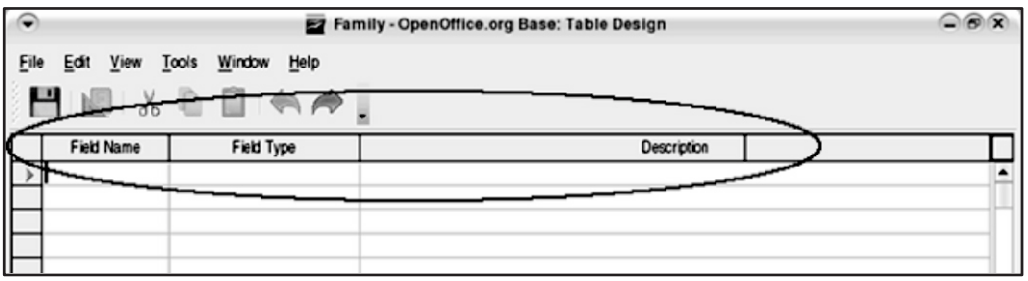
1. In the **Database** list, click **Tables**.



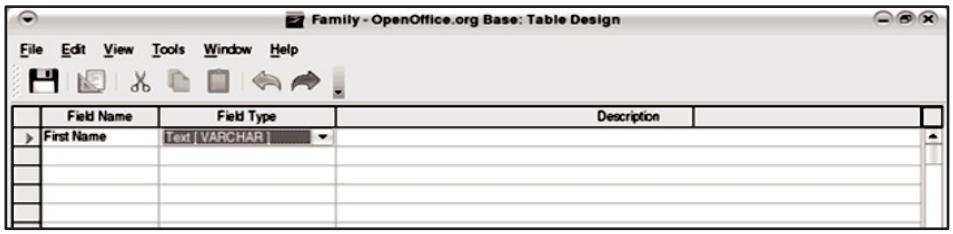
2. Click **Create Table in Design View**.



A blank table should open with the columns **Field Name**, **Field Type**, and **Description**:

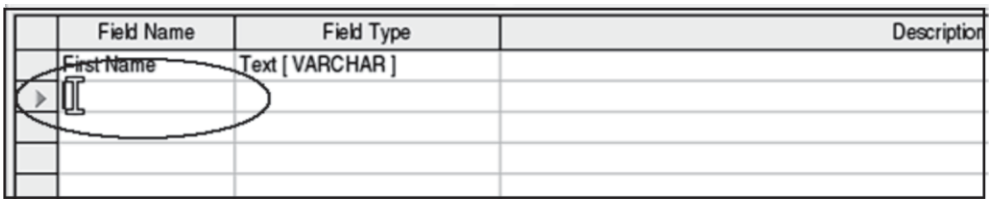


1. Type: **First Name**. Then Press the **ENTER** key on your keyboard. The Design View of the table should look like this:

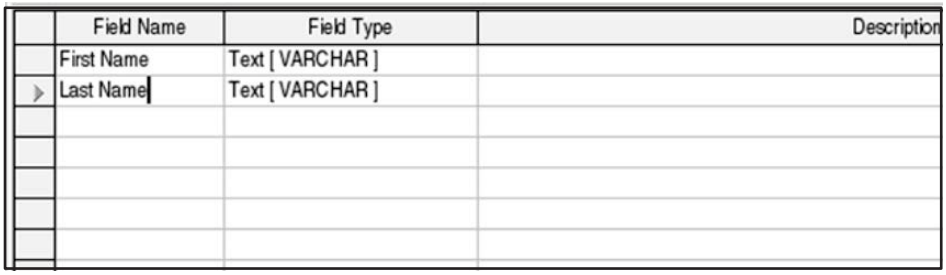


The field type for **First Name** can stay **Text [VARCHAR]**.

