HTML

HTML (HyperText MarkupLanguage)

→ A document which refers to another document is called Markup Language

→ To create HyperText we require Markup Language

→ Markup language means collection of tags

Tag:

→ It is the instruction / word / command send to the browser

→ HTML is invented by Tim Burres Lee. in the year 1993

→ In the HTML we are having predefined tags.

→ HTML is a Global language all the browsers will understand

→ HTML is case insensitive

→ HTML is error free language

→ By using HTML we create static web pages

structure of HTML

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title> Document </title>
</head>
<body>
    ==
</body>
</html> (or) <html/>
```

1) DOCTYPE : It specifies what type of markup language we have used for the current document.

→ It specifies version of the html

2) html : It is the root tag for the document

3) head : In this tag we write the content info. which we don't want to display on the webpage

→ under the head tag we have this tags:

1) <meta>
2) <title>
3) <script>
4) <style>
5) <link>

4) <body> : the content info. which we want to display on the webpage.

Types of tags in HTML :

1) paired tag / Container tag : the tag which have open & close tags

2) single / empty / unpaired tag : the tag which have only open tag

ex : <meta> <img>

 <list>
<input> <hr>

Heading tags :

→ HTML support 6 heading tags.

1) <h1> 4) <h4>
2) <h2> 5) <h5>
3) <h3> 6) <h6>

ex : <h1> welcome </h1> ⇒ Highest font size
<h6> welcome </h6> ⇒ least font size

→ if we write <h20> the default font size of browser will be display.

Attributes

→ the functionalities / properties given to the Html tags.
→ they are like stmts in prgming language.
→ they give additional info. to the Html tags.

syntax : <tag attributename = "value" >

ex : <body bgcolor = "yellow" text = "white">

<h1><u> Hlo to Hlo </u></h1>

</body>

→ HTML support 3 type of attributes :

1) Element specific Attributes :

→ these attributes are specific to particular tag

ex : <body bgcolor = "yellow" text = "black" >

2) Global Attributes :

→ the attributes which are common for all the tags

ex : id, name, class, lang, style.

<h1 style = "font-size : xx-large;" > Hlo </h1>

3) Event attributes :-

→ the attributes which are related to the javascript

Ex :- onclick(), onload(), onMouseOver(), onkeyPress()

