

# COMPUTER EDUCATION

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# **Beginners**

© 2014

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3

# DEDICATION

This book is dedicated to God the Father, Son and the Holy Spirit. To my late father: Pa. Odunlami, Oluwafisan.

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For there are three that bear record in heaven, the Father, the Word and the Holy Ghost and these three are one. And there are three that bear witness in earth, the spirit, the water and blood and these three agree in one (I Jh. 5:7-8). To the Trinity, I say thank you God. What shall I say, unto thy Lord, all I have to say is thank you Lord?

Let me use this medium to re-affirm my vow of undying love and affection to my mother Mrs. Odunlami, S.I. and my siblings whose immeasurable effort financially, spiritually, and material wise is unquantifiable. I say a big thanks to you.

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Finally, to my darling, loving, caring wife: Mrs. Odunlami Taiwo and my godly children Philip, Nicolas and Inumidun. I pray you shall all be for signs and wonders in Jesus Name Amen.

# FOREWORD

The whole world is fast becoming a global village. The relevance of Information and Communication Technology (ICT) in all facets of human endeavour is growing daily. The knowledge of computer is indispensable. This underscores the importance of this book "Computer Education for Beginners".

Chapters one and two introduces readers to the concepts and benefits of computer as well as its basic features and components. Chapter three presents a comprehensive analysis of system software, while chapter four examines the historical analysis of computer.

Chapter five mainly explains programming preliminaries, while chapter six to ten X-rays the practical programmes and packages needed to make the best use of the computer for day-today operations/activities.

This ten-chapter book is presented in a simple and easy-tounderstand language. Practical examples are given in each chapter to assist readers in understanding the use of computer to solve daily problems.

I therefore strongly recommend this book for those who don't want to be left behind in this technological age.

#### Professor, J. B. Ayodele

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# **TABLE OF CONTENTS**

Title page

Dedication

Acknowledgement

Foreword

Table of content

#### CHAPTER ONE:----- 9

- Introduction
- Features of computer
- Advantages & Disadvantages of computer
- Computer classification
- Computer virus
- Anti-virus

#### CHAPTER TWO:----- 17

- Constituents of computer
- Input
- Storage
- Processing
- Output

#### CHAPTER THREE:----- 29

- Computer software
- Ms-dos

8

34
45
55
75
93
100
104
107
108

# **CHAPTER ONE**

#### INTRODUCTION

It is believe that we are in a global world, there's hardly any area that you will not find computers being useful. In offices, hospitals, schools, filling stations, homes, banks, supermarkets etc. Computers are used for different purposes. Computers play an important role in how we do our jobs. A computer does not have any personality of its own; whatever he does is as a result of human instructions fed into it. If garbage is given to the computer as input, it will also give out garbage as output i.e. GIGO which means GARBAGE IN GARBAGE OUT? Once it is properly fed in, computer is capable of providing answers to millions of work within a seconds or minutes. In the workplace, many people use computers to keep records, analyze data, do research, and manage projects. At home, you can use computers to find information, store pictures and music, track finances, play games, and communicate with others-and those are just a few of the possibilities.

You can also use your computer to connect to the Internet, a network that links computers around the world. Internet access is available for a monthly fee in most urban areas, and increasingly, in less populated areas. With Internet access, you can communicate with people all over the world and find a vast amount of information.

#### What is Computer?

A computer may be defined as an electronic devices that receives instruction/data as input, translates the instructions to the languages it understands, processes and stores the data and presents the information as the output to the user as required. 10

It is a machine, which carries out long, complex and repetitive sequences of operation at very high speed, it is a tireless, very accurate and complex machine, It is different from other machines because it has more purpose and uses preferred to any other machine you know

A computer is a device that can receive process and store data. They are used as tools in every part of society together with the Internet. Computers nowadays are complex; there are a lot of different components inside them, and they all serve different purposes. They all need to work together for the computer to work; knowing how a computer works makes it easier to use a computer by being able to understand how a computer will respond.



Explanation of some basic task in the definition

**Electronic Machine:** This is known as any machine that uses electricity. Computer cannot work without electricity, there is no manual computer.

**Data:** It is a raw fact or unprocessed information. Data can be anything written down that is not yet inputted into the computer e.g.

She is a girl

Greg is a boy

I am in primary four etc.

**Information:** It is a processed data, when your data is inputted into the computer, it will become information.

**Accepting Data:** Computer can accept data inputted through the keyboard

**Process Data:** Any accepted data will be processed before becoming information

**Store Data:** Computer can store data for future reference till when it will be needed for use

**Output Data:** The processed data will be outputted through output machine in a desired form e.g. Printer.

#### **Advantages of Computer**

- 1. Computer can accept data
- 2. Computer can process data
- 3. It can store data
- 4. It can output data
- 5. Computer is portable

- 6. It can correct grammar and spellings
- 7. It can perform calculations
- 8. It produces neat and presentable document
- 9. It provides job opportunity
- 10. It can be used to send messages
- 11. Movies and music can be played on computer machines

#### **Disadvantages of Computer**

- 1. It cannot work without electricity
- 2. It is expensive to acquire
- 3. Professionals are highly pay
- 4. It reduces job creation

#### **Features of Computer**

**SPEED:** Computer has ability to get answers fast enough. When data are fed in, it has ability to process the output at a very high speed

**ACCURACY:** The result of data fed in is always accurate. Although errors in machinery can occur but in most cases errors in computing are to human

**AUTOMATION:** A computer is much more than an adding machine or a calculator which requires human operators to press the necessary keys for the operations to be performed, till the last result is obtained.

**DELIGENCE:** Being a machine a computer does not get tired easily. It will perform the last job with the same speed as the first job even, if it involves fifteen millions of job.

**VERSATILITY:** Computer is said to be versatile. It is capable of doing almost any task provided, if such task is properly fed in.

#### **Computer Classification**

Computer can be classified into (a) Analogue (b) Digital (c) Hybrid (d) Special purpose

**Analogue:** They are the type of computer used for the processing of continuous signals, such are used to process oil flow, water flow, flow of liquid product etc. examples can be found in the petroleum industry where they are used to handle oil flow into a reservoir. Analogue processes and measures on a continuous basis e.g. in measuring volume of water or oil flow. Analogue computers are very fast but not extremely accurate.

**Digital:** Digital computer counts. The computers are based on counting rather than measuring which is the concern of analogue. They are made to process items fed into them in digits. Digital computers are usually more accurate. The office is usually mainly concerned with the use of digital computers. A digital computer can be programmable or non-programmable.

A non-programmable computer is devoted to performing only one specific set of tasks. Most pocket calculators can be viewed as non-programmable digital computer since they can only perform those functions for which they are keys on the calculator. On the other hand programmable computer is one which can be made to perform different tasks at different times depending on the set of instructions given to it. Such computers are capable of making decision on the information or data fed into it. E.g.; micro computer.

**Hybrid computer:** The combination of the functions of the two already discusses i.e. digital and analogue makes the computer to be regarded as hybrid. This is when the computer combines the functions of counting and measuring processes.

**Special purpose computer:** When computer are built for only one specific type of job or a task only. They are regarded as special purpose computers

#### **Computer Virus**

A computer virus is a piece of software or program that attaches itself to another programs as system in order to spread itself to other programs and have undesirable effect on the program to which it attached itself.

A **computer virus** is a <u>malware program</u> that, when executed, <u>replicates</u> by inserting copies of itself (possibly modified) into other <u>computer programs</u>, data <u>files</u>, or the <u>boot sector</u> of the <u>hard drive</u>; when this replication succeeds, the affected areas are then said to be "infected". Viruses often perform some type of harmful activity on infected hosts, such as stealing <u>hard disk</u> space or <u>CPU</u> time, accessing private information, corrupting data, displaying political or humorous messages on the user's screen, spamming their contacts, or <u>logging their keystrokes</u>. However, not all viruses carry a destructive payload or attempt to hide themselves—the defining characteristic of viruses is that they are self-replicating computer programs which install themselves without the user's consent.

Computer viruses currently cause billions of dollars worth of economic damage each year, due to causing systems failure, wasting computer resources, corrupting data, increasing maintenance costs, etc.

#### Virus comes in several ways, some of which are:

- Through disks or diskettes used for copying form one system to another.
- Downloading with files through the internet or e-mail or corrupted e-mails.
- Through some software that are not properly developed or pirated software
- Some poorly written games can develop virus or corrupt files to make them behave like a virus.

#### Damages caused by Virus

The following are the problems caused by the virus to the computer machine which may at the end of the day make the computer machine develop fault.

- Corrupt files
- Delete programs and other files
- Irrelevant messages or image interrupting or damaging work done/

- Damage hardware in particular, the hard disk.

#### **Types of Anti-Virus**

- AVG
- Norton
- AVAST
- Avira
- Comodo
- Kaspersky

#### **Prevention of Virus**

Prevention of attacks by virus is the best way to control virus and there are so many software available in the market for controlling virus.

Also, the computer operator or students' needs to take proper care of the computer machine from dust, rat, liquid and some other things that may be as the affecting factor to the computer machine. There should be much consideration of the fact that anti-virus software needs to be periodically updated to keep them effective. ? This is because new viruses find their way into circulation very regularly.

# **CHAPTER TWO**

#### **CONSTITUENTS OF A COMPUTER**



Computers work through an interaction of hardware and software. Hardware refers to the parts of a computer that you can see and touch, including the case and everything inside it. The most important piece of hardware is a tiny rectangular chip inside your computer called the central processing unit (CPU), or microprocessor. It's the "brain" of your computer—the part that translates instructions and performs calculations. Hardware items such as your monitor, keyboard, mouse, printer, and other components are often called hardware devices, or devices.

The computer is an electronic machine that performs the following four general operations:

- Input
- Storage
- Processing
- Output.

#### <u>Input</u>

The input hardware allows you to enter data into the computer. The primary devices used are the keyboard and mouse. Other includes scanner, microphone, joystick card readers, light pen, digital camera etc. *Keyboard* - The keyboard looks like the keys on a type-writer machine. A numeric keypad is located to the right of the keyboard. Numeric keys have the same placement as a 10-key calculator, which allow the operator to enter data rapidly.

#### **Uses of Keyboard**

- 1. To input data and any information into the computer system
- 2. To type letters, numbers and symbols
- 3. To issue commands to the computer e.g. Ctrl C which means copy
- 4. To play computer games e.g. Play Station Games

#### **Types of Keyboard**

There are two types of keyboards. They are:

- Standard keyboard
- Enhanced keyboard

#### **Standard Keyboard**

- These are keyboards having their function keys just at the **left**-hand side of the panel
- The standard keyboard has 85 keys altogether

#### **Enhanced Keyboard**

- They are keyboards having their function keys at the **top** of the panel.
- They have more keys than standard keyboard
- A special type of the enhanced keyboard is called *window keyboard*. They have some extra special keys.
- An enhanced keyboard has 101 to 108 keys altogether.

