

# COMPUTER COMPONENT AND OPERATING SYSTEM

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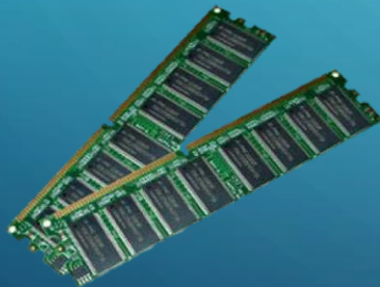
# OVERVIEW

- Computer System Unit
- Computer Port
- Computer Software
- Operating System
- Windows
- Linux

# COMPUTER SYSTEM UNIT

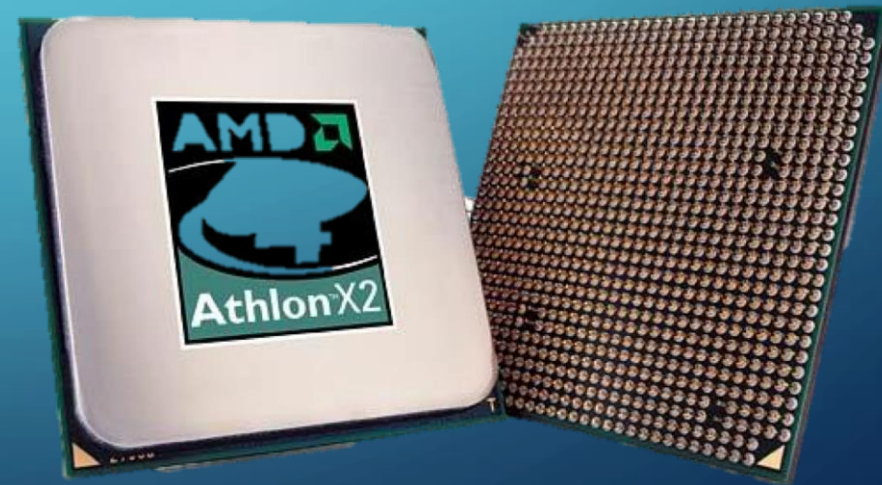
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- The case that contains the main electronic components of computers that are used to process data, is called system unit.
- The circuit of the system unit usually is part of or is connected to a circuit board called the motherboard.
- On the computer motherboard, there are two main components that are processor and memory.



# SYSTEM UNIT (COMPUTER PROCESSOR)

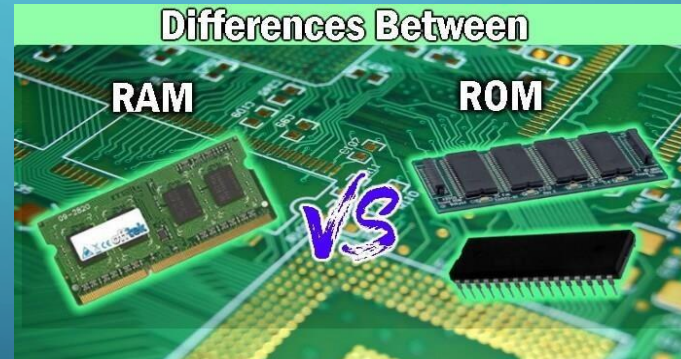
- A computer processor, also named as CPU (Central Processing Unit), is the electronic computer component that interprets and carries out the basic instructions that operate on the computer.





# SYSTEM UNIT (MEMORY)

- Memory device consists of electronic components that store instructions waiting to be executed by CPU.
- Although some forms of memory are permanent, most memory keeps data and instructions temporarily
- For example, contents in the computer, will erase when the computer is shut off.



# COMPUTER STORAGE DEVICE

- Storage devices are those devices that hold and save data for future use.
- These device, computers can store hundreds of photos, music and video.
- Also, these devices store these items permanently.
- For example, USB flash disk, hard disk, optical disc and memory cards.



# OPTICAL DISK

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coating. DVDs, CDs and Blu-ray Discs are Three types of optical discs.

- The optical disc is a portable metal disc, and it has flat, round shape, with a plastic

- CDs (Compact Disk).



- DVDs (digital video disc digital video disc).



- Blu-ray Discs.



