**HTML5 Notes**

**HTML is an important part of a website.**

 **CHAPTER - 1**

* **HTML is the code that is used to structure a web page and its content.**
* **The component used to design the structure of websites are called HTML tags.**
* **The first version of HTML was written by TIM BERNERS-LEE since 1991.**
* **The first version consisted of 18 tags. Now there are currently about 140 HTML tags although not all of them are supported by modern browsers.**
* **A perfect web developer uses 5 ways to make a perfect website like- HTML, CSS, JS(java script), PHP, SQL. HTML is one of these lists.**
* **It doesn’t need to compile because it’s directly run to browsers.**

**1. HTML** (hyper text markup language) 🡪 For structure to a website

 **2. CSS** (cascading styled sheets) 🡪 For styling to website

**3. JS** (java script) 🡪 For logic to a website **and** it is used to build complex interactive websites and browser games, and to connect servers to website and web applications.

**4. PHP** (hypertext preprocessor)**🡪** PHP is used for server-side scripting and for backend of website.

**5.** **SQL** (structured query language)**🡪** It is used to manage a database.

* **First HTML FILE- (Index.html) It is the default name for a website’s homepage.**
* **HTML Tags- A container for some content other HTML tags.**

 **<p> this is an example of paragraph tag <p>**

**{ tag + content = element }**

* **Basic HTML Page-**

**<!DOCTYPE html> 🡪 tells browser you are using html 5**

**<html lang="en"> 🡪 root an HTML document**

**<head> 🡪 container for metadata**

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

 **<meta http-equiv="X-UA-Compatible" content="IE=edge">**

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

 **<title>Document</title> 🡪 page title**

**</head>**

**<body> 🡪 contains all data rendered by the browser**

 **<p> this is a paragraph tag </p> 🡪 paragraph under body tag**

**</body>**

**</html>**

**NOTE: . HTML tag is the parent of head and body tag.**

 **. most of html elements have opening and closing tags with content in between.**

**. some tags have no content in between, eg- <br>**

**. we can use inspect element/view page source to edit html code.**

* **Comments In HTML- This part of code that should not be parsed.**

 **<!-- this is an html comment -->**

**IMPORTANT : { html is not case sensitive }**

**CHAPTER - 2**

**BASIC HTML TAGS…**

* **HTML Attributes- Attributes are used to add more information to the tag.**

 **<html lang=”en”> (lang=”en” 🡪 language English)**

* **Heading Tags- Used to display headings in HTML.**

 **<h1> 🡪 this is heading 1**

 **<h2> 🡪 this is heading 2**

 **<h3> 🡪 this is heading 3**

 **<h4> 🡪 this is heading 4**

 **<h5> 🡪 this is heading 5**

 **<h6> 🡪 this is heading 6**

* **Paragraph Tag- Used to add paragraphs in HTML.**

 **<p> This is an example of paragraph tag </p>**

* **Head Tag- It is called sensitive information container. It stores all meta tags.**
* **Body Tag- The body tag defines the document’s body. It uses many attributes like- bgcolor, background, text, link, vlink, alink etc and it stores many other tags.**
* **Meta Tag- It stores all meta-data which is used to get information about search engines and browsers web page. It uses many attributes like- name, content, charset, http-equiv.**
* **Anchor Tag- Used to add links to your page.**

 **<a href = “**[**https://google.com**](https://google.com)**”> Google </a>**

**{**[**https://google.com**](https://google.com)**=original link, Google=name to a link}**

* **Img tag- Used to add images to your page. It also uses many attributes like- src, srcset(how to open images on different divices), logdesc(add image description to server), ismap, height, width.**

 **<img src = “/image.png” alt = “image”>**

**{/img.png=relative url, image=a name to image if it have not been load}**

* **Picture Tag- The most common use of the picture tag will be for art dirction in responsive designs. It uses ‘source tag’ under it. Source tag uses ‘srcset’ and ‘media’ attributes.**
* **Iframe Tag- It specifies an inline frame. An inline frame is used to embed another document within the current HTML document. It uses many attributes like- src, srcdoc, height, width, name, sandbox(it allows what to happen and what to not on your webpage). Sandbox is another topic to see on. So, you can search it on google.**
* **Br tag- Used to add next line (line breaks) to your page.**