1. Click in the box under where you just typed **First Name**

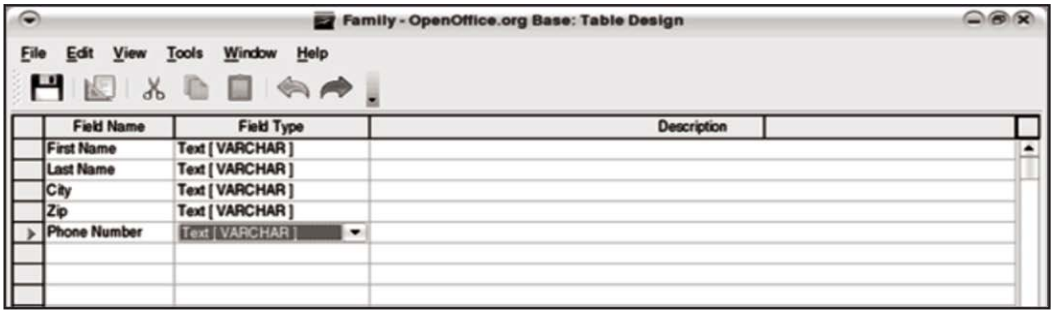


Type: **Last Name**
It should look like this:

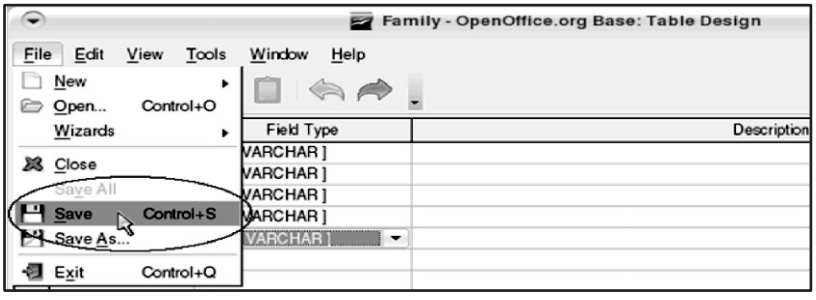


1. Press the **ENTER** key on your keyboard.

2. In the same way, create the fields: **City** ,**Zip, Phone Number**
The table should now look like this:

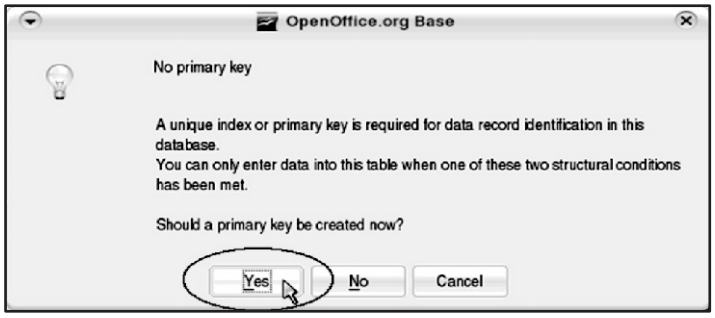


1. On the Menu Bar, click **File**, then **Save**.



2. When the **Save As** window appears, type: **My Family** in the **Table Name** box.
3. Click the OK button.

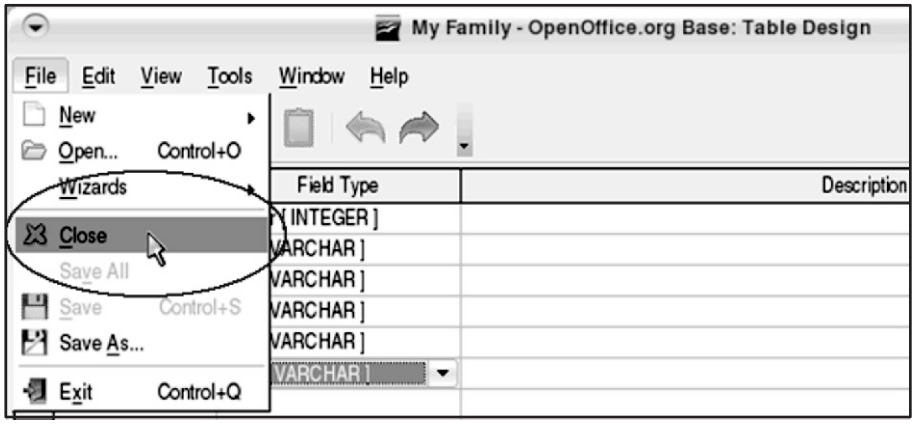
4. When the alert window that reads **No primary key** appears, click the Yes button.



