Computer Skills

Fundamentals Of Computer

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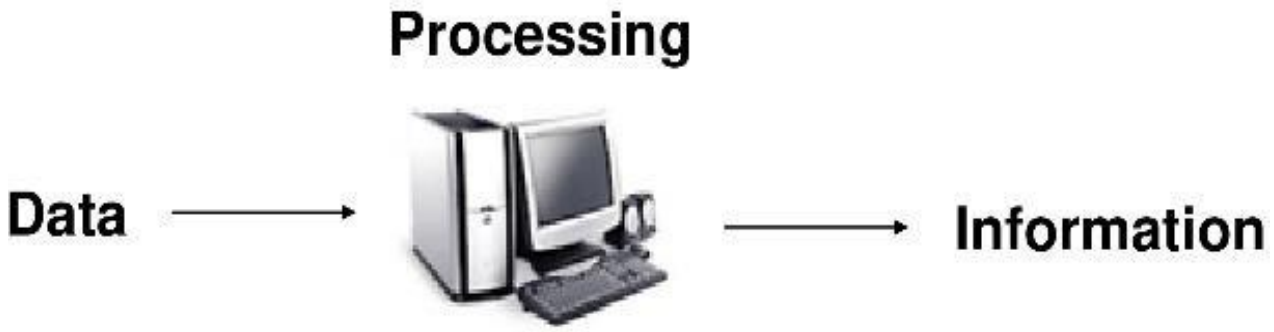
What is Computer?

- **Computer**: is an electronic device which accepts data, processes it and returns new information as output.



  - **data**: raw facts.
  - **information**: meaningful data.

Computer Components

The computer system has two main components which when both combined makes a computer system .

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- Hardware
- Software

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Computer Components

Hardware

The physical parts of the computer system (electronic and mechanical parts), it cannot do any work by it self.it needs certain programs to do some work.

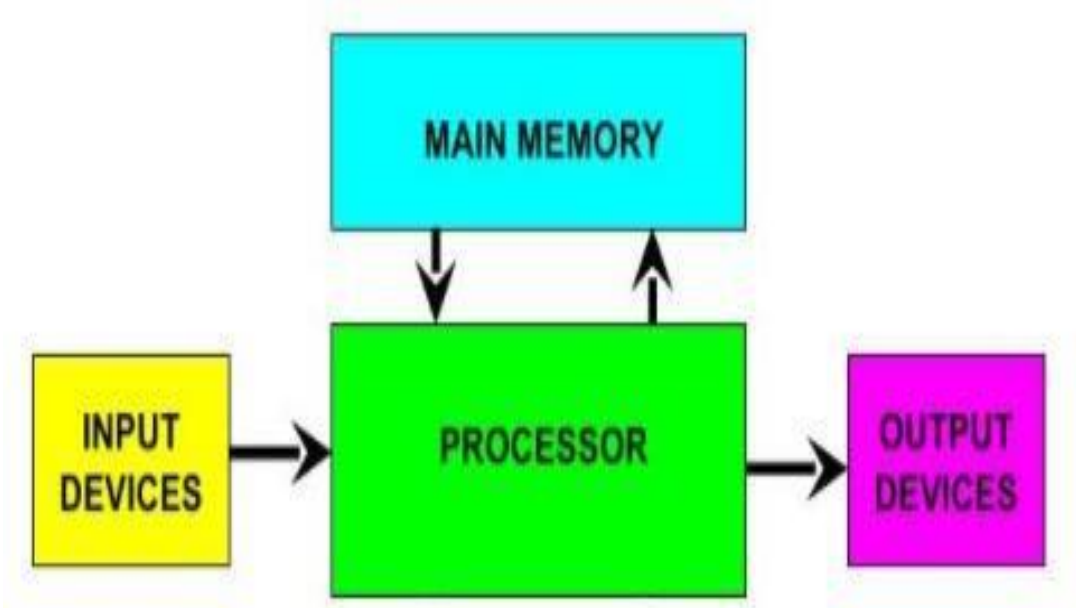
Software

The programs and applications used with the physical computer to perform some tasks on computer system.

