NETWORKING & SYSTEM ADMINISTRATION LAB

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Aim

Familiarization of hardware components.

Procedure

Hardware is the collection of physical parts of a Computer system that has shape and size and can be feel. The most essential hardware components are Motherboard, CPU, RAM memory, IO system, power supply, video display controller, Bus and hard disk drive.

The most important hardware component is Mother Board that holds all the important components of a Computer including CPU, memory and various connectors for input/output device. Some of the input devices like keyboard, mouse, microphone, modem, joystick, USB devices, joystick and many more are connected for better functioning. Similarly, the output devices like the computer monitor, modem, projectors, printers etc are connected to the available connectors of motherboard. It is the main mother board that includes graphic processors for better display screen on your monitor. There is CPU socket, CPU fan memory connector, super IO chip, DIMM memory slots, IDE connector, SATA connector, BIOS flash chip that are the most essential components to run a Computer system. It also integrates audio codec chip for sound and gigabit Ethernet chip for network connection on a computer.

There are several hardware components attached to the CPU or Central Processing Unit which is also called as the brain of Computer.

1. Mouse

A mouse is a hardware input device that is used to move the cursor or pointer on computer screens. It can also be used to run computer programs, select items in a graphical user interface, and manipulate objects in the computer world.

Some common examples of how it can be used are clicking on buttons, scrolling up and down the screen, selecting files, opening folders, and so on.

2. Keyboard

A keyboard is an input device that you use to enter data into a computer. It's also called the input device for your computer. Keyboards are used with PCs, laptops, tablets, and other devices.

There are many different types of keyboards, but the most common one is the QWERTY keyboard. A QWERTY keyboard has all the letters in alphabetical order on it.

3. Motherboard

The motherboard is the backbone of our computer system. It's the central processing unit or CPU. It connects all the other components, like memory and graphics card, to the power supply. The motherboard is where all the wires are plugged in and it's also where you place your RAM. The motherboard is what makes one machine different from another. Motherboards are made up of tiny transistors that control the flow of electricity through copper tracks on their surface. These transistors are called Integrated Circuits or ICs for short.

4. Monitor

Personal computers use a monitor to display data, run the software, and interact with the user.

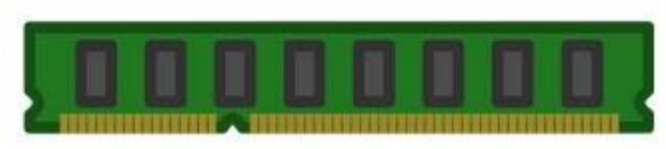
A monitor is an electronic visual display that connects to your computer or laptop.It is used for displaying images, text, videos, games, web pages, and more.Monitors are available in different sizes depending on the needs of the person using them.

The most common types of monitors are CRT (cathode ray tube), LCD (liquid crystal display), and LED (light-emitting diode).

5. CPU (Central processing unit)

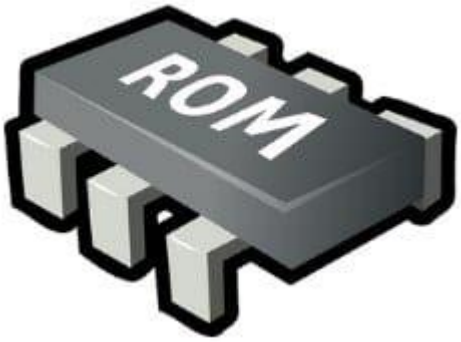
A CPU, or central processing unit, is the brain of a computer. The CPU processes information and runs programs. It functions as a control unit that executes programs according to instructions in its program memory. The CPU contains elements such as registers, an arithmetic logic unit (ALU), and control logic for sequencing instructions.

7. RAM



A computer's RAM is a type of computer memory that stores information so the CPU can access it directly. Computer systems use main memory to store both data and programs. The more RAM you have, the more data your system can process at one time. This will lead to more efficient operations on your computer, which translate into better performance for the user.

8. ROM



ROM stands for a type of memory chip that can be read from but not written to. In other words, it's a form of data storage that can't be changed after being programmed. It's sometimes called "non-volatile" memory because the stored information will remain. ROM is often used to store a computer's basic start-up instructions and certain types of data, such as your car's on board computer system and a calculator's data tables.

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9. Optic Drive

Optical Drives are used in PCs to read and write CDs and DVDs.
The optical drive reads the data from the disc, which can then be transformed into a digital file that is readable by the computer. This makes it easy to backup files, play music or movies, or copy data from one disc to another. The term "CD" refers to Compact Discs, which are the most common type of optical drive on modern computers. They are often used for installing software on your computer, moving data between computers, or writing new programs.

10. Input Output System

The IO system is the set of devices that are used to access data. There are three major parts of the IO system: input, output, and storage .Input devices, also called input peripherals, are typically what data is first inputted into the computer. Output devices are where data is displayed. Storage devices store data so it does not need to be present in memory or processed by a CPU.

11. External Ports

External ports are used to connect your computer to other devices like printers and speakers, among many others. However, not all external ports are the same. You'll find different types of ports on laptops and desktops that allow you to use them in different ways.

12. CPU Fan

The CPU fan in the computer is a very important component for your PC. If your CPU fan is not working correctly, your computer will be overheating and it may cause damage to other components.
The CPU fan helps cool the CPU and other internal parts of the computer. It also provides negative pressure and removes dust and debris from the inside.