```
<script>
    function f1()
        alert("Hi to Hlo");
</script>
<input type="button" value="clickme" onclick="f1();">
```

<hr> tag (horizontal rule)

→ It is a single tag.

→ It is used to draw horizontal line across the webpage

Ex :- <hr color="green" size="5px" width="200px">

HTML Comments

→ The small description / info. about the HTML tag.

→ This text will be igrored by the browser

→ HTML support 3 types of comments :

1) sirgle line comment Ex : <!-- Hlo bhai -->

2) Multi-line comment

Ex :- <!-- Hlo
bhai
Hii
-->

3) <comment> </comment>

→ <comment> tag is depriciated in html 5 version

<img> tag :-

→ this tag is used to display image on the webpage

Attributes :-

→ src → address of the image

→ alt → alternate, when the image is not loaded properly we use alternate text

→ width

→ height

Ex : <img src="User.jpg" alt="cat" title="cat" width="200px" height="200px">

Hyperlinks

→ By using anked tag (<a> tag) we can create hyperlinks
→ Hyperlinks are used to navigating from one webpage to another webpage, one website to another website.

Ex: grail

 <img src = "Hi.jpg" alt = "Hlo" >

 grail

→ target = "_self" / "_blank", "_parent", - loading = "lazy"
↳ mostly use for images

 (paragraph tag) :

→ this tag is used to create paragraphs
→ It is a block level element (start in new line)
→ By default browser adds spaces above & below the paragraphs.
→ By default paragraph removes all the spaces means it will not store the spaces

Ex: Hlo Hii bye

<pre> (pre formatted tag)

→ It will consider spaces & display the content as it is what you written

Ex: <pre> Hlo to. raa
</pre>

  (non breakable space)

→ It is a character set which is used to add extra spaces blw words/characters.
→ character set are entity it should start with ampersand (&) & it should end with semicolon (;)
→ you can write the ~~set~~ character set name/number

formatted tags

1) <b>(bold) :- it is a physical tag. no meaning for that

2) <i>(italic) → physical tag.

3) <u>(underline)

4) :- It is a semantic tag. strong meaning for that sentence/word.

→ admin

→ phno .

1) <sub>(subscript) & <sup> (superscript)

Ex : CO_2 ⇒ CO₂

x^2+y^2 ⇒ x²+y²

<mark> (mark tag)

→ It is the physical tag which is used to highlight the text.

Ex : this is <mark> me </mark> → this is me

→ the default color is "yellow"

 (emphasized tag) :

→ It is a semantic tag & <i> is physical tag.

Ex : Hii ⇒ *Hii*

<strike> / <del>

→ It is semantic tag means that text has been deleted / charged

Ex : actual price <strike> 2500 </strike> ⇒ ~~2500~~

→ <strike> is allowed in 4 & previous versions not in 5th version of HTML.

→ In HTML 5th version the alternate tag for <strike> is <del>.

<table>

→ this tag is used to create the table

Attribute : 1) border = "0/1" 0 ⇒ we don't get vertical & horizontal lines

1 ⇒ we get.

*caption ⇒ should be always below the table tag.

Ex: <table border="1">
<caption> emp details </caption>
<th> name </th>
<th> no </th>
<th> add </th>
<tr>
<td> hlo </td>
<td> 1 </td>
<td> hnk </td>
</tr>
</table>

o/p: emp details

name	no	add
hlo	1	hnk

Ex:
<tr>
<td>
<img src="used.prg">
</td>
</tr>
</table>

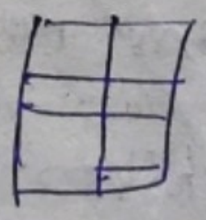
<colspan> (column span):
→ dividing the columns

<rowspan>
→ dividing the rows.

Ex:
<th> name </th>
<th> no </th>
<th colspan="2"> phno </th>
<tr>
<td> hlo </td>
<td> 1 </td>
<td> 7846 </td>
<td> 9848 </td>
</tr>

o/p:

nam	no	phno	
hlo	1	78	46



<form>
→ It is used when we are submitting data to the web server

Attributes:
1) action:
action = url (address of web page / web site).
2) method = get/post
→ By default it is a get method

rp details

ro	add
1	tnk

3) enctype
→ while submitting the data we have to specify how we are encrypting
encrypt enctype = multipath/form-data

4) get() → data is sent by URL of the webpage
→ we can send only limited amount of data
~~sensi~~