Base will insert an **ID** field—the Key field—in the table:

	Field Name	Field Type	Description
🔑	ID	Integer [INTEGER]	
	First Name	Text [VARCHAR]	
	Last Name	Text [VARCHAR]	
	City	Text [VARCHAR]	
	Zip	Text [VARCHAR]	
▶	Phone Number	Text [VARCHAR]	

5. On the Menu Bar, click **File**, and then **Close**.

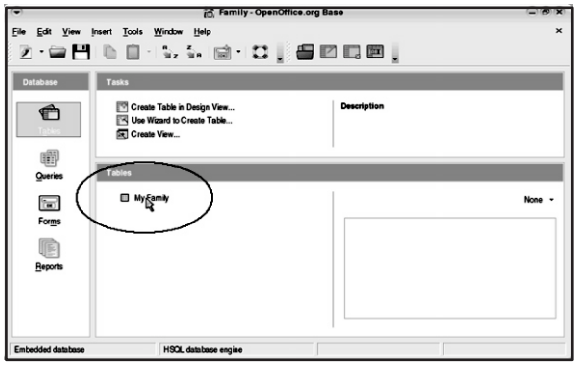


What is the key field?

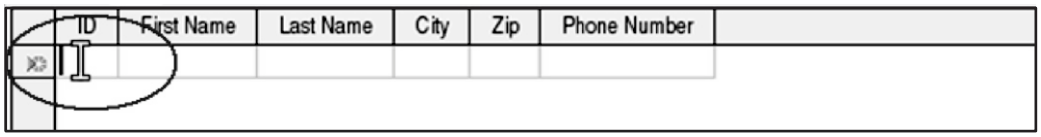
When the alert window popped up, and you clicked the Yes button, Base added the **ID** field to the table. The **ID** field is now the table's primary key, or key field. That means it can't contain any duplicates. Every table should have a key field. For example, if a hospital keeps a database, each patient can have a unique ID number in the key field. That way, if it has more than one patient named John Baker, it can easily distinguish John Baker, ID #326 in for a checkup,

Create records

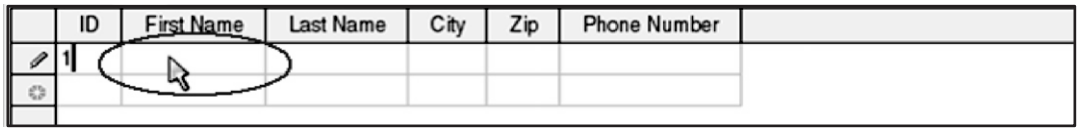
1. Double-click the table **My Family** in the **Tables** list.



