INTRODUCTION

The concept, "***computer"*** is derived from the word compute, which implies, to calculate. Computers were originally intended for calculating machine. Today's computers, however, do more than calculation. They are no longer discussed from the perspective of counting machines

The age we are in is known as computer age. It is an age where things are being done faster than ever before mostly in the area of technology and communication. This fastness take its routes from the inception of computer.

BRIEF HISTORY/ORIGIN

The operation of computer started since 1990s with introduction of Abacus to aids counting. From there, other meaning counting were introduce.

But ***Charles Babbage*** a British mathematician in London played important role in the early conceptualization of computers, when he came up with the idea of his engine (Mechanical computer) in 1821. He known as the "Father of computer (1792-1871).

He desired to calculate tables of mathematical functions with greater accuracy. In 1822 he wrote a paper titled "Observations on the Application of Machinery to the Computation of Mathematical Tables" which detailed he plans for a calculation machine.

ASSIGNMENTS

1. Write brief history of computer
2. What is the function of the VGA cord and how can you connect it
3. Mention different storage method in your computer
4. Mention 5 quality of a good information
5. i. Draw a keyboard and point out the several set of keys in a keyboard o
   ii Draw your two hand,
   iii Write out the keys that are operated by each finger and Point out the name for each finger
6. Draw a mouse and list all the parts
7. Search for 7 uses your computer (**Note:** Don't copy form the handout)
8. State 6 importance of computer to the society
9. State 6 adverse effect of computer to the society
10. Search for 6 types of operating system u know
11. i. What is boot
    ii Mention and explain the 2 types of booting
12. i. What a windowing environment
    ii. Mention the types of windowing environment in your computer.

DEFINITIONS OF COMPUTER

A Computer can be defined as a machine that operated by the use of a program. ***A computer program*** is a set of instructions designed using a programming-language, and can be used to perform a task.

Computer is an electronic machine/device that accepts data through the input device, processing it through the microprocessor, stored it through the storage device and give out the processed data (information) through the output device.

COMPUTER DEVICES

Devices are computer hardwares that are used to carryout tasks. These devices include:

a. Input devices
b. Processing devices
c. Storage devices
d. Output devices

a. INPUT DEVICES:

These are computer device that are used in giving commands or inserting data to your computer.
Example of input devices:

1. Keyboard
2. Mouse
3. Joystick
4. Light pen
5. Scanner
6. Plotter etc

b. PROCESSING DEVICES

These are computer devices that process raw data into useful information. This is done internally (inside the system unit). Examples of processing devices include:

- Central processing unit (CPU)
- Graphics Processing unit (GPU)
- Sound cards
- Printer
- Video card
- Network card

c. STORAGE DEVICES

These are devices that are used for storing your computer information. They can either be external or internal. Example of internal storage device include: hard disk, floppy disk, local disk, RAM, ROM etc. While examples of external storage devices include: CD ROM, Flash etc

d. OUTPUT DEVICES

These devices are used to give out or display results. The result that is given out can either be on softcopy or hardcopy. Examples are; monitor, printer speaker etc.

SOME COMPUTER ABBREVIATION AND MEANING

1.	VGA	-	Video Graphic Array
2.	USB	-	Universal Serial Board
3.	CAD	-	Computer Assisted Design
4.	CAM	-	Computer Assisted Manufacturing
5.	ROM	-	Read Only Memory
6.	RAM	-	Random Access Memory
7.	ALU	-	Arithmetic and Logical Unit
8.	GUI	-	Graphic User Interface
9.	PC	-	Personal Computers
10.	CAT	-	Computerized Arial Tomography
11.	PET	-	Positive Emission Tomography
12.	LAN	-	Local Area Network
13.	AL	-	Artificial Intelligence
14.	CPU	-	Central Processing Unit
15.	CRT	-	Cathode Ray Tube
16.	LCD	-	Liquid Crystal Display
17.	ICT	-	Information and communication Technology
18.	WWW	-	World Wide Web
19.	ISP	-	Internet Service Provider
20.	WAN	-	Wide Area Network
21.	MAN	-	Metropolitan Area Network
22.	FM	-	Frequency Modulation
23.	ATM	-	Asynchronous Transfer Mode or Automatic Teller Machine
24.	PDF	-	Portable Document Format
25.	MS DOS	-	Microsoft Disk Operating System
26.	CD	-	Compact Disk
27.	HTTP	-	Higher Text Transfer Protocol
28.	HTML	-	Higher Text Makeup Language etc

DATA/INFORMATION

Data (singular datum): Refers to the raw facts that are send to computer that do not have much meaning to the user, it include numbers, letters, symbols, sound or images.

Types of computer data

1. Alphabetical data
2. Numeric data
3. Alpha-numeric data

i. **Numeric data:** This type of data contains only numbers. Eg. phone No, account No etc.
ii. **Alphabetical data:** This data consist of only alphabets. Eg of such data are names of person, place, etc.
iii. **Alpha-numeric data:** This type of data consists of both numbers and letters. Eg. BVN, email with numbers.

DATA PROCESSING
It refers to the process of transforming raw data into meaningful output i.e. information.

Data processing cycle
It refers to the sequence of activities involved in data transformation from its row form to information. It is often referred to as cycle because the output obtained can be stored after processing and may be used in future as input.

The four main stages of data processing cycle are:

- Data collection
- Data input
- Data processing
- Data output

1. DATA COLLECTION

Also referred to as data gathering or fact finding, it involves looking for crucial facts needed for processing.

Methods of data collection
Include **interviews**; use of **questionnaires**, **observation**, etc. in most cases the data is collected after sampling.
Sampling is the process of selecting representative elements (e.g. people, organizations) from an entire group (population) of interest. Some of the tools that help in the data collection include source documents such as forms, data capture devices such as digital camera etc.

