

# WEB DEVELOPMENT

## # Introduction to HTML:-

↳ HyperText Markup Language  
structure of formatting]

## # HTML Element :-

<tagname> ----- </tagname>

## Element content

- standard elements that browser recognized ;
    - (i) Paragraph      `<P>` — `</P>`
    - (ii) Heading      `<h1>` — `</h1>`
    - (iii) Image

# HTML Tags : — containers.

- component used to design the structure of websites are called HTML tags.
  - used to represent elements.

A hand-drawn diagram illustrating an HTML paragraph element. It features a horizontal line representing the text "This is paragraph". Above this line, the opening tag "<p>" is positioned on the left, and the closing tag "</p>" is on the right, both connected by arrows. Below the main text, the word "content" is written, with a bracket underneath it. A red arrow points from the word "content" to the text "This is paragraph". At the bottom of the page, the word "Element" is written, with a red arrow pointing down to it.

## # Hello World in HTML :-

```
<P> Hello World </P>
```

<P> Hello <b>World</b> <P>.

# Paragraph Element :-

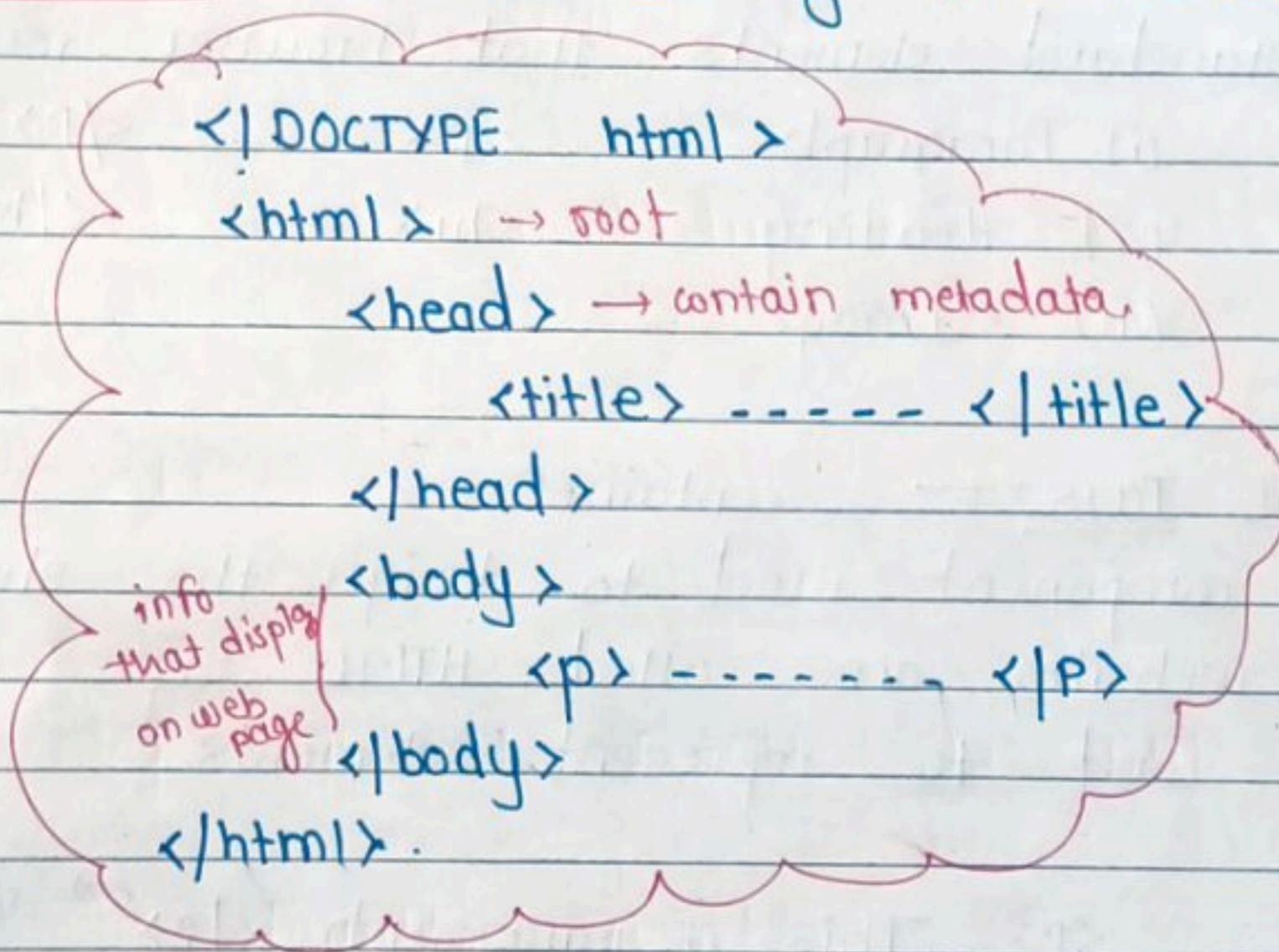
- The <p> HTML element represents a paragraph.

