

Chapter - 1

Creating our first Website

We start building a ~~file~~ website by creating a file named `index.html`.

`index.html` is a special filename which is presented when the website root address is typed.

A Basic HTML Page :

`<!DOCTYPE html>` → Specifies this is an HTML 5 doc.

`<html>` → root of an HTML page.

`<head>` → contains page meta data

`<title> Uttam's website </title>` → contains title

`</head>`

`<body>` → The main body of page (rendered by browser)

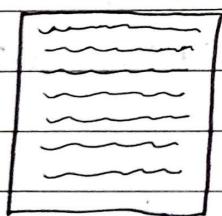
`<h1> This is a heading </h1>` → heading tag

`<p> My paragraph </p>` → paragraph tag

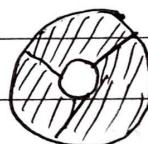
`</body>` → closing body tag.

`</html>`

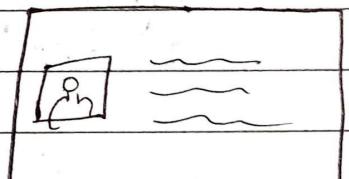
A tag is like a container for either content or other HTML tags.



HTML Document



Browser



Rendered Page

* Imp. Notes:-

- Head & body tags are children of HTML tag
- HTML is the parent of Head and Body tag.
- Most of the HTML elements have opening & closing tags with content in b/w opening & closing tags.
- Some HTML tags have no content. These are called empty tags - e.g.

- We can either use HTML 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 + closing tag

→ Tags :-

Tags are little keywords which defines that how web browser will format and display or show the content. HTML tags contain three main parts, opening tag, content and closing tag. But some HTML tags are unclosed tags they are also called stand-alone or singular tag.

Types of tags :-

In the HTML, mainly eight different types of tags are present which contains many more tags.

- i) Meta tags
- ii) Unclosed tags
- iii) Text tags
- iv) Link tags.

- v) Image tags
- vi) List tags
- vii) Table tags
- viii) Form tags.

i) Meta Tags :-

Search engines such as Google use Meta data from Meta tags to understand additional information about the webpage. They can use this page for ranking purpose, to display snippets in search results, and sometimes they can ignore Meta tags.

Types of Meta tags :-

- <!DOCTYPE> It is used to specific the HTML version.
- <title> It is used to define the title or name of an HTML Document.
- <meta> It is used to define Meta data of an HTML document.

ii) Unclosed Tags :-

The void elements or singleton tags in HTML don't require a closing tag to valid.

Here is the type of unclosed tags.

Types of unclosed tags :-

- <hr> It is stand for horizontal rule. This tag is mainly used for put. a line across the webpage.
-
 It is stands for break lines . It is used for break the line of the code.

iii) Text Tags :-

A text file that contains identification field (tags) embedded within the sentences and paragraph.

Types of text tags :-

- <p> It is used for define a paragraph in HTML document. This is Basically used for write brief introduction about the things.
- <h1> to <h6> It is used for define heading for a HTML document, with the increasing heading size decrease means h1 have bold and bigger heading as compare the h2, h3 --- and h6.
- <body> It is used for define the body section in the Html document.

iv) Link Tag:

<link> tag shows the relationship b/w the current document and external source. It is commonly used for link style sheet, script sheet with HTML document or current document.

Syntax

```
<link rel = "stylesheet" href = "stylesheet = name">
```

This tag is mainly placed b/w the head tag.



Comments

In the comment if you write anything this will be ignored by the browser, so that's why comments will not be visible on the webpage. HTML comment can be visible on the webpage. Used to leave notes to yourself or other developers about a specific point in code.

Syntax

```
<!-- Comment written Here -->
```

Example

```
<body>
```

Comment is green

```
<!-- I am the comment --> coloured.
```

```
</body>
```

→ Anchor Tag :-

Anchor tag is mainly used for link one element of the code to another element which is present or not present in your code. The anchor elements with its "href" attributes, create a hyperlink to webpage, files, emails in the same page, on anything else a URL can address.

