****HTML History****

HTML was created by Tim Berners-Lee in late 1991 but was not released officially, published in 1995 as HTML 2.0.

HTML 4.01 was published in late 1999 and was a major version of HTML.

HTML is a very evolving markup language and has evolved with various versions updating. Long before its revised standards and specifications are carried in, each version has allowed its user to create web pages in a much easier and prettier way and make sites very efficient.

1.HTML 1.0 was released in 1993 with the intention of sharing information that can be readable and accessible via web browsers. But not many of the developers were involved in creating websites. So the language was also not growing.

2.Then comes the HTML 2.0, published in 1995, which contains all the features of HTML 1.0 along with that few additional features, which remained as the standard markup language for designing and creating websites until January 1997 and refined various core features of HTML.

3.Then comes the HTML 3.0, where Dave Raggett who introduced a fresh paper or draft on HTML. It included improved new features of HTML, giving more powerful characteristics for webmasters in designing web pages. But these powerful features of new HTML slowed down the browser in applying further improvements.

4.Then comes HTML 4.01, which is widely used and was a successful version of HTML before HTML 5.0,which is currently released and used worldwide. HTML 5 can be said for an extended version of HTML 4.01, which was published in the year 2012.

==========

HTML 4

What is HTML?

HTML (Hypertext Markup Language) is the only markup language for creating web pages. It provides some titles, headings, paragraphs, lists, tables, embedded images, etc., to describe the structure of text-based and multimedia information in HTML documents.

1.HTML (Hypertext Markup Language) is a language for publishing text-based and multimedia information on the World Wide Web.

2.HTML is a straightforward Computer Coding Language. It was developed in the 90s. HTML is the basis of a web page, and the web page is the basis of a website. HTML uses 'tags' to create web documents.

3.HTML is a hypertext markup language; It is a predetermined set of markup tags used to design web pages.

4.HTML is the first language of web designing. CSS is also used along with HTML to improve web page design further. JavaScript is used with HTML to make web pages dynamic.

5.HTML is relatively easy to learn because every tag is predefined, so only we need to know the work of tags and their attributes.

6.Web browsers (Chrome, Internet Explorer, Firefox, Safari, and other web browsers) are software' to read HTML and display web page design as output.

7.You can write HTML in any simple editor such as Notepad. And other software such as Adobe Dreamweaver, Sublime, NetBeans, Notepad ++, etc., are mainly used for writing and editing HTML.

8.".html" or ".htm" are the two extensions used to write and save HTML files; we can write HTML code in any text editor and save it as "filename.html" or "filename.htm".

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What are attributes?

HTML attributes provide additional information about HTML elements.

*All HTML elements can have attributes

*Attributes provide additional information about elements

*Attributes are always specified in the start tag

*Attributes usually come in name/value pairs like: name="value"

==========

Type of Tags ?

HTML tags are like keywords which defines that how web browser will format and display the content. With the help of tags, a web browser can distinguish between an HTML content and a simple content.

HTML tags contain three :

main parts: opening tag, content and closing tag.

But some HTML tags are unclosed tags. When a web browser reads an HTML document, browser reads it from top to bottom and left to right.

HTML tags :

HTML tags used to create HTML documents and render their properties. Each HTML tags have different properties.

An HTML file must have some essential tags so that web browser can differentiate between a simple text and HTML text. You can use as many tags you want as per your code requirement.

All HTML tags must enclosed within < > these brackets.

Every tag in HTML perform different tasks.

If you have used an open tag <tag>, then you must use a close tag </tag> (except some tags)

Syntax -:

<tag> content </tag>

==========

What is Comment in HTML?

Comments are some text or code written in your code to give an explanation about the code, and not visible to the user. Comments which are used for HTML file are known as HTML comments. Anything written between these tags will be ignored by the browser, so comments will not be visible on the webpage.

Comments of any code make code easy to understand and increase readability of code.

Comments are also part of the code, which gives an explanation of the code.

You can add comments in your HTML file using <! -- ... --> tag.

So if you will write anything between theses comment tag that will be treated as comment and browser will not read

it.

Syntax

<! -- Write commented text here -->

==========

What is whitespace?