#### **GROUP OF KEYS**

There are five groups of keys on a computer keyboard. They are: (1) Function keys (2) Alpha-numerical keys (3) Numerical keypad (4) Cursor control keys (5) Computer keys

**FUNCTION KEYS:** Group of keys with F1, F2, F3 . . .etc. On the keyboard are called function keys. There are 10 function keys on a standard keyboard and 12 on enhanced keyboard

**ALPHA-NUMERICAL KEYS:** The alpha-numerical keys form the main typewriter keys.

There have alphabets, numbers and symbols on them. They are used to type text, numbers and symbols. They work just like those on a conventional typewriter.

**NUMERICAL KEYPAD:** The numerical keypad has numbers, arrows and other symbols marked on them. They can be used to type in numbers and at the same time used to move typing point

called the cursor form one position to another on the screen. There are 17 numerical keys on the enhanced and window keyboards, and 16 numerical keys on the standard keyboard.

**CURSOR CONTROL KEYS:** They are used to move the position of the cursor on the screen. They are Home, End, Arrow, Page Down and Page up keys.

**COMPUTER KEYS:** They execute special task when used alone or in conjunction with other keys. These include Escape (Esc), Delete (Del), Insert, Print Screen, Scroll Lock, Pause, Alternate (Alt), Control (Ctrl) etc.

#### **Storage**

Auxiliary storage devices, also called secondary storage devices, are used to store instructions and data when they are not being used in memory. Two types of auxiliary storage more often used on personal computers are floppy disks and hard disks. Also, CD-ROM drives are common.

**Floppy Disks** - A floppy disk is a circular piece of oxide-coated plastic that stores data as magnetic spots. Personal computers most commonly use floppy disks that are 3 **(a)** inches in diameter.

To read data stored on floppy disk or to store data on a floppy disk, you insert the floppy disk in a disk drive. If the disk is unused, you must format or initialize it before your computer will allow you to store data on it. Formatting organizes the tracks around the disk into pie like slices called sectors which make it possible for your computer to save and retrieve information. The density of the bits on the track and number of tracks on a disk determine the number of characters that can be stored. Floppy disks are identified as being double density or high density. Most machines purchased after 1993 will use a highdensity disk. A machine that has a double density drive can't process a high-density disk. Note the chart below for disk information.

#### **Floppy Disk Capacity**

Description	<u>Bytes</u>	
<u>5 🏟 inch disk</u>		
Double-sided, double-density	360 KB	
Double-sided, high-density	1.2MB	
<u>3 🏟 inch disk</u>		
Double-sided, double-density	720 KB	
Double-sided, high-density	1.4 MB	■
1.4 MD is equal to E00 pages	of	

1.4 MB is equal to 500 pages of text.

Floppy disks must be handled with care to preserve data. Follow the suggestions to protect your floppy disk.

- 1. Store in box or disk storage container.
- 2. Protect disk from dust.
- 3. Keep disk out of sunlight and away from extremes of hot or cold.
- 4. Don't press hard when writing on labels. Use a felt tip pen.
- 5. Insert metal side into drive first with the hub of the disk down.
- 6. Don't store disk near magnetic sources.

**Hard Drive** - Much like a floppy, the hard disk located inside the computer case is made of a stack of rotating disks, called platters.

Data is recorded on a series of tracks that have been divided into sectors. Most computers have one hard drive, located inside the computer case. If a computer has one hard drive, it is called drive C. If a computer has additional hard drives, they are called drives D, E, and so on. A hard drive stores your programs. When you buy a new program, you must install the program files to your hard drive before you can use the program. A hard drive stores your data files such as documents spreadsheets, and graphics.

**CD-ROM Storage** - Since each CD-ROM can store 600 million bytes of data or 300,000 pages of text, they are today's answer to make your computer feel like a machine twice its size. Because of its external storage, you can use your machine to access an encyclopedia, games, graphics, and a variety of sources that use large amounts of memory.

#### **Bits and Bites**

A computer stores data in units called bits and bytes. Computer chips called integrated circuits have one of two states, off or on. Therefore, a system was developed that used only two numbers, 0 and 1. Zero representing off and 1 representing on. You can think of this as a sort of light switch. Each switch is called a bit.

Bits are grouped together in sets of eight. Each set of eight bits is called a byte. Setting different combinations of those eight "on and off" combinations can be developed to stand for letters numbers, spaces, and symbols. For practical purposes, think of a byte as one character. When computers refer to memory or storage they refer to terms using the following forms of measurement.

```
8 bits = 1 byte
1024 bytes = 1 Kilobyte (K)
1024 Kilobytes = 1 Megabyte (MG)
1024 Megabytes = 1 Gigabyte (GB)
```

Today's hard drives are usually two or more gigabytes of memory and a floppy disk has 1.44 megabytes of memory.

#### **Processing**

The central processing unit or (CPU) is the "brain" of your computer. It contains the electronic circuits that cause the computer to follow instructions from ROM (read only memory) or from a program in RAM (random access memory). By following these instructions information is processed. The CPU contains three parts.

**1.** *Arithmetic Logic Unit* - ALU is where the "intelligence" of the computer is located. It can add and compare numbers. To multiply  $2 \times 4$  the computer would add 2 + 2 + 2 + 2.

The ALU makes decisions by determining if a number is greater, less, or equal to the other number. Processing is completed in nanoseconds, which is a billionth of a second.

**2.** *Memory* - Two types of memory contained on a chip are RAM (Random Access Memory) or ROM (Read Only Memory). ROM memory has been installed on your computer by the manufacturer and cannot be altered. ROM is the memory that determines all the basic functions of the operation of your machine, such as startup, shut down, and placing a character on the screen. RAM is temporary memory, which displays the information you are working on. RAM remembers what you see on your screen while you are working.

Today's applications required large amounts of temporary memory, which may require you to upgrade and add more RAM memory.

**3.** *Control Unit* - This is the part of the unit, which directs information to the proper places in your computer, such as calculation of information by the ALU unit or to store and print material.

**Mouse** - The mouse is a device that allows you to control the movement of the insertion point on the screen. The operator places the palm of the hand over the mouse and moves it across a mouse pad, which provides traction for the rolling ball inside the device. Movement of the ball determines the location of the I beam on the computer screen. When the operator clicks the mouse the I beam becomes an insertion point which indicates the area you are working on the screen.

You can also click the mouse and activate icons or drag to move objects and select text. There are other input devices, such as touch screen, joystick, modem, scanner, and voice recognition systems.

In windows desktop, you can use a mouse to perform the following tasks:

- 1. Opening windows
- 2. Closing windows
- 3. Opening menus

- 4. Choosing menu commands
- 5. Drawing and designing
- 6. Rearranging on-screen items such as icons and windows
- 7. Shutting down the computer

#### <u>Output</u>

Output devices such as a monitor, printer, speaker, plotter make information you input available for you to view or use. A monitor's front is called a screen with a cathode ray tube (CRT) attached to the screen. Portable computers use a (LCD) liquid crystal display. Today's super video graphics array (SVGA) monitors display 256 sharp and clear colors.

#### **Uses of Monitor**

- 1. It is used to display data and information sent into the computer on the screen.
- 2. It allows the user to correct data sent into the computer when there is mistake

#### **Types of Monitor**

Monitors can be broadly classified into two. They are:

- Monochrome monitors
- Colour monitors

Monochrome monitors are the lowest monitors. A monochrome monitor displays its information on the screen in black and white colour.

Colour monitors display their information on the screen in many colours. Colour monitors can also be divided into different types such as SVGA, VGA, Mono VGA, GA, CGA.

SVGA is the latest type of monitor. It has high resolution, sharp colour and excellent graphic. It can run any software program. It has 7 control switches, SVGA monitors can be categorized into two:

- (i) Analogue: the controls are set by turning buttons
- (ii) Digital: the controls are set by selecting and pressing buttons.

VGA is the nearest monitor to SVGA. It has high resolution, sharp colour and excellent graphic. The screen is not as full as SVGA. It has 5 control switches.

#### **Sizes of Monitors**

Monitors are also of different sizes and shapes. The common sizes are:

- (a) 14 inches size monitor
- (b) 15 inches size monitor
- (c) 17 inches size monitor
- (d) 21 inches size monitor

Printers used with computers fall into two categories, impact or non-impact. Impact printers, such as dot matrix print by contact against a ribbon making imprint on paper. Inkjet printers print images by not touching the paper. Ink jet printers spray ink onto the page while a laser printer works like a copying machine. Laser printers print a higher quality product but cost from \$500 to \$10,000 whereas an ink jet produces better quality than a dot matrix and can be purchased from \$150 to \$300. The personal computer user most commonly purchases an ink jet printer for home use.

#### **Types of Printers**

- Dot-Matrix Printers
- Laser-Jet Printers
- Ink-Jet printers

#### **DOT-MATRIX PRINTERS**

- (a) Dot-matrix printers can print both text and graphics
- (b) They produce their images by printing series of dots on the paper
- (c) All dot-matrix printers use ribbons
- (d) They can use both continuous listing paper and single sheets of paper
- (e) They are relatively inexpensive

#### LASER-JET PRINTERS

- (a) The laser-jet printers work like photocopying machine
- (b) They use toner cartridges
- (c) They print out fine characters than the dot-matrix printers
- (d) A laser printer can either print black only or colour only
- (e) The print comes out dry
- (f) Laser jet printers do not use continuous listing computer papers. They only use single sheets
- (g) They are the most expensive printers

#### **INK-JET PRINTERS**

- (a) The inkjet printers use ink cartridge
- (b) They print sharp and bold images
- (c) An inkjet printer can print both black and colour together
- (d) The print comes out wet from the printer
- (e) They use only single sheets of paper
- (f) They are cheaper than laser printers

Examples of inkjet printers are:

(a) DeskJet printers

(b) Bubble Jet printers

# **CHAPTER THREE**

#### **COMPUTER SOFTWARES**

Computer productivity is determined by programs which step by step instructions are telling the computer how to process data. Software can be divided into two groups, system and application. It is the part of computer we can see but cannot physically touch. They are programs that are written to facilitate the efficient operation of computer system.