Here is the syntax of Anchor Tag.

Syntax :-

` Link Text `

→ Explanation about Syntax :-

⇒ " href" stands for hyper text references. It is used to specify address of link used.

⇒ Link text is the visible part of link. It is what viewers clicked on.

Example :-

`<body>`

` Google `

`</body>`

Here - " Http://www.google.com " is the URL and " Google " is the Link text.

→ Lists :-

Just think you wants to buy a grocery from store and at your home 30+ products ended, so you cannot learn these things and if describe lists in computer language then it allows web developers to group a set of related items in the lists.

In the HTML mainly three types of lists are presents.

- i) ordered List
- ii) un-ordered List
- iii) Description List.

i) Ordered list :-

It is used for give counting to our lists means a list which the items are numbered and the order matters. In this you will represent list numbers with Alphabetic, Roman numbers, Maths counting.

In the ordered list mainly two types of tags are present.

- It is used for defining ordered list.
- It is used for defining items in list.

Syntax

<ol type = " 1, A, a, I" >
 content

Example :-

<body>
 <ol type = " 1" >
 Apple
 Banana
 orange

<ol type = " A" >
 Apple
 Banana

</body>

ii) Un-ordered list :-

When marking up content which could be defined in some way as a list, you should consider using an unordered list for presentation.

In the un-ordered list mainly two types of tags are used.

- It is used for defining un-ordered list.
- It is used for defining items in list.

Syntax

```
<ul style = "list-style-type : ---">
    <li> Content </li>
</ul>
```

Example :-

There are many styles are present like, circle, none

<body>

```
<ul style = "list-style-type : square">
    <li> Apple </li>
    <li> Mango </li>
    <li> Banana </li>
```


</body>

iii) Description list :-

It is used for giving a brief introduction about the things.

Just think, we go at Restaurant here we get menu list, first in the menu list Restaurant writes a pizza and when you see at down side of Pizza they write the price of Pizza and also what they add in pizza. Those things are the description of the Pizza.

Let's understand this suppose with tags of Description list.

- `<dl>` - It is used to define a Description list.
- `<dt>` - It is used for defining a term ~~a term~~ in Description list.
- `<dd>` - It is used for providing a description of a term in Description list.

Syntax

`<dl>`

`<dt> Term Name </dt>`

`<dd> Term </dd>`

`</dl>`

Example :-

`<dl>`

`<dt> Pizza </dt>`

`<dd> - 30Rs. (cheese Pizza + veggies) </dd>`

`</dl>`

→ Attribute and its Types :-

① Attribute →

Each element of HTML has attributes which define the behaviour of the additional information about

that particular element. It has two properties parameter i.e. attribute name and "value".

Example:-

`<body>`  Attribute
`<p style = "color : red ">`  Attribute `</p>`
`</body>`

Explanation about codes

- "style" is the name of attribute.
- "height": 50px: ↴
- "color": red: is the value of attribute.
- "Attribute" is the content.
- `<p>` tag is the name of the element.

⇒ Types of Attributes -

- i) Global Attribute
- ii) Event Attribute

i) Global Attribute :-

Global Attribute are that types of attributes which is mainly used for style a elements target a elements with class and id's for style and working.

ii) Event Attributes :-

When a browser reacts on user action, then it is called a Event. This event is specially used for giving function to our website; these are activating by using a programming language or scripting language like or such as Java Script.

→ Image in HTML :-

`<image>` tag are instruction on how to display an image. As image are not actually embedded into a page. Images are files that are fetched and displayed on the page depending on the code or image tag used. The code can change the attributes or the functionality of the image when it loads.

Here is the syntax of Image tag.

Syntax

```
<img src = "URL" alt "Some - text">
```

Explanation about Syntax :-

- "src" stands for source, Every image has an src attribute which tell the browser where to find the image you want to display.

- "alt" stands for Alternative text, it is used when the image cannot be displayed, then it shows the alternative text for the image which we write in attribute src.

Example

<body>

</body>

→ Attributes for image tag :-

There are mainly three attributes are present in HTML for Image Tag.

