# HTML

* HTML is hyper text mark up programming language which is used to create for creating webpages and web applications.
* Hyper text means a text within a text (which contains a link whenever click in the link which bring to you a new page)
* Mark up language is computer language that is used to apply layouts and formatting convections to text.
* Requirements are editor like Notepad , Notepad++ , Visual studio etc… and Browser like chrome ,Microsoft , Opera mini etc..
* ! Doctype html is defines as the version of the html
* Html element is the root element of html.
* Head element contains additional or meta information about the html page.
* Body element contains the document body and contains the visual content of the web page.
* Extension of the html document is filename.html

TAGS :- The text which is surrounded by angular brackets . All the tags in HTML are predefined meaning , we can’t create and we can’t modify tags . There are two types of tags .

1. Pair tag :- A tag which has contain opening and closing angular brackets.
2. Unpair tag :- A tag which has contain self-closing tag . These tag also called a void element.

ELEMENT :- The combination of the tag with text is known as element.

ATTRIBUTE :- It gives extra information to the tags.

THE BASIC DOCUMENT IS :-

<!Doctype html>

<html>

<head>

<title>A HTML DOCUMENT</title>

</head>

<body>

-----------------

</body>

</html>

HTML HEADING :- HTML heading are simple form of the text based on the vary text sizes.

|  |  |  |
| --- | --- | --- |
| H1 -36px | H3-24px | H5-14px |
| H2-30px | H4-18px | H6-12px |

PARAGRAPH TAG :-The major blocks of text will be displayed on the browser.

<p>……………</p>

FORMATING TAGS :- HTML content several elements for define text with special meaning is called formatting text.

|  |  |  |
| --- | --- | --- |
| Bold tag | Its bold text | <b></b> |
| Italic | It has italic style text format. | <i></i> |
| strong | New standard for bold | <strong></strong> |
| mark | The mark tag defines the text that should be marked or highlighted. | <mark></mark> |
| emphasis | New standard for Italic . | <em></em> |
| Strike | Strike the text. | <s> </s> |
| Horizontal Rule | Horizontal line | <hr> </hr> |
| Subscripts | Base power | <sub> </sub> |
| Superscripts | Exponential power | <sup> </sup> |
| Abbreviations | Onclick of the abbreviation. It contains title attribute. | <abbr> <abbr> |
| break line | It will break the line and creates new line. | <br/> |
| address | The HTML <address> tag defines the contact information for the author/owner of a document or an article. | <address> |
| deleted | The HTML document will delete the text in particular positions only. | <del> |
| inserted | The HTML <ins> element defines that the text has been inserted into a document | <ins> |
| Preformatted tag | The HTML <pre> element is displayed in a fixed-width font and it persevered both spaces and line breaks. | <pre> |
| blockquotes | The HTML <blockquotes> element defines a section that is quoted from another source. It short cut notation is <q> . | <blockquotes> ,<q> |
| Cite tag | The text in the <cite> element usually renders italic style | <cite> |
| Bi-directional override. | The HTML <bdo> tag is used to override the current text direction. It has attribute dir follows by two values such as ltr or rtl | <bdo> |
| Title | Defines the title of the document. | <title></title> |
| <iframe> | An inline frame is used to embed another document within Current html Document.  <iframe Src=”path” title=”iframe” height=”100px” width=”100px”></iframe> | <iframe></iframe> |
| span | A span element which is used to color a part of text. | <span></span> |

<B> VS <STRONG> :-The html b element defines without any extra importance but strong tag defines text with strong importance.

COMMENTS :- A text which is ignore by the complier.

<!---Double line comments ---->

//single line comments .

ANCHOR TAG :-Anchor tag is used to create link between two documents is known as Hyper-link (a link which used to move another link ).

EX :- <a href=””>click</a>

Href attribute :- which indicates the link destination.

* By default a link is underline and blue color.
* Visited link underline and purple color.
* Active link is underline and red color.

