**Day 2: HTML — Links, Lists, Images, and Tables (Beginner-Friendly Notes)**

## 🔗 1. HTML Links (<a>)

### 📝 *What is a Link?*

A link is a clickable piece of text or an image that helps users jump to another web page, file, section within the same page, or even perform actions like sending an email or downloading a document. It makes web navigation smooth and interconnected.

### ✍️ *Syntax:*

<a href="https://www.google.com">Visit Google</a>

### ✂️ *Key Attributes:*

| Attribute | Description |
|---|---|
| href | Stands for "hyperlink reference". It tells the browser where to go. |
| target="_blank" | Opens the link in a new browser tab. Useful for external websites. |
| download | If added, the link will download the file instead of opening it. |
| mailto: | A special value for href that opens the user's email application. |

### 🔑 *Practical Examples:*

<a href="mailto:sagar@gmail.com">Email Sagar</a>
<a href="resume.pdf" download>Download My Resume</a>
<a href="https://youtube.com" target="_blank">Go to YouTube</a>

These links serve different purposes like communication, downloading files, or simply browsing the web.

# 📋 2. HTML Lists

Lists help organize and display data clearly. HTML provides two primary types of lists: **unordered (bulleted)** and **ordered (numbered)**. Lists are made using <ul> or <ol>, and each item in the list is wrapped in a <li> tag.

## ☑️ *Unordered List (<ul>)*

This displays a list with bullet points. Useful for lists that don't require a specific order.

```
<ul>
 <li>HTML</li>
 <li>CSS</li>
 <li>JavaScript</li>
</ul>
```

**Output:**

- HTML
- CSS
- JavaScript

## ☑️ *Ordered List (<ol>)*

This shows the list with numbers. Perfect for instructions or ranking.

```
<ol>
 <li>Wake Up</li>
 <li>Brush</li>
 <li>Code</li>
</ol>
```

**Output:**

1. Wake Up

2. Brush
3. Code

## 🗂 *Nested List*

You can even nest one list inside another, creating a multi-level structure.

```
<ul>
 <li>Frontend
  <ul>
   <li>HTML</li>
   <li>CSS</li>
  </ul>
 </li>
</ul>
```

**Output:**

- Frontend
  - HTML
  - CSS

Nested lists help represent grouped or categorized information.

## 🖼 **3. HTML Images (<img>)**

### 📐 *What is the <img> Tag?*

The <img> tag is used to insert images into a webpage. It's a self-closing tag, which means it doesn't need an ending tag. Images help make websites more visual and engaging.

### ✍ *Syntax:*

```
<img src="image.jpg" alt="Description of image" width="300">
```

## 🛠️ *Important Attributes:*

| Attribute | Purpose |
|---|---|
| src | Source of the image (file name or URL). Tells the browser what to show. |
| alt | Alternate text shown if the image doesn't load. Improves accessibility. |
| width/height | Sets the image size in pixels or percentage. |

## 🔑 *Example:*

<img src="sagar.jpg" alt="Sagar's Photo" width="200">

**What it does:** Loads an image named sagar.jpg at 200px width and describes it for screen readers or when image fails to load.

## 📊 4. HTML Tables

Tables are used to organize data in rows and columns, like a spreadsheet. Useful for showing data like schedules, scores, product lists, etc.

## 📐 *Basic Table Structure:*

```
<table border="1">
 <tr>
  <th>Name</th>
  <th>Roll</th>
  <th>Marks</th>
 </tr>
 <tr>
  <td>Sagar</td>
  <td>101</td>
  <td>95</td>
 </tr>
```

</table>

**Output:** A table with one header row and one data row.

### 🛠️ *Table Tags Explained:*

| Tag | Use |
|---|---|
| <table> | Starts the table |
| <tr> | Defines a row |
| <th> | Header cell (bold & centered) |
| <td> | Standard data cell |

### ➕ *Extra Features:*

- colspan — merges multiple columns into one
- rowspan — merges multiple rows into one

<td colspan="2">Merged Cell</td>

This cell will stretch across two columns.

## 🎯 Practice Task: "My Favorite Things" Page

Build a small web page that includes:

1. **A main heading**: "My Favorite Things"
2. **A paragraph**: Describe 2–3 hobbies you enjoy
3. **An image**: Show something meaningful (e.g., your favorite gadget, place, or memory)
4. **A clickable link**: Link to your favorite YouTube video or website
5. **An ordered list**: Mention your top 3 favorite books or movies
6. **A table**: With 3 columns — Item | Type | Why I Like It
   a. Fill at least 2–3 rows with different items you love (e.g., Laptop | Gadget | Helps in coding)

This mini-project will help you apply all the tags and skills learned on Day 2 in a practical and personalized way.