The CSS white space property is used to specify how to display the content within an element. It is used to handle the white spaces inside an element. Whitespace is any string of text composed only of spaces, tabs or line breaks.

These characters allow you to format your code in a way that will make it easily readable by yourself and other people.

==========

Syntax of HTML 4

```
<html>
<head>
<title></title>
</head>
<body>
</body>
</html>
```

==========

Syntax of HTML 5

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width,
initial-scale=1.0">
  <title>Document</title>
</head>
<body>
 </body>
</html>
```

Heading Tags :-

A HTML heading or HTML h tag can be defined as a title or a subtitle which you want to display on the webpage.

When you place the text within the heading tags <h1>.....</h1>, it is displayed on the browser in the

bold format and size of the text depends on the number of heading.

There are six different HTML headings which are defined with the <h1> to <h6> tags, from highest level h1 (main heading) to the least level h6 (least important heading).

h1 is the largest heading tag and h6 is the smallest one. So h1 is used for most important heading and h6 is used for least important.

Syntax-:

<h1>Welcome </h1>

<h2>Welcome</h2>

<h3>Welcome</h3>

<h4>Welcome</h4>

<h5>Welcome</h5>

<h6>Welcome</h6>

==========

Paragraph Tag:-

HTML paragraph or HTML p tag is used to define a paragraph in a webpage. Let's take a simple example to see how it works. It is a notable point that a browser itself adds an empty line before and after a paragraph. An HTML tag indicates starting of new paragraph.

Syntax -:

Write your paragraph here

==========

Formatting Tags-:

HTML Formatting is a process of formatting text for better look and feel. HTML provides us ability to format text without using CSS. There are many formatting tags in HTML. These tags are used to make text bold, italicized, or underlined.

1.Bold Text HTML and formatting elements

The HTML element is a physical tag which display text in bold font, without any logical importance. If you write anything within ..... element, is shown in bold letters.

Syntax-

 Write Your First Paragraph in bold text.

2.Italic Text HTML and formatting elements

The HTML element is physical element, which display the enclosed content in italic font, without any added importance. If you write anything within ..... element, is shown in italic letters.

Syntax-

 Write Your First Paragraph in italic text.

The HTML tag is a logical element, which will display the enclosed content in italic font, with added semantics importance.

This is an important content, which displayed in italic font.

3.Underlined Text -

The <u> tag represents some text that is unarticulated and styled differently from normal text, such as misspelled words or proper names in Chinese text. The content inside is typically displayed with an underline. You can change this with CSS (see example below).If you write anything within <u>.....</u> element, is shown in underlined text.

Syntax-:

 <u>Write Your First Paragraph in underlined text.</u>

4.Strike Text The <s> tag specifies text that is no longer correct, accurate or relevant. The text will be displayed with a line through it.The <s> tag should not be used to define deleted text in a document, use the <del> tag for that.Anything written within <strike>.....</strike> element is displayed with strikethrough. It is a thin line which cross the statement.

Syntax-

 <s>Write Your First Paragraph with strikethrough</s>.
---

5. Superscript Text The <sup> tag defines superscript text. Superscript text appears half a character above the normal line, and is sometimes rendered in a smaller font. Superscript text can be used for footnotes, like WWW[1].If you put the content within ^{.....} element, is shown in superscript; means it is displayed half a character's height above the other characters.

Syntax-

Square of 5: 5² = 25

6.Subscript Text The <sub> tag defines subscript text. Subscript text appears half a character below the normal line, and is sometimes rendered in a smaller font. Subscript text can be used for chemical formulas, like H2O.If you put the content within

_{.....} element, is shown in subscript ; means it is displayed half a character's height below the other characters.

Syntax-

Chemical Formula of Water is H₂O
---

7. Deleted Text The <del> tag defines text that has been deleted from a document. Browsers will usually strike a line through deleted text.Anything that puts within ~~.....~~ is displayed as deleted text.

Syntax-

Hello ~~Delete your first paragraph.~~
---

8. Inserted Text -

The <ins> tag defines a text that has been inserted into a document. Browsers will usually underline inserted text.Anything that puts within <ins>.....</ins> is displayed as inserted text.

