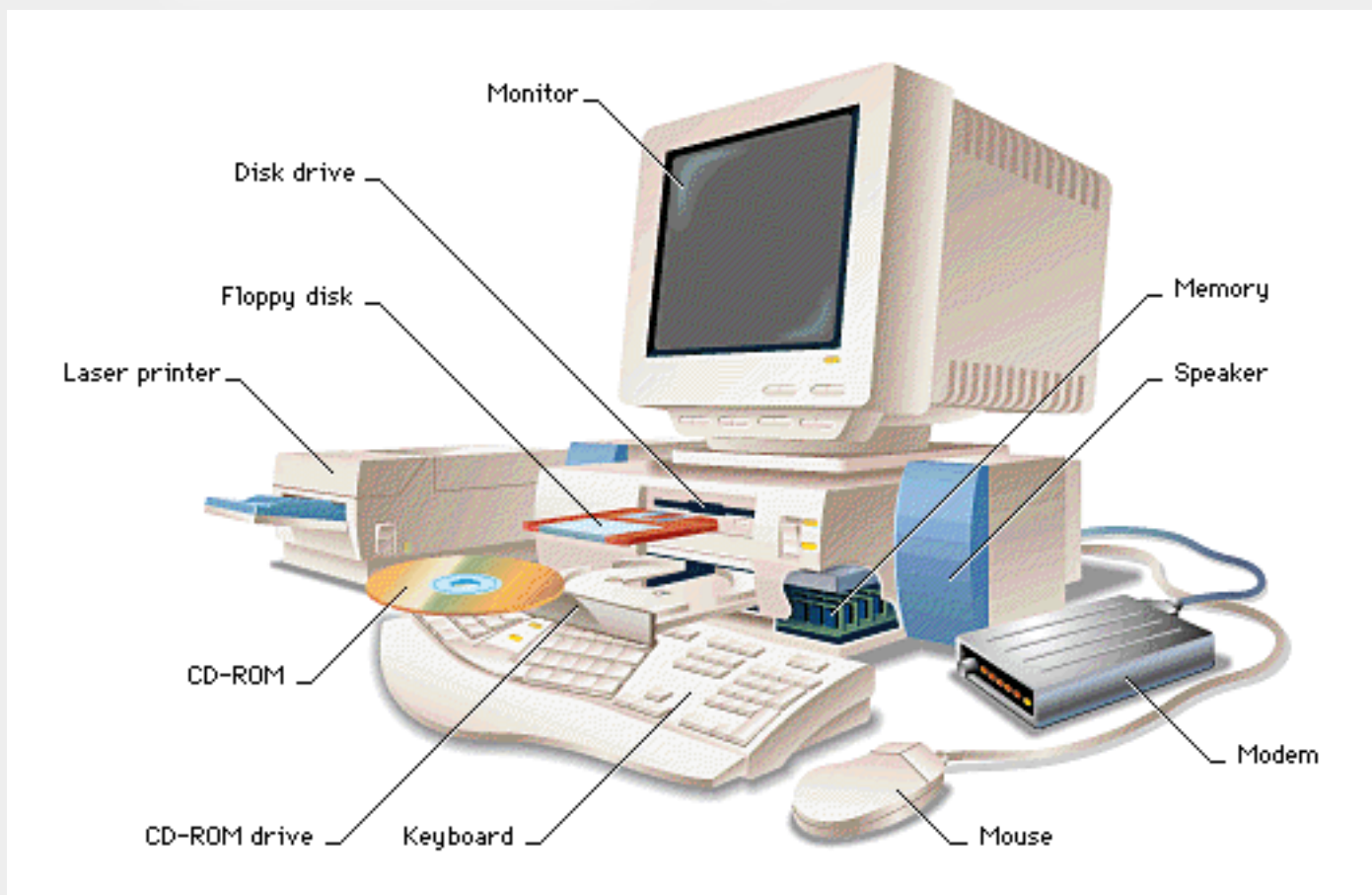# Computer Components

By: Priyank K Purohit

A typical computer system requires a user, data to process, hardware and a software to provide instructions. In order to build a working computer, you will need hardware and software.

Hardware

1.   **CPU: CPU or Central Processing Unit is the center of the computer. It collects all the data**

from the user and processes it the way the user instructs it to. A typical CPU consists of CD drive, DVD drive, Motherboard, Processor, RAM, Hard drive, Sound Card, and Video Card. All these components are then organized in a body to keep out the dust particles from harming these components.
{XPS 630-$1199.99}

1. A. *CD drive/DVD drive*: **A CD/DVD drive is an essential part of the computer system. Today, many softwares, movies and games come on a CD or a DVD. If you want to use the software or want to play the game, you will require a CD/DVD drive.**
{Dual drive 48X Combo + 16X DVD+-RW -$199.99}

2. B. *Motherboard*: **Motherboard is like a backbone of the computer. It holds many components and it provides connections to one another. It hold the CPU, RAM, the hard drive controllers for video and audio devices.**
{Intel. Desktop Board D975XBX2 - $299.99}