# Heading Element :-

- The "<h1> to <h6>" HTML elements represents six level of section heading.

# HTML Boilerplate :-

- standard format of writing HTML code

# Lists in HTML :-(i) Unordered List :-

- shown using bullet points. (no sequence).
- starts with <ul> tag.
- Each list item starts with <li>

```

<ul>
  <li> Tea </li>
  <li> coffee </li>
</ul>
  
```

• Tea  
• coffee

## (ii) ordered list : —

- has sequence like (1, 2, 3, 4).
- starts with <ol>
- list item starts with <li>

&lt;ol&gt;

&lt;li&gt; Tea &lt;/li&gt;

&lt;li&gt; coffee &lt;/li&gt;

&lt;/ol&gt;

1. Tea

2. coffee

attribute.

&lt;ol type = "A"&gt;

attribute

&lt;li&gt; Tea &lt;/li&gt;

&lt;li&gt; coffee &lt;/li&gt;

A. Tea

B. coffee

&lt;/ol&gt; .

## # HTML Attributes : —

- attributes are used to add more information to the tag.

attribute  
 ↓      ↗  
<html lang = "en"> .  
 ↓      ↗  
 attribute      value

## # Anchor Element : —

- used to add links to your page.

hyper text reference  
 ↗  
<a href = "https://google.com"> Google </a>  
 ↑  
 T, anchor tag

we can add two links to attribute href .

absolute      relative

↓      ↑  
 https://www.google.com      file ↗ link दिखा ?

## # Image Element : —

- used to add image to your page.
- folder में लोग चाहते हैं image.

`<img src = "img.png" alt = "Random Image">`

Relative  
link

Alternative

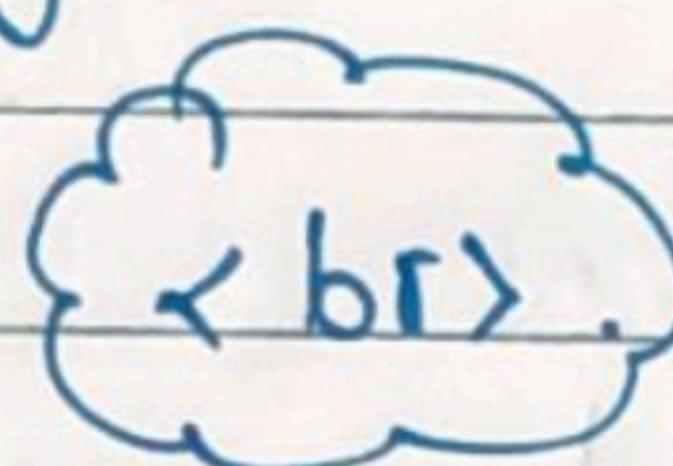
+ if due to some technical issue img not seen then this text is shown.

→ to add online image "absolute link".

`<img src = "link address" alt = "Hi">`

## # Br Tag : —

- used to add next line (line breaks) to your page.



- eg.

`<p> Twinkle Twinkle   
 little star </p>`

→ Twinkle Twinkle  
little star.

## # Bold, Italic &amp; underline tag : —

- used to highlight text in your page.

`<b> Bold </b>`

`<i> Italic </i>`

`<u> Underline </u>`.

# comments in HTML :-

- This is part of the code that should not be parsed.

<!-- This is comment -->

# Inline vs Block :-

## Block Elements

## Inline Elements

(i) Takes up the full-width available (whole block). (ii) Takes up only necessary width.