Stages of data collection
The process of data collection may involve a number of stages depending on the method used. These include:

a. Data creation:
This is the process of identification and putting together facts in an organized format. This may be in the form of manually prepared document or captured from the source using a data capture device such as a barcode reader and be inputted easily in a computer.

c. Data preparation:
This is the transcription (conversion) of data from source document to machine readable form. This may not be the case for all input devices. Data collected using devices that directly capture data in digital form do not require transcription.

d. Data transmission:
This will depend on whether data need to be transmitted via communication media to the central office.

2. DATA INPUT
Refers to the process where the collected data is converted from human readable form to machine readable form (binary form). The conversion takes place in the input device.

3. DATA PROCESSING
This is the transformation of the input data by the CPU to a more meaningful output (information). Some of the operations performed on the data include calculations, comparing values and sorting.

4. DATA OUTPUT
The final activity in the data processing cycle is producing the desired output also referred to as information. *Distribution* is making information available to those who need it and is sometimes called *information dissemination*. This process of dissemination may involve electronic presentation over the radio or television, distribution of hard copies, broadcasting messages over the internet or mobile phones etc.

METHODS OF DATA PROCESSING

There are difference three ways data can be process, it include:
manually, **mechanically** and **electronically**.

1. Manual data processing
In manual data processing, most tasks are done manually with a pen and a paper. For example in a busy office, incoming tasks (input) are stacked in the "tray" (output). The processing of each task involves a person using the brain in order to respond to queries.

2. Mechanical data processing
Manual is cumbersome and boring especially repetitive tasks. Mechanical devices were developed to help in automation of manual tasks. Examples of mechanical devices include the typewriter, printing press, and weaving looms.

3. Electronic data processing
For a long time, scientists have researched on how to develop machine or devices that would stimulate some form of human intelligence during data and information processing. This was made possible to some extent with the development of electronic programmable devices such as computers.

INFORMATION: Is a meaningful output that is obtain from a well processed data. It can be given in several way; in softcopy, hardcopy etc.

PARTS OF A COMPUTER

Computer has four major parts, these parts include:

1. Mouse
2. Monitor
3. Keyboard
4. System unit

Others computer parts or accessories include:

1. Printer
2. Joystick
3. Light pen
4. Scanner
5. Plotter
6. Modem
7. Flash
8. CD ROM etc

1. **Joystick**: It is use both at homes to play fun games, e.g. Pad
2. **Scanner**: It is a device that is used to capture image (hard copy) to the computer system and convert it to digital form (soft-copy) that the system can edict, store and bring out the result as the output.
3. **Light pen**: These the part of your computer that serves as your mouse on screen monitors.
4. **Modem:** It is use to connect your computer to the Internet,, it is sometimes called the "network provider". The user can also use it to save file temporally with the help of the inserted memory card in the space provided.
5. **Plotter:** This device is used to give blue dot or paint to text.
6. **Flash/CD ROM:** They are both use to store or save information externally. They are is portable

7. **Printer**

A printer is a device that transfers information (*softcopy*) from a computer onto paper (*hardcopy*). You don't need a printer to use your computer, but having one allows you to print e-mail messages, invitations cards, announcements, and other material. Many people also like being able to print their own photos at home.

The two main types of printers

- **Inkjet/Deskjet printers** are the most popular printers for the home. They can print in black and white or in full color and can produce high-quality photographs when used with special paper. It uses liquid ink.
- **Laser printers** are faster and generally better able to handle heavy use. It is bigger in size than the inkjet printers. It consumes much current. It uses powder ink and toner cartridge.

MOUSE

This is one of the major parts of the computer that is use to give and accepted commands.
A mouse is a small device used to point to and select items on your computer screen. Although mice come in many shapes, the typical mouse does look a bit like an actual mouse. It's small, oblong, and connected to the system unit by a long wire that resembles a tail. Some newer mice are wireless.

USING YOUR MOUSE

1. Holding and moving your mouse

Place your mouse beside your keyboard on a clean, smooth surface, such as a mouse pad. Hold the mouse gently, with your thumb and little finger by the side, with your index finger and ring finger resting on the primary and secondary button. To move the mouse, slide it slowly in any direction. Don't twist it - keep the front of the mouse aimed away from you. As the move the mouse, a pointer on your screen moves in the same direction.

2. Pointing

Pointing to an item on the screen means moving your mouse so the pointer appears to be touching the item. When you point to something, a small box often appears that describes the item. For example, when you point to the recycle bin on the desktop, a box appears with this information: contains the files and folders that you have deleted.

The pointer can change depending on what you're pointing to. For example, when you point to a link in your web browser, the pointer changes from an arrow to a hand with a pointing finger.

3. Clicking

a. Clicking (single clicking)

To click an item, point to the screen, and then press and release the primary button (usually the left button).

Clicking is most often used to select (mark) an item or open a menu. This is sometimes called single-clicking or left- clicking.

b. Double – clicking

To double click an item, point to the item on the screen, and then click twice quickly. If the two clicks are spaced too far apart, they might be interpreted as two individual click rather than as one double – click.
Double – clicking is most often used to open items on your desktop. for example. You can start a program or open a folder by double clicking-its icon on the desktop.

c. Right-clicking

To right –click an item, point to the items on screen and then press and release the secondary button (usually the right button).

4. Dragging

You can remove items around your screen by dragging them. To drag an object point to the screen, press and hold the primary button, move the object to a new location, and then release the primary button.

Dragging (sometimes called dropping) is most often used to move files and folder to a different location and to mover window and icons around on your screen.

