

HTML

- ↳ HTML stands for HyperText Markup Language.
- ↳ It is a standard markup language used to design the documents displayed in the browsers as a web page.
- ↳ It tells the web browser how to display text, links, images, and other forms of multimedia on a webpage.
- ↳ Example:

```
<html>
<head>
  <title>My First Webpage</title>
</head>
<body>
  <h1>Welcome to My Webpage</h1>
  <p>This is my first paragraph of text!</p>
</body>
</html>
```

Features of HTML

- ↳ It is easy to learn and easy to use.
- ↳ It is platform-independent. Images, videos, and audio can be added to a web page.
- ↳ Hypertext can be added to the text.
- ↳ It is a markup language.

HTML Element

- ↳ An HTML Element consists of a start tag, content, and an end tag, which together define the element's structure and functionality.
- ↳ Elements are the basic building blocks of a webpage and can represent different types of content, such as text, links, images, or headings.
- ↳ An HTML element is a combination of a opening tag, content, and an ending tag.

↳ For example, the <p> element for paragraphs includes opening and closing tags with text content in between.

↳ Syntax:

<tagname>Your Contents... </tagname>

HTML Empty Element

↳ HTML Elements without any content i.e., that do not print anything are called Empty elements.

↳ Empty HTML elements do not have an ending tag.

↳
, <hr>, <link>, <input> etc are HTML empty elements.

HTML Tags

↳ HTML Tags are fundamental elements used to structure and format content on web pages.

↳ They provide instructions to web browsers on how to render text, images, links, and other media.

↳ HTML tags are enclosed in angle brackets < >.

↳ Tags are of two types:

- Opening Tag: Begins an element (e.g., <p>).
- Closing Tag: Ends an element (e.g., </p>).
- Some tags are self-closing, like ,

Container Tags:

↳ These tags enclose content and must have both opening and closing tags.

↳ Example: <div>, <p>, <table>, <form>.

Empty Tags:

↳ These tags do not enclose content and do not require a closing tag.

↳ Example:
, , <hr>, <meta>.

Common HTML Tags

1) Heading tag

- ↳ An HTML heading tag is used to define the headings of a page.
- ↳ These 6 heading elements are h1, h2, h3, h4, h5, and h6; with h1 being the highest level and h6 being the least.
- ↳ Syntax: `<h1>Hello World!</h1>`
`<h5>Hello World! </h5>`

2) Paragraph tag

- ↳ The `<p>` tag in HTML defines a paragraph.
- ↳ These have both opening and closing tags.
- ↳ Syntax: `<p> Content </p>`

3) Hyperlink (anchor) tag

- ↳ The anchor tag in HTML is used to create a hyperlink on the webpage.
- ↳ Syntax: ` ... `

4) Image tag

- ↳ The `` tag is used to embed images in an HTML document.
- ↳ ``

5) Form tag

- ↳ HTML Forms use the `<form>` tag to collect user input through various interactive controls.
- ↳ These controls range from text fields, numeric inputs, and email fields to password fields, checkboxes, radio buttons, and submit buttons.

6) Input tag

- ↳ It is used to get input data from the form in various types such as text, password, email, etc by changing its type.
- ↳ Syntax: `<input type= "text" placeholder= "Enter Name">`
`<input type= "password" placeholder= "Password">`

Commonly Used Input Types in HTML Forms

- ↳ `<input type="text">`: Defines a one-line text input field
- ↳ `<input type="password">`: Defines a password field
- ↳ `<input type="submit">`: Defines a submit button
- ↳ `<input type="reset">`: Defines a reset button
- ↳ `<input type="radio">`: Defines a radio button
- ↳ `<input type="email">` Validates that the input is a valid email address.
- ↳ `<input type="number">`: Allows the user to enter a number.
- ↳ `<input type="checkbox">`: Used for checkboxes where the user can select multiple options.
- ↳ `<input type="date">`: Allows the user to select a date from a calendar.
- ↳ `<input type="time">`: Allows the user to select a time.
- ↳ `<input type="file">`: Allows the user to select a file to upload.

7) Lists tag

- ↳ The list tag in HTML is used to define the list item in an HTML document.
- ↳ It is used within an Ordered List `` or Unordered List ``.
- ↳ *Unordered List*: Creates a bullet-point list.
- ↳ *Ordered List*: Creates a numbered list.
- ↳ Example:

```
<ul>
  <li>item I</li>
  <li>item II</li>
  <li>item III</li>
</ul>
<ol>
  <li>First item</li>
  <li>Second item</li>
  <li>Third item</li>
</ol>
```

8) Table tag

↳ HTML Table is an arrangement of data in rows and columns, or possibly in a more complex structure.

↳ Syntax: `<table>..... </table>`

- **tr tag:** The table row tag is used to define a row in an HTML table. The `<tr>` element contains multiple `<th>` or `<td>` elements.
- **th tag:** The table header tag in HTML is used to set the header cell of a table.
- **td tag:** The table data tag is used to define a standard cell in an HTML table.

↳ Example:

```
<table border="1">
  <tr>
    <th>Name</th>
    <th>Subject</th>
    <th>Grade</th>
  </tr>
  <tr>
    <td>Adish</td>
    <td>Math</td>
    <td>A</td>
  </tr>
  <tr>
    <td>smit</td>
    <td>Science</td>
    <td>B</td>
  </tr>
</table>
```

9) Link

- ↳ It's helps to links external resources.
- ↳ It is used for linking CSS stylesheets.
- ↳ Syntax: `<link rel="..." href=".....">`

10) div

- ↳ The div tag is used in HTML to make divisions of content in the web page (text, images, header, footer, navigation bar, etc).
- ↳ Syntax: `<div>Content</div>`

11) span

- ↳ The HTML span element is a generic inline container for inline elements and content.
- ↳ Syntax: `Some Text`

HTML Basic Structure

