**HTML**

**What is HTML?**

HTML: - Hyper Text Markup Language

* Generally, HTML is used to create user-interface for Static & Dynamic Web-Pages, it is a combination of Hypertext and markup language
* Hypertext defines the link between the webpages and markup language defines the text document within the tag

**Basic HTML Structure:** -

<!DOCTYPE html> --> Shows the current version of HTML (current version is 5)

<html>

<head>

<title> <title>

</head>

<body>

</body>

</html>

“head” & “body” are the main tags. Where <head> tag contains the meta information. <body> tag contains the content of web pages.

**What is an element?**

Element is a combination of open and closed tags

Ex: < b> Hello world </b>

**Types of tags:**

1.open tag: <html >

2.close tag: </html>

3.self-closing tag or void tag: <html/>

**Heading Tags: -**

Heading tags are from H1 to H6

Where each element size reduces according to the tag

<h1></h1>: Font size = 2em

<h1></h1>: Font size = 1.5em

<h1></h1>: Font size = 1.17em

<h1></h1>: Font size = 1em

<h1></h1>: Font size = 0.83em

<h1></h1>: Font size = 0.67em

**Paragraph tag:**

<p></p>. Where in para tag, we can display the plan text into paragraph

**Pre tag**;

defines preformatting text. Where the content is displayed in a fixed-width font

**Break tag:**

< br > is used to break the lines between the content

**Horizontal rule:**

< hr > is used to add a line in between para or images, etc...

**Bold, Underline, Italic etc.:**

< b > tag converts the content or text into bold

<u> underlines the text

< i > changes the font style to italic.

**Marquee tag:**

It is used to scroll the text

<marquee direction=”right”> content </marquee>

**What are attributes:**

* Attributes are used to provide additional information about the element.
* It defines properties and behavior
* It always should be mention in the open tag
* We can give multiple attributes in a single element

Attributes are two types

1. local attribute:

it is used in a particular element for particular purpose

2)Global attribute:

It is used in any element in any purpose

**Routing Functionalities**:

routing functionalities are used to navigate from one page to other page

**Anchor tag**: - tag is used to add the routing functionalities and defines hyperlink

Ex: <a href=”www.google.com> Click me </a>

There are two types of calling functionalities

1. Calling functionality

* Mobile number: <a href = ”[tel: mobile](tel:mobile) num”> click to call</a>

1. Mailing Functionality

* Email: <a href = ”mailto:mail id”> Mail Here </a>

<a target = “\_blank “ href =” ./ path ” > click me </a>

**Image tags:**

Using image tags” <img>” we can insert images into websites

Ex: <img src=”image path or image link” alt=” any text” height=”100” width=”100” title=”name”/>

* Src: source of the image or path
* Alt: alternate attribute is used whenever the image path or link is unspecified it will display alternate text
* Height, Width –: we can adjust the size of the image based on requirements
* Title: title attribute is used when the cursor is place on image it will hover the text we mentioned in the attribute

**Comments**

If we want to hide specific part of code also we can use comment tag

Comments can be done by using comment tag as

Ex:<!-- comment here -->

**What are inline and block level elements?**

**Inline elements**- which occupies required space

Ex: < a >, < img >

**Block level element**- It starts from new line and occupies the entire line

Ex: < p >, < div >

**Inline block element-** combination of inline and block elements

**Iframe’s:**

We can display another website in our website we use iframes, we can’t access all websites in iframe only few can be accessed, we can use embedded path to show the embedded content like maps, youtube videos

<iframe src = “link path” height=”” width=”’ ></iframe>

<iframe name = “myscreen” ></iframe>

<a href = “ path “ target =” my screen” > click me </a>

* We can also use images/ videos folder path in anchor tag

# with the help of download attribute in a tag, we can download the content

<a href =” path ” download > click </a>

<a href =” path ” download =”name” > click </a>

Video Tag:

The video tag is used to embed video content in a document, this tag contains one or more <source> tags with different video sources

<video height =” ” width = “ ” controls>

<source src=” path ” /> </video>

Attributes for video tag :

* Controls
* Muted automatically
* Controls muted poster=” image path ”
* Loop

Audio Tag:

The audio tag is used to embed audio content in a document, this tag contains one or more <source> tags with different audio sources

<audio controls>

<source src=” path ” type=” audio/mp3”/>

</audio>

List ‘s:

* **Ordered list**:

An ordered list defines a list of items order is matter’s, also called a number list

<ol type=” a / I / 1” start=”4” >

<li> </li>

</ol>

* Nested list: list inside the list

<ol type=” a / I / 1” start=”4” >

<li> list </li>

<li> list </li>

<li>

<ol type=”I”>

<li> list </li>

<li> list </li> </ol>

</li>

</ol>

* **Unordered list:**

This tag is used to create an unordered list

<ul type=” square” >

<li> list </li>

<li> list </li>

<li> list </li></ul>

* **Definition / description list:**

It is a list which term contains it’s description

<dl>

<dt> html</dt>

<dd> hypertext markup language</dd>

</dl>

<dl></dl>: description list

<dt></dt>: defines the name or term definition term/title

<dd></dd>: describe the term definition data

**Tables’s:**  Structure of table

<table>

<tr>

<th> head</th> \* <th>: table head

<th> head</th> \* < td>: table data

<th> head</th> \* <tr>: table rows

</tr>

<tr>

<td> data</td>

<td> data</td>

<td> data</td>

</tr>

</table>

* We can also use <img> tag in the table data

Colspan: It is used for merging the column’s

<th colspan =”5” >head </th>

Rowspan: it is used for merging the row’s

<td rowspan=” 4” > data</td>

**Detail’s tag:**

This tag is used to create interactive widgets that user can open or close

<details>

<summary> Html </summary>

<p> Hypertext markup language </p>

<img src = “path “ / >

</details>

**Semantic elements:**

The element’s which conveys a meaningful information and describe the purpose to the developer and the browser are called semantic elements