Here are some tips to help you avoid problem:

- Place your mouse at elbow level. Your upper arm should fall relaxed at your side.
- Don't squeeze or grip your mouse tightly. Hold it lightly.
- Move the mouse by pivoting your arms at your elbow. Avoid bending wrist up, down, or to the sides.
- Use a light touch when clicking a mouse button.
- Keep your fingers relaxed. Don't allow them to hover above the buttons.
- When you don't need to use the mouse, don't hold it.
- Take short breaks from computer use every 15 to 20 minutes.

Types of Mouse

Mouse is classified into two major types:

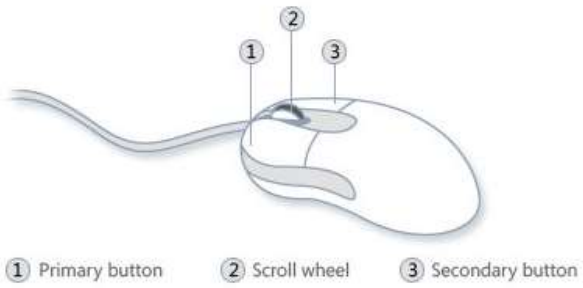
1. Internal Mouse
2. External mouse

Internal (in-built) mouse: This is the type of mouse that is found internally, i.e it is combine together in the system unit. It is found in computers like Laptop computers, notebook etc.

External mouse: This is the type of mouse that is found externally, it is common in desktop computer. It is connected to the system unit with the help of the USB (universal serial board) to the computer.

Parts of an External Mouse

1. The left bottom
2. The scrolling wheel
3. The Right bottom
4. Ray light
5. USB cord

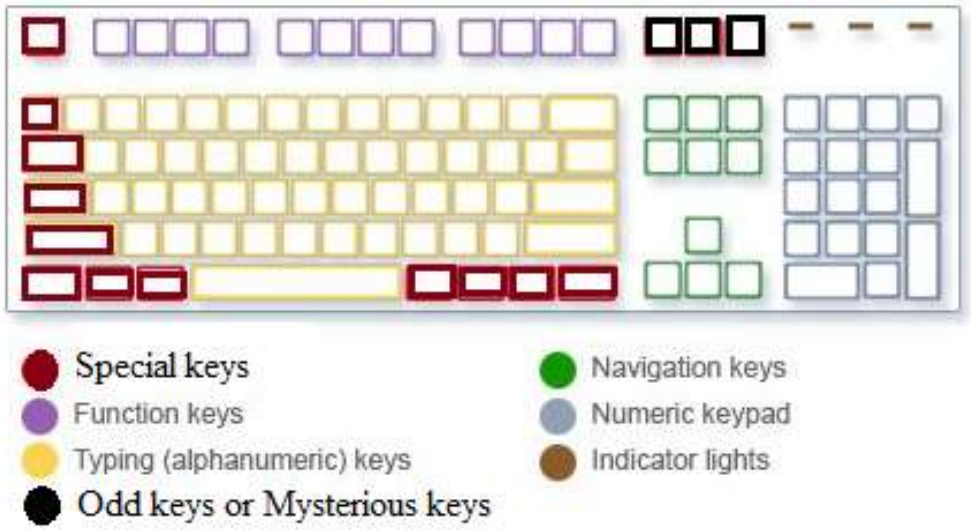


Parts of a mouse

1. **Left bottom:** It is use to accept the given command by the right bottom. It is also known as *"primary button".*
2. **Scrolling wheel**: It is use to move or direct the mouse pointer on screen. If your mouse has a scroll wheel, you can use it to scroll through document and webpage. To scroll down, roll the wheel backward (toward you). to scroll up, roll the wheel forward (away from you).
3. **Right bottom:** It is use in giving commands to the computer. It is also called the *"Secondary button".*
4. **Ray light:** This part is use to alert the user if the mouse is active or not, it is only found in external mouse.
5. **USB cord:** It is used to connect the mouse to the computer. This can be done with the help of the USB port.

KEYBOARD

It is also one of the major parts of the computer. It is used in inserting data to the system. It is also use in giving command especially with the help of the shortcut keys.



Sets of keys in a keyboard

1. The functional key pads
2. Special keys
3. Alphanumeric key pads
4. Mysterious keys
5. Numeric keys
6. Navigation key or Arrow keys
7. Editing keys

1. **The functional keys**: These are the uppermost part of keys in the keyboard. These keys include F1-F12. These keys are used to carryout special function in the system when they are combined or pressed alone.
2. **The Special keys**: They are used to carry out very special functions i.e they are used give command to your computer.
   Special keys include:
   a. **Escape**: It is used to escape a dialogue box or dropdown box.
   b. **Tab key**: It is use to give paragraph to group of text. Secondly, it is use in tables to enter into a new cell and to create more rows, or to type words in line.
   c. **Caps lock**: It is use to type on upper case or lower case.
   d. **Shift key**; It enables the user to gain access to the upper characters
   e. **Control key**: It is combined with other keys to perform a particular task. Note, control, Function and shift key works in combination with other keys.
   f. **Window key**: The main function of the window key is to open the start menu. It is also combined with other keys. E.g Window + "P" to perform a task.
   g. **Alternate key**: This key work in combination with other keys to perform a function. E.g Alt.+F4 used to close an application or window.
   h. **Function key:** It is combine mostly with functional keys to perform a task.

3. **Alpha-numeric key pad:** These groups of keys contain numbers, signs and alphabets.

4. **Mysterious Keys:** These set of keys performs task that are imaginable or surprising to the user like capturing any background, checking window version etc.
5. **Numeric Key pad:** These set of keys contains only numbers or digits. They can only function when the user ON the number lock.
6. **Navigation keys or Arrow keys:** These keys are used to see the hidden parts of the window i.e used to scroll up, down, left and right.
7. **Editing keys:** They are used for editing of document. These set of key are also found in the numeric key pad. The keys include: Del, enter, space, backspace, pg up and pg down.

