

# What is HTML?

↓  
HyperText Markup Language  
↓  
Structure + Formatting  
HTML Elements

✓ Standard Elements that browser recognizes:

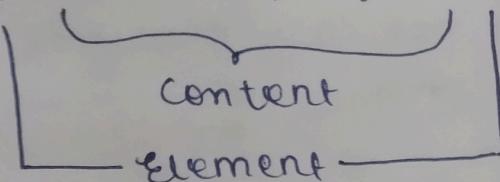
- 1. Paragraph <p> </p>
- 2. Heading <h1> </h1>
- 3. Image

► The components used to design the structure of website are called HTML tags

## ► HTML Tags

✓ Container for some context or other tags

<p> This is a paragraph </p>



Eg. <b> </b>

► **Nesting**: When one tag is used inside another tag, that tags are called as "Nested tags"

for eg: <p> This is my car </p>

## ► Heading Element

✓ From <h1> to <h6> six levels of headings

## ► HTML Boilerplate

This is the standard format or skeleton of writing HTML code

<!DOCTYPE html> (HTML 5)

<html>

<head> ← meta data

<title> My first page </title>

</head>

<body>

<p> hello world </p>

</body>

</html>

► default code / boilerplate is generated via "emmet"

↓ automatically syntax code!

► "meta information" → extra information about data

► ~~Indentation~~: spaces for good presentation of codes

► **Lists** in HTML → unordered list → ordered list

<ul>

<li> Bread </li>

<li> Butter </li>

<li> Jam </li>

</ul>

<ol>

<li> bread </li>

<li> Butter </li>

<li> Jam </li>

<ol>

## ► HTML Attributes

Attributes are used to add more information to the tag.

<html lang="en">

or

<ol type="A">  
↓  
attribute  
→ value

## ► Anchor Element

used to add links to your page

<a href="https://google.com">  
Google</a>  
hypertext reference

• Absolute link

specific link for information

• Relative link

relative content link

## ► Image Element

Used to add image to your page

  
source  
alternative

• absolute image / url (online image)



## ► Br Tag

Used to add next line (line breaks) to your page.

<br> ⇒ syntax

<p> Twinkle Twinkle little star <br> how I wonder what you are </p>

► Bold = <b> Bold </b>

► Italic = <i> italic </i>

► <underline> = <u> underline </u>

## ► Comment

syntax: <!-- Comment -->  
Ignored text by compiler/browser  
Shortcut: ctrl + / (forward slash)

Resources: MDN

► HTML is not case sensitive

<html> = <HTML>

<p> = <P>

<head> = <HEAD>

## ► Block Elements

takes up the full width available (whole block)

start from new line

For eg: <h1> </h1>  
<p> ... </p>

## ► Inline Elements

takes up only necessary width

don't start from new line

For example:  
Anchor tag,  
Image element

**Element** → block element  
 a container  
 used to hold other HTML elements or group elements together.

### **<div>**

```

<a href="www.google.com">
  Google </a>
<a href="www.youtube.com">
  YouTube </a>
  ...
  
```

### **<div>**

```

<a href="www.facebook.com">Facebook </a>
  
```

O/P: Google YouTube  
Facebook

**span Element** → inline element  
 it's also a generic container that is used to hold other HTML elements or group elements together

### **<hr>**

Horizontal Rule Element

<hr>

### **<sub><sup> Tag**

↗ subscript      ↗ superscript  
 $a^2 = b^2 + c^2 \rightarrow a <sup>2</sup>$

$H_2O$  → subscript       $H <sub>2</sub>$   
 $b <sub>0</sub>$

Eg:

<h1> Pythagoras theorem  
 says  $a <sup>2</sup> + b <sup>2</sup> = c <sup>2</sup>$   
 </h1>

### **Semantic Markup**

✓ It is the markup that relates to the meaning of content

semantic tags

- <h1>

- <p>

- <img>, <video>

non-semantic tags

- <div>

- <span>

► Why semantic tags are required?

- meaningfulness, layout, structured

- SEO friendly

↓  
search engine optimization

- readable (especially screen readers)

for eg: <header></header>

<main></main>

<footer></footer>

<nav></nav>

<article></article>

<section> </section>  
<aside> </aside>  
↓  
related  
content

► NOTE : emmet.io  
parent child : >  
sibling : +  
multiply : \*

## ► HTML entities



An space / HTML entity is a piece of text ("string") that begins with an ampersand (&) and ends with a semi-colon (;)

► used to display reserved characters (which would otherwise be interpreted as HTML code), and invisible characters (like non-breaking spaces)

(► can also use in place of characters that are difficult to type with a standard keyboard.

► browser interprets them & renders correct character

for eg : for '2 → &nbsp;

for space → &nbsp;

↓  
non breaking space

for < → &lt;

> → &gt;

for " → &quot;

## ► Understanding HTML 5

↓  
set of modern web technologies which includes the HTML living standard & along with JS APIs to enhance storage, multimedia and hardware access

## ► How HTML works ?

↓ HTML standard is a document that tells to the browser how HTML should work.

## ► Video tag

<video controls width = "300px" height = "300px"  
src = "url" type = "video/webm" />  
</video>

## ► Tables in HTML

↓  
used to represent real life table data.

• Row & columns

```

        mtail:
        <tr>
            <th> header1 </th>
            <th> header2 </th>
        </tr>    table header
        <tr>
            <td> data1 </td>
            <td> data2 </td>
        </tr>
    </table>

```

#### ► Semantics in tables

<thead> to wrap table header

<tbody> to wrap table body

<tfoot> to wrap table footer

#### ► colspan & rowspan



used to create cells which spans over multiple rows & columns.

rowspan = " "

colspan = " "

#### ► forms in HTML

Used to collect data from the user

#### ► Syntax: <form>

Form Content

</form>

#### Action Attribute

✓ is used to define what action needs to be performed when a form is submitted or where form data should be sent

<form action = "/action.php">



#### Form Elements

→ INPUT

↓  
used to create multiple form controls

there are multiple types of inputs

that can be used creating using type attributes

#### Syntax:

<input type = "text">

<input type = "password">

<input type = "number">

<input type = "time">

#### ► Placeholders & Labels

<input type = "text"

placeholder = "Enter Name"

<label>

User name

<input type = "text"

placeholder = "Anshika"/>

</label>

### ► **Button** Element

```
<button type="submit">  
Submit </button>  
  
<button type="button">Submit  
<button>  
<button type="reset" value="Submit" style="background-color: red;">Reset  
</button>
```

### ► **Name** Attributes

```
<input type="text"  
placeholder="Enter name"  
id="username"  
name="username"/>
```

### ► **Input Element - Checkbox**

```
<input type="checkbox"  
name="age" id="age"  
checked/> by default display checked  
<label for="age"> I am 18+  
</label>
```

### ► **Radio Element**

```
<input type="radio"  
name="fruit" id="apple"  
value="apple"/>  
<label for="apple"> Apple </label>
```