# Lesson 1 - Hardware Components

## New Words

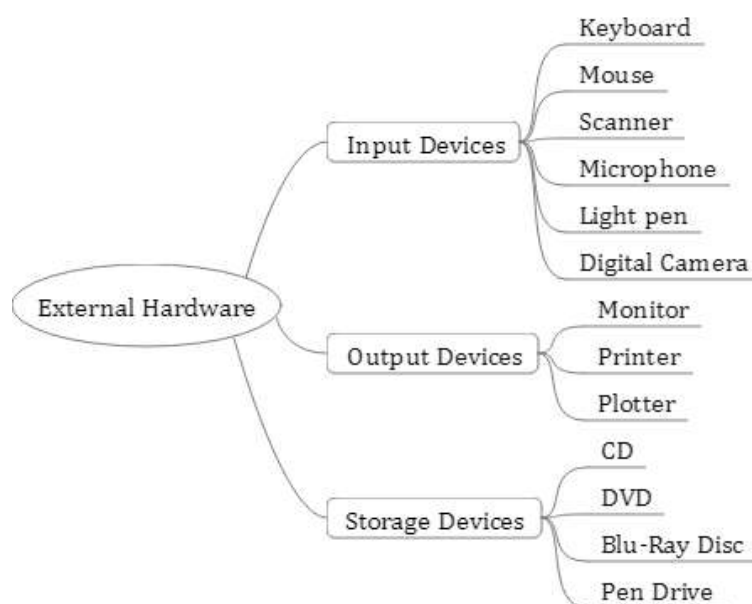| ethernet | arithmetic | access | peripheral | versatile |
|----------|------------|--------|------------|-----------|
| multimedia | sequential | pixel | dimension | frequently |

## Expansions

- AGP - Accelerated Graphics Port
- BIOS – Basic Input Output System
- CRT – cathode ray tube
- LED – Light Emitting Diode
- LCD – Liquid Crystal Display
- PCB – Printed Circuit Board
- CAD – Computer Aided Design
- VGA – Video Graphics Array
- SMPS – Switched Mode Power Supply
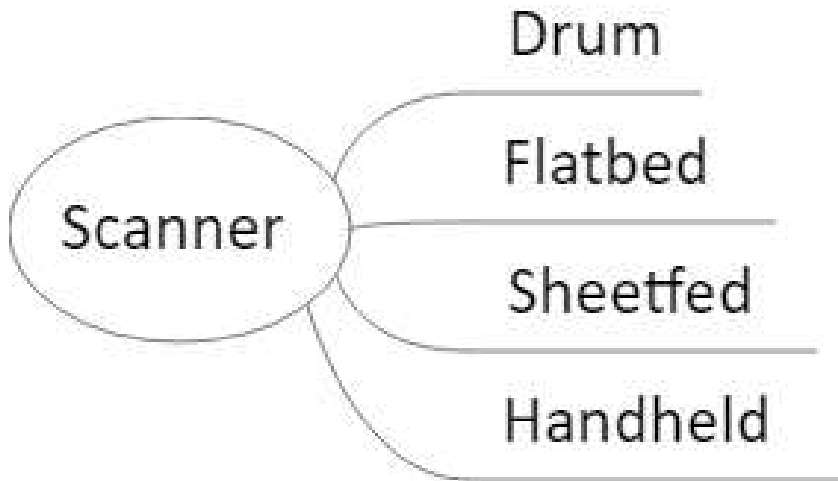
## Important Points

- *Hardware*: The physical components of a computer system which are tangible.
  - E.g. Internal Hardware and External Hardware
- *Software*: It refers to the set of programs, which are required to operate the computer system.
  - E.g. System software and Application Software

| Internal Hardware | External Hardware |
|-------------------|-------------------|
| The Hardware Components which are fixed inside the CPU cabinet | The Hardware components which are connected to the computer, these components are also known as peripherals |
| Motherboard, CPU,RAM ,ROM, SMPS, Heat Sink | Input, Output and Storage Devices |

