

# Computer science

## Software and comparison between types of computer

- **Input units**
- **Output units**
- **Storage units**
- **Central processing unit (CPU)**
- **Types of computer**

# Computer science

## ❖ Computer components

- Computer components are classified into two types:
  1. Hardware
  2. Software

# Computer science

## 1. Hardware

- ✓ It consists of every mechanical and electrical component.
- ✓ It is any visible and directly attached component of the computer, and can be divided into four main parts:
  - A. Input units
  - B. Output units
  - C. Storage units
  - D. Central processing unit (CPU)

# Computer science

## A. Input units

These devices are used to enter information from the user to the central processing unit (CPU) and include:

- i. Mouse
- ii. Keyboard
- iii. Scanner
- iv. Microphone
- v. Light pen

# Computer science

## i. The Mouse

- It is a pointing device that controls the location of the pointer (arrow or cursor) on the screen.
- When the user presses on the one of buttons, the pointer (mouse) either marks a place on the screen or marks selection from data on the screen.

## ii. Keyboard

Is used to enter text information into the computer.

# Computer science

## **iii. Scanner**

It is a device used to enter images, drawings and texts and can be changed, saved them into a computer file, or printed

## **iv. Microphone**

It is used to insert sounds and music.

## **v . Light pen**

It is used to enter signature, handwriting, and drawing maps.

# Computer science

## B. Output units

These are the devices used for displaying and transmitting information from the central processing unit to the user, and include:

- i. Monitor or Screen
- ii. Speakers
- iii. Printer
- iv. Data show

# Computer science

## **i. Monitor or Screen**

It is the main output device of a computer. It is used to display data in the form of a visual image.

## **ii. Speakers**

It is used to output audio data in audible form.



# Computer science

## iii. Printer

It is used to output data onto paper, where the researches, books, cards, and many types of paper can be printed

## iv. Data show

- ✓ Is a display device that project a computer created image.
- ✓ It is typically used for presentations or for viewing videos.

# Computer science

## C. Storage units

These units are mainly responsible for keeping the files and data of the user permanently, consist of:

- i. Hard Disk
- ii. CD
- iii. DVD
- iv. Memory card

# Computer science

## **D. Central processing unit (CPU)**

It is responsible for interpreting information, performing logical calculations, controlling all commands and instructions, and communicating them between parts of the computer. It is also known as a processor or microprocessor.

include:

- i. Arithmetic Logic Unit (ALU )
- ii. Control unit
- iii. Memory unit

# Computer science

## ❖ Types of computer

Depending upon their speed and memory size, computers are classified into following :

1. **Mainframes:** are an expensive and is a very powerful large general purpose computers. Large organizations use mainframes computer.
2. **Mini computers :** are a midsize multi-processing system capable of supporting up to 250 users simultaneously. 11

# Computer science

3. **Super computers:** are very expensive and are employed for specialized applications that require immense amount of mathematical calculations. For example, weather forecasting, scientific simulations.
4. **Personal Computer (PC) :** Is can be defined as a small, relatively inexpensive computer designed for an individual user.
5. **Laptop :**is small size and operated on a special battery.