#whichever comes in {} brackets, it is for the knowledge purpose only.

1. **What is HTML?**

**Ans** – Stands for **HyperText Markup Language**.

Used to create and structure content on the web.

HTML is a markup language, **not a programming language**, meaning it annotates text to define how it is structured and displayed by web browsers.

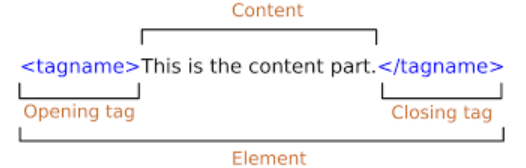
HTML is all about **organizing and displaying information** on a webpage. We can think of it as the **bones** or **structure** of a webpage.

It forms the building blocks of all websites and is complemented by CSS for style and JavaScript for interactivity.

1. **Why Learn HTML?**

**Ans –**

1. Foundation of Web Development.
2. Universal Language of the Web.
3. Easy to Learn.
4. Career Opportunities. ( Web developer, Content manager, UX/UI designer roles)
5. Gateway to Advanced Technologies.
6. **What are the definitions in HTML?**



1. **What is Tag ?**

**Ans –** anything which come into triangular bracket <>.

1. **What is attribute?**

**Ans –** Attributes which provides extra information on tags.

1. **What are the types of the tag?**

**Ans –** three types of tags.

1. Opening tags
2. Closing tags
3. Self-closing tags
4. **Structure of the HTML.**

**Ans –**

<!DOCTYPE html>

<html lang="en"> : it shows the language will be used for the coding.

<head>

    <meta charset="UTF-8"> : to specify that the page is encoded using UTF-8. This tells the browser how to interpret the text on the page.

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

Viewport : Controls how the page is rendered on different devices, particularly mobile devices, by setting the width and initial zoom level.

    <title>Document</title> {to name a tab title}

</head>

<body>

</body>

</html>

1. **Types of Tags**

**Ans -**

1. Heading tags : to give font size h1 to h6

<h1></h1> 🡪 biggest font size

<h2></h2>

<h3></h3>

<h4></h4>

<h5></h5>

<h6></h6> 🡪 smallest font size

<br> - to break single line {self-closing tag}

<b></b> : Bold

<i></i> : Italic

<u></u> : Underline

1. Paragraph tags

<p></p>

<pre></pre>

1. Anchor tag – creates a hyperlink to web pages, files, email addresses, locations in the same page, or anything else a URL can address

<a></a>

1. Image tag

<img src=“Link()/photos” alt=“if image can’t be load, text can be appeared”></img>

1. List tags
   1. Order list - <ol></ol> - The Type Attribute type= “1” or “A”.
   2. Unorder list - <ul></ul> - type="disc"/circle/square/none – CSS property: list-style-type
   3. Description list / definition list–

<dl></dl> - description list : It creates the overall description list.

<dt></dt> - description term : defines the terms.

<dd></dd> - description definition : provides the description of each term.

1. rowspan & colspan attributes – to merge the rows and coloms

rowspan=“” : to merge rows of the table , colspan=“” : to merge the coloms of the table.

1. Caption tag – to merge heading with the table ( Use it under table tag to use for merge).

<caption></caption>

1. Marquee tag – to create scrolling text or images on a webpage.

<marquee></marquee> :

1. Table tag

<table></table>

Attributes :

Border= “” : to give the type of border

Cellpadding= “” to define the space between the content of a cell and its borders

Height= “” to control the size of table rows, columns, or the entire table using the <tr> or <th> tags and the style attribute.

Width= “” – to control the size of table rows, columns, or the entire table using the <tr> or <th> tags and the style attribute.

cellspacing = “0px” - the space between the edges of the cells of the table

1. Row tag

<tr></tr>

1. Colom tag

<td></td>

1. To make head in the table

<th></th>

1. To make Nested table

<td>

**<table>**

**<tr>**

**<td>**

**</td>**

**</tr>**

**</table>**

</td>

1. Form tag – to create the form

<form></form> (method : get (only 100 character get – display data in url)/post)

1. Label tag - defines a label for a form element

<label></label> ( ‘for=“” ’ attributes along with this tag)

1. Input tag : Self closing tag - to create interactive form elements that allow users to input data

<input>

attributes: type=“”

text : to set the input as a text.

password : to set the input as password that contains characters.

radio : radio button (circle shape – only one can be selected).

checkbox : square checkbox – multiple selections can be done.

Color : input fields that should contain a color

Date : defines a date picker

Datetime-local : create input controls that let the user easily enter both a date and a time, including the year, month, and day as well as the time in hours and minutes

Email : e-mails type that is used as @ , .com, .in

Hidden : A hidden field lets web developers include data that cannot be seen or modified by users when a form is submitted

Month : allows the user to select a month and year, not supported in Firefox, Safari, or Internet Explorer 11.