Syntax-

 ~~Delete your first paragraph.~~<ins>Write another paragraph.</ins> ---

9. Small Tag

The <small> tag defines smaller text (like copyright and other side-comments).If you want to put your font size smaller than the rest of the text then put the content within <small>.....</small>tag. It reduces one font size than the previous one.

Syntax-

Hello <small>Write the paragraph in smaller font.</small>

==========

List in Html :

1.Unordered List :-

HTML Unordered List or Bulleted List displays elements in bulleted format . We can use unordered list where we do not need to display items in any particular order. The HTML ul tag is used for the unordered list.

There can be 4 types of bulleted list:

1)Type "disc" This is the default style. In this style, the list items are marked with bullets.

2)Type "circle" In this style, the list items are marked with circles.

3)Type "square" In this style, the list items are marked with squares.

4)Type "none" In this style, the list items are not marked .

Syntax -:

<ul type=" ">

==========

2.Ordered List :-

HTML Ordered List or Numbered List displays elements in numbered format. The HTML ol tag is used for ordered list. We can use ordered list to represent items either in numerical order format or alphabetical order format, or any format where an order is emphasized.

Attributes -:

There can be different types of numbered list:

1)Type "1" This is the default type. In this type, the list items are numbered with numbers.

2)Type "I" In this type, the list items are numbered with upper case roman numbers.

3)Type "i" In this type, the list items are numbered with lower case roman numbers.

4)Type "A" In this type, the list items are numbered with upper case letters.

5)Type "a" In this type, the list items are numbered with lower case letters.

start : starting position in number

reversed : To display list in reverse order.

Syntax -:

<ol type=" " start=" " reversed>

Image Tag :-

The <img> tag is used to embed an image in an HTML page. Images are not technically inserted into a web page; images are linked to web pages. The <img> tag creates a holding space for the referenced image. HTML img tag is an empty tag that contains attributes only, closing tags are not used in HTML image element.

Syntax-

<img src=" " Width=" " Height=" " Alt=" " Title=" ">

Attributes:

1) src

It is a necessary attribute that describes the source or path of the image. It instructs the browser where to look for the image on the server. The location of image may be on the same directory or another server.

2) alt

The alt attribute defines an alternate text for the image, if it can't be displayed. The value of the alt attribute describe the image in words. The alt attribute is considered good for SEO prospective.

3) width

It is an optional attribute which is used to specify the width to display the image. It is not recommended now. You should apply CSS in place of width attribute.

4) height

If h3 the height of the image. The HTML height attribute also supports iframe, image and object elements.It is not recommended now. You should apply CSS in place of height attribute.

5)Title

It shows tooltip to that image.Tooltip Contains some info regarding that image.

==========

Anchor Tag:-

The HTML anchor tag defines a hyperlink that links one page to another page. It can create hyperlink to other web page as well as files, location, or any URL. The "href" attribute is the most important attribute of the HTML a tag. and which links to destination page or URL.The href attribute is used to define the address of the file to be linked. In other words, it points out the destination page.

Attributes - href , target

Syntax-

Mail To Abc

Call

==========

Abbrivation Tag-:

HTML <abbr> tag is used to represent an acronym or abbreviation of a longer word or phrase, such as www, HTML, HTTP, etc. The content written between <abbr> tags renders with dotted underline in some browser.This tag can be used with "title" attribute (optional), and the value of title attribute will be pop-up when the mouse hovers over the content written between <abbr> tag.The <abbr> tag defines an abbreviation or an acronym, like "HTML",

"CSS",

"Mr.", "Dr.", "ASAP", "ATM".

Syntax-

<abbr title="HyperText Markup language">HTML</abbr>

==========

Address Tag-:

HTML <address> tag is used to specify the authorship information of the article or webpage. It can contain any type of information which is needed such as, URL, physical address, phone number, email, other links, etc.

The <address> tag is useful for various contexts such as business contact information in the header of the page, or author related contact information, etc.

The contact information written between <address> tags mostly renders in the italic form on the browser.