1, 2 - Height, Width

3 - Align.

1, 2 - Height, width.

These attributes are mainly used for set the dimensions of the image. In this the value belongs to 1 to 100% and also in pixel.

By the use of height and width attribute you give a perfect size for your image which is looking good for the website.

Syntax:-

Example :-

<body>

</body>

→ 3 - Align.

Align Attribute is basically used for giving a perfect location on the webpage. Align attribute provided horizontal and vertical alignment option. In horizontal option the value belongs to left and right side and in the vertical option the value belongs to top, middle, bottom, side.

Syntax

Here you can set the value
for set the position of image

⇒ Tables in HTML :-

Table is used to display the data in tabular form means in the row and column. Basically, it is manage the layout of the page which is show at a webpage.

For example, Table manage the navigation menu bar, Body content, footer section etc.

Syntax :-`<table>``<tr>``<th> Heading of Table </th>``</tr>``<tr>``<td> Data of the Table </td>``</tr>``</table>`Tags used in Syntax :-

- `<table>` It is used for define a table in HTML document.
- `<tr>` It is used for define a row in table.
- `<th>` It is used for define the heading of table.
- `<td>` It is used for define a data in tables

→ Simple table structure →

Codes → html file

`<body>``<table>``<tr>`

```

<th> First Name </th>
<th> Last Name </th>
<th> Age </th>
</tr>
<tr>
<td> pawanpreet </td>
<td> Singh </td>
<td> 20 </td>
</tr>
</table>
</body>

```

→ Table Border :-

Border makes more attractive or easily readable to the tables. For giving a border to tables you can used "Border= number" attribute in the opening table tag. "numbers" is used for giving a thickness to the border.

Syntax

```

<table Border = number >
    Table Data
</table>

```

example

```

<table Border = 5 >
    <tr>
        <th> first name </th>
        <th> Last name </th>
        <th> Age </th>

```

</tr>

</tr>

Pawan preet	Singh	20
-------------	-------	----

</tr>

</table>

- you can also set the color of border by using the "Border color" attribute in the opening table tag.

Syntax

<table BORDER COLOR = "COLOR">

Table Data
</table>

→ Table Background

We can set a Table Background with two different types, a Background Color and image.

• Background Color

Background color is basically used for making a beautiful or attractive table. you can easily

a set a Background color for the table by using
 - `BG COLOR = "Color"` Attribute in the opening
 table tag.

Syntax

Here you write any color

```
<table BG COLOR = "color">
  Table Data
</table>
```

•> Background image :-

Background Image is basically used for giving a beautiful look to the tables it is used when you also want to describe your tables by the background pic, Like if we make an attendance table then I use the background pic of students which is sitting in the class because it deeply describe that we here write a data of students attendance

Syntax

```
<table BACKGROUND = "Image Link">
  Table Data.
</table>
```

→ Add Captions in a Table :-

A caption is used for summarize a table content. Captions help user to find a table and decide if they want to read it. A caption is added in the table by using.

`<caption> tag`

You can set a `<caption>` tag at two side first is before the starting of `<table>` tag and After the `<table tag>`

Syntax

`<caption> ----- Caption ----- </caption>`

Example

`<caption> I am Caption </caption>`
`<table>`

`<tr>`

`<th> First name </th>`

`<th> Last name </th>`

`</tr>`

`<tr>`

`<th> Pawanpreet </th>`

`<th> Singh </th>`

`</tr>`

`</table>`

`<caption> I am caption </caption>`

Form in HTML :-

Form is a document that stores information of a user on a web server using interactive controls. Basically, it is used for two way communication b/w web pages and websites. It is compiler for all types of input elements.

Syntax

<Form action = "URL" method = get/post>

Form Data

</Form>

- "action" is an attribute which defines the action to be performed when the form is submitted, OR the form data is sent to file on the server when the user click on the submit button.
- "method" attribute tells that browser how to send the user's data to the server.

→ Input Tag of Form and its values :-

- Input tag defines an input area within a form. It asks the user to input information in one of several ways. The different ways of input

are specified by "type attribute".