# COMPUTER STORAGE DEVICE (FLASH DISK)

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- USB Flash disk is a storage device consist of flash memory storage device integrated with a USB interface.
- This kind of device is typically rewritable and removable.
- The computer devices will recognize the flash memory once it is connected to the one of the computer port.
- Then the computer will identify it as a mass storage device (external).





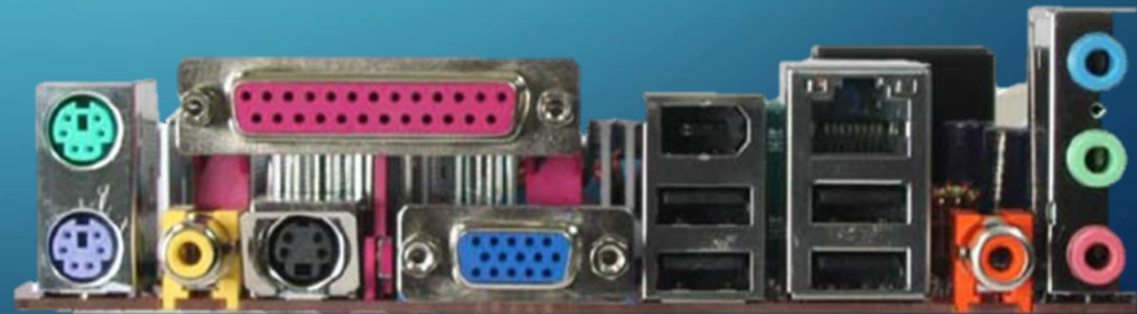
# COMPUTER PORTS

- Computer ports function as an interface between the computer and other computers or peripheral devices.
- Types of computer ports:

Input and Output Port

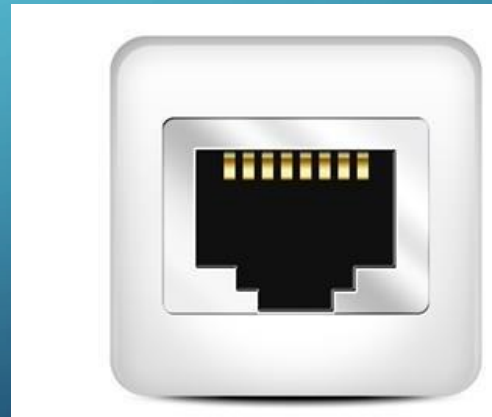
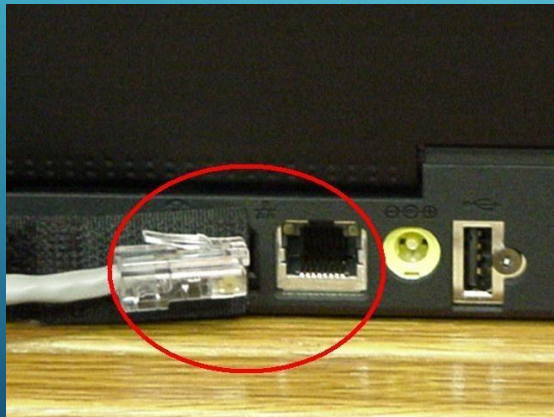
Universal Port

Network Port



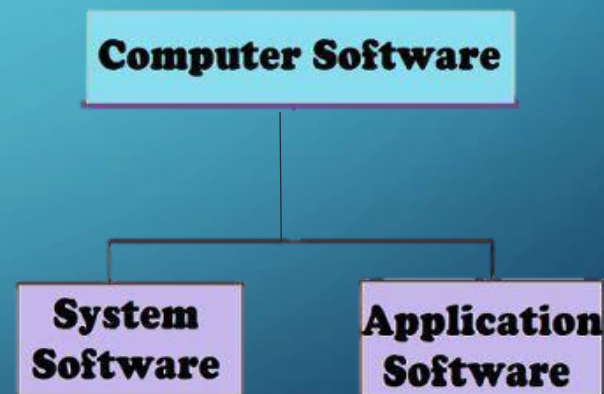
# NETWORK PORT

- The network port is the port that allows users to plug a network cable into the computer port, which is located on the back computer case.
- Thus, users can communicate with other computers connected to the same network which is called local network or other computers via the Internet.