A program is a set of instructions written by the programmer to tell the computer to perform specific functions. Software gives life to hardware. Without software a computer cannot work. Software is normally distributed in one or more diskettes or CDs. Software can be broadly divided into two categories. They are:

- System Software
- Application Software

*System software* - The operation of your computer is controlled by system software. As you boot the computer, the system software is stored in the computer's memory which instructs the computer to load, store, and execute an application. These are normally supplied by the manufacturer of the computer. This software helps the computer to work effectively. They are programs that contribute to the control and performance of the computer system. Without them computer cannot work. Examples of system software are Windows 95, Windows 98, Windows 2000, Windows XP, and Windows N. T. Which use a graphical user interface (GUI) that provides visual clues (icons) to 30 help the user? DOS, another disk operating system, is text based and not user friendly.

System software is also divided into two types

(a) Control programs (operating system): They are programs that allow the computer to understand the instructions given to it. This is the reasons why they are called command operating system or command interpreter. Without this interpreter, all the commands we type on the keyboard will be meaningless to the computer itself. The language we give to the computer is English but the computer does not understand this. It operates in binary codes. This however will be difficult for human being to keep converting every word type into binary code. This is the reasons why the computer requires an interpreter to interpret all the commands type on the keyboard. MS-DOS and MS-Windows are common examples of control programs.

#### Ms-Dos

An operating system is the set of programs that direct and control the operation of the computer. Every computer needs an operating system to make it work. The Operating System coordinates other programs that the computer uses. On a Personal Computer (PC), the common Operating System is: Microsoft Disk Operating System (MS-DOS) and Microsoft Windows. Disk Operating System (DOS) is the set of master programs that the computer follows to operate and perform its work. The Disk Operating System controls the interaction of the computer machinery (hardware) and programs (software)

#### **Functions of DOS**

- 1. It controls the computer system
- 2. It manage our data files
- 3. It creates directories where other files can be stored
- 4. It is used to prepare a new disk for use (formatting)
- 5. It generates error reports
- 6. It makes the computer's memory available for other programs

#### **Dos Prompt**

This is the point at which the computer waits for DOS command. If you type anything that is not DOS command at this point, the computer will display **`Bad command or file name'** which means what you type is not correct. DOS prompt can be A prompt (A:/>), B prompt (B:/>), prompt (:/>), D prompt (D:/>) or E prompt (:/>),

#### **Dos Commands**

Dos commands are specific instructions that users supply at DOS prompt to carry out specific functions. The command. Com file is also called the command processor. It is a program that processes the commands you enter from the keyboard and then runs the appropriate programs

(b) **Utility Programs:** Utility programs are tools we can use to maintain our software and hardware. Examples are Scandisk, Norton Disk Doctor (NDD) and Norton Anti-virus.

**Application Software:** Professional programmers write a variety of application software to satisfy needs of the public who wants to perform specific tasks on their computers.

The basic types of application software are word processing, database, spreadsheet, desktop publishing, and communication.

*Word Processing* - Word processing is the most commonly used software in schools, home, and business. A key advantage of word processing software is that users can make changes such as spelling, margins, additions, deletions, and movement of text. A beginning computer student should learn word processing, as it is the basis of most software. Once you have learned how a word processor functions, you will be able to learn other software quicker.

**Database Software -** Database software allows us to store and manipulate large quantities of data using the computer. For example, a database can sort the names, addresses, grades and activities for all the students in a school. It would be possible to add or delete data and produce printed reports using the database.

**Spreadsheet Software -** Spreadsheets store numeric data that can be used in calculations. A spreadsheet is used to store teachers' grades and then calculate student averages. The primary advantage of a computerized spreadsheet is its ability to redo the calculations should the data it stores be changed. Calculations can be made automatically as formulas have been preset into the spreadsheet.

**Desktop Publishing** - Desktop publishing applications allow the user to create newspapers, newsletters, brochures, and similar types of publications. It is similar to word processing except it allows the user to use text, graphics, pictures, lines, shapes, patterns, and borders. Desktop publishing requires more skill and computer knowledge of design and layout. Presently a user can purchase an integrated program. This means that a single program performs all applications and allows data to be transferred from one application to another. Microsoft Office 97, Works, and ClarisWorks are examples of integrated software. Each application includes a word processing, data base and spreadsheet section of the software.

There are numerous other applications available. There are software programs that can be used by musicians to produce musical songs and play them on a synthesizer, programs that assist an architect in designing a building, programs that produce the special effects that you see in movies, and programs that allow e-mail or electronic mail. Every line of work you can think of has had applications developed, which can ease or enhance its effectiveness and consistency.

# **CHAPTER FOUR**

#### **EVOLUTIONS AND GENERATIONS OF COMPUTER**

Abacus: The development of computing machinery started with the invention of abacus, a calculating device that performed arithmetic operation. It is still widely used today.

Napier's Bones: This is a calculating device that performed multiplication. It was invented around 1617 and named after its inventor, John Napier.

Blaise Pascal: In 1642, he assembled this 'Machine Arithmetique' a calculator operated by turning wheels.

Charles Babbage: He was the father of Computers. He was a professor of mathematics and was the first to develop modern computer machinery, though his machine did not work during his lifetime. He designed the machine difference engine and the Analytical Engine

Ada Countess of Lovelace: She developed further on Babbage's work. She developed software called Ada used in military environment. She was the first to develop software

Herman Hollerith: He developed the concept of Punch Cards. This brought about the success of 1890 census in U.S.A.

He later formed a company known as IBM (International Business Machines)

Joseph Marie Jacquard: He coded certain patterns on machines and then weaved into cloth. These patterns were stored in a Punch Card.

35

The mathematical parts of large Computers are mechanical while the ones being used now are Electronic

Howard Aiken of Harvard: He used relays and electro-mechanical devices to produce first machines that can be called digital because they process digits of data. His first Computer, MARK, I was developed in 1944. He later developed four other Marks, II to V.

#### **GENERATION OF COMPUTERS**

#### First Generation (1940-1956) Vacuum Tubes

The first computers used vacuum tubes for circuitry and <u>magnetic drums</u> for <u>memory</u>, and were often enormous, taking up entire rooms. They were very expensive to operate and in addition to using a great deal of electricity, generated a lot of heat, which was often the cause of malfunctions. First generation computers relied on <u>machine language</u>, the lowest-level programming language understood by computers, to perform operations, and they could only solve one problem at a time. Input was based on punched cards and paper tape, and output was displayed on printouts.

The UNIVAC and <u>ENIAC</u> computers are examples of first-generation computing devices.

The UNIVAC was the first commercial computer delivered to a business client, the U.S. Census Bureau in 1951.
The main features of First Generation are:

- Vacuum tube technology
- Unreliable
- Supported Machine language only
- Very costly
- Generate lot of heat
- Slow Input/Output device
- Huge size
- Need of A.C.
- Non-portable
- Consumed lot of electricity

Some computers of this generation were:

- ENIAC
- EDVAC
- UNIVAC
- **ENIAC:** It was the first electronic computer built in 1946 at University of Pennsylvania, USA by John Eckert and John Mauchy. It was named Electronic Numerical Integrator and Calculator (ENIAC). The ENIAC was 30 50 feet long, weighed 30 tons, contained 18,000 vacuum tubes, 70,000 registers, 10,000 capacitors and required 150,000 watts of electricity. Today your favorite computer is many times as powerful as ENIAC, still size is very small.
- **EDVAC:** It stands for Electronic Discrete Variable Automatic Computer and was developed in 1950. The concept of storing data and instructions inside the computer was introduced here.

This allowed much faster operation since the computer had rapid access to both data and instructions. The other advantages of storing instruction were that computer could do logical decision internally.

- **EDSAC:** It stands for Electronic Delay Storage Automatic Computer and was developed by M.V. Wilkes at Cambridge University in 1949.
- **UNIVAC-1:** Ecker and Mauchly produced it in 1951 by Universal Accounting Computer setup. Limitations Of First Generation Computer: Followings are the major drawbacks of First generation computers.

1. The operating speed quite slow. was 2. consumption very high. Power was 3. required large for installation. It space 4. The programming capability was guite low.

## Second Generation (1956-1963) Transistors

Transistors replaced vacuum tubes and ushered in the second generation of computers. The transistor was invented in 1947 but did not see widespread use in computers until the late 1950s. The transistor was far superior to the vacuum tube, allowing computers to become smaller, faster, cheaper, more energyefficient and more reliable than their first-generation predecessors. Though the transistor still generated a great deal of heat that subjected the computer to damage, it was a vast improvement over the vacuum tube. Second-generation computers still relied on punched cards for input and printouts for output.

Second-generation computers moved from cryptic <u>binary</u> machine language to symbolic, or <u>assembly</u>, languages, which allowed programmers to specify instructions in words. <u>High-level</u> <u>programming languages</u> were also being developed at this time, such as early versions of <u>COBOL</u> and <u>FORTRAN</u>. These were also the first computers that stored their instructions in their memory, which moved from a magnetic drum to magnetic core technology. The first computers of this generation were developed for the atomic energy industry.

The main features of Second Generation are:

- Use of transistors
- Reliable as compared to First generation computers
- Smaller size as compared to First generation computers
- Generate less heat as compared to First generation computers
- Consumed less electricity as compared to First generation computers
- Faster than first generation computers
- Still very costly
- A.C. needed
- Support machine and assembly languages.

Some computers of this generation were:

- IBM 1620
- IBM 7094
- CDC 1604
- CDC 3600

## Third Generation (1964-1971) Integrated Circuits

The development of the <u>integrated circuit</u> was the hallmark of the third generation of computers. Transistors were miniaturized and placed on <u>silicon chips</u>, called <u>semiconductors</u>, which drastically increased the speed and efficiency of computers. Instead of punched cards and printouts, users interacted with third generation computers through <u>keyboards</u> and <u>monitors</u> and <u>interfaced</u> with an <u>operating system</u>, which allowed the device to run many different <u>applications</u> at one time with a central program that monitored the memory. Computers for the first time became accessible to a mass audience because they were smaller and cheaper than their predecessors.

In this generation, Remote processing, Time-sharing, Real-time, Multi-programming Operating System were used. High-level language (FORTRAN-II TO IV, COBOL, PASCAL PL/1, BASIC, ALGOL-68, etc.) were used during this generation.

The main features of Third Generation are:

- IC used
- More reliable
- Smaller size
- Generate less heat
- Faster
- Lesser maintenance
- Still costly
- A.C. needed
- Consumed lesser electricity
- Support high-level language

Some computers of this generation were:

- IBM-360 series
- Honeywell-6000 series
- PDP(Personal Data Processor)
- IBM-370/168

#### Fourth Generation (1971-Present) Microprocessors

The <u>microprocessor</u> brought the fourth generation of computers, as thousands of integrated circuits were built onto a single silicon chip. What in the first generation filled an entire room could now fit in the palm of the hand. The Intel 4004 chip, developed in 1971, located all the components of the computer—from the <u>central processing unit</u> and memory to input/output controls—on a single chip. In 1981 <u>IBM</u> introduced its first computer for the home user, and in 1984 <u>Apple</u> introduced the Macintosh. Microprocessors also moved out of the realm of desktop computers and into many areas of life as more and more everyday products began to use microprocessors.