SYSTEM UNIT

This is the major parts of a computer. It also serves as the power house of a computer where everything is been controls and managed. System unit is the actual computer. Everything else is called a peripheral device because they are attached to the system unit through ports. The system unit has the following parts:

1. Central processing unit (CPU)
2. Arithmetic and logical unit (ALU)
3. Mother board
4. Sound card
5. Floppy disk/drive
6. Hard disk/drive
7. CD ROM Drive etc

CENTRAL PROCESSING UNIT:

It is also known as processor or microprocessor. It is the major part of a system unit; it serves as the brain of a computer. The parts of the CPU include:

- Control unit
- Register

Control unit: it decides which operation is to performed. It send signal round the system unit.
Register: it store data that are about to be manipulated.

ARITHMETIC/LOGICAL UNIT:

This is the part of the system that does the calculation aspect of the system like subtraction, Multiplication, division and addition.

CD (Compact Disk) drives

You can store copies of your files on blank CDs. You can also use a CD drive to play music CDs on your computer. Nearly all computers today come equipped with a CD drive, usually located on the front of the system unit. CD drives use lasers to read (retrieve) data from a CD; many CD drives can also write (record) data onto CDs.

CD

Floppy disk drive

Floppy disk drives store information on floppy disks, also called floppies or diskettes. Compared to CDs and DVDs, floppy disks can store only a small amount of data. They also retrieve information more slowly and are more prone to damage. For these reasons, floppy disk drives are less popular than they used to be, although some computers still include them. Why are these disks called "floppy" disks? The outside is made of hard plastic, but that's just the sleeve. The disk inside is made of a thin, flexible vinyl material.

Floppy disk

MONITOR

This is also one of the major parts of a computer. It helps the user to have access to the processed (data) information. Monitor displays the information in soft-copy format. It's also call screen. It also converts electrical signals from the computer into the point of coloured light on the screen to form an image.

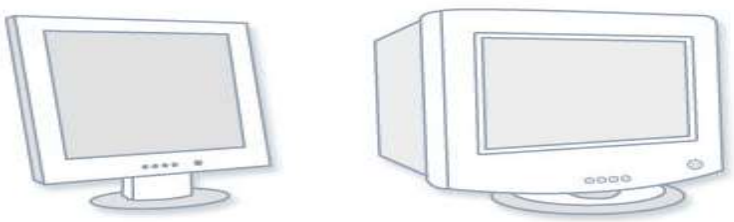
Type of monitors

They are two types of monitors, namely:

- Liquid Crystal Display Monitors (LCD)
- Cathode Ray Tube Monitors (CRT)

Liquid Crystal Display Monitors (LCD): This looks like those on laptop computer; they are more experience than the CRT monitor. Both types produce sharp images, but LCD monitors have the advantage of being much thinner and lighter.

Cathode Ray Tube Monitors (CRT): this looks like the standard TV screen, but vary with respect to quality, size etc.



LCD monitor (left); CRT monitor (right)

USES OF COMPUTER

1. It is use in the laboratory for experiment
2. It is use to save vital information for long time
3. It is use in the hospital for scanning, e.g X-ray machine
4. It use in agriculture for producing farm implement and as machineries
5. It is use in the textile industry to put design on clothes
6. It is also use in schools for teaching of student and for printing of schools result or exams questions.
7. It is use in business premises for transactions
8. It is also use for communication, e.g email, social website like facebook etc.
9. It is use in airport to control the movement of planes
10. Is use to produce modern war equipments like explosive bombs, machine guns etc.
11. It can be used to educate humans e.g information gotten from the net
12. It is also use for calculation eg. Calculator
13. It is use in the bank for payment
14. It is use in big factories or hotels for protection and detection of criminals e.g robotic.
15. It also used in the hospital to keep patient records.
16. It is use by astronomers to study the universe or solar system etc
17. Computer is used at healthcare for the following tasks:
    i. For processing extensive patients records
    ii. For processing patient billing forms
    iii. For diagnosing of patients
    iv. Use to provide hospital information system such as drug inventory, etc.
18. Computers are also used at home for:
    i. Sewing
    ii. Washing
    iii. Teaching young ones
    iv. Entertainment
20. It is use in oven for baking.

ADVANTAGES OF COMPUTER

1. It helps in creating self-employments in the society.
2. It can be used for entertainment at homes during leisure periods.
3. It also help to educate human (through information gotten from the net)
4. Computer has had a very important influence on society. It has reformed our way of life. The use of computer has influenced each and every department of our lives.
5. People are using PC to do works quickly and easily. The use of PCs makes hard task less challenging.
6. It also saves time, energy and reduces the general cost to finish a specific task.
7. It helps in keeping records, E.g Banks are using computers for keeping up records and control financial exchanges.
8. The banks are also providing online banking services to their clients with computer. They can also create a financial exchange on the web. The exchanges are taken care of easily and quickly with computerized frameworks.

9. People are using computers for paying their bills, dealing with their home spending plans or just having some breakdown and viewing a film, hearing tunes or playing computer recreations.
10. Moreover, the computer is being used as a part of each field of life, for example carrier, business medicine, industry, and climate estimating.

DISADVANTAGES OF USING COMPUTER

The use of computer has made some problems in the public space, which are written below.