Target attributes :- where to open the link document .

|  |  |
| --- | --- |
| \_self | Default it will opens the document in the same window / tab it was clicked. |
| \_blank | Opens the document in a new window or tab. |
| \_parent | Opens the document in the parent frame. |
| \_top | Opens the document in the full body of the window. |

IMAGE TAG :- The image tag is used to insert an image into the html page and it self-closing tag.

EX :- <img src =”#”/>

Src attributes:-specifies the path to the image to it displayed. There are two types of path such as absolute (http) and relative(c:)

|  |  |
| --- | --- |
| ABSOLUTE PATH | RELATIVE PATH |
| Gives an exact location of a file or directory name within a URL | Gives the file location in relation to the current working directory. |

Alt attributes :-alternate text for image .

Title attributes :- whenever you have however on the image some text will displayed.

Sometimes we can use image and hyperlink.

<a href=“#”><img src=“#” alt=“text”></a>

Difference between HREF and SRC :-

|  |  |
| --- | --- |
| HREF | SRC |
| Href attributes specifies the location (URL) of a resource that an anchor element point to or the location of a linked resource like a stylesheet. | Src attribute is used to embed a resource -usually URLs – into a document, think embedded images <img> and <script> tags. |

LISTS :- List is a collection of items the may be ordered and unordered information. HTML provides three types of list .

1. Ordered list (Number list) :- This is used to display the list of items in an order. It can use numbers or roman numbers or alphabets as type of order. It has one inbuild tag i.e. <li>---</li> . In this list the default order is numeric and by using type and start attributes we can make list symbol.

<ol>

<li>orange</li>

<li>grape</li>

</ol>

1. Unordered list (bullet list) :- This is used to display the list of items by using types of symbols. In this also there is an inbuilt tag i.e., <li>------</li>. In this list the default symbol is dot (.).

<ul>

<li>orange</li>

<li>apple</li>

</ul>

1. Definition list (Description list) :- where the entries list are like a dictionary. <dl> tag specifies the definition list. <dt> tag specifies the defined turn.<dd> tag specifies the definition of the data.

<dl>

<dt>HTML</dt>

<dd>HTML IS THE MARKUP LANGUAGE </dd>

</dl>

Nested List :- A list instead another the list is known as Nested List.

TABLE :- Collections of the data which are mentioned in rows and columns.

|  |  |
| --- | --- |
| <table> | It indicates the staring do the table. The most common attribute for table tag is cell spacing , cell padding , border-collapse : collapse , |
| <thead> | Table heading |
| <tbody> | Table body |
| <tr> | It indicates the table row. |
| <td> | It indicates the table data. |
| <th> | It indicates the table head. |
| <caption> | It is used the insert caption into table. |
| Cell spacing | A spacing outside of cell border. |
| Cell padding | A spacing inside of the cell border. |
| AArowspan | Used for merging multiple no.of rows given cells. |
| colspan | Used for merging multiple no.of columns given cells. |

Nested Table :- A table inside another table is called nested table.

FORMS :-Forms are used to take data from the users in our webpages.

Form elements :-

1. <input> tag :- input tag defines which type of input or data we want from user.

|  |  |
| --- | --- |
| text | <input type = “text”> |
| Password | <input type = “password”> |
| Number | <input type = “number”> |
| File | <input type = “file”> |
| Color | <input type = “color”> |
| range | <input type =”range”> |
| Checkbox | <input type = “checkbox”> |
| radio | <input type =”radio”> |
| Date | <input type = “date”> |
| Time | <input type = “Time”> |
| month | <input type = “month”> |
| email | <input type= “email> |
| button | <input type=”button” |
| week | <input type=”week” |
| Phone number | <input type=”tel” |
| reset | <input type=”reset” |
| data | <input type=”data” |

2.<form></form> tag :- The form tag is used to create an HTML form for user input and is a container for different types of input elements such as checkboxes , radio buttons , submit buttons etc..

3.<label> </label> tag :-The label tag is which provides type of input and its name we are using label tag. Label tag is used for screen reader device. By

using label tag we can attach our input field given label.

4.text area tag :- It provides bigger area for information . It contains two attribute such as rows and cols which is used to set height and width of the text area.

