What is a computer?
• Any system that can do computation.

What are the main components of a computer?
Many times computers are compared with human beings, because wrongfully we believe that computers can think. Well, it is not really like that, but they are similar in some perspectives.

How the person will know what he has to do?

How will you get the results of the computation?

What the person needs in order to be able to do the computation?

In order to do computation a computer needs five main components:

INPUT DEVICES
OUTPUT DEVICES
MEMORY
ARITHMETIC ABILITY
CONTROL SEQUENCE

Processor

INPUT DEVICES → Memory → OUTPUT DEVICES

Storage Devices

Memory:
Short Term Memory vs. Long Term Memory

Memory units:
Bit: the smallest memory unit is a bit (0 or 1); similar to on or off switches for electrical circuits.
The memory in our computers is expresses in bytes → 8 bits, can be used to store one character.
KB
MB
GB
TB
Other Basic Computer Components

**Bus:** All computer components are connected by the **BUS**. The bus transfers information between computer components.

**Modem:** Transfers information between different machines.

Modem => MOdulate / DEModulate

**Basic Computer Components (review)**
In 1936, at Cambridge University, Alan Turing invented the principle of the modern computer. In his design a computer composed of a tape (**memory**), a logic table (like the arithmetic logic unit of a **processor**), and a set of operations (a **program**).

**INPUT DEVICES**

**OUTPUT DEVICES**

**MEMORY**
- **RAM**
- **ROM**
- **DISK (HARD DRIVE)**

**CPU:**
- **ALU**
- **CU**

**REGISTERS**