

Storage Units and their Types

- *The computer processes the data digitally. When we enter the data into the computer, the input device converts the signal into a set of bits, which are the smallest part that can be measured or calculated from the data and it consists of one number (zero, one).**
- *Memory and storage devices are places where data is stored for processing .**
- *The most important units of measurement used to measure the capacity of data in a computer are (bits, bytes, megabytes, gigabytes, terabytes).**

***Data storage methods**

The computer stores data in two ways: (memory, storage devices)

1 Memory: includes types:

a-Read-only memory (ROM)

b-Random access memory (RAM)

c-Cache Memory.

a- Read-only memory (ROM), also called *permanent memory*, which is a small chip that stores information about device specifications and some operating programs. Therefore, it is called *device memory* and it does not lose its information when the power is off.

b- Random access memory(RAM) :

It is a high-speed memory where all the information that a computer needs to run faster on it is stored temporarily. It is known as the *read-write memory*, where information is added to it and worked from it when the device is working. It is also called *the main memory* in the computer.

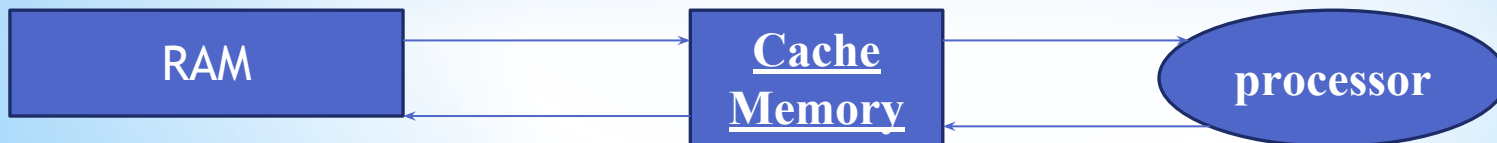
The benefit of random memory(RAM) is to provide quick access to data on storage devices.

C-Cache Memory :

It is a very small memory specific to the processor, and it is usually inside it. It is similar to random memory, but it is much smaller and faster. The processor uses it to store some frequently used information and its location is between the processor and the random access memory.

The benefit of Cache Memory:

- 1- Store data temporarily**
- 2- Reducing the time for quick access to information in the main memory**
- 3- The processor can retrieve data quickly, which increases the quality of the system.**



2 Storage devices: There are many types, including:

1- floppy disk

It is used in a personal computer to store data externally and it is old in use.

2-Hard Disk :

It is a secondary storage unit that can be modified or deleted many times

3-IC card:

The data is stored in it secondary and is very similar to credit cards or cards that use a password to enter a home or hotel room

4-Compact disk :

It is known as CD - ROM and it is circular and has two types:

***CD-RW: Indicates that the disk is read-write meaning data can be deleted and rewritten.**

***CD-R: Indicates that the disc is read-only, meaning that its data cannot be deleted and rewritten.**