Basic Of HTML

Q1. What is Web-page ?

A web page is a document on the internet that displays content such as text, images, videos, audio, tables, forms, and more. It is usually written in HTML and accessed through a web browser using an internet connection.

Q2. What is Website ?

A **website** is a **collection of related web pages** that are linked together under a common domain name (like `example.com`).
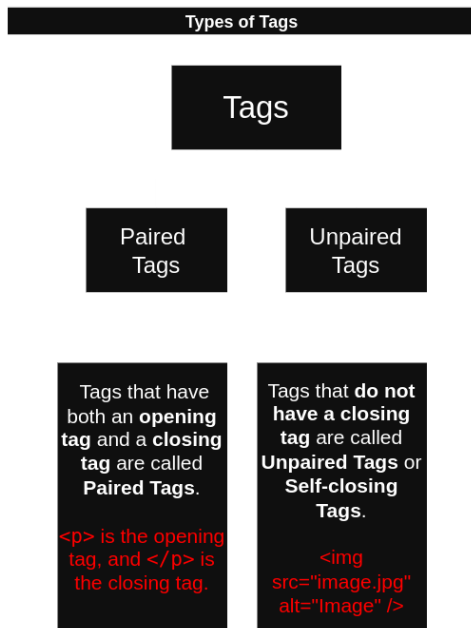
Q3. Full form of HTML ?

HTML stands for **HyperText Markup Language**.

- **HyperText** → Text that contains **links** to other web pages or resources.
- **Text** → The **data** or content displayed on the page.
- **Markup** → A set of **predefined tags** used to structure and format the content.
- **Language** → A **means of communication** between the web page and the browser.

Q4. What is Tags ?

Predefined words which are enclosed in angled brackets.

Example: `<html></html>` .

Types of Tags

Tags

Paired Tags

Unpaired Tags

Tags that have both an **opening tag** and a **closing tag** are called **Paired Tags**.

<p> is the opening tag, and </p> is the closing tag.

Tags that **do not have a closing tag** are called **Unpaired Tags** or **Self-closing Tags**.

Q5. Structure of HTML Document ?

```
<!DOCTYPE html>
<html>
<head>
  <title>Page Title</title>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <!-- You can add more <meta>, <link>, <style>, etc. here →
</head>
<body>

  <h1>Welcome to My Website</h1>
  <p>This is a paragraph.</p>

</body>
</html>
```

Explanation of Tags:

- `<!DOCTYPE html>` → Represent the version of HTML.

- `<html>` → Root element of the HTML page.

- `<head>` → Contains meta-information (title, charset, CSS links, etc.).

- `<title>` → Sets the title shown in the browser tab.

- `<meta>` → Provides metadata (search engine optimization, responsiveness, etc.).

- `<body>` → Contains the visible content of the web page.

Q6. Text Formatting Tags ?

✅ 1. **Text Formatting Tags**

Those tags which format the text are considered as **Text Formatting Tags**.

Format Type	Tag(s) Used
Bold	`<strong>`
Italic	`<em>`
Underline	`<u>` , `<ins>`
Highlight	`<mark>`
Strikethrough	`<strike>` , `<del>` , `<s>`
Superscript	`<sup>`
Subscript	`<sub>`
Abbreviation (Tooltip on hover)	`<abbr>` , `<acronym>`
Big Text	`<big>`
Small Text	`<small>`
Preformatted Text	`<pre>` — Uses monospace font and preserves spaces (unlike `<p>`)
Scrolling Text	`<marquee>` *(Deprecated)*

Q7. Difference between HTML4 and HTML5

HTML4	HTML5
1. HTML4 is **not compatible** with all browsers.	1. HTML5 is **compatible** with all modern browsers.

2. Does **not include** media tags like `<audio>` and `<video>`.	2. Includes built-in support for media tags like `<audio>`, `<video>`.
3. Does **not support semantic tags**.	3. Supports **semantic tags** such as `<header>`, `<footer>`, `<article>`, etc.

Q8. Explain Media Tags in HTML5 ?

1. `<audio>` — Used to add an audio file.

Attributes:

- `controls` – Displays play/pause UI.
- `src` – Source of the audio file.
- `autoplay` – Starts playing automatically.
- `muted` – Mutes audio by default.
- `loop` – Repeats the audio continuously.

Example:

```
<audio controls autoplay muted loop src="song.mp3"></audio>
```

2. `<video>` — Used to add a video file.

Attributes: (Same as `<audio>`)

- `controls`, `src`, `autoplay`, `muted`, `loop`

Example:

```
<video controls autoplay muted loop src="video.mp4"></video>
```

Q9. Explain iframe tag in HTML5 ?

`<iframe>` — **Used to embed another webpage inside your page (Nested Web Page).**

Use case example: Embedding a **YouTube video**

1. Go to YouTube → Choose a video → Click **Share** → Select **Embed** → Copy the code

2. Paste the `<iframe>` code into your HTML page.

Also used for Google Maps:

1. Open Google Maps

2. Search your location → Click **Share** → Click **Embed a map** → Copy the `<iframe>` code

3. Paste it into your page.

Q10. Explain Anchor Tag in HTML?