Syntax-

<address></address>

==========

br Tag

The
 tag in HTML document is used to create a line break in a text.

It is generally used in poem or address where the division of line is necessary. It is an empty tag, which means it does not need a company of end tag. If you place the
 tag in the HTML code, then it works the same as pressing the enter key in a word processor.It Is Use To Break Line.The
 tag inserts a single line break.The
 tag is useful for writing addresses .The
 tag is an empty tag which means that it has no end tag.

Syntax-

==========

hr Tag-:

HTML <hr> tag is used to specify a paragraph-level thematic break in HTML document. It is used when you abruptly change your topic in your HTML document. It draw a horizontal line between them. It is also called a Horizontal Rule

in HTML.

Syntax-

<hr>

==========

Blockquote Tag-:

HTML <blockquote> tag is used to define a block of text which is quoted from another source. The Browser usually displays the content within <blockquote> tag as indented text.If you want to insert a long quote then use

<blockquote> and for short or inline quote use <q> tag.

Syntax-

<blockquote cite="google.com(Url)">

text

<cite>Author Name</cite>

</blockquote>

==========

Inline Frame tag -:

HTML Iframe is used to display a nested webpage (a webpage within a webpage). The HTML <iframe> tag defines an inline frame, hence it is also called as an Inline frame. An HTML iframe embeds another document within the current HTML document in the rectangular region.

Attributes -: "src" , "name" , "Width" , "Height" , "Allowfullscreen" .

Syntax-:

<iframe src="https://www.youtube.com/" height="300" width="400"></iframe>

==========

Table Tag :-

HTML table tag is used to display data in tabular form (row * column). There can be many columns in a row. We can create a table to display data in tabular form, using <table> element, with the help of <tr> , <td>, and <th> elements.

In Each table, table row is defined by <tr> tag, table header is defined by <th>, and table data is defined by <td> tags.

An HTML table may also include <caption>, <thead>, <tfoot>, and <tbody> elements.

*Cellspacing -:The cellspacing attribute specifies the space, in pixels, between cells.

*Cellpadding -:The HTML <table> cellpadding Attribute is used to specify the space between the cell content and cell wall. The cellpadding attribute is set in terms of pixels.

* Attribute Values: pixels: It holds the space between the cell content and cell wall in terms of pixels.

*Colspan -:The colspan attribute in HTML specifies the number of columns a cell should span. It allows the single table cell to span the width of more than one cell or column.

*Rowspan -:The rowspan attribute in HTML specifies the number of rows a cell should span. That is if a row spans two rows, it means it will take up the space of two rows in that table. It allows the single table cell to span the height of more than one cell or row.

Syntax -:

<table>

<caption>Table 1</caption>

<tr>

<th></th>

<td></td>

</tr>

</table>

<tr> :- Used To Add Table Row.

<td> :- Used To Add Table Data.

<table border="1" cellspacing="5" cellpadding="5">

<tr colspan="2">

<th rowspan="2">

-

<table>

<caption>Table 1</caption>

<thead>

<tr>

<th></th>

</tr>

</thead>

<tbody>

<tr>

<td></td>

</tr>

</tbody>

<tfoot>

<tr>

<td></td>

</tr>

</tfoot>

</table>

==========

Span Tag -:

HTML tag is used as a generic container of inline elements. It is used for styling purpose to the grouped inline

elements (using class and id attribute or inline style).

The tag does not have any default meaning or rendering.

The tag can be useful for the following task:

To change the language of a part of the text.

To change the color, font, background of a part of text using CSS

To apply the scripts to the particular part of the text.

Syntax -:

Write your content here.....

==========

==========

Form Tag :-

An HTML form is a section of a document which contains controls such as text fields, password fields, checkboxes, radio buttons, submit button, menus etc.An HTML form facilitates the user to enter data that is to be sent to the server for processing such as name, email address, password, phone number, etc. .

HTML forms are required if you want to collect some data from of the site visitor.

For example: If a user want to purchase some items on internet, he/she must fill the form such as shipping address and credit/debit card details so that item can be sent to the given address.

Syntax -:

<form></form>

Attributes -: action , method

=========

Input Tag :-

The HTML <input> tag is used to represent a form input control in HTML document. This form input control facilitate user to input data and communicate with a website or application.

Syntax -:

```
<input type="text" name="" placeholder="Enter Your Name" id="">

<input type="password" name="" placeholder="Enter Your Password" id="">

<input type="radio" name="gen" value="male" id="">

<input type="checkbox" value="" name="" id="">

<input type="submit" value="Submit" id="">

<input type="reset" value="reset" id="">

<input type="image" src="" alt="" id="">

<input type="hidden" id="">

<input type="file" value="Select File" accept=".jpg" id="">

<input type="date" name="" max="2019-08-31" min="2019-08-01" id="">
```

Input tag of HTML-5 :-

Syntax -:

```
<input type="tel" name="mobNo"/>

<input type="email" name="email"/>

<input type="time" name="timing"/>
```

<input type="week" name="week"/>

<input type="url" name="webURL"/>

<input type="color" name="favcolor"/>

<input type="search" name="searchbox"/>

<input type="datetime-local" name="datetime"/>

<input type="number" name="quantity" min="1" max="10">

<input type="month" name="month">

<input type="range" min="0" max="100" step="10" value="20" name="selectedValue"/>

=========

Label Tag -:

The <label> tag is used to specify a label for an <input> element of a form. It adds a label to a form control such as text, email, password, textarea etc. It toggles the control when a user clicks on a text within the <label> element.

Syntax -:

<label for=""></label>

==========

Textarea Tag -:

The <textarea> tag defines a multi-line text input control.

The <textarea> element is often used in a form, to collect user inputs like comments or reviews.

A text area can hold an unlimited number of characters, and the text renders in a fixed-width font (usually Courier).

The size of a text area is specified by the <cols> and <rows> attributes (or with CSS).

The name attribute is needed to reference the form data after the form is submitted (if you omit the name attribute, no data from the text area will be submitted).

The id attribute is needed to associate the text area with a label.

Syntax -:

<textarea rows="9" cols="70"> </textarea>

==========

Select Tag :-

The <select> element is used to create a drop-down list.

The <select> element is most often used in a form, to collect user input.

The name attribute is needed to reference the form data after the form is submitted (if you omit the name attribute, no data from the drop-down list will be submitted).

The id attribute is needed to associate the drop-down list with a label.

Syntax -:

<select>

<option></option>

<option></option>

<option></option>

</select> ----------

==========

Div Tag -:

The HTML tag is used to group the large section of HTML elements together.

We know that every tag has a specific purpose e.g. p tag is used to specify paragraph, <h1> to <h6> tag are used to specify headings but the tag is just like a container unit which is used to encapsulate other page elements and divides the HTML documents into sections.

The div tag is generally used by web developers to group HTML elements together and apply CSS styles to many elements at once. For example: If you wrap a set of paragraph elements into a div element so you can take the advantage of CSS styles and apply font style to all paragraphs at once instead of coding the same style

for each

paragraph element.

Syntax -:

==========

****

Semantic HTML5 Elements:-

Importance of Semantic HTML: Semantic HTML refers to using HTML elements that have meaning both for the browser and the developer. Instead of relying on generic tags like and , semantic elements describe the structure and content of the page more clearly. This approach makes the website more understandable to search engines, assistive technologies, and developers working with the code.

Using semantic HTML helps with:

•Accessibility: Screen readers and assistive devices can better interpret the content.

•SEO: Search engines can understand the structure and importance of content on a page, potentially improving rankings.

•Maintainability: It's easier for developers to read and update code when the structure is clear.

Key Structural Tags in HTML5:

1.<header>: Used to define a header for a page or a section. It can contain navigation links, logo, title, or introductory content.

Example:

```
<header>
  <h1>My Website</h1>
```

```
  <nav>
    <ul>
      <li><a href="#home">Home</a></li>
      <li><a href="#about">About</a></li>
    </ul>
  </nav>
</header>
```

2.<footer>:

O Defines the footer of a page or a section. It usually contains contact information, copyright notices, or links to privacy policies.

Example:

```
<footer>
  <p>&copy; 2025 My Website. All rights reserved.</p>
</footer>
```

3.<nav>:

Represents a navigation section, typically containing links to other parts of the website or other websites.

Example:

```
<nav>
```

```
  <ul>
    <li><a href="#home">Home</a></li>
    <li><a href="#services">Services</a></li>
  </ul>
</nav>
```

4.<section>:

A section of content, typically a thematic grouping of content such as a group of related articles, an event, or a specific part of the page.

Example:

```
<section>
  <h2>About Us</h2>
  <p>We are a team of passionate developers...</p>
</section>
```

5.<article>:

o Represents a self-contained piece of content that could be distributed and reused independently, such as blog posts, news articles, or product descriptions.

o Example:

```
<article>
  <h2>Latest Blog Post</h2>
```

```
  <p>This is a fascinating blog post about web development...</p>
</article>
```

6.<aside>:

Represents content that is tangentially related to the content around it, such as sidebars, pull quotes, or related links.

Example:

```
<aside>
  <h3>Related Articles</h3>
  <ul>
    <li><a href="#article1">Understanding HTML5</a></li>
  </ul>
</aside>
```

7.<main>:

Defines the main content of a document. There should only be one <main> element per page, and it should contain content that is central to the page's purpose.

Example:

```
<main>
  <h1>Welcome to Our Website</h1>
  <p>This is where the main content goes...</p>
```

</main>

Benefits of Semantic Elements for Accessibility and SEO:

1.Accessibility:

Improved screen reader experience: Semantic tags help screen readers better understand the page's layout and structure. For example, using <header>, <nav>, and <footer> clearly informs the reader of the document's major sections.

2.SEO:

Search engine understanding: Semantic elements allow search engines to better interpret the purpose and relevance of content. For instance, <article> helps search engines identify content that could be indexed as an independent entity.

Content hierarchy: Tags like <h1> within <header>, <section>, and other heading tags help define the content hierarchy for search engines, improving rankings.

==========

Figure & figcaption tag :-

An image can be associated with a caption, which may be a short text description or a legend for that image. The elements that allow you to associate a caption to an image are html <figure> tag and html <figcaption> tag.

The <figure> tag is a container for images and can be used to connect captions to illustrations, diagrams, photos, and code listings.

Syntax -:

```
<figure>
<img src="user_image.jpg" alt="This is a figure image" title="">
<figcaption>This is the caption of the Image</figcaption>
</figure>
```

==========

Mark tag :-

In HTML you need sometimes text that should be highlighted or stand out for reference purposes. You can use the <mark> tag in html5 to highlight text within a document.

Syntax -:

```
<p>This is an <mark>important</mark> reminder text.</p>
```

==========

Video Tag :-

HTML 5 supports <video> tag also. The HTML video tag is used for streaming video files such as a movie clip, song clip on the web page. Currently, there are three video formats supported for HTML video tag: mp4,webM, ogg

Syntax -:

<video src="" width="320" height="240" controls></video>

Attribute :-

height, width, src,controls, autoplay, muted, poster,loop

Controls: It defines the video controls which are displayed with play/pause buttons.

height:It is used to set the height of the video player.

width:It is used to set the width of the video player.

poster: It specifies the image which is displayed on the screen when the video is not played.

Autoplay: It specifies that the video will start playing as soon as it is ready.

Loop: It specifies that the video file will start over again, every time when it is completed.

Muted:It is used to mute the video output.

Src: It specifies the source URL of the video file.

==========

Audio Tag :-

HTML audio tag is used to define sounds such as music and other audio clips. Currently there are three supported file format for HTML 5 audio tag: mp3,wav,ogg

HTML5 supports <video> and <audio> controls. The Flash, Silverlight and similar technologies are used to play the

multimedia items

Syntax -:

<audio src="" controls></audio>

Attribute :- autoplay, muted, controls,src ,loop

Controls: It defines the audio controls which are displayed with play/pause buttons.

Autoplay: It specifies that the audio will start playing as soon as it is ready.

Loop: It specifies that the audio file will start over again, every time when it is completed.

Muted: It is used to mute the audio output.

Src: It specifies the source URL of the audio file.

==========

THANK YOU