2. Click in the box under the **ID** column header.

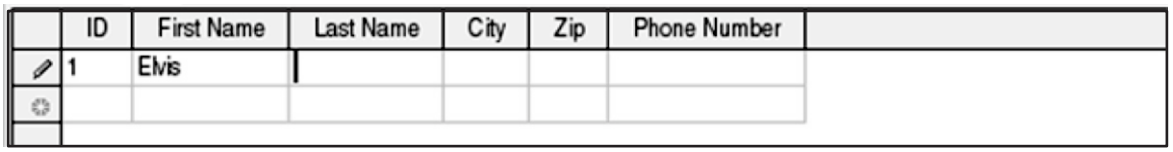


3. Type: **1**
4. Click in the box under the **First Name** column header.



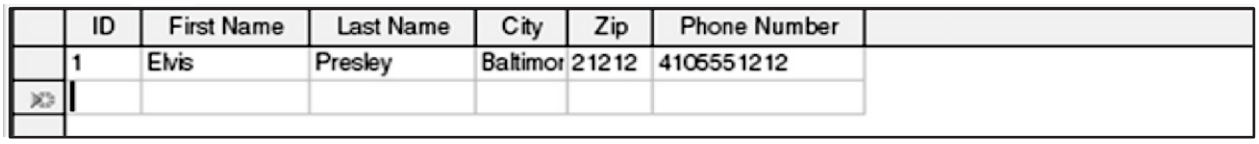
5. Type: **Elvis**
6. Press the **TAB** key on your keyboard.

The table should now look like this:



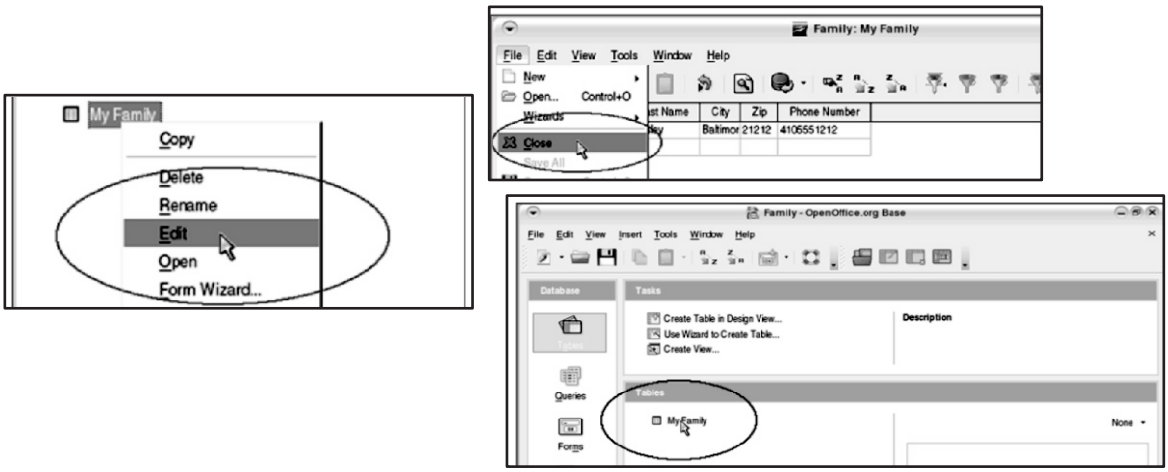
4. Type: **Presley** then press the **TAB** key.
5. Type: **Baltimore** then press **TAB**.
9. Type: **21212** then press **TAB**.
10. Type: **4105551212** then press **TAB**.

The table should now look like this:

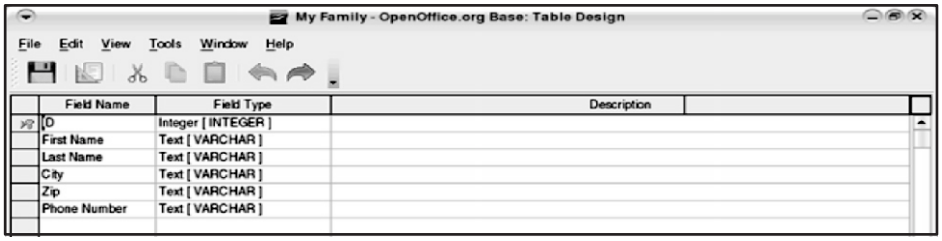


Add new fields

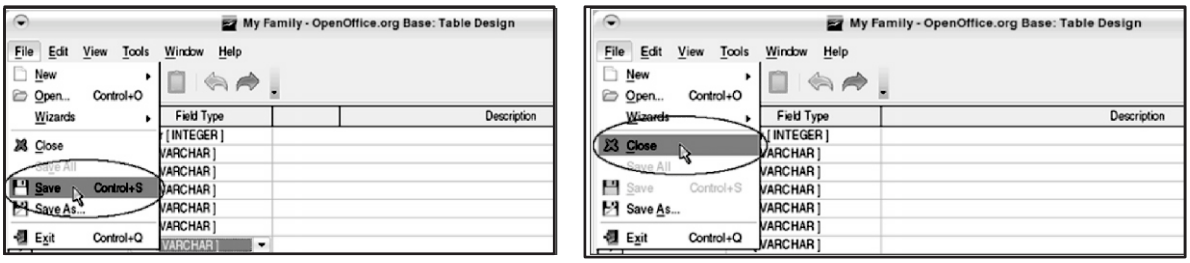
1. On the Menu Bar, click **File**, then **Close**.
2. Right-click the **My Family** table.
3. When the menu appears, click **Edit**. The table should appear in Design View:



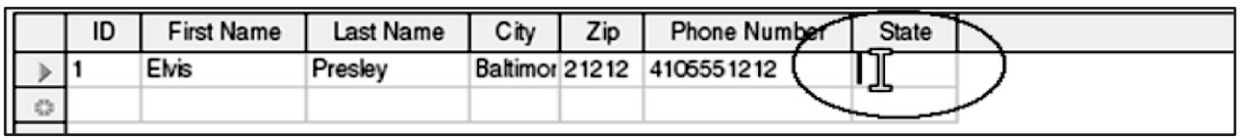
4. Click the box under **Phone Number** and type: **State**
5. Press the **ENTER** key.
6. On the Menu Bar, click **File**, then **Save**.



7. On the Menu Bar, click **File**, then **Close**.
8. Double-click the **My Family** table.

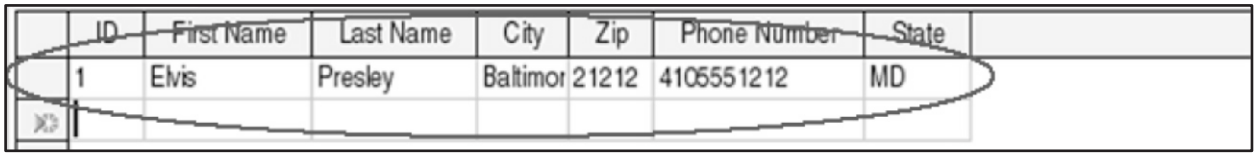


9. Click inside the new **State** field for the first record.



10. Type: **MD**

11. Press **TAB** until the cursor moves down to a new record. Record number **1** is saved and complete.



12. On the Menu Bar, click File, then Close.

Chapter-6
Networking and HTML

HyperText **Markup Language** (**HTML**) is the predominant markup language for web pages. HTML elements are the basic building-blocks of web pages.

History of HTML

In 1980, physicist Tim Berners-Lee, who was a contractor at CERN**,** proposed and prototyped ENQUIRE**,** a system for CERN researchers to use and share documents. In 1989, Berners-Lee wrote a memo proposing an Internet-based hypertext system. Berners-Lee specified HTML and wrote the browser and server software in the last part of 1990. In that year, Berners-Lee and CERN data systems engineer Robert Cailliau collaborated on a joint request for funding, but the project was not formally adopted by CERN. In his personal notes from 1990 he lists "some of the many areas in which hypertext is used" and puts an encyclopedia first.

HTML is a language for describing web pages.

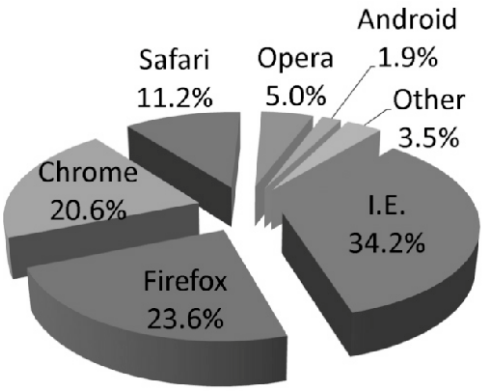
- HTML stands for **H**yper **T**ext **M**arkup **L**anguage
- HTML is not a programming language, it is a **markup language**
- A markup language is a set of **markup tags**
- HTML uses **markup tags** to describe web pages