Range : defines a control for entering a number whose exact value is not important (like a slider control). Default range is 0 to 100

Gender :

Submit : defines a button for submitting form data to a form-handler

url : defines a field for entering a URL

week : allows the user to select a week and year

1. Select tag : to create a drop-down list

<select> </select>

1. Option tag : to define the available options in a dropdown list

<option></option>

html tag has 2 scope

**1) block** - 100% jaga kha jata he

P, h1, ul, div

**2) inline** - baju baju me aata he wo

a , img, span

* Target=“\_blank” : by using this attributes we can make open that link in another new tab.
* Form tag – method attribute : 2 types of method

method : get / post

get is default - Use : post (use only POST method) - why ?

not secure / display data in URL

ONLY 100 CHAR get

**🡪**Form validation in HTML is the process of checking and ensuring the accuracy and completeness of data entered into a form before it's submitted. This can be done on the client-side (using HTML attributes and JavaScript) or the server-side (using server-side scripting languages). Client-side validation provides immediate feedback to the user while they are filling out the form, while server-side validation is essential for security and final data verification.

**Server-side validation:**

* Essential for Security
* Data Verification
* Server-Side Scripting Languages

**Benefits of Form Validation:**

* Improved User Experience
* Reduced Server Load
* Data Integrity
* Security

**HTML5**

**🡪What is difference between HTML and HTML5?**

HTML5 is the latest and most enhanced version of HTML. Technically,

HTML is not a programming language, but rather a markup language.

HTML5 is the next major revision of the HTML standard superseding

HTML 4.01, XHTML 1.0, and XHTML 1.1. HTML5 is a standard for structuring

and presenting content on the World Wide Web.

HTML 5 does not have the same syntax rules as XHTML where we needed

lower case tag names, quoting our attributes an attribute had to have a

value and to close all empty elements.

But HTML5 is coming with lots of flexibility and would support the

followings:

Uppercase tag names. <b> <B>

Quotes are optional for attributes. style="color:red" / type="text/css"

type='text/css'

Attribute values are optional. type="text/css" === if not added that optional

Closing empty elements are optional. <b></b> / <b>

**🡪 What is the Semantic Tags?**

Semantic element clearly describes its meaning to both the browser and the developer.

The section element represents a generic section of a document application. A section in this context is a thematic grouping content typically with a heading.

**🡪Character Entity:**

https://www.w3schools.com/charsets/ref\_utf\_basic\_latin.asp

Result Description Entity Name Entity Number Dec Hex

non-breaking space &nbsp; &#160; &#x20A0;

< less than &lt; &#60;

> greater than &gt; &#62;

& ampersand &amp; &#38;

" double quotation mark &quot; &#34;

' single quotation mark (apostrophe)&apos; &#39;

¢ cent &cent; &#162;

£ pound &pound; &#163;

¥ yen &yen; &#165;

€ euro &euro; &#8364;

© copyright &copy; &#169;

**🡪 Definition and Usage**

The <embed> tag defines a container for an external resource.

The external resource can be a web page, a picture, a media player, or a plug-in application.

To display a picture, it is better to use the <img> tag.

To display HTML, it is better to use the <iframe> tag.

To display video or audio, it is better to use the <video> and <audio> tags.

<!--for image -->

<embed src="background\_images.jpg" height="100px" width="200px">

<!--for video -->

<embed src="file\_example\_MP4\_480\_1\_5MG.mp4" height="100px" width="200px">

<!--for audio -->

<embed src="file\_example\_MP3\_700KB.mp3" >

<!--for HTML File -->

<embed src="video.html" height="auto" width="100%">

**🡪What are Emojis?**

Emojis look like images, or icons, but they are not.

They are letters (characters) from the UTF-8 (Unicode) character set.

UTF-8 Characters Many UTF-8 characters cannot be typed on a keyboard,

but they can always be displayed using numbers (called entity numbers):

<meta charset="UTF-8">

<https://www.w3schools.com/charsets/ref_emoji.asp>

**🡪Image mapping**

https://www.w3schools.com/html/html\_images\_imagemap.asp

With HTML image maps, you can create clickable areas on an image. The HTML <map> tag defines an image map. An image map is an image with clickable areas. The areas are defined with one or more <area> tags. You must define the shape of the clickable area, and you can choose one of these values: {use paint to check the co-ordinates if possible}

**rect** - defines a rectangular region

<area shape="rect" coords="34, 44, 270, 350" href="computer.htm">

**circle** - defines a circular region

<area shape="circle" coords="337, 300, 44" href="coffee.htm">

**poly** - defines a polygonal region

default - defines the entire region

HTML coding:

<img src="workplace.jpg" alt="Workplace" usemap="#workmap" width="400" height="379">

<map name="workmap">

<area shape="rect" coords="30 40 270 350" alt="Computer" href="computer.htm">

<area shape="rect" coords="290 170 335 250" alt="mobile" href="mobile.htm">

<area shape="circle" coords="337, 300, 44" href="coffee.htm">

</map>