<textarea [name=””] [rows = n] [cols=n]></textarea>

5. <select></select> tag :- Drop down input is providing and every input we need to use <option> tag inside the select. Here the first option is the text which are used to providing the set of information.

<select [name=””] [size=”n”]>

<option>---</option>

<option>---</option>

</select>

6.<button></button> tag :- The button tag involves the form action and click purpose .

<button type=”submit”>submit</button>

<button type=”reset”>reset</button>

<button type=”button”>button</button>

7.Radio button :- This is used to select only one value at a time .

<input type = “radio ” name=”gender”]>male</input>

<input type = “radio ” name=”gender”]>female</input>

<input type = “radio ” name=”gender”]>other</input>

8.check box :- This is used to select multiple values at a time.

<input type = “checkbox” name=”hobbies”>cricket</input>

<input type = “checkbox” name=”hobbies”>kabaddi</input>

<input type = “checkbox” name=”hobbies”>kho-kho</input>

<input type = “checkbox” name=”hobbies”>football</input>

9.<fieldset> tag :- The <form> to create a border for the form we are using fieldset tag. Field tag should be parent of every input.

10.<legend> tag :- It provides head to our form we are using legend tag.

Form attributes :-

1.Action :- This attribute specifies the URL of the application which is called when the user clicks the submit button and submitting the form. Here the path of the action is sending while click the button.

2.Method :- This attribute specifies how the entered data in form is sent destination. There are different method of sending information such as GET , POST , PULL , DELETE. Type of action are occurred.

3.Target :- where to open the action URL (\_blank , \_self, \_parent , \_top) .

|  |  |
| --- | --- |
| POST METHOD | GET METHOD |
| Information sent along with body. | Information sent along with URL. |
| Data is invisible while sending. | Data is visible in site address. |
| It provides security. | No security. |
| It can send any number of characters. | It sends limited characters. |

Input attributes :-

|  |  |
| --- | --- |
| value | The input value attribute specifies an initial value for an input field. |
| readonly | The input readonly attribute specifies that an input field is read-only. A read-only input field cannot modified . The value of a read-only input field will be sent when submitting the form. |
| disabled | The input disabled attribute specifies that an input field should be disabled. A disabled input field is unusable and un-clickable. The value of a disabled input field will not be sent when submitting the from! |
| Size | The input size attribute specifies the visible width in characters , of an input field.  Note :- It works for the types of text , search , tel , url , email , password types. |
| maxlength , minlength | The input maxlength and minlength attributes specifies the maximum and minimum number of characters allowed in an input field (characters). |
| Min , max | The input min and max attributes specifies the minimum and maximum values for an input field. It works for number , range , date , datetime-local , month , time, and week types. |
| multiple | The input multiple attribute specifies that the user allowed to enter more then one value in an input field. It works for email and file types. |
| pattern | The input pattern attribute specifies a regular expression that the input field’s value is checked against when the form is submitted. It works text , date, search ,url, tel, email and password type. |
| Placeholder | The input placeholder attribute specifies a short hint that describes the expected value of an input field. |
| Required | The input required attribute specifies that an input field must be filled out before submitting the form. |
| Step | The input step attribute specifies the legal number intervals for an input field. It works with the number , range , date , datetime-local , month, time, and week type. |
| autofocus | The input autofocus attribute specifies that an input field should automatically get focus when the page load. |
| autocomplete | The input autocomplete attribute specifies whether a form or an input field should have autocomplete on or off. It works for text , search , url , tel , email , password , datepickers , range and color. |

FRAMES :- Generally the browser window can be used to display the one or more documents at a time. The window can be divided into rectangular areas each of which is “frame”. By using <frameset> tag ,we can specify the number of frames and their layout. A set of frames are divided using <frameset> to which ends with </frameset> tag. A frameset tag takes the place of the body tag, i.e. A HTML document has either a body or a frameset tag but can’t have both. The <frameset> tag must have either a “rows” or “cols” attribute and they often have both.

Rows : -This attribute specifies the no of rows of frames that will occupy the window.