As these small computers became more powerful, they could be linked together to form networks, which eventually led to the development of the Internet. Fourth generation computers also saw the development of <u>GUIs</u>, the <u>mouse</u> and <u>handheld</u> devices.

In this generation, Time sharing, Real time, Networks, Distributed Operating System were used. All the higher level languages like C and C++, DBASE, etc., were used in this generation.

The main features of Fourth Generation are:

- VLSI technology used
- Very cheap
- Portable and reliable
- Use of PC's
- Very small size
- Pipeline processing
- No A.C. needed
- Concept of internet was introduced
- Great developments in the fields of networks
- Computers became easily available

Some computers of this generation were:

- DEC 10
- STAR 1000
- PDP 11
- CRAY-1 (Super Computer)
- CRAY-X-MP (Super Computer)

# Fifth Generation (Present and Beyond) Artificial Intelligence

Fifth generation computing devices, based on <u>artificial</u> <u>intelligence</u>, are still in development, though there are some applications, such as <u>voice recognition</u>, that are being used today. The use of <u>parallel processing</u> and superconductors is helping to make artificial intelligence a reality. <u>Quantum computation</u> and molecular and <u>nanotechnology</u> will radically change the face of computers in years to come.

The goal of fifth-generation computing is to develop devices that respond to <u>natural language</u> input and are capable of learning and self-organization. All the higher level languages like C and C++, Java, .Net, etc., are used in this generation.

AI includes:

- Robotics
- Neural networks
- Game Playing
- Development of expert systems to make decisions in real life situations.
- Natural language understanding and generation.

The main features of Fifth Generation are:

- ULSI technology
- Development of true artificial intelligence
- Development of Natural language processing
- Advancement in Parallel Processing
- Advancement in Superconductor technology
- More user friendly interfaces with multimedia features
- Availability of very powerful and compact computers at cheaper rates

Some computers types of this generation are:

- Desktop
- Laptop
- NoteBook
- UltraBook
- ChromeBook

Computers range in size and capability. At one end of the scale are supercomputers, very large computers with thousands of linked microprocessors that perform extremely complex calculations. At the other end are tiny computers embedded in cars, TVs, stereo systems, calculators, and appliances. These computers are built to perform a limited number of tasks.

- **The personal computer**, or PC, is designed to be used by one person at a time. This section describes the various kinds of personal computers: desktops, laptops, handheld computers, and Tablet PCs.
- **Desktop computers,** Desktop computers are designed for use at a desk or table. They are typically larger and more powerful than other types of personal computers. Desktop computers are made up of separate components. The main component, called the system unit, is usually a rectangular case that sits on or underneath a desk. Other components, such as the monitor, mouse, and keyboard, connect to the system unit.

**Laptops, Laptops** are lightweight mobile PCs with a thin screen. Laptops can operate on batteries, so you can take them anywhere. Unlike desktops, laptops combine the CPU, screen, and keyboard in a single case. The screen folds down onto the keyboard when not in use.

• **Netbooks,** Netbooks (also referred to as mini notebooks), are small, affordable laptops that are designed to perform a limited number of tasks. They're usually less powerful than laptops, so they're used mainly to browse the web and check e-mail.

**Smartphones,** Smartphones are mobile phones that have some of the same capabilities as a computer. You can use a smartphone to make telephone calls, access the Internet, organize contact information, send e-mail and text messages, play games, and take pictures. Smartphones usually have a keyboard and a large screen.

- **Handheld computers,** Handheld computers, also called personal digital assistants (PDAs), are battery-powered computers small enough to carry almost anywhere. Although not as powerful as desktops or laptops, handheld computers are useful for scheduling appointments, storing addresses and phone numbers, and playing games. Some have more advanced capabilities, such as making telephone calls or accessing the Internet. Instead of keyboards, handheld computers have touch screens that you use with your finger or a stylus (a pen-shaped pointing tool).
- **Tablet PCs,** Tablet PCs are mobile PCs that combine features of laptops and handheld computers. Like laptops, they're powerful and have a built-in screen. Like handheld computers, they allow you to write notes or draw pictures on the screen, usually with a tablet pen instead of a stylus. They can also convert your handwriting into typed text. Some Tablet PCs are "convertibles" with a screen that swivels and unfolds to reveal a keyboard underneath.

## **CHAPTER FIVE**

#### **PROGRAMMING PRELIMINARIES**

Anybody can write a program. A background in mathematics or science is not required. Patience, practice, and an interest in the subject matter should suffice, along with the required software and hardware. Understanding programs can appear daunting at first, but their reliance on logical operations allow for easy learning of commands which you will commonly see in many programs. A program itself is merely a series of commands in the order in which they are to be executed. That is to say, that the first line is the beginning of the program! All programs user uses from day to day, including browsers (Internet Explorer, Firefox, etc.) and operating systems (Windows, \*nix and MacOS) are separate sets of lines of code, which aim to fulfill tasks. The amount of code is dependent on how simple the task generally, and different types of code may be used for the advantages they give. BASIC is considered an excellent starting point for moving onto other languages, and can be useful for simple programs.

#### **Programming Languages**

Programming languages allow people to give instructions to a computer with commands that both the computer and the programmer can understand. Different programming languages use different commands and different rules for entering those commands; similar to the way people speak different words to each other with the same meaning. One person may say "hello", while another says "hola", which, although express the same thought, appear different.

It is this language (writing a program that is referred to as programming language) that the computer can translate into its own needed machine language of zero and one. It includes the following.

**BASIC:-** Beginners all-purpose symbolic instruction code

**COBOL:** Common business oriented language

FORTRAN: Formular translator

**PASCAL:** Pascal language from the name Blaise Pascal who built the first calculator in 1671.

Programming language or human understandable language is also regarded as **HIGH-LEVEL LANGUAGE** while the machine language and the symbolic language are both referred to as **LOW-LEVEL LANGUAGE** 

**THE HIGH-LEVEL LANGUAGE:** i.e. programming language or human understandable language enable the user to write instruction using certain English words and conventional mathematical notations. This makes it easier for him to think about his problem. The language (high level language) is therefore oriented more towards the problem to be solved. The language is in this wise regarded as **PROBLEM-ORIENTED LANGUAGE.** Example of high level language or problem oriented language has already been given above i.e. BASIC, COBOL etc.

**THE LOW-LEVEL LANGUAGE:** Is the machine language (already described) and the assembler or symbolic language.

The symbolic language or assembler is a program (computer software) language in the computer, which translate symbolic instruction into machine language of zero and one. It is a language program which substitutes symbols for the number in the machine. The assembler understand mnemonics or symbols still have to be translated into their equivalent binary form i.e. the strings of zero and one. Therefore by the means of the symbolic language program or assembler in the computer, the computer is automatically trained to recognize and handle letter, symbols and numbers even to substitute symbols for number and vice versa. Conclusively assembler (as a low level language) is a system of package that converts symbolic instructions to machine The assembler is also referred to as a language language. process or program i.e. the computer software that performs translation process in the computer.

#### **Machine Language**

Is the language which the machine itself uses in all its calculations and procession? It is the form, means or language in which the computer itself carries out instructions given to it. This form means or language (i.e. machine language) is through the strings of zeros and one. The instructions (written in the appropriate programming language) inputted in the computer is translated into electrical impulses that represent **O's** and **1'** to run the computer. Every statement or data, or expression i.e. instructions inputted is converted to zero and one first (not by the user but in the computer itself) because the computer will only calculate or process instructions or program with its own language of zero and one.

## **Beginning BASIC**

**BASIC** is an acronym for Beginners All-Purpose symbolic instructions code. It is a simple easy-to-use language deliberately designed for both beginners and computer professionals. In spite of its simplicity, BASIC is a very powerful language combining to a very appreciable degree the mathematical capabilities of FORTRAN and the business orientation of COBOL. Basic came into existence in 1964 at Darmouth College in the U. S. A. It was developed for beginners and users working in an environment where there is a central computer to which a number of keyboard terminals are connected, with every user accessing the computer simultaneously through the terminals. This is referred to as a time-sharing system. The advert of micro computes or desktop computers has enhanced the popularity and universality of BASIC. Today, BASIC is used on every type of computer system-micro computer, mini-computer and mainframe computer systems. Unlike most programme languages, BASIC uses very few easy-to-learn statements in solving complex problems.

Section for chapters detailing the basics of BASIC; i.e. data types, control structures...

- 1. Your First Program
- 2. PRINT, CLS, and END
- 3. Variables and Data Types
- 4. User Input
- 5. Documentation

#### **Control Structures**

- 1. IF...THEN...ELSEIF...ELSE
- 2. WHILE...WEND
- 3. <u>FOR...NEXT</u>
- 4. <u>DO...LOOP</u>
- 5. <u>GOTO</u>

### The Basics: How Programming Works

Before you jump in and start learning the Visual Basic programming language, it may help you to understand what a programming language is and how it works. This includes some programming terminology. The best place to start is with the basics.

#### **How Programming Works**

On its own, a computer isn't very smart. A computer is essentially just a big bunch of small electronic switches that are either on or off. By setting different combinations of these switches, you can make the computer do something, for example, display something on the screen or make a sound.

That's what programming is at its most basic—telling a computer what to do. Of course, understanding which combination of switches make the computer will do what you want would be a difficult task—that's where programming languages come in.

### What Is a Programming Language?

People express themselves using a language that has many words. Computers use a simple language that consists of only 1s and 0s, with a 1 meaning "on" and a 0 meaning "off." Trying to talk to a computer in its own language would be like trying to talk to your friends by using Morse code-it can be done, but why would you? A programming language acts as a translator between you and the computer. Rather than learning the computer's native language (known as machine language), you can use a programming language to instruct the computer in a way that is easier to learn and understand. A specialized program known as a compiler takes the instructions written in the programming language and converts them to machine language. This means that as a Visual Basic programmer, you don't have to understand what the computer is doing or how it does it. You just have to understand how the Visual Basic programming language works.

## **Inside the Visual Basic Language**

The language you write and speak has structure: for example, a book has chapters with paragraphs that contain sentences consisting of words. Programs written in Visual Basic also have a structure: modules are like chapters, procedures are like paragraphs, and lines of code are like sentences. When you speak or write, you use different categories of words, such as nouns or verbs. Each category is used according to a defined set of rules. In many ways, Visual Basic is much like the language that you use every day. Visual Basic also has rules that define how categories of words, known as programming elements, are used to write programs. Programming elements in Visual Basic include statements, declarations, methods, operators, and keywords. As you complete the following lessons, you will learn more about these elements and how to use them. Written and spoken language also has rules, or syntax, that defines the order of words in a sentence. Visual Basic also has syntax—at first it may look strange, but it is actually very simple. For example, to state "The maximum speed of my car is 55", you would write:

Car.Speed.Maximum = 55

You will learn more about syntax later, and tools in Visual Basic such as IntelliSense provide you with guidance in using the correct syntax when you write programs.

