

The image features a central logo with the text "HTML" in a bold, dark green, sans-serif font. The text is enclosed within a white rectangular box with a thick orange border. This central element is set against a light gray background decorated with several thick, wavy, brown lines that flow across the frame. The entire composition is framed by a thin purple border.

HTML

What is HTML?

- HTML stands for hypertext markup language.
- It is the standard markup language for creating web pages.
- It describes the structure of a web page.
- It consists of series of elements.
- The elements tell the browser how to display the content.

Why CSS and JavaScript:

- HTML is used for defining a layout of the page – A bare bone page structure.
- CSS is used to add styling to that barebone page created using HTML.
- JavaScript is used to programs logic for the page layout. Eg) what to do with the user input?

Choosing a text editor:

- One can use any text editor of his/her choice.
- HTML can even be written in Notepad. Text editors like VS code just make things easier.

Notes:

Example

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<h1>This is a Heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

**** NOTE:** HTML is **not case-sensitive**.

- The `<!DOCTYPE HTML>` declaration defines that this document is an HTML5 document.
- The `HTML` element is the root element of an HTML page.
- The `<head>` element contains meta information about the HTML page.
- The `<title>` element specifies a title for the HTML page.
- The `<body>` element defines the document's body and is a container for all the visible content such as headings, paragraphs, images, hyperlinks etc.
- The `<h1>`, `<h2>`..... define headings.
- The `<p>` element defines paragraph.

Important points:

- Head and body tags are children of HTML tag.
- HTML is the parent of Head and Body tags.
- Most of the HTML elements have opening and closing tag with content in between opening and closing tags.
- Some HTML tags have no content . These are called Empty elements. eg. `
`
- We can either use `.htm` or `.html` extension.
- You can use "Inspect Element" or "view Page source " option from chrome to Look into a website's HTML code.
- Html element = start tag + content + End tag

Comments in HTML:

Comments in HTML are used to mark text which should not be parsed . They can help document the source code.

`<!-- HTML comment -->`

Heading tag:

The heading tag is used to mark headings in HTML. From `<h1>` to `<h6>`, we have tags from the most important to the least important headings.

`<h1> Most important heading </h1>`

`<h2> Another heading H2 </h2>`

`<h3> Another heading H3 </h3>`

`<h4> Another heading H4 </h4>`

`<h5> Another heading H5 </h5>`

`<h6> Another heading H6 </h6>`

NOTE: We should not use HTML headings to make text thick or bold.

Paragraph tag:

Paragraph tags are used to add paragraphs to an HTML page.

`<p> This is a paragraph </p>`

Anchor tag:

The anchor tag is used to add links to an existing content on an HTML page.

` click me `

Image tag:

Image tag is used to add images to an HTML page.

``

↳ relative url of an image

Pre tag:

HTML always ignores extra spaces and newlines. In order to display things as it is, we use the pre-tag.

`<pre>`

 This is written

 using pre

 tag

`</pre>`

Customisation:

```
1 <!DOCTYPE html>
2 <html>
3
4 <head>
5   <meta charset = "UTF-8">
6   <meta name="description" content="This is an awesome website!!">
7   <title>Aryan's Website</title>
8 </head>
9
10 <body style = 'background-color: darkcyan;'>
11   <h2 style="color: chartreuse; background-color: darkblue;">Aryan's Website</h2>
12   <hr>      <!-- Used to create a line below the heading. -->
13   <br>      <!-- Used to create a space below the heading. -->
14   <p style="color: hotpink; background-color: black;"><b>This</b> is <small>my</small> <b>paragraph</b></p>
15   <p>This is another <i>paragraph</i></p>
16   <p>This is yet another <b><i>paragraph</i></b></p>
17   <p>H<sub>2</sub></p>
18   <p>10<sup>2</sup></p>
19 </body>
20
21 </html>
```

• `style = "color : Any color ; background - color : Any color ;"`

→ This syntax is used to change the font color as well as the background color.

• `<hr>` :

→ Used to create a line after text

• `
` :

→ Used to create a space after text

⇒ NOTE :

1) Use `` instead of bold.

2) Use `` instead of italic.

• `<i>` and `</i>`

Italic font

• `` and ``

Bold font

• `_{` and `}`

Subscript

`<p>` and `</sup>`

Superscript

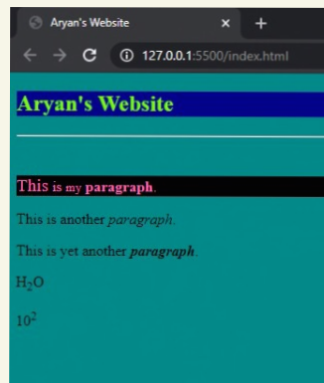
• `<big>` and `</big>`

Bigger font

• `<small>` and `</small>`

Smaller font

Output



These elements / tags are used to format font.

Image and video insertion:

```
index.html > ...
1  <!DOCTYPE html>
2  <html>
3
4  <head>
5    <meta charset = "UTF-8">
6    <meta name="description" content="This is an awesome website!!">
7    <title>Aryan's Website</title>
8  </head>
9
10 <body>
11
12   <a href = 'index.html' target = '_blank'><h3>Page 2</h3></a>
13   <img width = '200' src = 'walli.jpg' alt = "Anime wallapaper">
14   <video src = "tutorial.mp4" poster = "walli.jpg" controls width = '200'>Video failed to load</video>
15   <iframe width="560" height="315" src="https://www.youtube.com/embed/AmHEfTSBXiY"
16     title="YouTube video player" frameborder="0"
17     allow="accelerometer; autoplay; clipboard-write; encrypted-media; gyroscope; picture-in-picture"
18     allowfullscreen></iframe>
19 </body>
20
21 </html>
```

- ◉ Inserting video with a thumbnail and controls.
- `<video src = "tutorial.mp4" poster = "walli.jpg controls> Video failed to load </video>`

Now,

Use i-frame for youtube:

Embed video → From youtube → You will get access to all the default settings.

- ◉ width, height

If you change only one parameter, the aspect ratio remains intact.

- ◉ ` Text/image `

This uses the Text/img. to direct the user to the specified link.

- ◉ open link in new tab;
`target = "_blank"`

- ◉ `` Inserting an image

- ◉ alt

Displays text if image doesn't load.

Lists in HTML:

```
index000.html > ...
1  <!DOCTYPE html>
2  <html>
3
4      <head>
5          <meta charset = "UTF-8">
6          <meta name="description" content="This is an awesome website!!">
7          <title>Aryan's Website</title>
8      </head>
9
10     <body>
11
12         <dl>
13             <dt>Apples</dt>
14             <dd>- They are red.</dd>
15         </dl>
16
17         <ol type = "I">
18             <li>Apples</li>
19             <li>Oranges</li>
20             <li>Bananas</li>
21         </ol>
22
23     </body>
24
25 </html>
```

- Lists are used to display content which represents a list.

Unordered List: Used to list unordered items

```
<ul>
    <li> Home </li>
    <li> About </li>
    :
</ul>
```

Apples
- They are red.

I. Apples
II. Oranges
III. Bananas

Ordered List: Used to list ordered items

```
<ol>
    <li> Phone </li>
    <li> PC </li>
    <li> laptop </li>
</ol>
```