INTRODUCTION TO COMPUTER

Overview

- Computer Essentials
- History
- Components of the Computer
- Types of computers
- Information and Communication Technology
- Hardware
- Software
- System and Application Software
- Software license

Computer Essentials

This module sets out essential concepts and skills relating to the use of devices, file creation and management, networks and data security.

HISTORY

BRIEF:

- **Charle's Babbage** (British Mathematician and Mech. Eng); invented the concept of computer in 1822.

- **Konard Zuse** (German base scientist): first to build a programmable computer, 1935-1938 in Berlin. Then in 1941 developed Z1 machines, which was destroyed by the II world war.

- **Tommy Flower** (British telephone Eng.): build electronic computer used to encrypte messages between German command during the II world war.

- **Dr. John Von Neumann** (incredible Hungarian-American base Mathematician, Physician, computer Scientist and Polymath or universalist): Design Von-Neumann architecture in 1945.

Computer: is an electronic device that accepts input data, process the data into information meaningful to the user.

Components of a Computer:

System unit
Keyboard
Monitor
Mouse

- **System Unit**: is a component in which all processing of data is perform. It is contains *central processing unit(CPU), transistors, RAM (main memory), hard drive, mother board, transistors, transformers etc*. This components is made up of two types, namely;

Vertical type

Horizontal type

Keyboard: Is a component made up of alphanumeric and symbolic keys that allow the user to input data into the computer. These ***alphanumeric keys*** constitute *alphabetical keys*, *functional keys as well as numerical keys*. Likewise, ***Symbolic keys*** consist of all keys on which *only* symbols and signs are embossed on.

keyboard

- **Mouse:** is a component that directs or guide the user to move or select icons on the screen.

Mouse

Monitor: is a component of a computer that display information to the user. The monitor consist of two types and it include;

. Liquid Crystal Display (LCD)

. Cathode Ray Tube

Liquid Crystal Display

Cathode Ray Tube

Types of Computer:

❖**Personal Computer**: The personal computer (PC) defines a computer designed for general use by a single person.

Types of Computer:

❖**Desktop Computer**: Is a personal computer designed for regular use at a single location on or near a desk due to its size and power requirements.

Types of Computer:

❖**Laptop**: Laptops are portable computers that integrate the display, keyboard, a pointing device or trackball, processor, memory and hard drive all in a battery-operated package slightly larger than an average hardcover book.

Types of Computer:

❖**Tablet**: is a mobile device, typically with a mobile operating system and touchscreen display processing circuitry, and a rechargeable battery in a single, thin and flat package.

Types of Computer:

- **WorkStation**: is simply a desktop computer that has a more powerful processor, additional memory, high-end graphics adapters and enhanced capabilities for performing a special group of tasks, such as 3D graphics.

Types of Computer:

❖**Mainframe Computer**: is a computer used primarily by large organizations for critical applications like bulk data processing for tasks such as censuses, industry and consumer statistics, enterprise resource planning, and large-scale transaction processing.

Types of Computer:

- **Supercomputer**: is a computer with a high level of performance as compared to a general-purpose computer. The performance of a supercomputer is commonly measured in floating-point operations per second instead of million instructions per second.

HARDWARE: they are the physical components of the computer. These devices or components are categorized into input, process, output and storage devices.

- **Input devices: keyboard, mouse, scanner, Modem, joystick, Digital Cameras, Microphone, Barcode reader etc.**
- **process devices: Central processing unit, RAM, Motherboard, Network card, sound card, video card**
- **Output devices: Monitor, LCD projector, Speakers, Printer, Plotter, headphones webcam etc.**
- **storage devices: Hard drive, Pen drive, Compact disk, DVD, memory card, external hard drive, floppy disk etc.**

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)

Information And Communication Technology (ICT): is defined as the use of computing and communication devices or features to aid communication. It is also the study of developing and using technology to process information and aid communications. This concept is an extension of IT that emphasis the role of unified communication and focuses basically on communication technology.

Therefore, communication technology in modern context include; the internet, wireless network, mobile phone,

It equally improve upon telecommunication services which largely support our daily activities.

INTEGRATED OR EXTERNAL EQUIPMENT

Integrated Equipment: These are devices or parts build in the computer system, with some being detachable and others are not. Most Manufacturers today has made all sensitive parts removal: such as the CPU, CD/DVD Drives, Power supply Unit, Motherboard, hard disk etc.

External Equipment: these are components connected to the outer part of the computer system. These components constitute the peripherals of the computer and as such expands the functionality of the computer. They include; printers, keyboard, Mouse, Scanner, joystick, modem, pen drive etc.

SOFTWARE: **is a program (set of instruction) that manages the computer hardware and resources. Examples; WINDOWS 98, Ubuntu, WIDOWS 2000, WINDOWS 7, Mac OS, UNIX, Google Chrome, Fedora, Red hat, WINDOWS XP, Vista, Fire fox, Mavis Beacon etc.**

TYPES OF SOFTWARE

- **System software**
- **Application software**

SYSTEM SOFTWARE: **is a type of software that allows the computer hardware to become functional. This program is to enable the user to gain access or interact with the computer system and its resources. A good example is the Operating System (OS); such as WINDOWS XP, Vista, Ubuntu, Fedora, WINDOWS 8, WINDOW 10, Mac OS, Red hat, UNIX etc.**

APPLICATION SOFTWARE: **is a type of software that enable the user to perform a specific task or function. These are basically programs design by potential programmers in their respective endeavor. Examples include; MS office Suite, Web browsers, Mavis Beacon, Players, Games, Coral draw, cartoons, Mobile Apps etc.**

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