 **<br>**

* **Bold, Italic, Underline Tags- Used to highlights to your page.**

 **<b> Bold </b>**

 **<i> Italic </i> {<em> tag is same as <i> tag but, it is a phrase tag and it renders as EMPHASIZED text.}**

 **<u> Underline </u>**

* **Big and Small Tag- Used to display big and small text on your page.**

 **<big> for big </big>**

 **<small> for small </small>**

* **Hr Tag- Used to display a horizontal ruler, used to separate content.**

 **<hr>**

* **Mark Tag- It is used for highlighting a separate text.**

 **<p> this is an example of <mark>mark</mark> tag.**

* **Subscript And Superscript Tags- Used to display a subscript H2O and superscript an to content.**

 **<sub> this is an example of subscript </sub> eg. H2O**

 **<sup> this is an example of superscript </sup> eg. an**

* **Ruby Tag- This is an inline element. This tag works like a container for other tags. In this, the main text and ruby text are specified by the ‘rb’ and ‘rt’ tags.**

**<ruby> <rb> small form </rb> <rt> full form </rt> </ruby>**

* **Button Tag- For submit a form type data or any type of button on webpage. It uses many attributes llike- Type->button(normal).submit(for submit a data to backend).reset(it reset your filling data),Name(give a simple id to button),Onclick(what to do when click to submit a data),Disabled(for disable a button),Accesskey(for access key to button; it uses with alt or alt+shift) etc.**
* **Cite Tag- The cite tag defines the title of a work(eg. A book, a song, a sculpture etc).**
* **Pre tag- Used to display text as it is (without ignoring spaces and text line).**

**<pre> this is**

**An example of**

**Pre tag. </pre>**

* **Abbr (abbreviation) Tag- It shows the full form of any shortforms.**

 **<p> My name is Adarsh and I have a <abbr title = “Pen Drive”>PD.</abbr> </p>**

**{it shows PD to Pen Drive}**

* **Dfn Tag- It is same as <abbr> tag and <acronym> tag also. Only a major difference is it shows In talic form.**
* **Dialog Tag- It defines a dialog box or window. It uses ‘open’ attribute and CSS for better experience.**
* **Code Tag- The code tag is a phrase and it defines a piece of computer code. Eg- #include<stdio.h>**

 **Int main () { int a =3;**

 **printf (“%d, a);**

 **return 0;**

**CHAPTER – 3**

**PAGE LAYOUT TECHNIQUES…**

**NOTE: . Using the right tag to your html code..**

 **1. <header> content or tags </header>**

 **2. <main> content or tags </main>**

 **3. <footer> content or tags </footer>**

* **Header Tag- The header element represents a container for introductory content or a set of navigational links.**
* **Main Tag- It defines the main content of the webpage. It’s content are unique and it is used only one time to HTML code.**
* **Footer Tag- It defines the footer of the document or section. It is freely used in HTML5.**

**<header></header> <content></content> <footer>footer content</footer>**

* **Inside Main Tag….**
* **Section Tag- For a section to your page.**

 **<section> content </section>**

* **Article Tag- For an article on your page.**

 **<article> content </article>**

* **Aside Tag- For content aside main content (adervertisement).**

 **<aside> content </aside>**

* **Nav Tag- It defines asset of navigation links. It uses global attributes like- id, class etc.**
* **Section Tag- It defines a section to other tags or elements to your page. You should make your websites with section because it gives better SEO(search engine optimization) to your website.**
* **Audio Tag- It is an inline element used to embed sound into a web page.**

**<audio controls><source src= “sing.mp3” type= “audio/mp3”></audio>**

**{it uses many attributes like-controls, loop, muted, preload->auto,none,metadata}**

* **Embed Tag- It defines a container for external application or interactive content. It uses attributes like- type, src, height, width. It can be any file type.**