**GO on External Hardware Components of a Computer**

**GO on types of scanners**

## Scanner

- Drum
- Flatbed
- Sheetfed
- Handheld

| Internal Hardware Components | Usage |
|---|---|
| **Motherboard** | It is also known as the PCB. It holds many crucial components of a computer system. |
| **CPU** | It is also referred to as a microprocessor. It carries out each instruction of a program in a sequence to perform the basic operations of the system. |
| **Disk Drive** | It enables you to read, write ,delete and modify data on a storage disk. |
| **SMPS** | It is also known as the power supply unit. It converts the input high voltage electric current to low voltage and supplies it to the motherboard and other parts of the computer |
| **Heat Sink** | It is designed to disperse the heat generated by the CPU |
| **Ports** | The cabinet has several connection ports for connecting specific external input or output devices. |

Fact File
1. Intel i9 12th gen is the best gaming processor.
2. The largest capacity of USB 3.0 is 1 TB
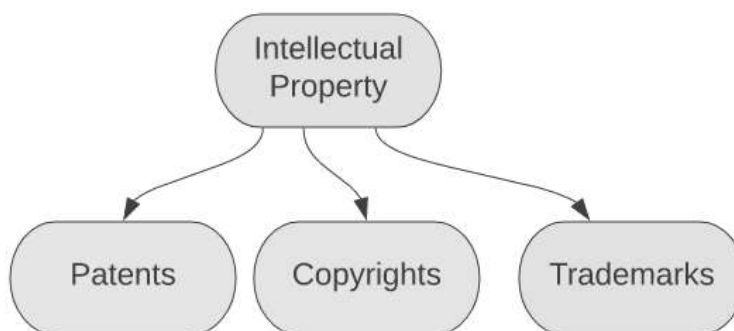
# Lesson 4 – Ethics And Safety Measures

## New Words

| ethics | communication | plagiarism | acknowledgement | citation |
|---|---|---|---|---|
| convenient | encryption | cyberbullying | phishing | cracker |

## Definitions

1. **Computer Ethics**: Set of moral Principles that regulate the use of computers.
2. **Plagiarism**: It is the act of copying or stealing someone else's words or ideas and passing them off as your own work.
3. **Citation**: Acknowledging the original writer and source from where material has been collected is called citation.
4. **Cyberbullying**: The use of electronic communication to bully a person, typically by sending messages of an intimidating or threatening nature.
5. **Hacking**: An unauthorized intrusion into a computer or a network. The person engaged in hacking activities is known as a hacker/cracker.
6. **Phishing**: is the fraudulent attempt to obtain sensitive information such as usernames, passwords and credit card details by disguising as a trustworthy entity in an electronic communication.
7. **Software Piracy**: Illegally using, copying or distributing software without ownership or legal rights.
8. **Digital Footprint**: It is a log of the data that is created while using the Internet. It includes the websites that are visited, emails sent and information submitted to online services.

## Important points

1. A cookie is a small text file stored on your computer's browser directory that collects the information of your online activity and reports back to the host.
2. G.O representing the Intellectual Property Rights:

a.



## Fact File

Sangeet Chopra is one of the most popular ethical hackers and an IT security specialist in India.

# Lesson 6 – More Features of Spreadsheets

**New Words**

| editing | copying | moving | autofill | command |
|---------|---------|--------|----------|---------|
| formula | analyze | contiguous | extended | content |

**Important Points**

1. Autofill : The autofill feature enables us to fill a range of cells with a series of data without typing itFact File
2. Difference between Undo and Redo commands

| Undo | Redo |
|------|------|
| This command cancels the last action performed by the user in a worksheet | This command reverses and restores the last action performed by the user in a worksheet |

3. **Tabular form on tabs and groups for different options in MS-Excel**

| Option | Tab | Group |
|--------|-----|-------|
| To insert a row,column and cell | Home | Cells |
| To Delete a row,column and cell | Home | Cells |
| To Move,copy and paste | Home | Clipboard |
| To merge cells | Home | Alignment |

4. **Shortcut Keys**

| Option | Shortcut Key |
|--------|--------------|
| To select the entire worksheet | Ctrl + A |
| To insert a row | Ctrl + R |
| To insert a column | Ctrl + C |
| To Undo | Ctrl + Z |
| To Redo | Ctrl + Y |
| To copy the data | Ctrl + C |
| To move the data | Ctrl + X |
| To paste the data | Ctrl + V |

**Fact File**

In MS-Excel, user can minimize and maximize the worksheet by pressing ctrl + F10 key combination

# Lesson 8 - Advanced features of HTML

**New Words**

| attribute | unordered | bulleted | radio | float |
|-----------|-----------|----------|-------|-------|
| checkbox | anchor | pixel | align | property |