#### **REM STATEMENTS**

These are comment or remark statements that help you to understand your program. They also help a layman to know what your program is all about. The general format is line number RM any remark or comment. E.g. 10 REM..... This program is to calculate workers salary.

REM statements are necessary for proper documentation of the program. This is very important to the programmer who might return to his program after a long interval of time and might be completely baffled by it.

NOTE: Optionally, a single quote beginning a program statement is another form of comment.

#### **Input Operations**

Data can be fed into the computer by typing it in through the keyboard terminals. The keywords or statements available for this operation are INPUT, READ, and DATA. The INPUT statement has the general formal (nn) INPUT variable, variable, where nn is the line number which is optional in Qbasis variable is the variable name. e.g.

20 INPUT A, B, C

Or

20 INPUT A

30 INPUT B

40 INPUT C

You can also have

20 INPUT A3

20 INPUT A, Q1, S2

NOTE: Line numbers are optional in Qbasic

Example 1:

A program can be

10 REM . . . PROGRAM TO INPUTS NUMBERS

20 INPUT D\$

30 INPUT D\$

Where D\$ is 'MY NAME IS SHOLA OJO'

A\$ IS 'I AM 30 YEARS OLD'

Example 2: The Program can be written as

10 REM . . . PROGRAM ABOUT PERSONAL INFORMATION

20 INPUT D\$

30 INPUT D\$

40 END

In this case, string characters will be inputted. When input statement is used, your data is not stored in the memory of the computer so (data is inputted values) that the next time you want to use the program, you'll have to supply it with a set of data. The Read statement has the general format nn READ variable, variable where nn represents line number. Variable represents variable name. e.g.

20 READ A, B, C

Or

20 Read A

30 Read B

40 Read C

Or

20 Read D\$

30 Read A\$

The Read statement is not used alone but is used along with Data statement. This means that your data is stored in the memory of the computer. The DATA statement has the general format nn Data numeric values, , , , Character string, where nn represents line number.

Example 3:

A program can be

10 REM PRORAM TO READ 3 NUMBERS

20 READ A, B, C,

30 DATA 5, 2, 4

40 END

Example 4:

Another Program can be

10 REM PROGRAM ABOUT PERSONAL INFORMAITON

20 READ D\$, A\$

30 DATA 'MY NAME IS SHOLA OJO', 'I AM 30 YEARS OLD' END

# **CHAPTER SIX**

#### MICROSOFT WORD

Microsoft Word is a very important office program that is used for processing various types of document. Here are some of the documents you can create using MS-WORD: Legal Pleadings, Memos, Letters, Faxes, and Reports etc.

#### HOW TO LOAD MICROSOFT WORD

- 1. Click Start
- 2. Click program
- 3. Click Microsoft Word

### **DESCRIPTION OF MS-WORD SCREEN**

- 1. Title Bar: This is the area directly below the MS-WORD window border that displays the document name.
- 2. Menu Bar: This is the area directly below the menu bar, which is made up of buttons you can click to perform a function like:
- (a) Standard Toolbar: This is the bar that contains the shortcut keys, such as cut; copy, past, spelling and grammar, prints, print preview, zoom etc.
- (b) Formatting Toolbar: This is the bar that contains the shortcut keys, such as font, size, italics, center align, bullets, border and etc.
- (c) Drawing Toolbar: this the bar that contains the tools used for drawing and colouring of objects, such as textbox, ellipse, fill colour, line style, etc.

4. Editing Screen: This is the space below the shortcut button bars where you can see the cursor blinking. It is at this space we type and edit text.

## **CURSOR MOVEMENT KEYS**

- 1. Return or Enter Key: It is used to move the cursor to the next line after typing the current line.
- 2. The Four Arrow Keys: They are used to move the cursor to any direction of specified as shown keys (left, right up and down)
- 3. The Mouse: It is used to move the cursor, by placing the mouse pointer at the position you want to click.
- 4. The Space Bar: it is used to move the cursor forward on a blank screen.

## EDITING KEYS

Editing is an act of making correction in a document.

- 1. Delete Keys: It is used to erase the character that the cursor blinks at.
- 2. Backspace: it is used to delete a character to backward or to the left

#### **New Command**

Allows you to create a new documents or template (Procedure)

- 1. Click file
- 2. Click new
- 3. Click ok.

#### **Open Command**

This allows you to open a new or an existing document (Procedure)

- 1. Click file
- 2. Click open
- 3. Select the file name or type it.
- 4. Click open.

Note: If you are to open a file in your diskette, click the arrow in the look in box and select floppy (A:) before the file name.

## **Close Command**

Close the active document without quitting the application. To close all open documents, hold down shift key and click close al on the file menu.

#### Save Command

Save the active document with its current file name, location, and file format. (Procedure)

- 1. Click file
- 2. Click save

#### Save as Command

Save the active documents with the filename, location, and file format you specify.

You can also use this command to save document with a password or to protect a document so that others cannot change its contents.

#### How to save a document

- 1. Click file
- 2. Click save as
- 3. Type the file name
- 4. Click save

Note: If you are to save into a diskette, click the arrow in the look in box, before you type the filename.

## How to Save with Password

Password is a secret word known only to you and the computer.

- 1. Click file
- 2. Click save as
- 3. Click options
- 4. Type protection password box
- 5. Type the password and press enter key
- 6. Retype the password and click ok.
- 7. Type the filename and click save

## How to Block a Text

This is the process of highlighting text for a specific use.

- 1. Move the cursor to the beginning of the text
- 2. Hold down onto the left mouse button, drag to the limit you want
- 3. Release the mouse, then the text will be highlighting black.

#### Page Setup Command

Change margins, paper source, paper size, and page orientation for the entire document, the current section, or for selected sections of a document

### How to Set Margins

- 1. Click file
- 2. Click page setup
- 3. Click margins
- 4. Set the Top, Bottom, Left, Right as you desired
- 5. Click Ok.

#### **Print Preview**

Shows how a document will look when you print it. Use the print preview toolbar to make changes before you print. (Procedure)

- 1. Click file
- 2. Click print preview

## How to use Template

Definition: Template is a pre-defined format you can use to get a standard output, for Newsletter Memos, Invoice, Calendars etc.

- 1. Click file
- 2. Click new
- 3. Select letter, fax, memo, etc.
- 4. Select any options of your choice
- 5. Click Ok.

#### **Print Command**

A display printing options and prints all or part of the document (Procedure)

- 1. Click file
- 2. Click print
- 3. Type the number of copies
- 4. Click all, if you are the whole document or click current page if otherwise.
- 5. Click Ok.

## **Undo Command**

Reverses certain command or delete the last entry you type. The command name changes to can't undo if you cannot previous action. Immediately after you undo an action, the reprint command changes to the redo, allowing you to restore what you reversed. (Procedure)

- 1. Click edit
- 2. Click undo

#### **Repeat and Redo Command**

Repeat your last command or action, if possible the repeat command change to can't repeat if you cannot repeat the last action. When you use the undo command to reverse an action, the repeat command changes to redo. The Redo command reverses the action of the undo command (Procedure).

- 1. Click edit
- 2. Click repeat or redo

## **Cut Command**

Removes the selection from the active document and places it on the clipboard (Procedure)

- 1. Click edit
- 2. Click cut

## **Copy Command**

This allows you to copy the selection onto the clipboard (Procedure)

- 1. Click edit
- 2. Click copy

## Paste Command

Inserts the contents of the clipboard at the Insertion point, replacing any selection (Procedure)

- 1. Click edit
- 2. Click paste

## Select all Command

Selects al text and graphics in the active document. If you are working with headers, footers, annotations, footnotes, or text boxes when you chose the select all command, all of the text and graphics within the window or text box are selected.

Procedure

- 1. Click edit
- 2. Click select all

## **Find Command**

Searches for and replaces specified text, formatting, footnotes, end notes, or annotation marks in the active document.

Procedure

- 1. Click edit
- 2. Click find
- 3. Type the text
- 4. Click find now

## **Replace Command**

Searches and replaces specified text, formatting, footnotes, endnotes or annotation marks in the active document.

- 1. Click edit
- 2. Click replace
- 3. Type the text to replace with
- 4. Click replace

Note: If the text to find is more than one, click find now and click replace all.

## Go to Command

Move the insertion point to a specified location in the document. You can move to a page number, an annotation, a footnote, a bookmark, or other location.

- 1. Click edit
- 2. Click go
- 3. Type the page number
- 4. Click go to

## **Bookmarks Command**

Creates bookmarks, which are used to mark selected text, graphic, tables or other items

## **Full Screen Command**

This is the most screen element so that you can view more of your document. Press any key switch to your previous view.

- 1. Click view
- 2. Click full screen

#### **Toolbars Command**

Display or hides selected toolbars, new toolbars, resets toolbars to their original settings, the colour scheme for toolbars and change toolbar button size.

- 1. Click view
- 2. Click toolbars
- 3. Select the option of your choice

#### **Ruler Command**

Displays or hides the horizontal rule, which you can use to change paragraph indents, margins, and other spacing settings.

- 1. Click view
- 2. Click ruler

#### **Zoom Command**

Controls how large or small a document appears on the screen

- 1. Click view
- 2. Click Zoom, or click the zoom control on the standard toolbar

#### **Header and Footer Command**

Headers: They are titles that appear at the top of every pages or specific pages of a printed document. They are different from the heading of your document.

Footers: They are like footnotes or comments, but appear at the bottom of ever stage or specified pages of a printed document.

- 1. Click view
- 2. Click header or footer
- 3. Type the header in the displayed box and click switch between header and footer button, which is the first button in the newly display button bar
- 4. Type the footer
- 5. Click close from the newly displayed button bar

## **Break Command**

Imports a page break, column break, or section break at the insertion points. Breaks in a word document appears on the screen as labeled, dotted lines, except in page layout view and print preview, where you see how the page will look when printed.

- 1. Click insert
- 2. Click break
- 3. Select option of your choice
- 4. Click Ok.

## Page Number Command

Insert formats and positions page numbers within a header or footer

- 1. Click insert
- 2. Click page number
- 3. Click position arrow button and select option of your choice
- 4. Click alignment arrow button and select option of your choice
- 5. Click format
- 6. Click number format arrow button and select option of your choice
- 7. Click Ok.