Hardware Components

The major hardware components of a computer system are:

- Input devices
- Output devices
- Processor
- Memory



Input Devices

Input Devices are any electronic device that are connected to a computer to allow the user to input (insert) data to the computer.

Output Devices

Output Devices: allow the user to output (display or print) information (readable form) from the computer.

Processor

It is a small chip inside the computer. called the Central Processing Unit (CPU).

- It is the brain of computer.
- It does all decisions, calculations.
- It executes the instruction contained in software program (process data inside computer).
- It determines how fast your computer will run.
- It is measured by MHz (Mega Hertz).

CPU Parts

CPU have three basic parts.

1. **Arithmetic and Logic Unit (ALU).**

   Performs arithmetic operations and logical operations.

2. **Control Unit (CU).**

   It reads and interprets instructions from memory and transforms them into a series of signals to activate other parts of the computer.

3. **Registers.**

   is the part of the computer that holds data and instructions for processing.

Memory

Hardware devices used to stores data and information, this memory enables the user to get his data whenever he want.

CLASSIFICATION OF MEMORY

Broadly classified into two :

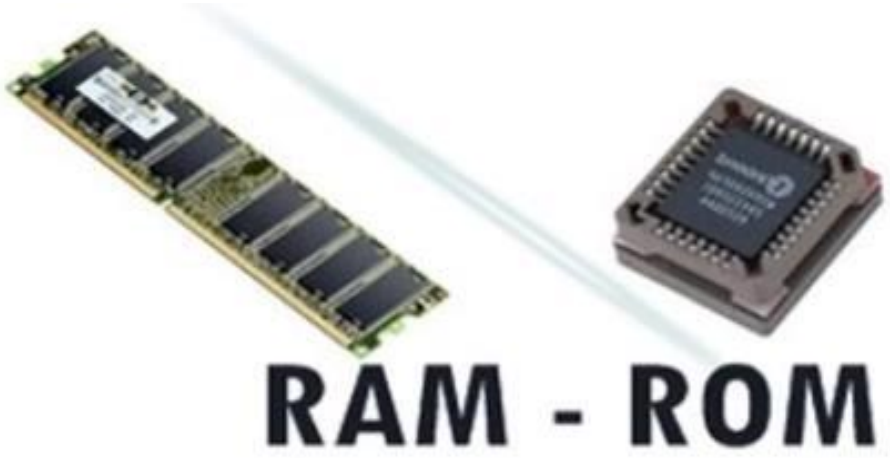
- Primary Memory (Main Memory).
- Secondary memory (secondary storage, mass storage).

Primary Memory

Primary memory is the memory internal to the computer. i.e. the memory generally placed on the Mother board of the computer.

It can be further divided into two parts:

- RAM (Random Access Memory).
- ROM (Read Only Memory).



Primary Memory

Difference between RAM and ROM

RAM	ROM
• Random Access memory • Temporary memory • Volatile Memory i.e. contents are lost when power is switched Off. • Read and Write memory	• Read Only Memory. Memory used to store the startup instructions i.e. Booting instructions. • Permanent Memory • Non-Volatile memory i.e. contents are not erased when the power is switched off. • Read only memory

Secondary Memory

Secondary memory is the memory external to the computer. Also called storage devices, external Storage.

- for large storage of data.
- for permanent storage of data.