→ sensitive info. like credit/debit card/ptr no's can't be sent by using get()
→ get() can be bookmarked

5) post():
→ data will be transferred with the body of webpage
→ we can send unlimited amount of data. By using post() document can't be bookmarked
→ validations are executed when the user click on submit button.

list
→ list is a collection of items/elements
→ HTML support 3 types of lists:
1) unordered list/Bulleted list
2) ordered list
3) description list

1) unordered list:
→ It is represented by using <ul> tag
→ under the <ul> tag we have sub tag i.e; tag it contain item
→ By default the elements will be represented in bulleted format
→ we can change the marker by using type attribute By using CSS line-style-attribute

<dl>
<dt> WHO </dt>
<dd> world health org </dd>
<dt> CSS </dt>
<dd> Cascading style sheets </dd>
</dl>

<dt> (term)
<dd> (description)

to the

site):

Ex: <form action="login.html" method="post">
<input type="text" name="uname" required>
<input type="submit" value="login">
</form>

required → mandatory

Ex:

border-top
(or)

→ <table border="1" style="border:5px solid red;">
→ <style>
tr:nth-child(2/even)
{
background-color: green;
}

<colgroup>

→ this tag is used to group the columns

Ex: <colgroup>
<col span="2" style="background-color: yellow;">
</colgroup>

<marquee>

→ this tag is used to scroll the text/image or the document

Ex: <h1>
<marquee direction="left" scrollamount="14" loop="4">
welcome to Me
</marquee>
</h1>

Ex: <marquee direction="left" onmouseover="stop();"
onmouseout="start();">
<img src="user.jpg">
</marquee>

<frameset>

→ By using this tag we can divide Html document into multiple sections/frames either horizontally/vertically
→ <frameset> is depricated in Html 5
→ In Html 5 we have <iframe> (or) <inline frame>
</frameset>

Ex: <frameset rows/cols = "30%, 40%, 30%">
<frame src = "login.html">
<frame src = "user.png">
<frame src = "reeja.mp3">
<frameset/>

Ex: > => >
♥ => ♥
😂 => ☺

<u><iframe></u>

→ By using this tag we display one webpage into another webpage

Ex :- <iframe src = "login.html" height = "200" width = "200">
<iframe/>

<u><input></u>

→ By using <input> tag user will submit the data to the form

<u>Attributes:</u>

1) type =

2) name

3) value

<u>Ex</u> :- <form action = "">
<label for = "un"> username </label> <input id = "un" placeholder = "enter username" readonly value = "iro edu" type = "text" required >
<input type = "submit">
<form/>

<u><input></u>

<input type = "text">
type = "button">
type = "radio">
type = "checkbox">
type = "color"
"date"
"datetime-local"
"password"
"datetime"

type = "email"
"file"
"hidden"
"image"
"month"
"number"
"range"
"reset"
"search"
"time"

type = "submit"
type = "tel"
type = "time"
type = "week"
type = "url"

Ex: <form>
username <input type="text">
password <input type="password" maxlength="8">
<input type="submit">
</form>

<radio>

→ radio button is used when we have to give only one option from multiple options.
→ put the all the radio buttons in one group by using "name" attribute so, that we can select only one radio button

Ex:

<input type="radio" name="gen" checked> male <input type="radio" name="gen"> female

o/p: ○ male ● female

checkbox:

→ From the checkbox we can select multiple options

Ex: <input type="checkbox" checked> C
<input type="checkbox"> Java

normal button

Ex: <input type="button" value="clickme" onclick="alert('welcome you')"> → clickme

six ways to represent colors:

→ by color name, hexadecimal code, rgb, rgba, hsl, hsla

Ex: <input type="date">
<input type="datetime-local">
<input type="color">

→ for the "date" we can apply boundaries by using min & max values

Ex: <input type="date" min="2000-01-30">
<input type="date" max="2020-02-31">

month :- It allows the user to select month & year

Ex :- <input type = "month">

week :- week no & year

Ex :- <input type = "week">.

Ex :-