#### **Date and Time Command**

Inserts the date and time in a document in the format you choose

- 1. Click insert
- 2. Click date and time
- 3. Select the option of your choice from the available format displayed
- 4. Click Ok.

## Symbol Command

Insert symbols and special characters from available fonts on your machine

- 1. Click insert
- 2. Click symbol
- 3. Click the symbol font and select windings
- 4. Select the symbol option of your choice
- 5. Click insert

### **Picture Command**

Insets a graphic created in another application

- 1. Click insert
- 2. Click picture
- 3. Select the directory and type the file name
- 4. Click Ok.

## **Font Command**

Changes the font attributes and character spacing of the selected text

### How to colour Text

- 1. Highlight the text
- 2. Click format
- 3. Click font
- 4. Click the colour arrow button
- 5. Select the colour of your choice

## How to underline text

- 1. Highlight the text
- 2. Click format
- 3. Click font
- 4. Click the underline arrow button
- 5. Select the one of your choice

## How to type text in Italics

- 1. Highlight the text
- 2. Click format
- 3. Click font
- 4. Select italics
- 5. Click Ok.

#### How to change text font and size

- 1. Highlight the text
- 2. Click format
- 3. Click font
- 4. Click the type of font, font style and font size of your choice
- 5. Click Ok.

## Superscript

It is used to type a character above another character e.g. typing of Algebraic Equations such as  $2^2$ ,  $X^2$ ,  $2^x$ 

- 1. Highlight the text to superscript
- 2. Click format
- 3. Click fonts
- 4. Click superscript

## Subscript

It is used to type a character below in another e.g. typing of chemical formulas such as  $0_2$ ,  $H_20$  etc.

- 1. Highlight the text to subscript
- 2. Click format
- 3. Click fonts
- 4. Click subscript

#### **Paragraph Command**

Change the appearance of the selected paragraph

## How to set line spacing

- 1. Highlight the text
- 2. Click format
- 3. Click paragraph
- 4. Click line spacing arrow button
- 5. Select the one of your choice
- 6. Click Ok.

#### How to set alignment

- 1. Highlight the text
- 2. Click format
- 3. Click paragraph
- 4. Click alignment
- 5. Select either left, center, or right
- 6. Click Ok.

## **Border and Shading Command**

This adds borders and shading to selected paragraph, table cells, frames, or graphics.

#### How to insert border

- 1. Click format
- 2. Click border and shading
- 3. Select box
- 4. Select line style of your choice
- 5. Click Ok.

### **Columns Command**

Changes the numbers of columns in a document, or a selection of a document

#### How to create Newspaper Columns

- 1. Click format
- 2. Click columns
- 3. Type the numbers of columns

## Sort Command

Arrange the information in selected rows or list alphabetically, numerically, or by date.

#### How to sort

- 1. Click tools
- 2. Click sort text
- 3. Click sort by box arrow and select the option you want
- 4. Click type box arrow and select the option you want
- 5. Click either ascending or descending
- 6. Click Ok.

## To Start Microsoft Access

- 1. Click on start
- 2. Click programme
- 3. Select Microsoft access

A dialogue box will be displayed, choose one of Blank Database, Database Wizard or Open an existing Database and click Ok.

## For Blank Database

- 1. Type your file name
- 2. Click on create
- 3. Select the type of database you are creating e.g. Table
- 4. Click new
- 5. Click on **Datasheet View** to start entering the Data into the fields, **Design view** to specify the type of Data your field will allow, **Table wizard** to choose from the Sample Tables and Sample Fields, **Import Table** to open a table already created by somebody or **Link Table** to link an existing table to the current one

## To create a table using Table wizard

- 1. Click on Table
- 2. Select new
- 3. Click on table wizard
- 4. Click Ok
- 5. Choose either Personal or Business
- 6. Select from the sample table
- 7. Choose the sample fields you want to include in your new table (rename the field if you want) **Note:** Your table can include fields from more than one sample table
- 8. Click on Next
- 9. Type a name you want for your New Table
- 10. Choose whether the wizard should set the primary key for you or to set it yourself **Note:** A primary key identifies a record in a table
- 11. Click on Next
- 12. Choose (i) **Modify the table design** if you want to specify the type of data you want the field to accept e.g. if you select **number** for a field such a field will only accept numbers and no text will be accepted.

Choose (ii) **Enter Data directly into the Table** If you want the start entering your data into the table

Choose (iii) **Enter Data Into the table using a form** if you want the wizard to create a form for each of your record

- 13. Click on finish
- 14. Start entering your data

#### Filter

You can use the filter property to specify a subset of records to be displayed when a filter is applied to a form, query or table.

1. Choose either filter by selection or filter by form on the tool bar.

#### Filter by form

1. To specify the criteria that records must meet to be included in the filtered set of records.

- Click filter by form on the toolbar
- Click the field in which you want to specify the criteria that records must meet to be included in the filtered set of records
- Enter your criteria by selecting the value you're searching for from the list in the filed
- Click on apply filter
- 2. To find records in which a particular field is **empty** or **not empty**
- Click filter by form
- Type is null or is not null into the field
- Click on apply filter
- 3. To specify alternative values that record can have to be included in the filters results
- Click filter by form
- Click the **or** tab at the bottom of the window
- enter more criteria

- Click on apply filter

#### **Filter by selection**

To filter records by selecting values in a form, subform, or datasheet

- 1. In a field on a form, subform, or datasheet, find one instance of the value you want records to contain in order to be included in the filter's results.
- 2. Select the value, and then click filter by selection on the toolbar.

# **CHAPTER SEVEN**

## CORELDRAW

Coreldraw is a publishing package used for graphic design (i.e. to draw objects import pictures, edit pictures etc.) it is very fast in operation and in the best designing package in use.

## Installation of Coreldraw on Your PC

Close all applications that are currently running.

- Insert coreldraw disc in the CD drive. If the Coreldraw set up wizard does not start automatically, then
- Click start on the window task bar and click run
- Type D:/ setup, where D is the letter that Corel corresponds to the CD drive
- Select one of the following options and follow the instruction
- Add New components i.e. installation of new components that is not already installed before.
- Update current installation i.e. refreshing your installation of the application and restoring all settings to their default values.
- Custom set up is specifying which component to include

#### Loading Coreldraw

At the program manager click the start icon, then click program icon, from where you will find out the version of the coreldraw installed in the system i.e. corel 5, corel 8 corel 9, corel 10, corel 11 corel 12 and corel 13 etc. click the Coreldraw version and then click coreldraw to load the package.

## **Description of Coreldraw Screen**

**Title bar:** Displays the name of the file using correctly

Minimize scale: Clicking the button minimizes the window

Scroll bar: Used to move the screen to any area of your choice

**Ruler:** Horizontal and vertical rules display the length and width of the drawing window using the units of measure you specify

**Colour Palette:** Lets you choose outline or fill colour for text or objects

**Tool box:** Is a box with series of commands for selection which includes

- Pick tool: lets you select, move, and resize objects using the mouse. You must select an object before you can carry out a task.
- Shaping Tool: Lets you manipulate nodes and paths to change the shape of object. Holding down the mouse

button on this tool opens a flyout, from which you can choose a different shape tool

- Knife tool: Lets you split an object into separate objects
- Eraser tool: Lets you erase portions of an object without cutting any closed paths.
- Free transform: Lets you change the orientation and appearance of objects.
- Free transform: Lets you change the orientation and appearance of objects. Clicking this tool displays the four free transform tools on the property bar.
- Magnifying tool: Lets you magnify or reduce you view of the drawing. Holding down the mouse button on this tool opens a flyout, from which you can choose the pan tool.
- Pan tool: Lets you change your view by moving your drawing around in the drawing window.
- Freehand tool: Lets you draw freehand lines and shapes by dragging the cursor across the drawing page.

Holding down the mouse button on this tool opens a flyout, from which you can choose a different curve tool.

- Bezier tool: Lets you draw curves by placing nodes and shaping the live segments between the nodes.

- Artistic Media tool: Lets you apply strokes or objects to a curve. The artistic media tool has five modes: present, brush, object sprayer, pressure line panel.
- The interactive connector tool lets you join two objects with a line.
- The rectangular tool lets you draw rectangles and squares.
- The polygon tool lets you draw polygons and stars.
- The Ellipse tool lets you draw ellipses and circle.
- The spiral tool lets you draw symmetrical and logarithmic spirals.
- The Graph paper tool lets you draw a grid of lines similar to that on graph paper.
- The basic shapes tool lets you choose from a full set of shapes, including hexagram, a smiley face, and a right angle triangle.
- The arrow shapes tool lets you draw arrows of various shapes, directions and number of heads.
- The flowchart shapes tool lets you draw flowchart symbols
- The stars shapes tool lets you draw ribbon objects and explosion shapes

The callout shapes lets you draw callouts and labels.

The text tool lets you type word directly on the screen as artistic text or as paragraph text

The interactive blend tool lets you blends two objects

The interactive contour tool lets you apply a contour to an object

- The interactive distortion tool lets you apply a push or pul distortion, a zipper distortion, or a twister distortion to an object
- The interactive envelope tool lets you distort an object by dragging the nodes of the envelope that is placed on top of the object
- The interactive drop shadow tool lets you apply a drop shadow to an object
- The interactive transparency tool lets you apply a drop shadow to an object
- The eye-dropper tool lets you select a fill from an object on the drawing window
- The paint bucket tool lets you fill an object on the drawing window after selecting a fill using the Eye-dropper tool
- The outline tool opens a fly out that lets you set the outline properties
- The outline tool opens a fly out that lets you set the outline properties

The fill tool opens a fly out that lets you set the fill properties

The interactive fill tool lets you apply various fills

The interactive mesh tool lets you apply a mesh grid to an object

#### HOW TO CREATE A NEW FILE

If the Coreldraw application window is empty i.e. you have not been using the file before and making a fresh file.

To do this follow these step:

- Click file, the
- Select new to start a new drawing

You can customize your page layout and setup by changing the attributes in the option dialogue box

- click layout menu, then
- select page setup

In the option dialogue box, enable the portrait if you want tall, but landscape, if you want wide button

- In the width box type the requirement
- In the height box type the requirement
- You can click the save custom page button to save the page

- In save custom box, type a name for the custom page
- Click Ok.

#### HOW TO ADD A BACKGROUND COLOUR

You can add a background colour to your drawing page by following the instructions below:

- Click tools menu, options

In the list of categories

- Double-click document, page, and click background
- enable the solid button
- click the colour picker, and click the other button
- From the model list box, choose any one say, CMYK
- In the C box specify the number
- In the M box specify the number
- In the Y box, specify the number
- In the K box, specify the number
- Click Ok.