1. It reduces the need of people and creates unemployment in the public space since everything is done very fast.
2. People play games. It causes wastage of energy and time. Young generation is currently spending more time and energy in the online networking sites like Facebook or twitter.
3. Illegal people can access the data stored on your PCs, i.e its exposes the user to public, which has produced challenging issues for the information safety.
4. Some People use the computer for negative purposes like to hack the credit card details, bank accounts, etc. of the peoples and abuse them or they can take the important data from big associations too.
5. It requires trained personnel; if u are well trained on computer, u can operate its.
6. It is very difficult to manage or maintain since is an electronic device.
7. Computer is also very costly to purchase in the market etc
8. It leads to losses of jobs
9. It can be used for fraud (cheat)

CHARACTERISTICS OF COMPUTER

1. **Automatic:** Computer is automatic machine because once it starts on a job it carry on until the job is finished.
2. **Speed:** Computer is a very fast device, its respond to commands or performs tasks without delay.
3. **Intelligence:** Computer is intelligent because it exact what has been fed in it. Is also intelligent because it can detect errors and correct them. The intelligence of computer is called artificial intelligence.
4. **Accuracy:** This means that computer has no error, its gives out result based on the instruction given to its. The accuracy of computer is very high and is based on the designer.
5. **Diligence:** A computer is free from monotony (dull), tiredness and lack of contraction. It works for hours without creating any monotonous of commands because of its ability to work for long time.
6. **Versatility:** It is the most important thing about computer, it has the ability to do or be used for many difference things.
7. **Connectivity:** This means that computer can be connected to one another to make the exchange of information easy.
8. **Power of remembering:** A computer can store and recall any amount of information as required by the user. Even after several years, the information recalled would be very accurate.
9. **Fatigue:** This is another important thing about computer, when many programs or software are open; it makes it to be very dull, tired and weak in operation.

10. **No feeling:** Computer are devoid (lack) of emotions. They have no feeling or thought because they are machines; their judgment is based on the instructions given to them in the form of programs.
11. **Memory:** Computer has a memory and the memory has the ability to encode. Store and retrieve information.

(i) **Encode:** To receive in data or codes to the memory of computer.
(ii) **Store:** the memory of computer keeps information save until when it is needed
(iii) **Retrieve:** Means receiving information that has been saved or stored from the computer.

ELEMENT OR COMPONENT OF A COMPUTER

Computer is divided into two major parts, namely:

1. Computer hardware
2. Computer software

HARDWARE

These are the physical or tangible parts of a computer i.e the touchable and feel-able part of our computer. All the internal part of a system unit is all hardware. Computer hardware comprises of the difference devices, the devices include:

a. Input device
b. Processing device
c. Storage device
d. Output device

SOFTWARE

Software is the collection of computer programs, documentation and procedures performing several tasks on a computer system. Thus, it is considered to be the heart of computer systems. It is a means of communication between the computer system and computer users.

Generally, computer software consists of a machine language consisting of groups of binary values, specifying the processor instructions. The instructions change the state of computer hardware in a sequence that is pre-determined. In conclusion, a computer system is a language in which a computer speaks.

TYPES OF COMPUTER SOFTWARE

1. **SYSTEM SOFTWARE**
   - Operating system
   - Utility software
   - Language translator or processor
2. **APPLICATION SOFTWARE**
   - General Purpose App.
   - Special Purpose App.

1.) SYSTEM SOFTWARE

It is a collection of operating system, servers, device drivers, utilities and windows systems which helps in running the computer hardware and the computer system. It is designed to provide a platform to run application software and operate the computer hardware. This software helps an application programmer to view away memory, hardware and other internal complexities of a computer. Some of its common types are:

i. OPERATING SYSTEM

Is an organized collection of programmes which oversees the operation of computer system; it forms a background under which other programmes can run. The operating system actually controls the performance of the computer. From performing basic tasks to running important programs, the operating system is the most important program to run a computer. Without the operating system, no other programs such as spreadsheet software, word processing software, etc. can be run. So, in a sense, this system brings the computer to life.

When given a command, the operating system issues the instructions to the 'brain' i.e. the CPU or microprocessor. While working on the application software, such as

Function of Operating System

1. It controls the performance of the computer.
2. It allows the computer to accept data, process it and generate the necessary output.
3. It serves as the platform for the running of other softwares.
4. Operating system enables the computer to boot.
5. It provides interface between the user and the computer.
6. Provide security and backup.
7. Controlling peripheral devices such as a keyboard, disk drives, printers, etc.
8. Provide interface between software and hardware.
9. Scheduling processes.
10. Memory management.
11. Recognize input from the keyboard.
12. Send output to display on the screen.

TYPES OF OPERATING SYSTEM (OS)

1. Microsoft disk operating system(MS _OS)
2. Macintosh operating system (MAC_OS)
3. Unix operating system
4. Windows operating system

1. **Microsoft Disk Operating System (MS DOS)** - Is a single-user, single-tasking computer operating system that uses a command line interface. It is a disc based operating system designed by Microsoft Corporation in USA. You had to type all commands at the command prompt which might look like **c:\>wp\wp.exe**. This is called a **command-line interface**.
2. **Mac OS -** Macintosh, a product of Apple, has its own operating system with a GUI and WIMP features.
3. **Unix - Linux** - Unix and Linux were originally created with a command-line interface, but recently have added GUI enhancements.

4. Microsoft Windows

The Windows operating system is a product of Microsoft Corporation, is a GUI (graphical user interface) operating system. A windowing environment is an operating system that presents the user with various windows. The apple Macintosh finder, and the OS/2 presentation manager are all examples of windowing environment.

Microsoft Windows has seen nine major versions since its first release in 1985. Over 29 years later, Windows looks very different but somehow familiar with elements that have survived the test of time, increases in computing power and – most recently – a shift from the keyboard and mouse to the touchscreen.

THE VERSIONS OF WINDOWS

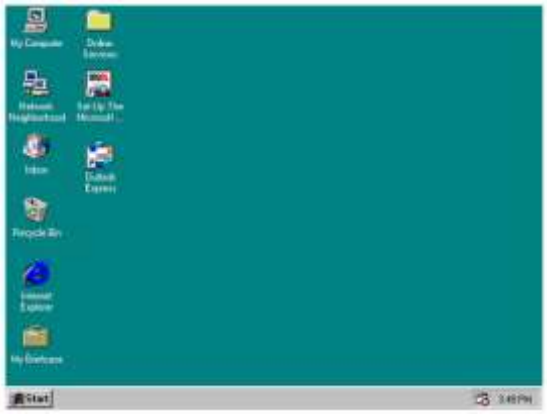
Windows 1

Windows 1 and 2 both had point release updates, but Windows 3.1 released in 1992 is notable because it introduced TrueType fonts making Windows a viable publishing platform for the first time.

