# HTML

Table of Content :-)

# HTML

## Overview

- 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.

## Basic HTML Page

```
<!DOCTYPE html> //tells browser you are using HTML5
<html>         //root of an html document
 <head>         //container for 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>
```

## Quick Points 🚀

- Html tag is parent of head & body tag

- Most of html elements have opening & closing tags
  with content in between.

- Some tags have no content in between, eg -<br>,<hr> (this
  are also called as self closing tag)

## 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>

## Difference between ELEMENT & ATTRIBUTES

💡 Html elements holds the content. html attributes are used to describe the charasteristic of an html element in detail. whatever written wethin a Html tag are Html elements. Html attributes are found only in the starting tag

<!--<h3></h3> tag is and element and <a></a> is an attribute→
<h3> <a href= "https://google.com/">GOOGLE</a> </h3>

## Heading Tag

<h1> (most important)  </h1>
<h2>          </h2>
<h3>          </h3>
<h4>          </h4>
<h5>          </h5>
<h6> (least important) </h6>

## Paragraph Tag

<!--Used to add paragraphs in HTML page→

```
<p> This is a 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→
```

## Bold, Italic and Underline tags

```
<!--We can use bold, italic and underline tags to highlight the text as follows→
<i>This is italic</i>
<b>This is bold</i>
<u>This is Underline</u>
```

## Br Tag

```
<!--Used to add next line(line breaks) to your page and also know as Self closing tag→
<br>
```

## Hr Tag

```
<!--Used to display a horizontal ruler, used to separate content also know as Self closing tag→
<hr>
```

## Big & Small Tags

```
<!--Used to display big & small text on your page→
<big> Big </big>
<small> Small </small>
```

## Subscript & Superscript Tag

```
<!--We can add subscript and superscript in html as follows→
<sub> subscript </sub> //H2O
<sup> superscript </sup> //An + B
```

## Pre Tag

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

## Creating a Page Layout

> 💡 When we use the right tag in right place, it results in better page layout, better indexing by search engine and better user Experience, we use the following tag to get the job done.

```
<header>Contains navbar</header>
<main>Content</main>
<footer>Contact us etc</footer>
```

## Inside Main Tag

```
<!--Section Tag- for a section on your page→
<section></section>
```

```
<!--Article Tag- for an article on your page→
<article></article>

<!--Aside Tag- for content aside main content(ads)→
<aside></aside>
```

## Revisiting Anchor Tag(for new tab,clickable pic)

```
<a href="https://google.com" target="_main"> Google </a>
                <!--for new tab→

<a href="https://google.com"> <img src="link"> </a>
                <!--clickable pic→
```

## Div Tag

> 💡 Div tag is often used as a container for other elements
> div is a block(Always take full width) level element.

| | |
|---|---|
| <address> | <fieldset> |
| <article> | <figcaption> |
| <aside> | <figure> |
| <blcokquote> | <footer> |
| <canvas> | <form> |
| <dd> | <h1>-<h6> |
| <div> | <header> |
| <dl> | <hr> |
| <dt> | <li> |
| <main> | |

## Span Tag

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

## List in HTML

💡 Lists are used to represent real life list data. There are two types of list- 1.Unordered & 2.Ordered.

```
<!--Unordered list→
<ul>
<li> Apple </li>    <!--●Apple→
<li> Mango </li>    <!--●Mango→
</ul>

<!--Ordered list→
<ol>
<li> Apple </li>    <!--1.Apple→
<li> Mango </li>    <!--2.Mango→
</ol>
```

```
<!--Using Roman numeral type→
<ol type="i">
<li> Apple </li>    <!--I.Apple→
<li> Mango </li>    <!--II.Mango→
</ol>
```

## Tables 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 Example→
<table>
  <tr>
    <th>Name</th>
    <th>Roll No</th>
  </tr>

  <tr>
    <td>Shree</td>
    <td>188</td>
  </tr>
</table>
<!--Output👇→
```

| Name  | Roll No |
|-------|---------|
| Shree | 188     |

## Caption in Tables