3. C. *Processor*: **The processors are the main data processing unit in a computer system. A processor is required to execute computer programs. The faster a processing unit, the faster your computer can work.**
{Intel Core 2 Extreme Processor - $1599.99}

4. D. *RAM*: **RAM or Randomly Accessed Memory is used by computer to randomly store data. For example, in a Word Processing software; until the 'save' button is pressed, the typed data is stored in the RAM of the computer. The more RAM, the faster your computer can work. Today, a computer requires a minimum of 512MB of RAM but, 1GB is recommended.**
{Buffalo 2GB DDR2 Computer RAM - $49.99}

5. E. *Hard drive*: **Hard drives are the computer's data storing devices. Hard Drives are required to store data even when the computer is turned OFF. Hard drives are magnetic storage devices that can be rendered useless if close to a magnet. Magnets can also destroy data on the hard drive!**
{Western Digital 160GB hard drive - $99.99}

6. F. *Video Card*: **A video card or graphics card or Display Adapter's main function in a computer system is to generate and output images and provide the users with a interface. The video cards connect to a motherboard using many different connections. For example, ISA, MCA, VLB, PCI, AGP, PCI-X etc.**
{ATI Radeon HD 3650 1024MB PCI-E Video Card - $169.99}

7. **G.   *Audio Card*: An audio card or sound card's main function in a computer system is to manage incoming audio signals and generate outgoing audio signals. An audio or sound card can be connected to a motherboard via PCI, ISA, USB, IEEE 1394 or PCI-E connections.**

2.   Monitor: A monitor is a display unit that displays information as the computer tells it to. It is a very useful device as it displays information without producing a permanent record of the information. Monitors come in all different sizes. Today, monitors have become noticeably smaller in size due to the advanced LCD technology.
{Dell Ultrasharp 22" monitor - $499.99}

3.   Mouse: A mouse is a pointing device on a computer system that is an alternative input device. Mouse today, come in all different sizes and most connect to a computer either via USB or wireless via blue tooth.
{Microsoft Intellimouse 4.3 - $29.99}

4.   Keyboard: A keyboard is an input device that requires the user to press one of the basic 104 keys to input data. These keys include the letters, numbers and the punctuation marks. Most modern keyboards connect to a computer via USB.
{Logitech diNovo Edge Keyboard - $149.99}

6.   Microphone: Microphone or mic is a device that allows users to store audio data on a computer. A microphone converts the audio into electrical signals that a computer can 'understand.'
{Dynex 740 Ear clip Headset With Microphone - $24.99}

7.   Speakers: Speakers are electronic devices capable of turning computer's electrical signals into audio that our ears can hear. It is also capable of emitting sound frequencies that we can not hear! Modern computers usually have a built in speaker system that can produce sound. Speakers can be used as an output device for people who can not see.
{Altec lansing - $99.99}

8.   Web cam: Web cam or a camera is a electric device that takes pictures and stores the picture in binary code that the computer can understand. Web cams are used to make "video calls" across the world! Modern laptops and notebooks usually have a built in small camera!
{Microsoft Laptop Web cam / Laser Mouse Mobility Pack - $39.99}

Software

Softwares are a set of organized instructions designed to ask the computer to achieve certain tasks. The three most important softwares are:

1.   Operating System: Operating System is a set of instructions designed to tell the

computer how to achieve the task using the data inputted by the user. Without an OS, a computer can't function.
{Microsoft Windows Vista Home Premium - $249.99}

2.   Home Office Software: This pack of software includes must have softwares like Word, Excel, Power Point etc. In North America, going to school without these softwares is becoming very difficult task.
{Microsoft Office Professional 2007 - $649.99}

3.   Computer Security Software: In modern days, most of the computers are connected to the Internet where users can download and upload information from other people. With this technology comes another problem- cybercrimes. There are people who will use the internet in order to give you a computer virus that can destabilize your system and destroy your data. In order to prevent such attempts, you must have a certified security software.
{Norton 360 - $49.99}

Parts List

Hardware	Name	Price
CPU	XPS 630	$2799.99
CD/DVD Drive	Dual drive 48X Combo + 16X DVD+-RW	$199.99
Motherboard	Intel® Desktop Board D975XBX2	$299.99
Processor	Intel Core 2 Extreme Processor	$1599.99
RAM	Buffalo 2GB DDR2 Computer RAM	$49.99
Hard drive	Western Digital 160GB hard drive	$99.99
Display Adaptor	ATI Radeon HD 3650 1024MB PCI-E Video Card	$169.99
Monitor	Dell Ultrasharp 22" monitor	$499.99
Mouse	Microsoft Intellimouse 4.3	$29.99
Keyboard	Logitech diNovo Edge Keyboard	$149.99
Microphone with Headphone	Dynex 740 Ear clip Headset With Microphone	$24.99
Speakers	Altec lansing	$99.99
Webcam with Laser Mouse	Microsoft Laptop Web cam / Laser Mouse Mobility Pack	$39.99

Software	Name	Price
Operating System	Microsoft Windows Vista Home Premium	$249.99
Home Office Software	Microsoft Office Professional 2007	$649.99
Computer Security Software	Norton 360	$49.99

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