The **anchor tag** `<a>` is used to create **hyperlinks**, which allow users to **navigate** from one page to another or trigger specific actions like sending an email or making a call.

🔧 Basic Syntax:

```
<a href="URL">Link Text</a>
```

- `href` → Stands for **Hypertext Reference**, which defines the link's **destination**.

- `Link Text` → This is what the user sees and clicks on.

✅ Common Uses of Anchor Tag:

1. **Link to a Website:**

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

2. **Send an Email:**

```
<a href="mailto:ashish@gmail.com">Email Me</a>
```

3. **Make a Phone Call (on supported devices):**

```html
<a href="tel:+7620730045">Call Me</a>
```

4. **Open Link in a New Tab:**

```html
<a href="https://www.flipkart.com" target="_blank">Flipkart</a>
```

5. **Click on an Image to Open a Link:**

```html
<a href="https://www.flipkart.com" target="_blank">
  <img src="flipkart-logo.png" width="100px">
</a>
```

📝 Attributes of `<a>` Tag:

Attribute	Description
`href`	Specifies the link destination.
`target="_blank"`	Opens the link in a new tab or window.
`title`	Tooltip shown when the mouse hovers over the link.
`download`	Downloads the file instead of opening it in the browser.

Q11. Difference between HTML4 and HTML5 ?

HTML4	HTML5
1. HTML4 is **not compatible** with all browsers.	1. HTML5 is **compatible** with all modern browsers.
2. Does **not support media tags**.	2. Supports **media tags** like `<audio>` and `<video>` .
3. Does **not support semantic tags**.	3. Supports **semantic tags** like `<header>` , `<footer>` , `<article>` , etc.

Q12. Explain table tag and its attributes ?

✅ 1. `<table>` Tag in HTML

The `<table>` tag is used to create a **table** structure in HTML. It organizes data in **rows and columns**.

🔧 Basic Table Elements:

Tag	Purpose
`<table>`	Creates the table container.
`<tr>`	Table row (each row of the table).
`<td>`	Table data cell (inside a row).
`<th>`	Table header cell (bold and centered).

✅ Example:

```html
<table border="1">
  <tr>
    <th>Name</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Ashish</td>
    <td>22</td>
  </tr>
</table>
```

⚙️ Table Attributes and Their Uses:

Attribute	Purpose
`border`	Adds a border around the table and cells. Example: `border="1"`
`rules`	Controls where the borders appear. Options: `rows` , `cols` , `all` . Example: `rules="rows"`

cellpadding	Adds space **inside** each cell (between content and border). Example: `cellpadding="10"`
cellspacing	Adds space **between** cells. Example: `cellspacing="5"`
colspan	Merges **multiple columns** into one. Example: `<td colspan="2">`
rowspan	Merges **multiple rows** into one. Example: `<td rowspan="2">`

✅ **Example with Attributes:**

```html
<table border="1" rules="all" cellpadding="5" cellspacing="5">
 <tr>
  <th colspan="2">Student Info</th>
 </tr>
 <tr>
  <td>Name</td>
  <td>Ashish</td>
 </tr>
 <tr>
  <td rowspan="2">Contact</td>
```

```
    <td>Email: ashish@gmail.com</td>
  </tr>
  <tr>
    <td>Phone: 1234567890</td>
  </tr>
</table>
```

Q13. Explain form tag ?

✅ Explanation of Form Tag

The `<form>` tag is used to **collect user input** and send it to a server or handle it on the same page.

🔷 Key Points:

1. `action="#"` → The `#` symbol means the form will submit to the **same page**.

2. `<fieldset>` → Used to group related form elements and add a **border** around them.

3. `<legend>` → Defines a **title** or caption for the `<fieldset>` border.

❓ Why `<label>` is used instead of `<p>` in forms?

1. The `<label>` tag is used to **associate text** with an input field.

2. It has a `for` attribute that should match the `id` of the input field.

   This allows users to **click on the label to focus the input box**.

3. It improves **form accessibility and usability**.

🔍 Difference Between Registration Form and Application Form:

Registration Form	Application Form
Requires **less information**.	Requires **detailed and extensive information**.
Takes **less time** to fill out.	Takes **more time** to fill out.

Examples: Sign-up forms, login forms.	Examples: Job applications, college admissions.