Windows 3.1 required 1MB of RAM to run and allowed supported MS-DOS programs to be controlled with a mouse for the first time.

Windows 95

As the name implies, Windows 95 arrived in August 1995 and with it brought the first ever Start button and Start menu (launched with a gigantic advertising campaign that used the Rolling Stones' Start Me Up, and a couple of months later Friends stars Jennifer Aniston and Matthew Perry).



Windows 98

Released in June 1998, Windows 98 built on Windows 95 and brought with it IE 4, Outlook Express, Windows Address Book, Microsoft Chat and NetShow Player, which was repl`aced by Windows Media Player 6.2 in Windows 98 Second Edition in 1999.

Windows ME

Released in September 2000, it was the consumer-aimed operating system twined with Windows 2000 aimed at the enterprise market. It introduced some important concepts to consumers, including more automated system recovery tools.

Windows 2000

The enterprise twin of ME, Windows 2000 was released in February 2000 and was based on Microsoft's business-orientated system Windows NT and later became the basis for Windows XP. Microsoft's automatic updating played an important role in Windows 2000 and became the first Windows to support hibernation.

Windows XP

Arguably one of the best Windows versions, Windows XP was released in October 2001 and brought Microsoft's enterprise line and consumer line of operating systems under one roof.

Windows Vista

Windows XP stayed the course for close to six years before being replaced by Windows Vista in January 2007.

Vista also included speech recognition, Windows DVD Maker and Photo Gallery, as well as being the first Windows to be distributed on DVD. Later a version of Windows Vista without Windows Media Player was created in response to anti-trust investigations.

Windows 7

Considered by many as what Windows Vista should have been, Windows 7was first released in October 2009.

Windows 8

Released in October 2012, Windows 8 was Microsoft's most radical overhaul of the Windows interface, ditching the Start button and Start menu in favour of a more touch-friendly Start screen.

Windows 8.1

A free point release to Windows 8 introduced in October 2013.

Windows 10

Announced on 30 September 2014, Windows 10 has only been released as a test version for keen users to try. The "technical preview" is very much still a work in progress.

Uses of windows

1. Windows is an interface between the user and the computer.
2. It enables the user to see what he/she is doing on the screen.
3. Windows makes the computer system to be user friendly.
4. It is used to enhance graphics designs.
5. It's designed to run on standard hardware, such as Intel and modem etc.

Features found on windows environment

1. Windows (programs)
2. Icons
3. Start Menus
4. Pointing device (mouse)
5. Windows desktop

ii) UTILITY SOFTWARE:

Utility software are set of collective programs, available to help you with the day to day chores that are associated with personal computing and to keep your computer system run at peak performance. These are designed to help manage, control and maintain computer resources.

Some examples of utility software are:

- **Virus scanning Software / Antivirus:** It protects computers from computer viruses.
- **Scandisk**: It scans disks for any potential problems on them, such as bad disk areas or any physical error.
- **Backup software**: It helps in making copies of your files and even an entire computer hard drive for backup and restoration.
- **Debuggers**: These are used mainly to solve programming errors.
- **Disk Defragmenter software**: It assists you in reorganizing those disk drives which have been scattered across several hard disk locations while files are saved, deleted and resaved again.
- **File managers**: They provide you a convenient method to perform routine data management, management tasks and e-mail recovery.

iii) LANGUAGE PROCESSOR

It is a special kind of computer software which translates the programs written in one language into another language. It is compulsory for both low and high-level language. The types of language translators are:

1. Compiler
2. Interpreter
3. Assembler

2) APPLICATION SOFTWARE

Application software is used to solve application type of problems. Business software, educational software and databases are some forms of application software. This software enables the users to accomplish certain specific tasks and utilizes the capacities of a computer directly to a dedicated task. It can manipulate numbers, texts and graphics. It can also focus on a certain single task like work processing, spreadsheet or playing of audio and video files. Its types are:

i) General purpose or package software:

Package software is for general purposes. Designed by software companies, it is mainly to generalize the tasks. Some common package software are:

Word Processing Software (MS word): This software enables the users in creating and editing documents. MS-Word, Notepad, Word pad and some other text editors are some most popular examples of Word Processing Software.

Database Software: It organizes the data and enables the users to achieve database operations. It also allows the users to store and retrieve data from databases. MS Access, Oracle, etc. are its examples.

Spreadsheet Software (Excel): By displaying multiple cells that make up a grid, this software simulates paper worksheets and allows the users to perform calculations. Its examples are Apple Numbers, Excel, Lotus 1-2-3, etc.

Multimedia Software: This software allows the users to create and play audio and video media. Audio converters, burners, players, video encoders and decoders are some forms of it. Real Player and Media Player are examples of this software.

Presentation Software (powerpoint): This software is best used to display information in the form of a slide show.

ii) Specific purpose or Tailored software:

Tailored Software is also called small type of software. Tailored software is for specific purposes. Written in high-level languages such as C, JAVA, C++, COBOL (Common Business Oriented language), etc. these types of software are developed for a specific task. Banking software, hotel reservation software, hospital software, billing software, etc. are its examples.

How to Install a Program

- You purchase or Insert the Omega disc into your computer
- Open the CD or the downloaded program
- Open the program setup file, usually called Setup.exe or Install.exe. and follow the instructions on your screen.
- If a program doesn't begin to install, check the information that came with the program.
- Many programs installed from CDs or DVDs launch an installation wizard for the program automatically.