HTML markup tags are usually called HTML tags

- HTML tags are keywords surrounded by **angle brackets** like <html>
- HTML tags normally **come in pairs** like and
- The first tag in a pair is the **start tag,** the second tag is the **end tag**
- Start and end tags are also called **opening tags** and **closing tags**

Web Browsers

A **web browser** is a software application for retrieving, presenting, and traversing information resources on the World Wide Web. An information resource is identified by a Uniform Resource Identifier (URI) and may be a web page, image, video, or other piece of content. Hyperlinks present in resources enable users easily to navigate their browsers to related resources. A web browser can also be defined as an application software or program designed to enable users to access, retrieve and view documents and other resources on the Internet. The major web browsers are Firefox, Google Chrome, Internet Explorer, Opera, and Safari.



HTML Documents = Web Pages

- HTML documents **describe web pages**
- HTML documents **contain HTML tags** and plain text
- HTML documents are also **called web pages**

Editing HTML

HTML can be written and edited using many different editors like Dreamweaver and Visual Studio. However, in this tutorial we use a plain text editor (like Notepad) to edit HTML. We believe using a plain text editor is the best way to learn HTML.

HTM or .HTML File Extension?

When you save an HTML file, you can use either the .htm or the .html file extension. There is no difference, it is entirely up to you.

Document Tags

Document tags define the overall structure of an HTML document.

There are four tags every HTML document should have. These tags define that what type of document it is, and the major sections. These tags are <HTML>, <HEAD>, <TITLE>, and <BODY ...>. You may also wish to use the <!DOCTYPE ...> declaration under some circumstances.

A really basic document might look like this:

<HTML>
<HEAD>
<TITLE>A Really Basic Document</TITLE>
</HEAD>
<BODY>
This is a really basic document.
</BODY>
</HTML>

The use some of these tags (particularly <HTML>, <HEAD>) has been an ongoing source of controversy for some time. Because these tags don't have any visible effect on a web page, they seem useless. In fact, these tags are optional. The standards published by W3C have clearly stated all along that <HTML>, <HEAD>, and <BODY ...> are *optional*.

Formatting Tags

This section includes the tags often used for formatting the HTML text.

<Font>

The tag is used to change the format of the text on the web page. The most important attributes are as follows:

· face: The type of font. Common ones include "Time New Roman", "Verdana", and "Helvetica."
· size: This indicates the size of the text. This can be absolute (0 .. 6), or relative ("+1", "+2", ... or "-1", "-2" ...)
· color: This indicates the color of the text. Either the color name or the six-character color code may be used to specify color.

Example

This illustrates the attributes of the font tag.

<b>

The <b> tag will **bold** the text inside the tag.

<i>

The <i> tag will *italicize* the text inside the tag.

<u>

The <u> tag will *underline* the text inside the tag.

Here's an example using <b>, <i>, and <u>:

HTML:

```
This <b>example</b> shows how <i>important</i> it is to use <u>tags</u>.
```

Header Tags

The header tags <h1>, ... <h6> allows us to place additional importance on the text within such tags. <h1> has the largest size, and <h6> the smallest. Many search engines put additional weight on the texts within the header tags.

Example 4

HTML:

```
<h1>This is h1 text.</h1>
<h2>This is h2 text.</h2>
<h3>This is h3 text.</h3>
<h4>This is h4 text.</h4>
<h5>This is h5 text.</h5>
<h6>This is h6 text.</h6>
```

** **

The tag causes all the text within the tag to be centered. An example is as follows:

Example

```
<center>This is centered text.</center>
```

**
**

The
 tag indicates a line break. This tag is most often used by itself, without a corresponding closing tag.

<p>

The <p> tag indicates a new paragraph. It is the same as

. This tag is most often used by itself, without a corresponding closing tag.