✅ Form Example in HTML:

```html
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8" />
 <meta name="viewport" content="width=device-width, initial-scale=1.0"/>
 <title>Application Form</title>
</head>
<body>

 <form action="#">
  <fieldset>
   <legend>Application Form</legend>

   <label for="name"><span style="color:red">*</span> Name:</label>
   <input type="text" name="name" id="name" required />
   <br /><br />

   <label for="age">Age:</label>
   <input type="number" name="age" id="age" />
   <br /><br />

   <label for="mail">Email ID:</label>
   <input type="email" name="mail" id="mail" />
   <br /><br />

   <label for="dob">Date Of Birth:</label>
   <input type="date" name="date" id="dob" />
   <br /><br />

   <label for="pass">Password:</label>
   <input type="password" name="pass" id="pass" />
   <br /><br />
```

```html
<label for="contact">Contact No:</label>
<input type="tel" name="contact" id="contact" />
<br /><br />

<label for="address">Address:</label>
<input type="text" name="address" id="address" />
<br /><br />

<label>Gender:</label>
<input type="radio" name="gender" id="male" value="Male" />
<label for="male">Male</label>

<input type="radio" name="gender" id="female" value="Female" />
<label for="female">Female</label>
<br /><br />

<label for="photo">Passport Photo:</label>
<input type="file" name="photo" id="photo" />
<br /><br />

<label>Courses:</label>
<input type="checkbox" name="course" id="c" value="C" />
<label for="c">C</label>

<input type="checkbox" name="course" id="python" value="Python" />
<label for="python">Python</label>

<input type="checkbox" name="course" id="java" value="Java" />
<label for="java">Java</label>

<input type="checkbox" name="course" id="mysql" value="MySQL" />
<label for="mysql">MySQL</label>
<br /><br />

<label for="branch">Branch:</label>
<select name="branch" id="branch">
```

```html
      <option value="Pune">Pune</option>
      <option value="Mumbai">Mumbai</option>
      <option value="Kolkata">Kolkata</option>
      <option value="Hyderabad">Hyderabad</option>
      <option value="Bangalore">Bangalore</option>
    </select>
    <br /><br />

    <label for="sign">Signature:</label>
    <input type="file" name="signature" id="sign" />
    <br /><br />

    <label>Course Mode:</label>
    <input type="checkbox" name="mode" id="online" value="Online" />
    <label for="online">Online</label>

    <input type="checkbox" name="mode" id="offline" value="Offline" />
    <label for="offline">Offline</label>
    <br /><br />

    <input type="submit" value="Submit" />
   </fieldset>
  </form>

</body>
</html>
```

Q14. Explain list in the HTML ?

✅ Lists in HTML

Lists in HTML are used to group related items together. There are three main types of lists:

1. **Ordered List**

   An ordered list (using `<ol>`) displays items in a specific sequence (numbered, alphabetic, or Roman numerals).

Key Attributes:

- `type` : Specifies the kind of marker (e.g., numeric, Roman, alphabetic).

- `start` : Sets the value of the first item in the list.

Example:

```html
<h3>Ordered List</h3>
<ol type="a" start="19">
  <li>Samsung</li>
  <li>Apple</li>
  <li>Xiaomi</li>
  <li>Poco</li>
  <li>Moto</li>
</ol>
```

2. **Unordered List**

An unordered list (using `<ul>`) displays items as a bulleted list.

Note: Although the `type` attribute (like `type="square"`) can be used in some browsers to change the bullet style, its use is considered outdated in modern HTML/CSS practices.

Example:

```html
<h3>Un-Ordered List</h3>
<ul type="square">
  <li>Samsung</li>
  <li>Apple</li>
  <li>Xiaomi</li>
  <li>Poco</li>
  <li>Moto</li>
</ul>
```

3. **Definition List**

A definition list (using `<dl>`) pairs terms and their definitions. The `<dt>` tag defines the term, and the `<dd>` tag describes it.

Example:

```
<h3>Definition List</h3>
<dl>
  <dt>Samsung</dt>
  <dd>
    Lorem ipsum, dolor sit amet consectetur adipisicing elit. Rem, velit?
  </dd>

  <dt>Apple</dt>
  <dd>
    Lorem ipsum dolor sit amet, consectetur adipisicing elit. Laboriosa
m, harum.
  </dd>

  <dt>Moto</dt>
  <dd>
    Lorem ipsum dolor sit amet consectetur adipisicing elit. Sapiente, a!
  </dd>
</dl>
```

✅ Additional Example with Collapsible Details

Sometimes you may want to present a definition list with additional, collapsible information. The `<details>` element can be used for this purpose, with a `<summary>` providing a clickable title.

Example:

```
<dl>
 <details>
  <summary><dt>India</dt></summary>
  <img src="./task/Flag_of_India.svg.png" alt="Flag of India">
  <dd>
    India, a country that occupies the greater part of South Asia, is made up
of 2 states and eight union territories. Its national capital, New Delhi, was b
uilt in the 20th century just south of the historic hub of Old Delhi to serve a
s India's administrative center.
  </dd>
```

```
    </details>
  </dl>
```

Explanation:

- **Ordered List (`<ol>`):**

  Displays a list of items using an alphabetic sequence starting at "s" (if you start at 19 and use type `"a"`, the outcome depends on the browser, although usually `"a"` begins with lowercase letters).

- **Unordered List (`<ul>`):**

  Displays list items as bullet points. The `type="square"` attribute suggests square bullets.

- **Definition List (`<dl>`):**

  Pairs terms with their descriptions. In the second example, the `<details>` element allows the term "India" to be clickable, displaying further details (including an image and descriptive text) when expanded.