CLASSIFICATION OF COMPUTERS

Computer is classify based on the following:

- ❖ Generation
- ❖ Mode of operation
- ❖ Purpose
- ❖ Size
- ❖ No of user

CLASSIFICATION BY GENERATION

The evolution of computers is often referred to in reference to the different generations of computers devices. Each generation of computer is characterized by a major technological development that fundamentally changed the way computers operate, resulting in increasingly smaller, cheaper, and more powerful, and more efficient and reliable devices. There are five (5) generations of computer. They include:

FIRST GENERATION COMPUTERS (1939-1954) - VACUUM TUBES:

The first computers used vacuum tubes for circuitry and magnetic drums for memory, 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.

SCOND GENERATION COMPUTERS (1954-1959) –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 50s. The transistor was far superior to the vacuum tube, allowing computers to become smaller, faster, cheaper, more, energy- efficient and more reliable than their first-generation predecessors.

THIRD GENERATION COMPUTERS (1959-1971) –INTEGRATED CIRCUITS (IC):

The development of the integrated circuit was the hallmark of the third generation of computers. Transistors were miniaturized and placed on silicon chips, called semiconductors, which drastically increased the speed and efficiency of computers.

FOURTH GENERATION COMPUTERS (1971-1991) - MICROPROCESSORS:

The microprocessor 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 computer of the computer -form the central processing unit and memory to input/ output controls –on a single chip.

FIFTH GENERATION (1991 AND BEYOND) – ARTIFICIAL INTELLIGENCE (AI):

Fifth generation computing devices, based on artificial intelligence, are still in development, though there are some applications, such as voice recognition, that are being used today. The use of parallel processing and superconductors is helping to making artificial intelligence a reality.

CLASSIFICATION BY MODE OF OPERATION

There are three type of computer here. The difference is based on the type of input fed into them and how the input is presented on the mode of output.

1 **ANALOG COMPUTERS**: these are computers in which computation is performed by manipulating continues physical variable in a more direct manner by a physical quantity that is proportional to it. Example includes: slide rule, speedometer, voltmeter, ammeter, galvanometer, resistor, computers used as surveillance etc.
2. **DIGITAL COMPUTER**: these are computers in which computation is performed by manipulating numbers and letters which are represented in bits (binary digits i. e. values 0 8 1). Digital computers are useful for evaluating arithmetic expressions and manipulations of data. e.g. calculator, personal computer (pc) etc.
3. **HYBRID COMPUTER:** are computers that exhibit features of analog computers and digital computers. The digital component normally serves as the controller and provides logical operations, while the analog component normally serves as a solver of differential equations.

CLASSIFICATION BY PURPOSE

There are types of computers are in this category. Special and general purpose.

1. **SPECIAL PURPOSE**: these are kind of computers designed to perform a particular operation i.e. they are designed and built to serve a particular purpose. The microprocessor of these computers are permanently programmed and they are embedded in the machine e.g. computers designed for word processing only (**IBM-TYEWRITER).**

2. **GENERAL PURPOSE:** these are kind of computer that are permanently programmable and can be used for wide variety of numerical calculations and business problems it means that same computer been used in the bank can be taken to school for their own operation. The only difference will be a change of program. The general purpose computers are more flexible and easier to operate than the special purpose computers e.g. personal computer (pc).

CLASSIFICATION BY SIZE

The exponential growth in micro electronics technology has made it possible to build computer of different sizes, operations, speed and complexities to handle various type of job there are basically four types of computers in this category. Supercomputer, mainframe computer, minicomputer and microcomputers

1. **SUPERCOMPUTER:** supercomputers are the largest computers that have the capacity of carrying thousands and millions of operations every second and store them in the memory. The supercomputer is mainly used for large scale numerical problems in scientific and engineering disciplines such as Weather analysis, area of modeling complex chemical reactions, satellite communication, time sharing system and teleconferencing networks.
2. **MAINFRAME COMPUTER:** These are very large, bulky, and expensive and cable to handle several billions of instruction per second. They enjoy a high degree of flexibility and versatility in problems solving. Operator need to be thoroughly trained to interact with (I e operate) the system. It is use strictly in places with large data base. Supercomputer and mainframe are no longer common.
3. **MINICOMPUTERS:** They are smaller, less bulky and less expensive when compare with mainframe. They are faster, multipurpose and multi-user computer. They are more expensive than microcomputers.
4. **MICROCOMPUTER:** They are very portable computer, less expensive and easier to maintain. Microcomputer was first installed in 1971. Today people want to have their computer anywhere they go. This is what brings about three major divisions of microcomputer.

The different examples of microcomputer computers are: -

1) Laptop
2) Notebooks
3) Palmtop (hand held)
4) Wearable computers
5) Desktops

Laptop: - this computer is similar to a desktop computers but the size is smaller. It is suitable on the lap. They are expensive than desktop. The weight of laptop is around 3 to 5 kg.

Notebook: - These computers are as powerful as desktop but size of these computers are comparatively smaller than laptop and desktop. They weigh 2 to 3 kg. They are more costly than laptop.

A laptop computer and a small notebook PC

Palmtop (Hand held): - They are also called as personal Digital Assistant (PDA). These computers are small in size. They can be held in hands. It is capable of doing word processing, spreadsheets and hand writing recognition, game playing, faxing and paging. These computers are not as powerful as desktop computers. Ex: - 3com palm V.

Handheld computer

Wearable computer: - The size of this computer is very small so that it can be worn on the body. It has smaller processing power. It is used in the field of medicine. For example pace maker to correct the heart beats. Insulin meter to find the levels of insulin in the blood.

Desktop: This the type of micro computer that suitable on the desk. All the part are separated and it has no battery.