**<embed src = “ad.swf” type = “application/x-shockwave-flash” height = “100px” width = “200px”>**

* **Object Tag- It is same as embed tag.**
* **Meter Tag- It defines a scalar measurement within a known range or a fractional value. It uses many tags like- value, min, max, low, high, optimum etc.**
* **Progress Tag- The progress tag represent the progress of a task. It uses ‘value and max’ attributes.**
* **Revisiting Anchor Tag- 1. <a href = “**[**https://google.com**](https://google.com)**” target = “\_main”> Google </a>**

 **{‘target=\_main’=for opening that site in new tab}**

**2. <a href = “https://google.com” <img src = “link of any image” </a>**

**{‘img src=“link of any image”’=clickable image, if you touch there then it will directed you to that website}**

* **Script Tag- It is used to define client side script in define web page. Eg- add javascript to your page etc. It uses many attributes like- src, type, async, defer.**

**<script type= “text/javascript” src= “filename.js” async= “true”> </script>**

* **Noscript Tag- It defines an alternate content for users that have disabled scripts in their browser or have a browser. If your written script will not supported by the browser then contents of noscript tag will be shown. It can be used in both head and body tags.**
* **Bdo Tag- Bdo tags stands for Bi-Directional Override (change direction).**

**<bdo dir = “ltr”> or <bdo dir = “rtl”> content </bdo>**

* **Blockquote- It specifies a section that is quoted from another source and it uses attribute ‘cite’ -> where you enter the address of the source.**

**<blockqoute cite = “address of that article”> article </blockquote>**

* **Revisiting Img Tag- 1. <img src = “link of any image” height = “ 50px”>**

**2. <img src = “link of any image” width = “50px”>**

 **Or**

**3. <img src = “link of any image” height = “50px” width = “100px”>**

* **Div Tag- Div tag is a container used for other HTML elements BLOCK element (takes full width).**

 **\_\_\_LIST OF DIV TAGS\_\_\_\_\_\_\_\_\_\_\_\_\_**

**<address> <fieldset> <nav>**

**<article> <figcaption> <noscript>**

**<aside> <figure> <ol>**

**<bockquote> < footer> <p>**

**<canvas> <form> <pre>**

**<dd> <h1 to h6> <section>**

**<div> <header> <table>**

**<dl> <hr> <tfoot>**

**<dt> <li> <ul>**

**<main> <video>**

**{some have closing tags and some haven’t}**

* **Span Tag- Span tags is also a container used for other HTML elements INLINE element (takes width as per size)**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_LIST OF SPAN TAGS\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**<a> <em> <samp>**

**<abbr> <i> <script>**

**<acronym> <img> <select>**

**< b> < input> <small>**

**< bdo> <kbd> <span>**

**<big> <label> <strong>**

**<br> <map> <sub>**

**<button> <object> <sup>**

**<cite> <tt> <textarea>**

**<var> <time> <code>**

**<output> <dfn> <q>**

**{some have closing tags and some haven’t}**

**CHAPTER – 4**

* **LIST IN HTML- List are used to represent real life list data.**
* **Unordered List- (it shows in bullets form)-**

 **<ul>**

 **<li> Apple </li>**

 **<li> Mango </li>**

 **</ul>**

* **Ordered List- (it shows in numbering)-**

**<ol>**

 **<li> Apple </li>**

 **<li> Mango </li>**

**</ol>**

* **Caption Tag- It is used in conjuction with the table tag and represent the title of the table by default, a table caption will be center-alligned above a table for many alignment we use CSS.**
* **Select, Option and Optgroup Tags-** **It is used to create a drop-down list. The option tag defines an option in a select list. The optgroup tag is used to group related options in a drop-down list.**

 **<select> <option> <optgroup> content </optgroup> </option> </select>**

* **Tables In HTML- Tables are used to represent real life table data. It uses ‘rowspan’ and ‘colspan attributes.**

