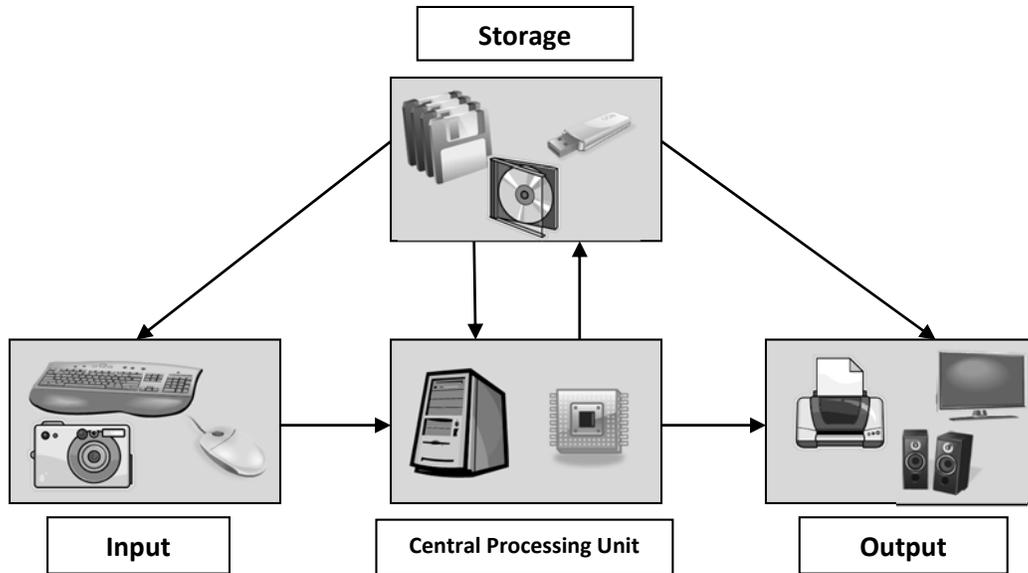


## TOPIC D: HOW A COMPUTER WORKS

A COMPUTER is an electronic machine that inputs, processes, outputs, and stores data at high speeds according to programmed instructions (hardware /software), producing a visual or auditory product.



Central Processing Unit or CPU- the heart of the computer; housing the microprocessors on a circuit board that manages the equipment that processes the data; completes the requested command

Input- data or commands are entered to the computer for processing through a keyboard, mouse, disks, etc.

Output- the final product of your entered data or commands as processed and revealed through a monitor, speakers, or a printed document

Storage- the location in which you “save” or protect your data. Storage can be achieved through internal or external devices, such as discs, CDs, USB Flash drives or the internal hard drive of the computer.

Computers come in a variety of types of phones, handheld PDAs, laptops, personal desktops, and are changing all the time!



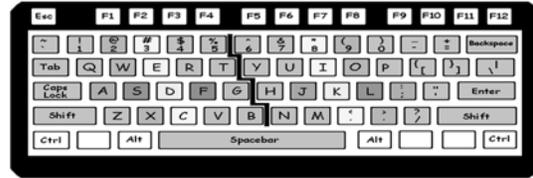
Larger computers, referred to as mainframes, allow multiple users to access computers at the same time.

# COMPUTER HARDWARE/SOFTWARE

**HARDWARE**: The physical parts of the computer.

**Input devices** are equipment used to enter data, pictures, or document information into the computer.

**Keyboard:** A device of arranged keys or buttons by which alpha-numeric information can be entered into a computer; closely designed from the standard typewriter keys.



**Mouse:** A small manual device used by hand (fingers/palm) that controls movement of a cursor as well as manipulating other commands and functions for a computer display



**Scanner:** A machine that scans documents or a pictures for use or storage on a computer; also used with e-mail and in place of fax machines

**Flash Drive (USB):** A small device functioning as a disk drive, containing memory, which can be removed easily for transport and can store in excess of 500 gigabytes (500,000,000 bytes) of data



**Disks:** A data storage form that is made of a magnetic film enclosed in a plastic case. The case protects the fragility of the data storage. Today's disks are more recognized in the form of a CD, (compact disk), a round, plastic form, metallic in appearance, that records and saves data as well as videos and music.

**Digital Camera:** Captures images that can be downloaded to view on a monitor and then printed or e-mailed

**Output devices** are external equipment that provides a visual or audible display of data, pictures, or documents.

**Monitor:** Similar to the appearance of a television screen, provides a visual display of activity in real time or through accessible memory.

**Printer:** Provides a hard copy, paper or photograph, when directed through computer linked to printer.

**Speakers:** A device that converts audio signals to audible sound

## SOFTWARE -the programs (instructions) that tell the computer what to do

**Operating Systems**      [Software](#) that manages [computer](#) resources and provides individuals with a vehicle to access those resources. An operating system processes system data and user input, and responds by allocating and managing tasks using internal system resources. Examples include Windows®, Mac®, Linux®, etc. The software must be compatible with the operating system.



### Applications

**Word Processing**      A program used to create documents using a [word processor](#) program such as MS Word® or Micro Soft Works®; you can create documents such as forms, letters, resumes, and stationery.



**Spreadsheet**      A [program](#) created to replace the hand-written spreadsheet. The sheet displays a grid of rows and columns that contain [alpha-numeric](#) data. There are mathematical formulas, to include financial and statistical formulas, used to provide results for reports and bookkeeping. The most well-known program is MS Excel®.



**Database**      A [computer](#) database program is a [structured](#) compilation of records or [data](#) stored in a file to be used to supplement other programs for the purposes of report writing and storage of data organization. The most popular program is Micro Soft Access®.



**Games**      Program software created for entertainment through games/activities. They range from simple programs like Solitaire, to more complicated games with complex graphics and complicated rules.



**Utilities**      A variety of available software programs that allow you to securely manage your computer and data by monitoring safety and searching for possible obstructions that can be harmful to data, as well as, hardware and software. Examples of software include programs to make pictures, videos, scan for viruses or problems, detect potentially damaging programs or e-mails, etc.

