Computer System

All of the components of a computer system can be summarized with the simple equations.
COMPUTER SYSTEM = HARDWARE + SOFTWARE+ USER+ Firmware

- Hardware = Internal Devices + Peripheral Devices
  All physical parts of the computer (or everything that we can touch) are known as Hardware.
- Software = Set of Programs Software gives "intelligence" to the computer.
- USER = Person, who operates computer.

THE COMPUTER SYSTEM

The computer system consists of four parts•(1) Hardware, (2) Software, (3) Liveware 4) Firmware

1)Hardware:-

consists of the mechanical parts that make up the computer as a machine. The hardware consists of physical devices of the computer. The devices are required for input, output, storage and processing of the data. Keyboard, monitor, hard disk drive, floppy disk drive, printer, processor and motherboard are some of the hardware devices.

Hardware Component of Computer System

Here is some common hardware that you'll find inside a computer:

1. Motherboard
2. Central Processing Unit (CPU)
3. Random Access Memory (RAM)
4. Power Supply
5. Video Card
6. Hard Drive
7. Optical Drive (i.e. BD/DVD/CD drive)
8. Sound Card
9. Network Interface Card (NIC)
10. Analog Modem
11. FireWire/USB Expansion Card

Here is some common hardware that you might find connected to the outside of a computer:

1. Keyboard
2. Mouse
3. Printer
4. Scanner
5. Speakers
6. Monitor

The following hardware is referred to as *network hardware* and various pieces are often part of a home or business network:

1. Router
2. Network Switch
3. Access Point
4. Repeater
5. Bridge

6. Print Server
7. Firewall

Network hardware isn't as clearly defined as some other types of computer hardware. For example, many home routers will often act as a combination of router, switch, and firewall.

2)Software:-

 is a set of instructions that tells the computer about the tasks to be performed and how these tasks are to be performed. *Program* is a set of instructions, written in a language understood by the computer, to perform a specific task. A set of programs and documents are collectively called software. The hardware of the computer system cannot perform any task on its own. The hardware needs to be instructed about the task to be performed. Software instructs the computer about the task to be performed. The hardware carries out these tasks. Different software can be loaded on the same hardware to perform different kinds of tasks.

3) Liveware

Liveware is a slang term used to denote people using (attached to) computers, and is based on the need for a human, or liveware, to operate the system using hardware and software. It was used in the computer industry as early as 1966 to refer to computer users, often in humorous contexts by analogy with hardware and software. Other words meaning the same or similar to liveware include wetware, meatware and jellyware. They are also known as *skinware, Users, humanware or peopleware*. Programmers, data entry operators, system analyst and computer hardware engineers fall into this category.

4)Firmware

The term *firmware* is often used to indicate the control programs stored in ROM chips. Typical examples of devices containing firmware are embedded systems, computers, computer peripherals, mobile phones, and digital cameras. The firmware contained in these devices provides the control program for the device.

Firmware is held in non-volatile memory devices such as ROM, EPROM, or flash memory. Changing the firmware of a device may rarely or never be done during its economic lifetime; some firmware memory devices are permanently installed and cannot be changed after manufacture.

Common reasons for updating firmware include fixing bugs or adding features to the device. This may require physically changing ROM integrated circuits, or reprogramming flash memory with a special procedure. Firmware such as the ROM BIOS of a personal computer may contain only elementary basic functions of a device and may only provide services to higher-level software. Firmware such as the program of an embedded system may be the only program that will run on the system and provide all of its functions.