HTML List

This section lists the tags often used with HTML lists: <ol>, <ul>, and <li>.

<ol>

The <ol> tag specifies that the following list is ordered.

<ul>

The <ul> tag specifies that the following list is unordered.

<li>

The <li> tag lists each item, whether ordered or numbered. Note that each item is indented.

Example: ordered list.

```
<ol>
<li>Unordered list 1.</li>
<li>Unordered list 2.</li>
</ol>
```

Example: unordered list.

```
<ul>
<li>Unordered list 1.</li>
<li>Unordered list 2.</li>
</ul>
```

HTML Hyperlink

<a>

The essence of an HTML document lies in the first two words: (H)yper(T)ext. In other words, it is the ability to link to other documents that makes HTML unique. How do HTML documents link to other documents? It does so via the <a> tag. The attributes for the <a> tag are href and name. Below we show an example for each:

Example 1: Link to an external document.

This link takes you to a document called "sample.html."

Example 2: Link to an anchor within the same document.

HTML:

This link takes you to a pre-determined location on the same page.

HTML Image

<img>

The <img> tag is used to embed an image on the HTML document. The attributes are as follows:

- src: The file path to the image file.
- width: The width of the image, in pixels.
- height: The height of the image, in pixels.
- alt: The text the browser will display when visitors mouse over the image. Search engines often places more weight on the text in the alt attribute.

Example:

```
<html>
<body>
<h2>Norwegian Mountain Trip</h2>
<img border="0" src="/images/pulpit.jpg" alt="Pulpit rock" width="304" height="228" />
</body>
</html>
```

Internet

When the computing era took a major leap in the 80s, it was all just about the operating systems and the programming languages. It was not long after the computer revolution that a tide, a blizzard of communication, arrived. This technology now makes the computers look lifeless if they don't have it. Connecting the corners of the cobwebbed world even from its remotest corner is the

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'**Internet**'.

Internet: What is Internet?

The Internet can be defined as the wired or wireless mode of communication through which one can receive, transmit information that can be used for single or multiple operations.

History

This marvelous tool has quite a history that holds its roots in the cold war scenario. A need was realized to connect the top universities of the United States so that they can share all the research data without having too much of a time lag. This attempt was a result of Advanced Research Projects Agency (**ARPA**) which was formed at the end of 1950s just after the Russians had climbed the space era with the launch of Sputnik. After the ARPA got success in 1969, it didn't take the experts long to understand that how much potential can this interconnection tool have. In 1971 Ray Tomlinson made a system to send electronic mail.

1973 saw the preparations for the vital **TCP / IP** and Ethernet services. At the end of 1970s, Usenet groups had surfaced up. By the time the 80s had started, IBM came up with its PC based on Intel 8088 processor which was widely used by students and universities for it solved the purpose of easy computing. By 1982, the Defence Agencies made the TCP/IP compulsory and the term “internet” was coined. The domain name services arrived in the year 1984 which is also the time around which various internet based marked their debut. Soon after the world got over with the computer worm, **World Wide Web** came into existence. Discovered by **Tim Berners-Lee**, World Wide Web was seen as a service to connect documents in websites using hyperlinks.

In 1992, internet browser called “Mosaic” came into existence. One of the very popular internet browsers, Netscape Navigator made its debut in 1994 which ultimately went to compete with Microsoft's Internet Explorer.

The advantages of Internet

Following are the advantages provided by the Internet:

1) **Information:** The biggest benefit offered by the Internet is information. It functions as a valuable resource of information. You can find any type of information on any subject with the help of the search engines like Yahoo and Google.

2) **Communication** The primary goal of the Internet is communication. It has done extremely well in this field, however the development process is still going on to make it more dependable and quick. By sending an e-mail, we can contact a person who is physically present thousand miles away within the fraction of a second's time.

3) **Entertainment** Internet functions as a popular medium of entertainment. A wide variety of entertainment including video games, music, movies, chat room, news and others can be accessed through the Internet.