**1. <tr> content </tr>**

**2. <td> content </td>**

**3. <th> content </th>**

**{tr=table row, td=table data, th=table header}**

**Eg. <table>**

 **<tr>**

 **<th>Name</th>**

 **<th>Roll no.</th>**

 **</tr>**

 **<tr>**

 **<td>Adarsh</td>**

 **<td>1164</td>**

 **</tr>**

 **</table>**

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* **Col Tag- It specifies column within a <colgroup> element and in HTML the <col> tag has no end tag.It applies in CSS in better way, so don’t need to deeply understand this.**

 **<colgroup> <col span = “numbers of any column” style = “background-color: white;”>**

* **Colgroup Tag- it specifies a group of one or more columns in table for formatting and to define different properties to coloumn within a <colgroup>, use the <col> tag within the<colgroup> tag.**
* **Form Tag- It is used for forms in webpage and to create an HTML form for user input. It is used with many other tags like- input, textarea, button, select, option, optgroup, fieldset, lable etc. It uses many attributes like- accept-charset, action(it is combined with php to server) , autocomplete, method(get or post), enctype(correct the data), name, novalidate(not valid), target.**
* **Input Tag- input tags are used within a form tag to declare input controls that allows users to input data and it specifies an input field where the user to input data. It uses attributes like- accept, autofocus, checked, disable, form, formaction, formmethod, list, max, maxlength, min, type, name, placeholder, readonly, required, size, src, step, value, width. Type have many values- button, checkbox, color, date, datetime-local, email, file, hidden, image, month, number, password, radio, range, reset, search, submit, tel, text, time, url, week. A simple example given below……**

 **<form> <input attributes= “values”> </form>**

 **REMEMBER : Always give a lable to your input tag.**

* **Label Tag- It defines a lable to button, input, meter, output, progress, select, textarea tags. It uses ‘for’ attribute for different id’s of tags. It improves mouse usability.**
* **Data Tag- The data tag links the given content with a machine-readable translation. It uses in backend, for server to read a different data type. It uses ‘value’ attribute.**
* **Datalist Tag- The datalist tag is used to provide an ‘autocomplete’ feature for <input> elements. It shows in Dropdown-list.**

**<datalist id = “city”> <option value = “Delhi”> <option value = “Agra”> <option value = “Mumbai”> </datalist>**

* **Dd Tag- It is used to describe a term/name in a descriction list. It is is used with <dl> for (defines a description list) and <dt> (defines term/names).**

**<dl> <dt> Moral </dt> <dd> Don’t grown up in wrong way </dd></dl>**

**Meanings🡪Dt=description term, Dl = description list, Dd = description data.**

* **Del Tag- It is used in that time when we cut any written program. It uses attributes datetime and cite for define when we edited this. Eg- . We will go for a ~~picnic~~ medical camp.**

**<p> We will go for a <del cite = “because there was not holiday.” datetime= “2023:12:20:03:15”> picnic </del><ins>medical camp.</ins></p>**

* **Figure and Figcaption Tag- Figure tag defines self-contained content, like illustrations, diagrams, photos, code listings etc. figcaption tag defines a caption for a figure element.**

**<figure> <another tags> <figcaption> title for figure tag </figcaption> </figure>**

* **Legend and Fieldset Tag- Fieldset tag is used to group related elements in a form and it draws a box around the related elements. Legend tag defines a caption for the tag.**

**<form> <fieldset> <legend>content</legend> </fieldset> </form>**

* **Style Tag- It is used to define an element style information. It is highly used for inline CSS of a webpage. It uses ‘media’ and ‘type’ attributes.**
* **Video Tag- It is new in html5. We can show videos on our webpage by this tag. It uses many attributes like- autoplay, controls, loop, muted, preload, src, poster, width, height etc.**

**<video width = “500px” controls height= “300px”> <source src = “filename.mp4” type= “video/mp4”> </video>**

**“HERE HTML5 NOTES WILL END ! THIS IS NOT THE END OF YOUR DEVELOPER JOURNEY. I’M MAKE SURE YOU WILL MAKE YOURSELF MORE BETTER.”**

 ***❣THANK YOU !***