- Introduction -

HTML : Structure / layout
CSS   : Style
JS   : Logic

HTML: Hyper Text Markup language

HTML is the code that is used to structure a web page and its content.

The component used to design the structure of websites are called HTML tags.

First HTML file

index.html   It is the default name for a
                 website's homepage.

HTML Tag :
  <p> This is a paragraph </p>

Content

Element

Basic HTML Page

β

```html
<!DOCTYPE html>
<html>
 <head>
    <title>My First Page </p></title>
 </head>
 <body>
    <p> helloee world</p>
 </body>
</html>
```

`<!DOCTYPE html>`	tells browser you are using HTML
`<html>`	root of an html document
`<head>`	container of metadata
`<title>My First Page</title>`	page title
`</head>`	
`<body>`	contains all data rendered by the browser
`<p>hello world</p>`	paragraph tag
`</body>`	
`</html>`	

- HTML tag is parent of head and body tag.
- Most of html elements have opening and closing tags with content in between
- Some tags have no content in between, eg -
- we can use inspect element / view page source to edit html.

Comments in HTML
This is part of code that should not be parsed.

```
<!-- This is an HTML Comment -->
```

HTML is NOT case sensitive
```
<html> = <HTML>
<p> = <P>
<head> = <HEAD>
<body> = <BODY>
```

* Basic HTML tags
HTML Attributes
Attributes are used to add more more information to the tag
```
<html lang = "en">
```

Heading tag
used to display headings in HTML
h1 (most important)
h2
h3
h4
h5
h6 (least important)

- **Paragraph Tag:**
Used to add paragraphs in HTML.

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

- **Anchor Tag:**
Used to add links to your page

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

- **Image Tag:**
Used to add images to your page.

```
<img src="/image.png" alt="Random Image">
```
         ↑
     relative url

- **Br Tag:**
Used to add next line (line breaks) to your page.
```
<br>
```

- **Bold, Italic & Underline Tags:**
Used to highlight text in your page

```
<b> Bold </b>
<i> Italic </i>
<u> Underline </u>
```

- **Big and Small Tags:**
Used to display big & small text on your page.
```
<big> Big </big>          <small> Small </small>
```
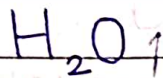
- Hr Tag:
Used to display a horizontal ruler, used to Separate content

    <hr>

- Subscript & Superscript Tag:
Used to display a horizontal ruler, used to separate content.

    _{subscript}

    $$H_2O_1$$

    ^{superscript}

    $$A^n + B$$

- Pre Tag:
Used to display text as it is (without ignoring spaces & next line)
    <pre> This
        is a sample
        text.
    </pre>

* Page Layout Techniques
Using semantic tags for layout
using the Right tags
    <header>
    <main>
    <footer>

- Inside Main Tag :

Section Tag `<section>`	For a section on your page.
Article Tag `<article>`	For an article on your page.
Aside Tag `<aside>`	For Content aside main content (ads).

- Revisiting Anchor Tag :

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

↑ for new tab

`<a href="https://google.com"><img src="link"></a>`

↑ clickable pic

- Revisiting Image Tag :

`<img src="Link" height=50px>`

↑ Set height

`<img src="link" width=50px>`

↑ Set width

- Div Tag :

Div is a container used for other HTML elements.

Block Element (takes full width)

- List: Div Tags:

\<address>	\<fieldset>	\<nav>
\<article>	\<figcaption>	\<noscript>
\<aside>	\<figure>	\
\<blockquote>	\<footer>	\<p>
\<canvas>	\<form>	\<pre>
\<dd>	\<h1>-\<h6>	\<section>
\<div>	\<header>	\<table>
\<dl>	\<hr>	\<tfoot>
\<dt>	\	\
	\<main>	\<video>

- Span Tag:

Span is also a container used for other HTML elements

Inline Element (takes width as per size)

- List: Span Tags:

\<a>	\<i>	\<script>
\<abb>	\<img>	\<select>
\<acronym>	\<input>	\<small>
\<b>	\<kbd>	\<span>
\<bdo>	\<label>	\<strong>
\<big>	\<map>	\<sub>
\ 	\<object>	\<textarea>
\<button>	\<tt>	\<sup>
\<cite>	\<var>	\<time>
\<code>	\<output>	
\<dfn>	\<q>	
\<em>	\<samp>	

* List in HTML:
Lists are used to represent real life list data.

Unordered	Ordered
`<ul>`	`<ol>`
`<li>Apple</li>`	`<li>Apple</li>`
`<li>Mango</li>`	`<li>Mango</li>`
`</ul>`	`</ol>`

* Tabels in HTML:
Tables are used to represent real life table data.

`<tr>`   Used to display table row
`<td>`   Used to display table data
`<th>`   Used to display table header.

- Tables in HTML:

```
<table>
    <tr>
      <th> Name </th>
      <th> Roll No </th>
    </tr>
    <tr>
      <td> Priyanka </tab>
      <th> 6117 </th>
    </tr>
</table>
```

Name	Roll No
Priyanka	6117

- Caption in Tables:
`<caption> Student Data </caption>`

Student Data

Name	Roll No
Priyanka	6117

- thead & tbody in Tables:
  <thead> to wrap table head
  <tbody> to wrap table body

- Colspan attribute:
  colspan="n"
  used to create cells which spans over multiple
  columns

Data	
Priyanka	6117
Aman	1890

- Form in HTML:
Forms are used to collect data from the user
Eg - sign up/ login/help requests/ contact me.

  <form>
  form content
  </form>

- Action is in form:
Action Attribute is used to define what action needs
to be performed when form is submitted.
  <form action="/action.php">

- Form Element: Input:
  <input type="text" palaceholder="Enter Name">

- Label:

```
<label for="id1">
      <input type="radio" value="class X" name=
            "class" id="id1">
</label>


<label for="id2">
      <input type="radio" value="class X" name=
            "class" id="id2">
</label>
```

- Class & Id:

```
<div id="id1" class="group1">
</div>


<div id="id2"> class="group1">
</div>
```

- Checkbox:

```
<label for="id1">
    <input type="checkbox" value="class X" name="class"
      id="id1">
</label>


<label for="id2">
      <input type="checkbox" value="class X" name="class
      id="id2">
</label>
```

- Textarea:

```
<textarea name="feedback" id="feedback" placeholder=
" Please add Feedback">
</textarea>
```

- Select:

```
<select name="city" id="city">
    <option value="Delhi"> Delhi </option>
    <option value="Mumbai"> Delhi </option>
    <option value="Banglore"> Delhi </option>
</select>
```
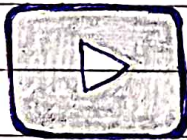
- Iframe Tag:

Website inside website


```
<iframe src="link"> Link </option>
```

- Video Tag:

```
<video src="myVid.mp4"> My Video </video>
```

Attributes
   - controls
   - heigth
   - width
   - loop
   - autoplay