CLASSIFICATION BY NUMBER OF USERS

Based on number of users, computers are classified into: -

a. **Single User**: - Only one user can use the resource at any time.
b. **Multi User**: - A single computer shared by a number of users at any time.
c. **Network**: - A number of interconnected autonomous computers shared by a number of users at any time.

COMPUTER VIRUS

Computer viruses are the programs or malware which are loaded onto your computer by 'mean' people, without your knowledge. These viruses replicate and infect computer programs. They might even delete or corrupt your computer data or erase your hard disk too. These virus programs are placed into commonly used programs. So, when those programs are run, the attached virus infects the executable program or file.

These viruses are not of same purposes. Some have destructive intents while some are designed to play annoying tricks. Some might present themselves as jokes while doing destructive functions secretly. There are 2 major kinds of viruses. They are:

1. **Compiled Viruses:** executed by the operating system.
2. **Interpreted Viruses:** executed by an application.

Symptoms of Virus:

- Erasing of your data
- Slowing down of the speed of the computer.
- Change in files' extension.
- A long time in the loading of a program.
- Showing of unusual error message on the screen.
- System data corruption.
- Memory space reduction in a computer.
- Inaccessibility to the location of files.

Prevention of Virus:

- Purchase or download an anti-virus program that runs as you boot or work on your computer. Also, update it frequently.
- Password protection should be employed.
- Execute familiar programs only as to their origin. Programs sent by e-mail should always be suspicious.
- Load software only from original CDs or disks instead of pirated or copied ones.
- Check all shareware and free programs downloaded from online services with a virus checking program.
- Computer uploads and "system configuration" changes should be always performed by the computer owner.

COMPUTER ANTIVIRUS

An antivirus is a computer software designed to scan, detect and remove viruses and malicious software from computers. This software defends your computer against computer viruses that threaten to infect your computer files and systems. In order to be an effective defense virus, an antivirus needs to run all the times in the background and should be kept updated frequently.

Antivirus scans the files and folders and alerts the user if viruses are found. Some known and popular antivirus software are scandisk, Kasper-sky, Avira, Norton, Avast, AVG, etc.

INTRODUCTION TO DESKTOP

Desktop is the rectangular portion of the system that display immediately after booting. It also referred to as your "Home Screen".

DESKTOP SHORTCUT KEYS

Window key	-	To open start menu
F1	-	To search for help and support
F5	-	To refresh
F11	-	To activate full screen
Function + F5	-	To open your speaker
Window + E	-	To open your computer
Window + P	-	To connect to external projector
Window + Pause	-	To check your window version and properties
Window + M	-	To minimize all windows
Alt + Tab + Window	-	To switch within open window and desktop
Window + X	-	To open mobility or your computer features
Window + L	-	To luck your computer
Prt Scr	-	To screen shot

COMPONENT OF DESKTOP

1. Start menu
2. Task bar
3. Icons
4. Bible Verses
5. Gadgets
6. Desktop Background
7. Mouse Pointer

START MENU: Is regarded as the gateway to your computer programs, files other directories. To open the start menu just press window key. It can also be used to search.

TASK BAR: This is the bar that is found at the bottom part of the desktop. It holds some programs and any minimize window in your computer.

The taskbar is divided into three parts:

1. Start menu part
2. Programs part
3. The notification part

How to change the location of your task bar

1. Right click on empty space of the taskbar
2. Click on properties
3. Click on taskbar location on screen and select the location of your choice.
4. Lastly, click on apply and Ok.

How to lock your taskbar

1. Right click on empty space of the taskbar
2. Click on properties
3. Click on lock the taskbar
4. Click on apply

How to hide taskbar

1. Right click on empty space of the taskbar
2. Click on properties
3. Click on auto hide taskbar
4. Click on apply

ICONS: These are graphical representation of your computer file, programs and folder.

- **Folder:** this is directory where files are been stored.

HOW TO CREATE NEW FOLDER

a. Right click on empty space of desktop
b. Click on new and select new folder
c. Rename using the choice of your name and enter

- **File:** Is a directory where information are been save.

- **Program:** Is a set of instruction used to perform a specific task. Eg. Mozilla Firefox, MS office, Corel Graphics suit, Recycle bin, Chromium, Google Chrome, Adebe reader, paint etc

BIBLE VERSES: These are the verses that display at the right corner of the desktop. You make setting on it by right clicking.

GADGETS: Are specialize icon which are used to navigate your computer.

How to set your Date and Time

- Open start and select control panel
- Click on Clock, Religion and Language and select Set date and time
- On the dialogue box, click on change date and time
- Set the date by changing the year, month and day
- Set the time too by changing the hour, minute and second and the Meridian
- Click on Ok

How to insert gadgets

- Right click on empty space of the desktop
- Select personalize
- On the dialogue box that display, select the gadget of your choice by double clicking.

DESKTOP BACKGROUND: This is picture that display behind the icons on the desktop.

How to change desktop background

- Right click on empty space of the desktop
- Select personalize
- Click on desktop background at the down part of the window
- Select your picture location, the duration and picture position
- Mark or select the picture of your choice
- Click on save changes

How to apply screen saver

- Right click on empty space of the desktop
- Select personalize
- Click on desktop background screen saver at the down part of the window
- On the dialogue, select the type of screen saver, and the duration to display
- And Ok, then for 3D text
- Click on setting and select the font style, rotation type, size, speed and the colour
- Type the name u which to used and select Ok
- Click on preview and Ok.

MOUSE POINTER: Is the pointer device that appear on the desktop.

How to change the style of your mouse pointer

1. Right click on the empty space of the desktop
2. Click on personalize
3. Click on change mouse pointer
4. On the dialogue box that display, click on scheme and select the mouse pointer style of your choice.
5. Lastly, click on Ok.