## HOW TO SAVE A FILE

- Double-click the directory in which you want to save the file
- In the file name box, type a file name
- Click saves

In this lesson, you will learn how to import files and object, create shapes, manipulate objects, and use the spiral and free skew tools. This lesson teaches you how to:

- Import files
- Use guidelines
- Add objects
- Change colour
- Rotate and mirror objects
- Draw simple objects
- Use the spiral tool
- Use the free skew tool

#### HOW TO IMPORT FILES WITH GRAPHICS AND INCORPORATE OBJECTS INTO DRAWING

You can import files with graphics, and incorporate object into a drawing

- Click file menu, import
- From the file of type list box, choose coreldraw
- From the look in list box, navigate to the program file/corel/graphics/tutors/draw/html/docs/HTML pics directory
- Select any, and click the import button
- Position the import placement start cursor in the upper left corner of the drawing page, and click to place the graphic.
- You can place guidelines on the page borders so that you can place the import outline precisely in the upper left corner,
- Click view menu, guidelines setup
- In the list of categories, click presets
- Enable the page borders checks box
- You can swap the old and new colors by clicking options swap color

- You can disable the gamut alarm by clicking option gamut alarm

#### HOW TO APPLY A PRESET FOUNTAIN FILL

- Click the apply preset button
- Click Ok

## HOW TO DRAW A CALLIGRAPHIC LINE

- 1. Open the curve fly out and click the artistic media tool
- 2. Click the calligraphic button on the property bar
- 3. Type a value in the edges of the line, type a value in the freehand smoothing box on property bar
- 4. Drag until the line is the shape you want

If you want to set the width of the line, type a value in the artistic media tool width box on the property bar.

Note: The width you set is the maximum line width. The angel of the line you draw in relation to the calligraphic angle determines the line's actual width.

Tip: you can also access calligraphic line by clicking effects artistic media and specifying the setting you want in the artistic media docker window.

## HOW TO CHOOSE A COLOUR VIEWER

- 1. Select an object
- 2. Do one of the following, open the fill tool fly out and click the fill colour dialogue tool. Open the outline tool fly out and click the outline color dialogue tool.
- 3. Click the model tab
- 4. Choose a color model from the model list box
- 5. Click option color viewers and click a color viewer
- 6. Click the color scroll bar to set the range of color displayed in the color selection area
- 7. Click a color in the color selection area
- **Notes:** If you choose a color that is out of the printer's gamut the colour in the smaller swatch next to the new color swatch is the closest in-gamut color to choose. You click this closet in the gamut color or you can correct.

The out of gamut color for information about color correction, see' reproducing' color accurately. You should use the same color model for all the color in a drawing.

## Tips

- 1. Select an object
- 2. Open the fly out and click the fountain fill dialog button
- 3. Choose a fill the present list box
- 4. Choose a fountain fill from the type list box on the property bar. If you want to change the fill's attribute specify the setting you want.

## TO CONTOUR AN OBJECT

- 1. Open the interactive tools fly out and click the interactive contour tool.
- 2. Click an object or a set of grouped object and drag the start handle toward the center to create an inside contour.
- 3. Move the slider to change the number of contour steps

You can also do the following.

Specify the number of contour lines.

Click the inside button on the property bar, and type a value in the contour steps box on the property bar.

Specify the distance between contour lines

Type a value in the contour off set box on the property bar

Accelerate contour line progression

Click the object and color acceleration button on the property bar and adjust the object slider.

## Tips

You can create an outside contour by dragging the start handle away from the center

## TO APPLY A PERSPECTIVE TO AN OBJECT

- 1. Select an object
- 2. Click effect and perspective.

3. Hold down CTRL and drag a node

**Note:** Holding down CTRL constrains the node's movement to the horizontal or vertical axis to create a one-point perspective effect.

## HOW TO IMPORT A BITMAPPED IMAGE

You can import a bitmapped image into a drawing either directly or by linking to an external image files. When you externally link to an image file, any edits to the original file can be updated in the imported file. You can also add a bitmapped image by scanning it or by loading it from a digital camera.

- 1. Click file then import
- 2. Chose the drive and folder where the bitmapped image is stored
- 3. Double click the folder to open it if you want to link the image to the drawing, enable the link bitmap externally check box.
- 4. Select the file
- 5. Click import
- 6. Click where you want to place the bitmapped image

**Notes:** Ensure that files of type are set to all fill formats when you import an image. The status bar provides information about the bitmapped image, including colour note, size and resolution.

**Tip:** You can import a bitmapped image in its original size by pressing SPACE-BAR when you click the import button.

# HOW TO APPLY A COLOUR OR TONE EFFECT TO A BITMAPPED IMAGE

- 1. Select a bitmapped image
- 2. Click effects, then adjust, and click a colour or tone effect
- 3. Specify any setting.

## HOW TO SCAN A BITMAPPED IMAGE

- 1. Click file acquire image select source
- 2. Select a scanner from the select source dialogue box, and click select
- 3. Place an image on your scanner
- 4. Click file acquire image acquire

**Note:** Refer to scanner's documentation for details on scanning procedures and options.

## HOW TO CROP A BITMAPPED IMAGE

- 1. Open the shape flyout, and click the shape tool
- 2. Select a bitmapped image
- 3. Drag nodes to crop the bitmapped image
- 4. Click bitmaps crop bitmap

**Tip**: You can also crop a bitmapped image by clicking the crop bitmap button on the property bar.

## HOW TO EMBED A GRAPHIC OBJECT IN TEXT

- 1. Select a graphic object
- 2. Click edit cut.

- 3. Using the text tool, and click where you want to embed the graphic object
- 4. Click edit paste

## HOW TO INSERT A WORD

- 1. Click text writing tools Thesaurus
- 2. Type a word in the look up list box
- 3. Click in the drawing window where you want to insert the word.
- 4. Choose a word from the list box and click insert

## HOW TO LOOK UP A WORD

- 1. Click text writing tools Thesaurus
- 2. Click look up

**TIPS:** You can also look up a word directly from the Thesaurus dialogue box by typing a word in the look up list box. Use the left and right arrows to scroll through word lists.

## HOW TO REPLACE A WORD

- 1. Select the word you want to replace
- 2. Click text writing tools Thesaurus
- 3. Click look up
- 4. Choose a word from the list, and click replace

**Note:** In some instances, the thesaurus prompts you to select the correct form of the word you want to insert. This happens when you want to replace a word that is the same in

the present or past tense (such as 'read') or a word that can be used as multiple parts of speech (as either a noun or verb)

#### HOW TO REMOVE A WRAPPING STYLE

- 1. Select the object or wrapped text
- 2. Click text fit text to path
- 3. Type along the path

**Note:** If the text is fitted to an enclosed path, the text is centered along the path. If the text is fitted to an open path, the text flows from the point of insertion. You can't fit tet to the path of another text object.

**TIP:** You can also fit text to a path by clicking the text tool, pointing over an object, clicking where you want the text to begin, and begin to type the text

## HOW TO EMBED FONTS IN A FILE

- 1. Click file, save as
- 2. Enable the embed fonts using true Doc. check box
- 3. Click save

**Note:** You can only embed true type fonts using Doc.

## HOW TO ADD A PAGE TO YOUR DOCUMENT

- 1. Click layout insert page
- 2. Type the number of pages you want to add in the insert pages box
- 3. Enable one of the following options. Before and after.

**Tip:** You can also add pages by clicking the add page button on the document navigator, if you're on the first or last page. You can also choose where to add a page by right clicking a exiting page in the document navigator and clicking insert page after or before

#### HOW TO DELETE A PAGE

- 1. Click layout delete page
- 2. In the delete page dialogue box, type the number of the page you want to delete

**Tip:** You can delete range of pages by enabling through the page, check box and typing the number of the last page in the through to page box.

## PRINTING COLOUR SEPARATION

When you sent computer artwork to printing shop for reproduction, you will also require producing the colour separation of the same. This is necessary because a printing pres applies only one colour ink at a time to a sheet of paper. A colour separation is created by separating each colour element in a print job. Ach colour element is then used to create a sheet of film: this sheet of film is also used to create plate which used to apply one colour of ink to the sheet of paper. The numbers of colours are produced form a blend of Cyan, Magenta, Yellow & Black called CMYK

## STEPS TO PRINT COLOUR SEPARATION

- Click file menu, print
- Click separation tab
- Click the print separation check box, and then proceed to other printing option.

## STEPS TO SELECT SPECIFIC COLOUR SEPARATION

- Follow step 1 to 3 from the previous procedure
- Click the check box for the colour separation to be printed in the colour separation list box at the button of the dialogue box and unmark the other colours that are not to be printed at that particular time.
- Click the separation check box then proceed to other printing options.

## EXITING CORELDRAW

- Click file, then exit, Coreldraw will ask if you want to save any unsaved changes in the open file(s)
- Click YES to save changes first & then exit the application, If NO Coreldraw will exit without saving changes.
- Click CANCEL to close the dialogue box & keep working on your drawing.

# **CHAPTER EIGHT**

#### MICROSOFT EXCEL

A spreadsheet is a table of cells arranged in rows and columns into which numerical data and mathematical formulas can be entered and manipulated. A spreadsheet can be used for most mathematical and financial projects. Budgets, cash flow projections, stock price tracking, and balance sheets are just some of the possible application.

**Microsoft excel:** is powerful spreadsheet application software that provides the automated business tools needed for data analysis, list keeping and calculations.

## **Getting started with Microsoft Excel**

- 1. Click start
- 2. Click programs
- 3. Click Microsoft excel

## Understanding Microsoft Excel Screen

- 1. Title bar: this is the first of the excel screen. It displays the name of the program and the name of the current file, e.g. Microsoft Excel Book 1.
- 2. Menu bar: This is below title bar, it list al the available menu titles for the excel program. They contain some pull down menu commands that are used to carry out required operation, e.g. File, Edit...Help.
- 3. Standard tool bar: It contains some pictorial object that is used as shortcut to the commands.

- 4. Formatting bar: It display with buttons that provide easy access to common tasks. They are used to quickly change text and values e.g. B. I. U. etc.
- 5. Formula bar: It displays the name box and the content of the current active cell.
- 6. Status bar: It is sometimes refer to as message bar. It displays the message of the current operation.
- 7. Scroll bar: It is used to move the screen left, right, top and bottom.

## **Basic Terms in Excel**

- 1. Workbook: This is a book you can work and store data in excel. It contains the worksheet, macro-sheet and chart. It contains so many sheets.
- 2. Worksheet / Spreadsheet: This is a sheet that is contained in a workbook that is used to store information or data. It allows you to store, manipulate, calculate and analyze data. It contains many columns (2.56) and rows (65536).
- 3. Cell: This is the intersection between row and column. It is the basic unit of a worksheet.
- 4. Active cell: This is the cell in which data is entered when typing.
- 5. Cell pointer/cursor: This is a rectangular box that appears on the cell. It is used to identify number of cells in a worksheet, e.g. A1, A2, B1, B2, etc.