4) **E-commerce:** E-commerce is the idea that is implemented for any form of commercial strategy or business transactions that entails transmission of data from one corner of the world to another. E-commerce has become a fantastic option through which you can shop anything.

5) **Formation of communities** Internet helps in formation of communities or forums. Here a number of people can participate in different types of debates and discussions express their views and gather valuable knowledge.

6) **Services** A variety of services are offered via Internet, for example job searching, online banking, buying movie tickets, hotel reservations and consultation services etc. When you avail these services offline, they become more expensive.

NETWORK ARCHITECTURE

It is a network communication design in which the physical components of computers are arranged in a sequence so that they can communicate with each other. Network is a combination of hosts, applications, routers, hardware, software and links of media. Network architecture is a guideline and technology for designing building and managing a network.

Components of Network Architecture

There are six basic network architecture components such as servers, proxies, clients, command consoles, server modules and cores. The server is the backbone of any network. The role of servers in network architecture is to communicate with proxies and other peered servers. They are at the top layer of the network and they do not communicate directly with client. Moreover servers receive complete projects and tasks .proxies can be termed as the focal point of the network because it facilitates the communication of the devices. Proxies usually perform buffering and they also communicate with the others of its type to share the loads of the network. The client systems are the workers of the network. They receive tasks, they interact with the users and they perform user applications. Command consoles are the network guidelines which provide assistance to users about how to control the authorize network nodes. The core is the real work done in the system. The cores are verified within the network and with the clients to prevent bad cores. Server modules handle the particular tasks of the server. Server module is generally registered with the server libraries; this would help the server to perform the needed task.

WWW

The World Wide Web is a system of interlinked hypertext documents accessed via the Internet. With a web browser, one can view web pages that may contain text, images, videos, and other multimedia, and navigate between them via hyperlinks.

Electronic mail

Electronic mail commonly known as **email** or **e-mail**, is a method of exchanging digital messages from an author to one or more recipients. Modern email operates across the Internet or other computer networks. Some early email systems required that the author and the recipient both be online at the same time, in common with instant messaging. Today's email systems are based on a store-and-forward model. Email servers accept, forward, deliver and store messages. An email message consists of three components, the message *envelope*, the message *header*, and the message *body*. The message header contains control information, including, minimally, an originator's email address and one or more recipient addresses.

UTILITIES

Dictionary:

Tie up: A temporary stoppage or slowing of business, traffic, telephone service, etc., due to such incidents as a strike, storm, or accident.

Strand: A single filament, such as a fiber or thread, of a woven or braided material

Services on the web

A **Web service** is a method of communication between two electronic devices over the web. The W3C defines a "Web service" as "a software system designed to support interoperable machine-to-machine interaction over a network". It has an interface described in a machine-processable format.

Newsgroups

Newsgroups are Internet discussion forums where groups of users with common interests gather to talk about everything from software to comic books to politics. Unlike e-mail messages, which are visible only to the sender and specified recipients, newsgroup messages can be read by anyone who views the group that they're posted in. Newsgroups are international in scope, with participants from all corners of the Internet.

E-Commerce

E Commerce is short for Electronic Commerce. It stands for businesses that transfer info across the internet and it allows consumers to exchange services and goods electronically.

E-commerce (electronic commerce or EC) is the buying and selling of goods and services on the Internet, especially the World Wide Web. In practice, this term and a newer term, e-business, are often used interchangeably. For online retail selling, the term e-tailing is sometimes used.

File Transfer Protocol

File Transfer Protocol (FTP) is a standard Internet protocol for transmitting files between computers on the Internet. Like the Hypertext Transfer Protocol (HTTP), which transfers displayable Web pages and related files, and the Simple Mail Transfer Protocol (SMTP), which transfers e-mail, FTP is an application protocol that uses the Internet's TCP/IP protocols. FTP is commonly used to transfer Web page files from their creator to the computer that acts as their server for everyone on the Internet. It's also commonly used to download programs and other files to your computer from other servers.