**Important Points**

1. Different types of lists we can create in an HTML document are
   - unordered List
   - Ordered List
2. Differences between ordered list and unordered list

| ordered list | Unordered list |
|--------------|----------------|
| Ordered list is a numbered list | Unordered list is a bulleted list |
| It is used when the items have a specific order. | It is used when the items don't have a specific order. |
| The list is enclosed within <ol> and </ol> tags | The list is enclosed within <ul> and </ul> tags |

3. **Inserting Images**
   - HTML allows insertion of many different image formats such as GIF (Graphics Interchange Format) and JPEG (Joint Photographic Expert Group). Inserting images will enhance the look of the webpage.

| Attribute | Use |
|-----------|-----|
| src | It specifies the URL of the image to be displayed in the document. |
| Height and Width | It specifies the height and width of the image in pixels. |
| Float Property | It specifies the alignment of the image either to the right or left of the text. |
| Alt | It specifies an alternative text that the browser displays, if the image is loading or cannot display. |

4. **Hyperlink**
   - A website is a collection of webpages. These pages are linked to each other through hyperlinks. The two different types of Linking
     i. Internal Linking
     ii. External Linking
     iii.

5. **Anchor Tag and its attribute**
   ○ It is used to create a hyperlink in a webpage. It is a container tag.
   ○ Href is an attribute of the anchor tag that specifies the page or file to which the link is directed.
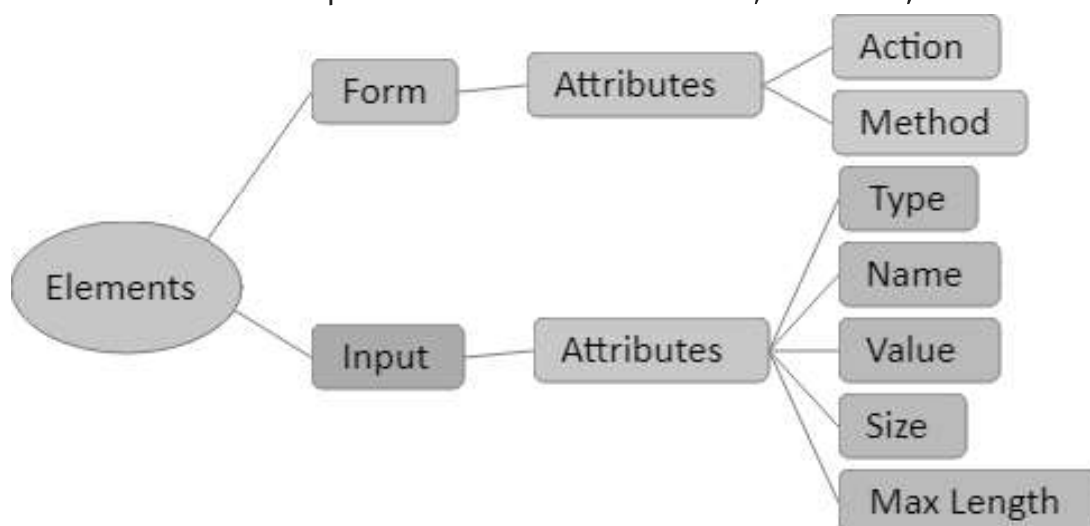   ○ <a href="https://www.jgschool.org">My school</a>

6. **Tables in HTML**
   ○

| Tag | Usage | Syntax |
|---|---|---|
| *Table tag* | Used to define tables in html. | <table>........</table> |
| *Table row tag* | Used to define a horizontal row of cells. | <tr>.......</tr> |
| *Table data tag* | Specifies an individual block or cell in a table row. | <td>.....</td> |
| *Header cell* | Used to define the header for a column or row. | <th>......</th> |

7. **Forms**
   ○ It is used to collect the information from the user in a systematic way. The form tag is used to create an HTML form. It is a container element. The forms are classified into three sections.
      i. Form Header
      ii. Input Fields
      iii. Action button

8. **Forms**
   ○ A form that contains special elements like text field, checkbox, radio buttons etc.



   ○

**Fact File**
The Languages HTML (Hyper Text Markup Language) and XML (Extendable Markup Language) are both derived from DHTML (Dynamic HyperText Markup Language.