## Entering Data into Excel Worksheet

- 1. Position your cell pointer on the cell to start typing.
- 2. Type your data
- 3. Press enter.

## Formatting your data

- 1. Highlight the data
- 2. Click format
- 3. Click cell
- 4. Click font
- 5. Does the necessary adjustment like font, font style, size, colour etc.

## Formatting the cell (Background)

- 1. Highlight the data
- 2. Click format
- 3. Click cell
- 4. Click pattern
- 5. Select the colour of your choice
- 6. Click Ok.

## **Duplicating data**

- 1. Highlight the data
- 2. Click edit
- 3. Click copy
- 4. Click where you want a copy on the sheet
- 5. Click edit
- 6. Click paste (click C & Ctrl V)

#### Moving data form one place to another

- 1. Highlight the data
- 2. Click edit
- 3. Click cut (Ctrl X)
- 4. Click where you want a copy on the sheet
- 5. Click edit
- 6. Click paste (Ctrl X & Ctrl V)

#### How to insert columns

- 1. Position your cell pointer on the columns to be shifted
- 2. Click insert
- 3. Click columns

#### How to Delete columns

- 1. Position your cell pointer on the columns to be deleted
- 2. Click edit
- 3. Click delete
- 4. Click entire columns
- 5. Click Ok.

#### How to insert rows

- 1. Position your cell pointer on the rows to be shifted down
- 2. Click insert
- 3. Click rows

#### How to delete rows

- 1. Position your cell pointer on the rows to be deleted
- 2. Click edit
- 3. Click delete
- 4. Click entire rows
- 5. Click Ok.

#### How to adjust columns width

- 1. Highlight the columns to be adjusted
- 2. Click format
- 3. Click column
- 4. Click width
- 5. Type the adjusted no

6. Click Ok

## How to adjust rows height

- 1. Highlight the rows to be adjusted
- 2. Click format
- 3. Click rows
- 4. Click height
- 5. Click Ok

Use of formulae & functions

	A	В	С	D
1	50	20	10	80
2	30	40	28	
3	15	30	40	
4	70	60	77	

## 1. Addition (Summation) (+)

It is used to add two or more arguments together

 $1^{st}$  Method = (A1 + B1 + CI) press enter

2<sup>nd</sup> Method = SUM (A1:CI) press enter

3<sup>rd</sup> Method i. Highlight the figures to be calculated

ii. Locate and click AutoSum  $\in$  from the standard tool bar

Copying formula & Auto fill command

Auto Fill (automatic Filing): This is a method used to fill subsequent cells with data in respect of the first one entered. 98

- 1. Position your cell point on the first one calculated
- 2. Look for auto fill sign (+) and drag to your desire cells
- 2. **Subtraction (-)** It is used to subtract two or more figures

	Α	В	С
1	100	20	80
2	80	50	
3	45	15	

Formula = (A1 - B1) press Enter

2. Multiplication (\*) It is used to multiply two or more figures

	А	В	С
1	100	20	2000
2	80	50	
3	45	15	

First method (A1 \* B1) press enter

Second method = PRODUCT (A1:B1) press enter

4. **Division (/)** It is used to divide tow figures

	A	В	С
1	100	20	50
2	80	40	
3	45	15	

**5. Exponentiation (^)** e.g. 24: It is used to return the exponential distribution.

	А	В	С
1	100	2	16
2	80	50	
3	45	15	

Formula =  $(B! \land 4)$  press enter

#### 6. Square root: It is used to return the positive square root

	А	В	С
1	100	144	12
2	80	50	
3	45	15	

Formula = SORT (B1) press enter

6. **Average (Mean)** It is used to return the average of its argument.

	А	В	С
1	40	80	60
2	80	50	
3	45	15	

Average = AVERAGE (A1:B1) press enter

# **CHAPTER NINE**

#### INTRODUCTION TO MICROSOFT POWER POINT

Microsoft Power point is a presentation graphics application, i.e. a package that is used to create slides to be used in a presentation environment, such as a training course, workshop or a seminar. The slides created in power point can contain a mixture of text, pictures, graphs, organizational chart and tables. The overall look of a presentation (colour scheme, text style etc) is determined by the objective of the presentation.

## TO START USING MS-POWER POINT

There are a number of ways to do this, depending on how your computer has been set up.

- Click on start button
- Select all programs
- Click Microsoft office a dialogue will appear
- Click Microsoft Power point

#### **STARTING A NEW SLIDE**

- Select the slide after which the new slide is to be placed
- Select the inset or home menu on the menu bar
- Click on New slide menu option or Ctrl + M

## TO INSERT SLIDE NUMBER

- Click on insert
- Choose slide number
- Click slide number
- Click apply to all

## **MODIFYING FONTS (SIZE, TYPE, UNDERLINE BOLD ETC)**

- Highlight the text to be modified
- Click format or home on the menu toolbar
- Click font menu option
- A dialogue box will appear
- Choose the name of font you want to use
- Click Ok or press Enter

## FEATURES OF A PRESENTATION PACKAGE

- creation of slides
- Insertion of pictures
- Insertion of video and audio
- Animation
- Slide shows
- Creation of graphics
- Creating of organizational and other charts.

## TO ADD SYMBOL TO PRESENTATION

- Click on insert
- Select symbol
- Choose any desired symbol
- Click on insert
- And click close

## TO ADD PICTURE TO A PRESENTATION

- Click insert on the menu bar
- Select picture
- Select from file
- A dialogue box will appear click on the picture
- Click insert or press Enter

#### TO ADD A NEW SLIDE

- Click insert or home on menu bar
- A dialogue box will appear
- Click New Slide

## TO ADD SLIDE TRANISTION (EFFECT)

- Click slide show or animation on menu bar
- Select slide transition
- Click on your best options

## TO APPLY SLIDE ANIMATION

- Click slide show or animation on menu bar
- Click custom animations
- A dialogue box will appear,
- Click add effect
- Choose on your best options

#### **VIEW SLIDE SHOW**

- Click view on menu bar
- Select slide show or press F5

#### **END SLIDE SHOW**

- Right click on the screen a dialogue box will appear, then click on end show.

#### SAVING POWER POINT JOB

- Click file or office button the menu
- Click on save or Ctrl + S

# **CHAPTER TEN**

#### NETWORK

A network is a group of computers connected to one another so that they can share resources, such as files and printers if your computer is connected to a network, you can use Network Neighborhood to browse network resources in the same way you browse the contents of your own computer.

To open network resources.

- On the desktop, double-click Network Neighborhood. The computers in your workgroup appear. If you want to view all the resources available on the network, double-click Entire Network.
- Double-click the servers and folders you want to open, just as you would open drives and folders on your computer.

#### **INTERNET BASICS**

The internet is essentially a large number of connected computers. A computer on the internet can be located anywhere in the world, so you can communicate with someone over the internet no matter where that person lives.

#### The web

The World Wide Web (usually called the web, or web) is a gigantic storehouse of information. The web is the most popular part of the Internet, partly because it displays most information in a visually appealing format. Headlines, text, and pictures can be combined on a single webpage—much like a page in a magazine—along with sounds and animation. A website is a collection  $0--=p=p[ppppp[pp';';;"p-[p"p-p=[p-p'[o0[]aaaxa=\\====[;;./;...]ofinterconnected webpages. The web contains millions of websites and billions of webpages.$ 

Example of a webpage (Microsoft Game Studios)

Surfing the web means exploring it. You can find information on the web about almost any topic imaginable. For example, you can read news stories and movie reviews, check airline schedules, see street maps, get the weather forecast for your city, or research a health condition. Most companies, agencies, museums, and libraries have websites with information about their products, services, or collections. Reference sources, such as dictionaries and encyclopedias, are also widely available. The web is also a shopper's delight. You can browse and purchase products—books, music, toys, clothing, electronics, and much more—at the websites of major retailers. You can also buy and sell used items through websites that use auction-style bidding.

#### E-mail x v

E-mail (short for electronic mail) is a convenient way to communicate with others. When you send an e-mail message, it arrives almost instantly in the recipient's e-mail inbox. You can send e-mail to many people simultaneously, and you can save, print, and forward e-mail to others. You can send almost any type of file in an e-mail message, including documents, pictures, and music files. And with e-mail, you don't need a postage stamp! For more information about using e-mail, see <u>Getting started with e-mail</u>.

#### Instant messaging

Instant messaging is like having a real-time conversation with another person or a group of people. When you type and send an instant message, the message is immediately visible to all participants. Unlike e-mail, all participants have to be online (connected to the Internet) and in front of their computers at the same time. Communicating by means of instant messaging is called chatting.

#### Pictures, music, and movies

If you have a digital camera, you can move your pictures from the camera to your computer.

Then you can print them, create slide shows, or share them with others by e-mail or by posting them on a website. You can also listen to music on your computer, either by importing music from audio CDs or by purchasing songs from a music website. Or, you can tune in to one of the thousands of radio stations that broadcast over the Internet. If your computer comes with a DVD player, you can watch movies too.

#### Gaming

Do you like to play games? Thousands of computer games in every conceivable category are available to entertain you. Get behind the wheel of a car, battle frightening creatures in a dungeon, or control civilizations and empires! Many games allow you to compete with other players around the world through the Internet. Windows includes a variety of card games, puzzle games, and strategy games. For more information, see Learn about games in Windows 7.

Open	=	Ctrl O	Save	= Ctrl S	Print = Ctrl P
Undo	=	Ctrl Z	Redo =	= Ctrl Y	Cut = Ctrl X
Сору	=	Ctrl C	Paste =	= Ctrl V	Select all = Ctrl A
Replace	9 =	Ctrl H	Go to =	= Ctrl G	Taskpane =Ctrl F1
Hyperli	nk=	Ctrl K	New pa	age = Alt F3	Help = F1
Spelling	g & Gram	nmar = F7	Resear	ch = Alt click	Exit = Alt F4
Review formatting = Shift F1		New =	Ctrl N	Import + Ctrl I	
Save as	s = Ctrl+	Shift +S	Repeat	: = Ctrl R	Break apart Ctrl K
Convert to curves = Ctrl Q		Convert Outline to object Ctrl+shif+Q			
Full Screen preview = F9		Proper	ties = Alt+enter	Find = Ctrl F	
Slide sł 107	now = F5	5	Task p	ane = Ctrl+F1	New slide = Ctrl M

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## INDEX