

UQ25CA152A - Web Design

Unit 2: Designing Websites

HTML provides three types of lists:

**1. Ordered List **

- Displays items in sequence with numbers (1, 2, 3), alphabets (A, B, C) or Roman numerals (i, ii, iii).

```
<ol type="A">
<li>HTML</li>
<li>CSS</li>
<li>JavaScript</li>
</ol>
```

**2. Unordered List **

- Displays items with bullets such as disc, circle, or square.

```
<ul type="square">
<li>Apple</li>
<li>Mango</li>
<li>Banana</li>
</ul>
```

3. Definition List <dl>

- Displays terms and their definitions.

```
<dl>
<dt>HTML</dt><dd>HyperText Markup Language</dd>
<dt>CSS</dt><dd>Cascading Style Sheets</dd>
</dl>
```

Form Tag

The <form> tag is used to **collect user input** and send it to a server.

□ Attributes of <form>:

- action → specifies where the data is sent.
- method → GET (data in URL) or POST (data in body, more secure).
- enctype → specifies how form data is encoded (e.g., multipart/form-data for file upload).

□ Form Elements:

1. <input> → text, password, radio, checkbox, file.
2. <textarea> → multi-line input.
3. <select> → dropdown menu with <option>.
4. <button> → submit, reset, or custom buttons

```
<form action="submit.php" method="post">  
    Name: <input type="text" name="uname"><br>  
    Password: <input type="password" name="upass"><br>  
    Gender:  
    <input type="radio" name="gender" value="M">Male  
    <input type="radio" name="gender" value="F">Female<br>  
    Country:  
    <select>  
        <option>India</option>  
        <option>USA</option>  
    </select><br>  
    <textarea name="message" rows="3" cols="20">Enter text...</textarea><br>  
    <input type="submit" value="Register">  
</form>
```

Anchor Tag

A **hyperlink** connects one web resource to another. It is created using the `<a>` (anchor) tag.

- **Attributes:**

- `href` → link destination
- `target` → link opening behavior (`_blank`, `_self`)

Types of Hyperlinks:

1. **Absolute Link** – full URL.

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

2. **Relative Link** – path within same website

```
<a href="about.html">About Us</a>
```

3. **Email Link** – opens email client.

```
<a href="mailto:info@example.com">Contact Us</a>
```

4. **Telephone Link** – for calling (on mobile).

```
<a href="tel:+919876543210">Call Us</a>
```

Multimedia support in HTML5

HTML5 introduced **native support** for embedding audio and video without external plug-ins.

Video

- Tag: `<video>`
- Attributes: `controls`, `autoplay`, `loop`, `muted`
- Common Formats:
 - MP4 (H.264 codec) – widely supported
 - WebM – open source, supported by Chrome/Firefox
 - OGG – limited support

```
<video width="320" height="240" controls>
  <source src="movie.mp4" type="video/mp4">
  <source src="movie.ogg" type="video/ogg">
</video>
```

Audio

- Tag: <audio>
- Attributes: controls, autoplay, loop
- Common Formats:
 - MP3 – most common
 - OGG – open format
 - WAV – high quality

```
<audio controls>
```

```
  <source src="song.mp3" type="audio/mpeg">
  <source src="song.ogg" type="audio/ogg">
</audio>
```

Table Tag

The <table> tag in HTML is used to present **data in rows and columns**. It is commonly used for **schedules, student marksheets, employee records, and price lists**.

Basic Structure of a Table

- <table> → Defines the table.
- <tr> → Defines a row.
- <td> → Defines a data cell.
- <th> → Defines a header cell (bold and centered by default).
- <caption> → Provides a title for the table.

```
<table border="1">
  <caption>Student Marks</caption>
  <tr>
    <th>Name</th>
    <th>Math</th>
    <th>Science</th>
  </tr>
  <tr>
    <td>Amit</td>
    <td>85</td>
    <td>90</td>
  </tr>
```

```

<tr>
<td>Neha</td>
<td>78</td>
<td>88</td>
</tr>
</table>

```

Table Attributes

- border → Defines table border.
- cellspacing → Space between cells.
- cellpadding → Space inside each cell.
- width / height → Size of table and cells.
- align → Alignment of table (deprecated, CSS preferred).

Merging Rows and Columns

- colspan → Merge multiple columns.
- rowspan → Merge multiple rows

```

<table border="1">
<tr>
<th rowspan="2">Name</th>
<th colspan="2">Marks</th>
</tr>
<tr>
<th>Math</th>
<th>Science</th>
</tr>
<tr>
<td>Rahul</td>
<td>85</td>
<td>90</td>
</tr>
</table>

```

Using Tables in Web Design

- Tables are used to show **structured information** like timetables, financial statements, and reports.

Image Tag

The `` tag in HTML is used to **insert images into a webpage**. Unlike text, images make web pages more attractive and informative. The `` tag is an **empty tag** (no closing tag) and requires attributes to work.

```

```

Important Attributes of ``

1. **src (Source)** → Path or URL of the image.
 - Example: `src="flower.jpg"`
2. **alt (Alternate Text)** → Text shown if image doesn't load; helps screen readers.
 - Example: `alt="Red Rose"`
3. **width and height** → Set image size (in pixels or %).
 - Example: `width="300" height="200"`
4. **title** → Tooltip text when hovered.
 - Example: `title="Beautiful Flower"`
5. **align (deprecated)** → Used to align images with text; replaced by CSS (float, flex).

```

```

Example – Image as a Link

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

Uses of `` in Web Design

- To display **logos, banners, advertisements**.
- To include **product images** in e-commerce.
- To make websites **interactive and visually appealing**.
- To add **icons, background illustrations, and infographics**.