```
<form>
<input type = "tel" pattern = "[0-9][3]-[0-9][4]-[0-9][3]">
<input type = "submit">
</form>.
```

<picture> :- It is used to display multiple images but <img> tag will display only one image

<select> :-

→ By using this tag we can create menu of options

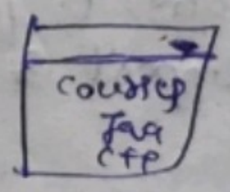
→ Inside the select tag we have sub tag called <option> tag.

Ex :- <select> (dropdown (listbox) / <select multiple> (listbox)

```
<option> select </option>
<option> Java </option>
<option value = "Hio"> Az </option>
(storing).
</select>
```

<optgroup> :- (.rtf ⇒ for word pad)

```
<select>
    <optgroup label = "courses">
        <option> Java </option> ⇒
        <option> c++ </option>
    </optgroup>
    <optgroup label
</select>
```



<textarea> :-

→ In the textarea we can write multiple lines

Ex :- <input type="textarea" rows="10" cols="15">

```
</textarea>
<fieldset>
```

→ this tag is used to group similar form of elements

<legend>
→ By using this tag we use caption to the <fieldset> tag
→ ~~the~~ it should be inside the <fieldset> tag

Ex: <fieldset>
<legend>courses</legend>
<input type="radio"> c → courses
<input type="radio"> c++
</fieldset>

<audio> & <video> & <graphics>
→ these tags are the elements of HTML 5 version

1) <audio>

Attributes:
1) controls
2) autoplay :- audio file will be played automatically after the webpage is loaded
3) loop :- audio file is continuously repeating
4) src :- url of audio file
5) muted
6) autoplay will work in only firefox browser.

Ex: <audio controls autoplay muted>
<source src="hello.mp3">
</audio>

2) <video>:
→ In HTML 4 version we display audio & video files & by using adobe plugins
→ video tag support 3 types of extensions :-
1) .mp4
2) .webM
3) .ogg → ogging
→ audio tag support 3 types of extensions :-
1) .mp3
2) .wav
3) .ogg
→ under the <video> tag we have following attributes:
1) src = "url"
2) height & width
3) autoplay
4) loop
5) muted
6) preload

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5 version

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Ex:- <video controls poster="mickey.png" autoplay loop muted>
<source src="movie.mp4">
</video>

plugins:-

→ plugins are the computer pgms which can extend functionality of browsers.
→ By using plugins we can add external resources like scanning the virus, adding the java file, python file etc.

<embed> (embedded tag)

→ By using this tag we can add/embedded external resources to the HTML document

Ex:- <embed src="login.html" type=" ">
<embed src="hello.png" type=" "> → which type of content you're preferring on a web page

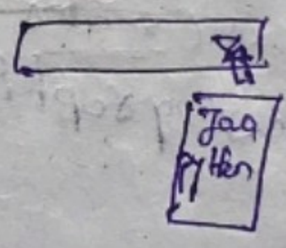
<object> audio/mp3 ⟷ Ex:- type="type/html"

→ By using this tag we can add objects to the html doc.
→ It has one attribute i.e., data.

Ex:- <object data="login.html"></object>

<datalist>

→ It is the predefined tag which is connected to i/p element
→ Ex:- <input list="cour">
<datalist id="cour">
<option>Java</option>
<option>Python</option>
</datalist>



<figure>

→ this tag is used to embedded a photo into a document
→ By using figurecaption we add caption to the figure

Ex:- <figure>
<img src="hellapng">
<figcaption>It is hello</figcaption>
</figure>

→ In HTML 1,2,3 versions we used <dir> tag but is depriciated in 4th version but in 5th version we got <ul> tag instead of <dir> tag.

<ol type="i" start="3">
 C
 C++
 Java

i. C
ii. C++
v. Java

Ex: <acronym title="hyper text">HT</acronym>
→ this tag is working but fullform/abbreviation. but it is deprecated in HTML 5th version.
→ But in HTML 5th version this tag is replaced by <abbr> tag. Ex: <abbr title="hypertext">HT</abbr>

<basefont>
→ this font defines default font color, font type, font family, to all the text
Ex: <head>
<basefont color="red" size=" ">
</head>.

font color font size font family

.
→ this tag is used to define ~~text~~ font size, font family, font color.
Ex: hello

Vector Graphics (<svg>) (scalar vector graphics)
→ it is used to draw graphics with various shapes & colors.
Ex: <svg>
<circle cx="50" cy="50" r="50" fill="blue"></circle>
</svg>

1) <header> :- In this tag we write heading for a document or a section.
Ex: typeslinks, Logo(image), title
2) <footer> :- it is used to define footer of the HTML doc. which includes copyright, phn no, address.
3) <aside> :- It is used to describe main object of the webpage in shorter way like highlighter
4) <details> :- by using this tag the content info. which is initially highlight
→ this tag will hidden the content

Ex: <details>

<summary> courses </summary> → this tag will display content.

 Java

 python

</details>

<u>bdo</u> (bidirectional override)

→ this tag is used to specify the direction of the text.

Ex: <bdo dir="rtl"> hello this </bdo>

<bdo dir="rtl"> hello this </bdo> o/p: hello this
this hello.

<u>ruby</u>

→ this tag is used to specify ruby annotation which is small text which is attached to main text.

→ It has sub tag <rt> which explains the main text

Ex: <ruby>

WHO <rt> world Health org </rt> → WHO
world Health org.

</ruby>

<u>div</u> (division tag)

→

Ex:

hello

o/p: hello