Hardware Classification

Hardware is just another word for computer equipment; it is the physical parts of the computer that we can see and touch. All computer equipment can be grouped into one of the following 5 categories of hardware devices:

- Input
- Processing
- Output
- Storage
- Communication
Input devices
These devices provide humans with a way to input data into the computer, so that the computer can process it into information.

- **Keyboard**
  The keyboard is still the primary input device used with computers.

- **Mouse**
  The mouse is a pointing device that allows us to interact with the computer in a more intuitive and graphical way.
**Processing devices**

These devices process your data (raw facts) into information (something useful to humans).

- **CPU (Central Processing Unit)**
  This is the heart of the computer, the main chip that does all the work.

- **Motherboard (main circuit board)**
  This circuit board connects all the different components inside the box (system unit).
Output devices
These devices provide the computer with a means of outputting what it has processed.

- **Monitor** (screen copy)
The monitor, or computer screen provides us with immediate output results from the computer.

- **Printer** (hardcopy)
The printer provides us with a permanent printed copy of the computer’s output.
Storage devices
These devices provide the computer with a means of storing what it has processed.

- **Hard drive** *(permanent storage)*
  A hard drive stores data and information so that we can retrieve it at a later date; its content is not lost when power is turned off.

- **Memory** *(temporary storage)*
  Random Access Memory *(RAM)* is a chip inside the computer that stores intermediate results of the computer’s processing; its content is lost when the computer is turned off.

- **USB drive** *(removable storage)*
  Removable media provides a means of copying or removing data from the computer, thus protecting it from loss.
Communication devices
These devices allow computers to communicate with other computers via computer networks, such as Local Area Networks or the Internet.

- **NIC (Network Interface Card)**
  This card installed in a computer allows a classroom of computer workstations to communicate with one another.

- **Router**
  This piece of hardware assists in connecting multiple Network Interface Cards to a single computer (network server).
Software (computer programs) tell the computer what to do and how to do it. Without software a computer is completely useless!

Software can be divided into 2 main categories.

- System
- Applications
System software is the software that communicates directly with the computer. It provides the interface between you and the computer. This software can be divided into 3 main categories.

- Operating System (OS)
- Utilities
- Language Translators
Applications

Applications software is software written to be “applied” to a particular task, such as creating text documents or graphics. These programs are interpreted and run by the Operating System. Applications software can be categorized into many types. Here are several categories of popular software.

- Word Processing
- Presentation Graphics
- Spreadsheets
- Database Management
- Web Authoring
- Browsers
Here’s a review of the acronyms used in this presentation:

- **OS**  Operating System
- **NIC**  Network Interface Card
- **CPU**  Central Processing Unit
- **RAM**  Random Access Memory