Secondary Memory Types

Hard Disk

Floppy Disk

Removable hard disk

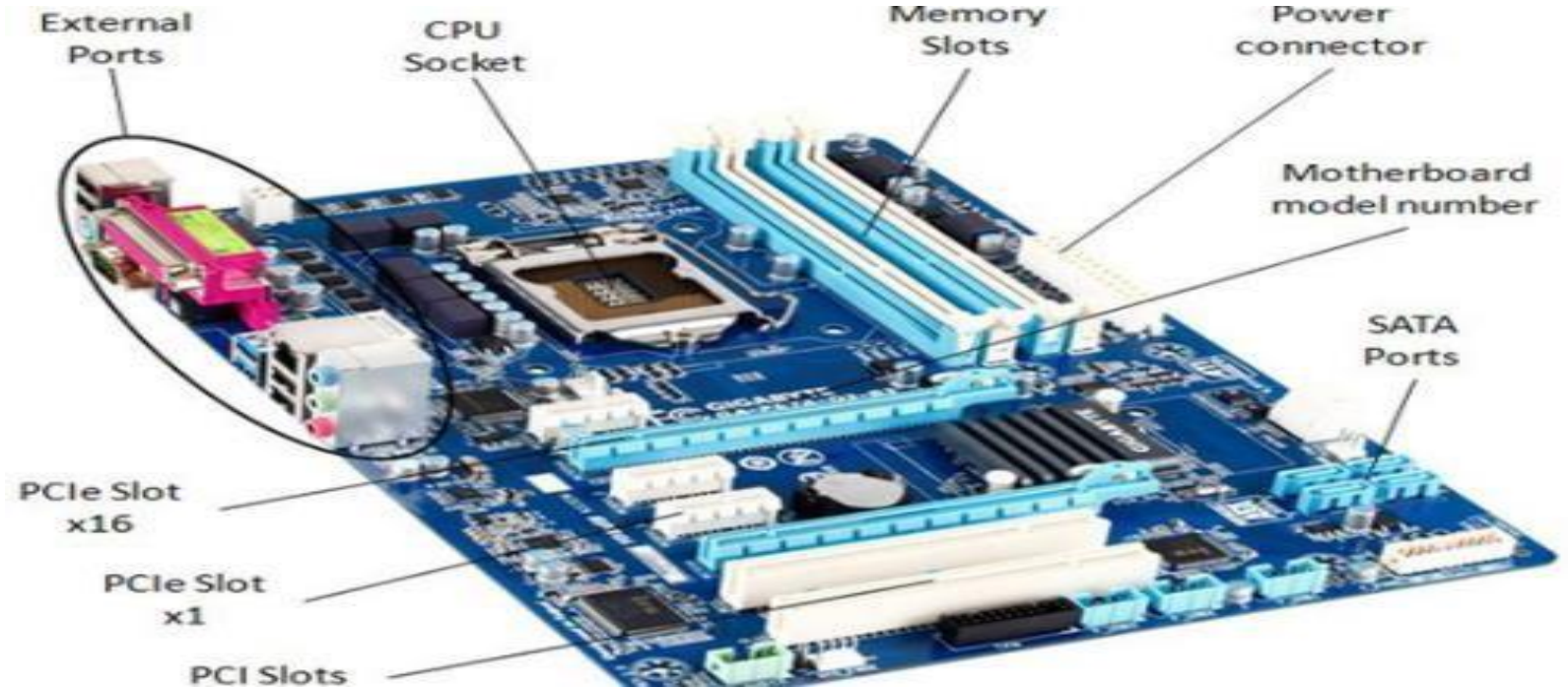
DVD (Digital Versatile Disk)

Parts of a Desktop Computer

❑ Motherboard

Acts as a manager for everything on the computer, connects all the other components together. The components that directly attached to motherboard are

Including the CPU, RAM, disk drives (CD, DVD, hard disk).



❑ Hard Disk

The hard disk is a data storage device has huge storage capacity compared to main memory.

❑ Power Supply

Supplies power to all the circuitry and devices.

Converts electric power (alternating current (AC)) to low-voltage DC (direct current) power needed by the computer.

Types of Computers

According to their ***size*** and ***performance***, computers are classified into four categories:

Types of Computers

1. Mainframes.

Room-sized, expensive, high speed, very powerful, large storage capacities.

It is used in large organizations like Banks and government departments.

2. Minicomputers.

Do the same jobs as a mainframe, but on a smaller scale.

3. Super Computers.

High capacity, very expensive. Usually used for research.

4. Personal Computers (PCs)

It is small, not expensive and very popular, can be set on a disk.

Types of Computers

Mainframe

Minicomputer

Supercomputer

Personal computer

Thank you

For yours listening