# COMPUTER SOFTWARE

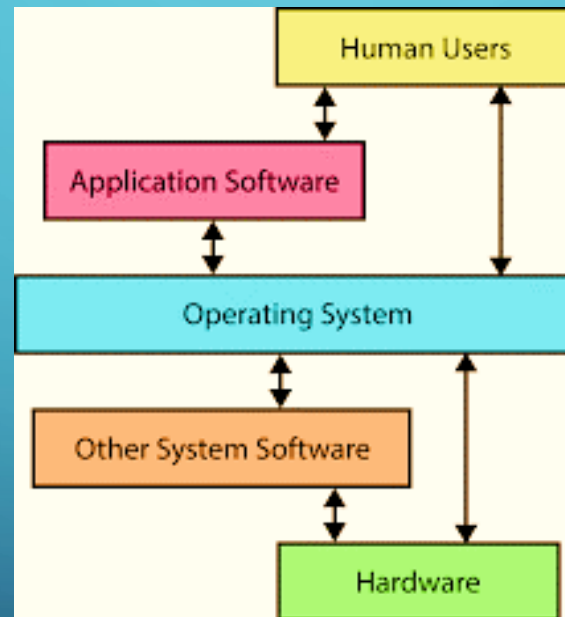
- The concept of software is a sequence of related instructions, structured for a particular purpose; that gives instructions to the computer to understand what action to perform and how to perform them.
- Computer users interact with a program through its user-interface.



# USER INTERFACE

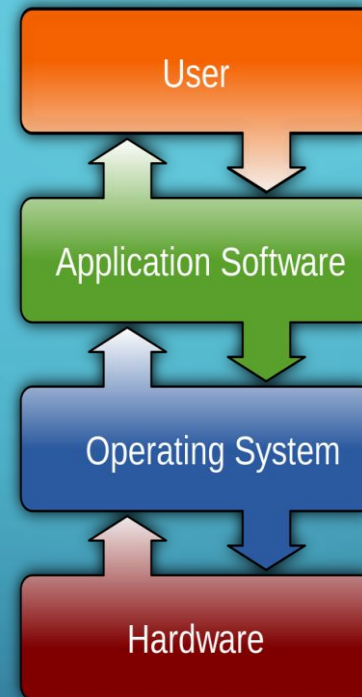
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- The user-interface controls how users enter data and instructions and how information is displayed on the screen. Nowadays software program has a graphical user interface (GUI).
- Clients can use the mouse to select icons that perform operations such as starting a program.



# In more details

The two categories of software are system software and application software.





# OPERATING SYSTEM

- Operating System is a bunch of programs; that organizes all the actions among computer hardware devices.
- It provides a simple way for computer users to interconnect with the computer and other software. Many of them use Microsoft's Windows; the latest version is Windows 7, 8 and 10. Mac OS, Apple's operating system.
- When a user starts a computer, part of the operating system is copied into memory from the computers' hard disk. Also, these parts of the operating system remain in the main memory while the computer is on.

# OPERATING SYSTEM

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# WINDOWS OPERATING SYSTEM

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- It is an operating system software, which Microsoft creates that in November 1985, Company provides interface known as Graphical User Interface (GUI), and sometimes it is called windows or win as a short term.
- In windows operating system, there are many facilities for their users the most important one is that eliminates to memorize large amount number of command-lines, which means there is no need to use the command line to act, all become interfaces.

## Evolution of Windows OS



# WINDOWS FEATURES

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- Users have ability interact with the computer (by using the keyboard, mouse, microphone, etc.).
- It can store a different kind of data (e.g., images, files, music).
- It can controls hardware that attached to the computer such as scanners, webcams, and printers.
- Controls security of computer from user access.
- The window is known as a multitasking operating system that means users able to perform several things on the computer at once, for instance, watch a video while writing a letter.

# LINUX OPERATING SYSTEM

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- It is another kind of operating system that was developed by a university student named “Linus Torvalds” and his friends, which was declared 25-August-1991, and it is an operating system known as open source.
- Also, it is developed for many devices other than a computer, for example, servers, mainframes, mobile devices and embedded devices.





# LINUX FEATURES

- **Portable:** : it means that it can work on many different types of hardware in the same way.
- **Open Source:** the code that is used to create the Linux is free to access.
- **Multi-User:** the meaning of a multi-user system is that Linux users can
  - access.
- **Multi-programming:** the meaning of multiprogramming is that Linux can run more than the one program at the same time.
- **Security** – It has security environment.

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