```
<caption> Student Data </caption>
<!--Output👇→
```

Student Data

| Name  | Roll No |
|-------|---------|
| Shree | 188     |

## 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→
<!--Output👇→



## Form in HTML

💡 Forms are used to collect data from the user
Eg- sign up/login/help requests/contact me etc.

<form>
form content
</form>

## Action in Form

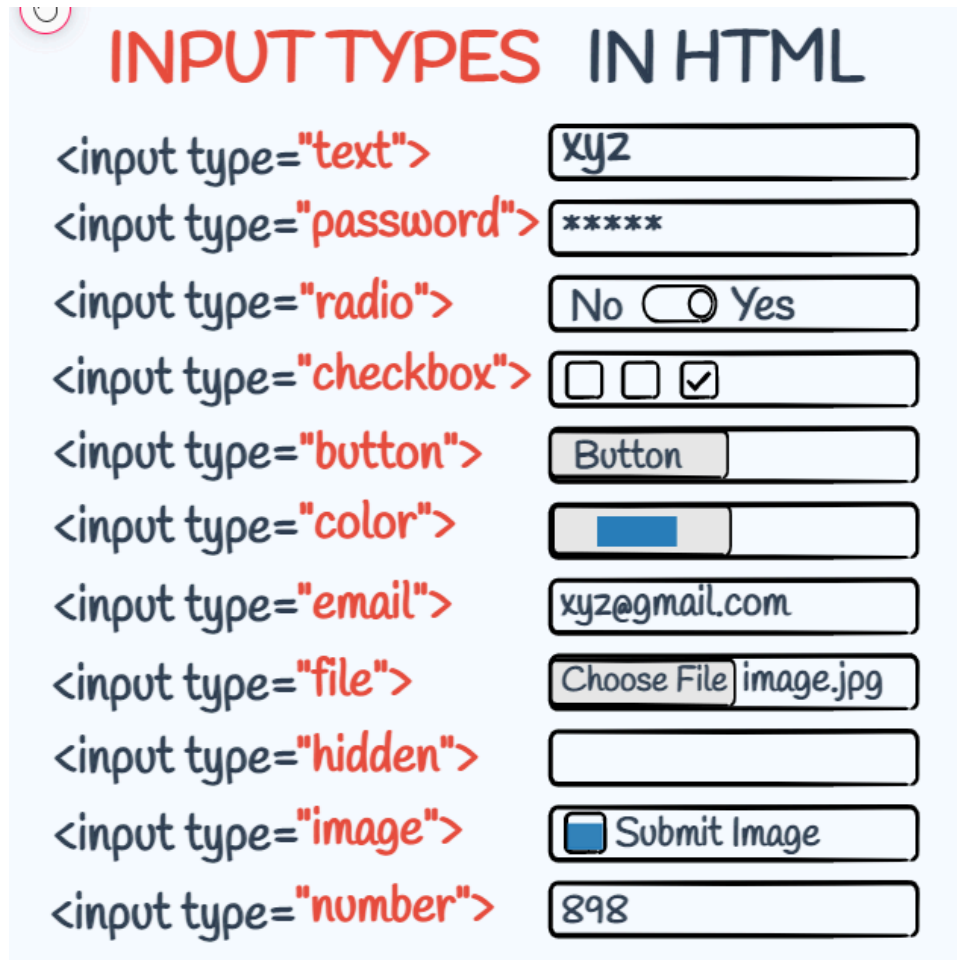💡 Action attribute is used to define what action needs to be
performed when a form is submitted.

```
<form action="/action.php">
```

## Form Element : Input

```
<input type="text" placeholder="Enter Name">
```



INPUT TYPES IN HTML

| `<input type="text">` | xyz |
| `<input type="password">` | ***** |
| `<input type="radio">` | No ⬤ Yes |
| `<input type="checkbox">` | ☐ ☐ ☑ |
| `<input type="button">` | Button |
| `<input type="color">` | ▮ |
| `<input type="email">` | xyz@gmail.com |
| `<input type="file">` | Choose File image.jpg |
| `<input type="hidden">` | |
| `<input type="image">` | ▮ Submit Image |
| `<input type="number">` | 898 |

## Label

💡 The `<label>` tag defines a label for several elements:

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

<label for="id2">
```

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

## Class & Id / Textarea

→ class and id's.

A class name can be used by multiple Html elements, while an ID name must only be used by one Html element within the page. ID's are only used when one element on the page should have a particular style applied to it. example →

**Class**

class is selected/denoted by dot in css

```css
.center (
    text-align: center;
)
```
⇩

```html
<p class="center"> Shree </|P>
<h2 class="center"> Shree </|h2>
```
⇩

Valid, because same class are used for <p> and <h2>
⇩
class are used for group of elements.

```
#center(
    text-align: center;
)
```

⇓

```
<p id="center">Shree</IP>
<h2 id="center"> Shree <Ih2>
```

⇓

Invalid because same
id "center" are used
for <P> and <h2>

⇓

id are used for
unique element.

→ Textarea.

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

## Select (Drop down menu)

```
<select name="city" id="city">
  <option value="Delhi"> Delhi </option>
  <option value="Mumbai"> Mumbai </option>
```

```
    <option value="Banglore"> Banglore </option>
</select>
```



## iframe Tag

```
//website inside website//
<iframe src=""> LINK </iframe>
```

## Video Tag

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

## Optional Attributes

| Attribute | Value | Description |
| --- | --- | --- |
| autoplay | autoplay | Specifies that the video will start playing as soon as it is ready |
| controls | controls | Specifies that video controls should be displayed (such as a play/pause button etc). |
| height | *pixels* | Sets the height of the video player |
| loop | loop | Specifies that the video will start over again, every time it is finished |
| muted | muted | Specifies that the audio output of the video should be muted |
| poster | *URL* | Specifies an image to be shown while the video is downloading, or until the user hits the play button |
| preload | auto metadata none | Specifies if and how the author thinks the video should be loaded when the page loads |
| src | *URL* | Specifies the URL of the video file |
| width | *pixels* | Sets the width of the video player |

Video Syntax :- Where to put the Attributes.

```
<video width="320" height="240" Attributes >
  <source src="movie.mp4" type="video/mp4">
  <source src="movie.ogg" type="video/ogg">
</video>
```

**Some Shortcut's/Notes :-**

→ Some Shortcut's / Note's 💡

- Link will be blue if we never click on it, and link will become purple if we have visit it.

- Ctrl + Link = opens in new tab.

- Windows + ; → to open emoji

- Ctrl + Z → resume

- emojipedia.org → best images and emoji of all types.

- colorhunt.co → best to choose color.