(iii) start from new line (iv) Don't.

(v) eg.

<h1> Hello </h1>

<p> Hiiii ee </p>

(vi) eg.

Hello — & goi line એંપી

Hiiii ee — & એંપી ગમણી line

ચિન્હ સ્ટાટ એંપી.

## • Am I Inline or Block ? :-

(i) Heading Element → Block.

(ii) Paragraph Element → Block.

(iii) Anchor tag → Inline

(iv) Image Element → Inline.

Block Element

## # Div Element : — content division element.

- "div" is a container used to hold other HTML elements or group elements together.
- It is "block element"

`<div>`

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

`<a href = "https://www.netflix.com"> Netflix </a>`

`</div>`

## # Span Element : — Inline Element.

- span is also a generic container used to hold other HTML elements or group of elements together.
- "Inline Element".

## # Hr Tag : —

- Horizontal rule element.

`<hr>`

- used to add breaks to your page.

— e.g.

`<p> Hello !! </p>`

`<p> Hiiee !! </p>`

`<hr>`

`<p> I am unknown! </p>`

`<p> Hi ! </p>`

Output :-

Hello !!

Hiiee !!

I am unknown !

Hi !

line because of hr.

# <sub>sub</sub> and <sup>sup</sup> Tag :-(i)  $a^2 = b^2 + c^2$  superscript $a \langle sup \rangle 2 \langle /sup \rangle$   
 $\underbrace{a}_{\text{a}}$   $\underbrace{\langle sup \rangle 2 \langle /sup \rangle}_{\text{a}^2}$ (ii)  $H_2O$ 

↳ subscript

 $H \langle sub \rangle 2 \langle /sub \rangle O$  $\underbrace{H_2O}_{\text{H}_2O}$ → tag directly understand meaning of content  
by reading tag.# Semantic Markup :-

— it is the markup that relates to the meaning of content.



## semantic

— દેખાવ સહિ ના જરૂર હૈ  
(i) semantic tag.e.g. `<h1>`  
heading tag— why used ?

(i) code meaningful

(ii) layout structural

(iii) SEO friendly → search Engine optimization(iv) Readable → (જો કુણક સમાચાર હોય)

## Non-semantic

— દેખાવ સહિ ના જરૂર હૈ

e.g. `<div>``<span>`# Semantic Tags :-(i) header `<header>` `</header>` → main content(ii) `<main>` `</main>`(iii) `<footer>` `</footer>`(iv) `<nav>` `</nav>` → navigation→ section એ એ એ એ  
દોષ ગત્તે page પર જાઓ  
e.g.

Amazon

→ Home search content

(iv) &lt;article&gt; &lt;/article&gt;

(v) &lt;section&gt; &lt;/section&gt; → group together relative content

(vi) <aside> </aside> → related links / content  
e.g. साथ link करना।

Avengers अवेंजर्स wikipedia us.

IronMan → Robert D Tr.

<aside> tag we use  
यादी बाती जैसे नहीं film  
→ little less कोड लिहा।# HTML Entities :-

&lt;h1&gt; a &lt;b&gt; b &lt;/h1&gt; → a, this will not get directly printed.

<h1> a &lt; b </h1> → a, double space

&lt;h1&gt; apna 'college &lt;/h1&gt; → apna college, single space

to add multiple spaces

&lt;h1&gt; apna &amp;nbsp; &amp;nbsp; college &lt;/h1&gt;

• Properties :-

(i) HTML entity is a piece of text ("string") that begins with an ampersand (&amp;) and ends with a semicolon (;)

(ii) used to display reserved characters (which would otherwise be interpreted as HTML codes) and invisible characters (like non-breaking spaces)

(iii) can also be in place of characters that are difficult to type with standard keyboard.

(iv) browser interprets them and renders correct characters.

heart  
gheart  
↳ output

# Emmets :- Boilerplate code print કરું છાપાસાઈ ! enter કરો તાલી emmet કરો !

## # understanding of HTML5 :-

- The term HTML 5 is essentially a buzzword that refers to a set of modern web technologies.
- This includes the HTML living standard, along with Javascript APIs to enhance storage, multimedia & hardware access.

