



Al-Mustaqbal University
Department of Artificial Intelligence Techniques Engineering
Class one - first semester
Lecture 1

INTRODUCTION TO COMPUTERS

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(ارشادات عامة قبل بدء المحاضرة)



- 1- المحمول مغلق او بوضع الصامت.
- 2- التفاعل مع الصف.
- 3- اشترك بأيجابية.
- 4- تنفيذ المهام والنشاطات.
- 5- الالتزام بالوقت.
- 6- احترام افكار الاستاذ والزملاء.



وما زرعَ اللهُ في قلبِكَ رغبةً، في الوُصولِ لأمرٍ معيَّن،
إلا لأنه يعلمُ أنك ستصلُ إليه.

@z_a247

"لا يُكَلِّفُ اللهُ نفساً إلا وسعها"

Definition of computer

It is an electrical and electronic device whose function is to receive, process, store data and display its results to the user.

Important terms

Data :is a set of symbols, numbers and images that are entered for processing

Processing : is the process of performing mathematical operations (addition, subtraction, multiplication, division) and logical operations (< < =) on data.

Information :is the results we get from the data processing process.

Basic computer operations

The basic operations of the computer are based on the following:

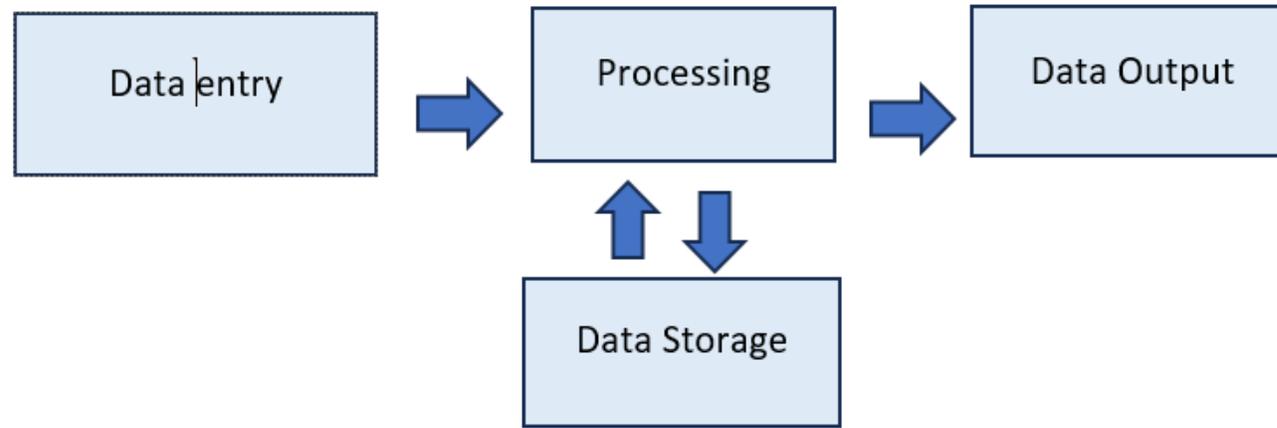
Data entry :Data is entered by the computer user through a set of devices called input units.

Data Processing :Perform arithmetic and logical operations on data entered by input units to obtain information.

Data Output :It is the process of displaying the information we obtained as a result of processing the entered data.

Data Storage :It is the process of saving and storing data on different storage units

Computer basics :It is the process of saving and storing data on different storage .

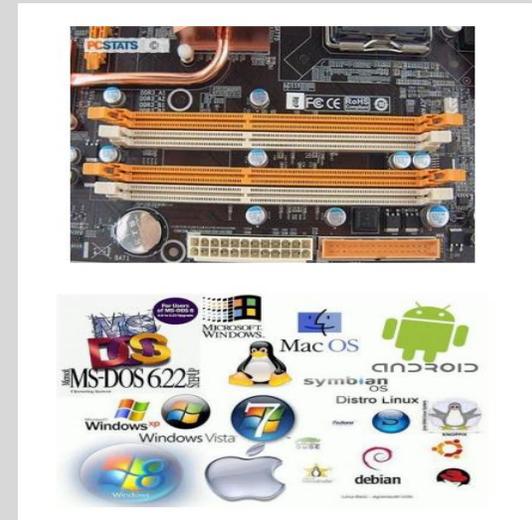


The computer consists of two parts:

1. Hardware: -

Hardware is the general term for the physical components that make up a typical computer system

Software is the general term used for the programs that control the computer system and process data. The software considered into two categories: applications and system.



Hardware Components of the Computer

Central Processing Unit (CPU)

The Central Processing Unit is responsible for executing instructions and processing data. It is considered the brain of the computer.

It consists of several sub-units, such as:

- Arithmetic Logic Unit (ALU)
- Control Unit (CU)

Memory (RAM)

Random Access Memory (RAM) is used to store data and programs that the computer needs while it is running.

It is volatile memory, meaning that the stored data is lost when the computer is powered off.

Hard Drive

The hard drive is the place where the operating system, programs, and files are stored permanently.

It is characterized by a large storage capacity compared to random access memory.

Motherboard

The motherboard is the main board that contains all the essential components of the computer and connects them together.

It includes various communication ports such as:

- USB
- HDMI
- Ethernet
- and others.

Graphics Processing Unit (GPU)

The graphics card is responsible for processing images and videos and displaying them on the screen.

It is used in gaming, graphic design, and video editing applications.

Monitor

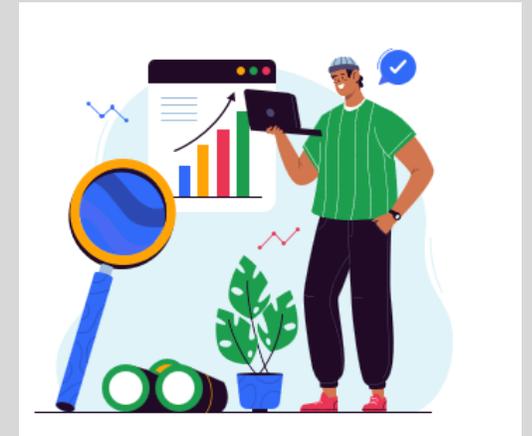
The monitor is an output device that displays information to the user.

Keyboard and Mouse

The keyboard and mouse are input devices used by the user to interact with the computer.

Computer features

- 1- Fast data entry and information retrieval
- 2- Speed of completion of operations and accuracy of results
- 3- The ability to store information
- 4- Reducing the role of the human element
- 5- The computer works continuously without getting tired
- 6- The ability to make decisions by searching for all solutions to a particular issue.



Computer classifications

The most common type of computer used in homes and offices is known as a personal computer (PC). However, not all computers are considered personal computers. Different types of computers are used to perform various tasks, and the differences between them are as follows:

1-According to the purpose of use

- General Purpose Computer
- *Special Purpose Computer

2- Calculating the type of data processed

*Analog Computer

*Digital computers

* Hybrid Computer

3- according to size and performance

Microcomputers

Minicomputers Main Computers

Super Computers

الحاسبات الرئيسية



الحاسبات الفائقة (العملاقة)



الحاسبات الرئيسية



الحاسبات
الرقمية



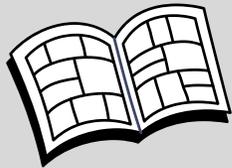
الحاسبات التناظرية



الحاسبات الدقيقة



Thanks!



Do you have any questions? 
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