We use Nine main values, which is accepted by type attribute. Each of them will be discussed separately in the coming section.

i) Text Fields

It is define a single line input field for text input. This field is commonly used for a name, address, etc.

Example

```
<body>
<form>
    My Name : <input type = "text" >
</form>
</body>
```

{ output :- (My Name : []) }

ii) Password

<input type = "password" > defines a password. It is similar as text fields, but the content which is the user write in blank area section. It displays like * * * (Asterisk) instead of actual input instead of actual point.

These types of fields mainly used for confidential contents.

Example

<body>

PASS WORD :

<input type = "password">

<body>

iii) Check box

<input type = "checkbox"> define a checkbox it gives the choice to user for choose one or more options in the limits of numbers of choices.

Example

<body>

<form>

Tick where you want to Travel

Delhi <input type = "checkbox">

Punjab <input type = "checkbox">

Mumbai <input type = "checkbox">

</form>

</body>

iv) Radio

`<input type = "radio"` defines a radio button
It gives the ~~choice~~ choice to users for choose
an option in the limited number of choices

example

`<body>`

Male : `<input type = "radio" [name = "My Gender"]>`
Female : `<input type = "radio" [name = "My Gender"]>`

`</body>`

v) Date :-

`<input type = "Date"` is used for operate.
calender for choose any date.
month • year.

example

`<body>`

`<form>`

Birthdate : `<input type = "date">`

• `</form>`

`</body>`

vi) Option

In the option list, list will be expand downward when you will select on it. In the option list we use `<Select>` tag instead of `<input>` tag and `<Select>` tag also have a closing tag.

Example :-

```

<body>
  <form>
    state : <select name = "state">
      <option value = "none">None </option>
      <option value = "punjab">punjab </option>
      <option value = "Delhi">Delhi </option>

    </select>
  </form>
</body>

```

vii) Text area :-

Text area is used for giving the area within the form where user can easily types a large amount of text.

example:-

```

<form>
  <text area : ->

```

<text area name " comments " cols = " 30 " rows = " 10 " >

</text area>

</form>

vii) Submit and Reset :-

- Submit

<input type = "submit" is used to make a simple submit button.

After fill the form user want to Submit it, then they clicked on Submit button. After clicking on it the form will submitted in the server or where we give command for send the data.

- Reset

<input type = "reset" is used to reset the value of form which is written in the form but not submitted because the values are wrong.

Like any chance if we fill wrong information in the form, Now we want to erase it then we used reset button because if we erase single-single then it takes time that's why instead of going on single line we used reset button for error values from the other form fields.

example

```
<body>
  <form>
```

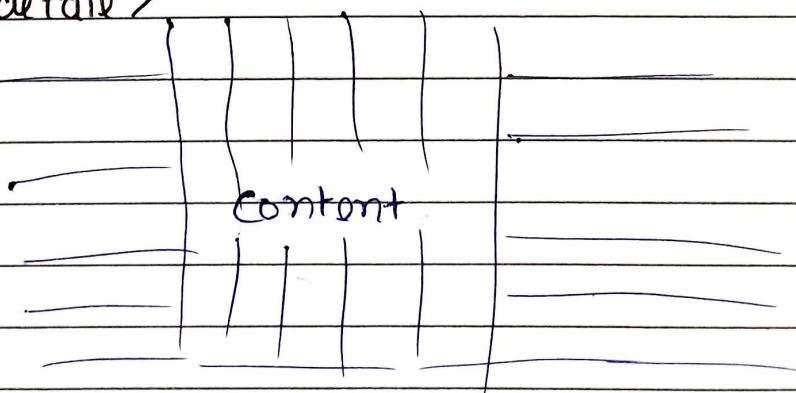
```
    <input type = "submit">
    <input type = "reset">
```

ix) Details :-

The `<details>` tag specifies additional details that the user can open and close on demands. By default, the widget is closed, when open, it expands and shows the content which is written with in tag.

example

```
<body>
  <detail>
```



```
  </detail>
```

```
</body>
```