HTML

HTML5

(i) didn't support audio & video without use of flash player support.	(i) support audio & video with use of <audio> & <video> tags.
(ii) uses cookies to store temporary data.	(ii) use SQL db. & applicat. cache to store offline data
(iii) not allow Javascript to run in browser.	(iii) allow to run in background.
(iv) not allow drag & drop	(iv) allows.
(v) not possible to draw shapes (vi) possible. (○, □, Δ)	
(vii) Elements like nav, footer not present	(viii) header, footer, nav present.
(ix) not handle syntax error.	(x) handles syntax error.

## # How HTML Works :-

### (i) HTML standard :-

- document that tells to browser how HTML should work.

## # HTML Tables :-

- **Tables** are used to represent real life table data

↳ combination of rows & columns

Name	Roll no.	→ Table Header → main content area
Aman	1	
Rajat	2	
Ani	5	
Adi	6	

### • Syntax :-

`<table>`

wed to display      `<caption> Table caption </caption>`

table row

`<th> header 1 </th>`

`<th> header 2 </th>`

`</tr>` wed to display

table header

`<tr>`

wed to display

`<td> data 1 </td>`

table data

`<td> data 2 </td>`

`</tr>`

`</table>`

# Semantics in HTML :-

(i) `<thead>` — to wrap table header.

(ii) `<tbody>` — to wrap table body

(iii) `<tfoot>` — to wrap table footer.

# colspan & rowspan Attributes :-

— used to create cells which spans over multiple rows or columns.

Food Menu.

Item	Price	
	INR	USD
Frooti	10	0.14
Samosa	12	0.17
chips	20	0.28

→ it takes one row & two column. (here we use ~~rowspan & column span~~)

`<th colspan="2"> Price </th>`

# Forms in HTML :-

— used to collect data from user.

— different log in & sign up pages

`<form>`

content ... ..

`</form>`

(i) Action attribute :-

— used to define what action needs to be performed when a form is submitted or where the form data should be sent.

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

`<form action = "/action">`

## # Form Elements :-

### (1) Input:-

- used to create multiple form controls.
- there are multiple types of inputs that can be created using type attribute.

#### • Type attribute:-

```
<input>
<input type = "text"/>
<input type = "password"/>
<input type = "number"/>
<input type = "time"/>
<input type = "color"/>
```

#### • Placeholder attribute:-

- → it is called placeholder.

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

### (2) Label :— connection of text & input element.

- represents a caption for an item in a user interface.

```
<label>
```

Enter Your Username

```
<input type = "text" placeholder = "username"/>
```

```
</label>
```

<label for="username"> Enter your username: </label>

*wed for connection*

<input type="text" id="username" placeholder="username" unique name="username"/>

### (B) Button :-

<button> submit </button>

→ after submit form data will be redirected to action page.

- default behaviour of every button is to submit data in form.
- outside form it is not followed.

*normal button* <button type="submit"> submit </button>

<button type="button"> Do something </button>

<button type="reset"> Do something </button>

*reset info.*

### # Button using Input :- <input type="button" value="click">

<input type="button" value="click me" />

<input type="button" value="click me" /> .

### • Name Attribute :-

- name of the form control submitted with the form as part of a name/value pair

<input type="text" placeholder="Enter name" id="username" name="username"/>

<input

/>

Page No.

Date

## Input Element : —

(i) checkbox : —



} we can select multiple.

<input type = "checkbox" name = "age" id = "age"  
checked />  
↳ already ticked

<label for = "age" > I am 18+ </label> .

(ii) Radio Button : —

→ : } एक ही select कर सकते हैं.  
eg. Yes/No Male/Female

<input type = "radio" name = "fruit" id = "apple"  
value = "apple" >  
↳ कोनसा fruit select किया है को देखने के लिए  
<label for = "apple" > Apple </label> .

(4) Select : —

(i) Dropdown : —

<select name = "profession" id = "profession">  
<option value = "student" > student </option>  
<option value = "dev" > Developer </option>  
</select> .

(iii) Range : —

<label for = "volume" > Volume </label>

<input type = "range" min = "0" max = "100" name = "vol"  
by default set value = "70" Step = "1" 2 50 100

- कमी कमी और पास specific option नहीं होते select करने को  
so we have to select value in terms of range.