<nav> </nav>

<div> </div>

<footer> </footer>

**Non- semantic elements:**

The element’s which doesn’t coneys the information and describe the purpose to the developer and the browser are called Non-semantic elements

<span> </span>

<div> </div>

**Figure Tag:**

We can display images with caption in our webpages

<figure>

<img tag >

< figcaption > caption </figcaption>

</figure>

**Field set:**

The <field set> tag is used to group related elements in a form and draws a box around the elements

<fieldset >

<legend > <h1> car </h1> </legend>

<figure > </figure>

</fieldset>

**Form’s:**

Forms is used to collect the information from the user

Label tag is used to specify the input content

<form>

<label for=” ” > content </label>

<input type=” ” id=” “ name=” “ placeholder=” “/>

</form>

**Attribute’s:**

**1.Readonly:**  It specifies that an input field is read-only ,

**2.Disabled:** a disabled input element is unusable and un-clickable

**3. Placeholder:** placeholder attribute specifies a short hint that describes the expected value of an input field

**4. Pattern:** The pattern attribute specifies an expression in input tag

**5. Required:** if we want to mention as important to fill the input we need to specify required

**6. Name** : Specifies a name for an html element

**7. Id**: id specifies a unique id for an html element

**8. for :** it is used in the label as the identifier of the label element

**9. Autofocus:** it focuses automatically

For Address: <textarea rows=” “ cols=” ”> </textarea>

To hide the information in url is method=”post”

Eg:</form method=”post”>

**Type’s:** number, date, text, email, password, tel, submit, data-time-local, month, reset, button

**Bidirectional Override Tag:**

The <bdo> element overrides the text-directionality of the surrounding text.

<bdo dir=”rtl”> => words stars from right to left

<p>hi</p>

<p>hello</p>

<p>welcome</p>

<a>anchor1</a> => If we want to change the direction of content we use anchor tag.

<a>anchor2</a>

**Required Attribute in forms:**

The required attribute is a Boolean attribute. If we want to mention as important to fill the input we need to specify “required”.

**If we have multiple inputs:**

* With the help of value attribute we can define value.It also contains default value in the box.
* If we want to select option we use radio**.**
* If we want to select multiple option we use checkbox**.**
* If we use “checked” attribute we can automatically select the checkbox.
* If we use disable it will disable the option.
* By using option tag we can achieve it.

**Dropdown:**

* In dropdown we need to display multiple option.

<select>

<option>option1</option>

</select>

* If we want to select one option we need to specify value attribute differently.
* If we want to select multiple options in dropdown we need to use “multiple” attribute in select tag.
* Id need to be specified in select tag.
* <label for=”options”>select anyone:</label>

<select id=”options” name=option/>

<option value=”text”>text1</option>

<option value=”text2”>text2<.option>

<option value=”text3”>text3</option>

</select>

# label, input, select, textarea are the elements of form tag.

**Optgrp:**

In optgrp we use label.

<optgrp label=”bikes”>

<option>option1</option>

</optgrp>

**Datalist:**

The <datalist> tag specifies a list of pre-defined options for an <input> element.

<form>

<label> select your favorite color </label>

<input list = “ color” name =” favorite color”>

<datalist id=”color”>

<option value=” red”>

<option value = “blue”>

<option value=” green “>

<option value=” black”>

</datalist>

<input type=”submit”>

</form>

**Formaction:**

* The formaction attribute is used with in input elements
* It allows us to override the action attribute of the form on per-button basis that means different buttons within the same form can submit the form data to different urls

Example :

* <label for="Reset password"></label>
* <input type="password" value="Reset password" name="Reset password" formaction="../Task8/resetpassword.html"/>

**Action:**

This attribute is used within a <form> element and it specifies the url where the form data will be submitted and it applies to form submission buttons within that form unless overrriden by a formation attribute on a specific button

<form action= “ “ >

**Meta tags:**

**<head>**

**<meta charset="UTF-8">**

**<meta name="description" content="Free Web tutorials">**

=> Define keywords for search engines

**<meta name="keywords" content="HTML, CSS, JavaScrip**>

=>define description of your webpage

**<meta name="author" content="John Doe">**

**=>** define the author of a webpage

**<meta name="viewport" content="width=device-width, initial-scale=1.0">**

=> settings of view for devices like width size etc..

**</head>.**

**Html entities:**

**non-breaking space &nbsp; &#160;**

**< less than &lt; &#60;**

**> greater than &gt; &#62;**

**& ampersand &amp; &#38;**

**" double quotation mark &quot; &#34;**

**' single quotation mark &apos; &#39;**

**¢ cent &cent; &#162;**

**£ pound &pound; &#163;**

**¥ yen &yen; &#165;**

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