Cols :- This attribute specifies the no of columns of frames that will occupy the window.

<frameset [cols=”% %”] [rows=”% %”]><frameset>

The <frameset> tag have one inbuilt tag i.e. <frame> tag >It is used to specify the content of frame.

<frames src=”filename” [name=””] [scrolling=”yes/auto/no”][frameborder=””]/>

frame tag has several attributes and important among are “src” and “name”.

Nested Frames :- we can a frame within the frame by using nested frames.

BLOCK-LEVEL ELEMENTS :- A block-level element always starts on a new line. A block-level element always takes up the full width available. A block-level element has a top and bottom margin whereas an inline element does not.

|  |  |  |  |
| --- | --- | --- | --- |
| <address> | <main> | <noscript> | <blockquote> |
| <aside> | <hr> | <p> | <dd> |
| <canvas> | <h1>--<h6> | <section> | <dl> |
| <div> | <footer> | <video> | <fieldset> |
| <dt> | <figcaption> | <article> | <form> |
| <li> | <pre> | <table> |  |
| <nav> | <ol> | <ul> |  |

INLINE ELEMENTS :- An inline element does not start on a new line .A line element only takes up as much as width necessary.

|  |  |  |  |
| --- | --- | --- | --- |
| <a> | <dfn> | <sup> | <time> |
| <acronym> | <i> | <strong> | <var> |
| <bdo> | <input> | <small> | <abbr> |
| <br> | <label> | <script> | <b> |
| <cite> | <object> | <q> | <big> |
| <code> | <button> | <em> | <img> |
| <map> | <kdb> | <output> | <samp> |
| <select> | <span> | <sub> | <textarea> |
| <tt> |  |  |  |

Marquee :-It is used to move the text from left to right. It has 2 attributes such as

Behaviour :-scroll (in directional )

Alternate (bidirectional)

Loop :- No of times by default infinite.

SEMANTIC TAGS :- A sematic element clearly describes its meaningful elements to both the browser and the developer and non-semantic examples are <div> and <span>

|  |  |
| --- | --- |
| <article> | Defines independent , self -contained content. |
| <aside> | Defines content aside from the page content. |
| <details> | Defines additional details that the user can view or hide. |
| <figcaption> | Defines a caption for a figure element. |
| <figure> | Specifies self-contained content like illustration , diagrams , photos , code ,listing , etc.. |
| <footer> | Defines a footer for a document or section. |
| <head> | Specifies a header for a document or section. |
| <main> | Specifies the main content of a document. |
| <mark> | Defines marked/highlighted text. |
| <nav> | Defines a navigation links |
| <summary> | Defines a visible heading for a <details> element. |
| <time> | Defines a date/time. |

FAVICON :- A favicon is a small image displayed next to the page in the browser tab.

SYNTAX :-

<link rel=”icon” type=”image/x-icon” href=”path of icon”>

Absolute path :-An absolute file path is the full URL to a file

Relative path :- A relative file path points to a file relative to the current page.

HTML MEDIA :-

<video> -to place video on web page.

<audio> -to place audio on the web page

<source> - used to locate the path of audio /video file

Attributes of <video> and <audio> :-

|  |  |
| --- | --- |
| Controls | Display the controls on web pages. |
| Loop | To repeat the video or audio after completion. |
| Muted | Mute the audio / video. |
| Poster (video tag) | The poster until user play the video. |
| Width and height | Display the size of the video player. |

HTML HEAD :-

|  |  |
| --- | --- |
| <link> | The <link> element defines the relationship between the current document and an external document. |
| <style> | The <style> element is used to define style information for single HTML page. |
| <meta> | The <meta> element is typically used to specify the character set , ,page description , keywords , author of the document and viewport settings. |
| Defines character set. | <meta charset=”UTF-8”> |
| Defines keywords for search engines | <meta name=”keywords” content=”HTML , CSS , JavaScript”> |
| Defines a description of your web page. | Define name=”description” content=”Free web tutorials”> |
| Defines the author of a page | <meta name=”author” content=”John Doe”> |
| Refresh document every 30 seconds | <meta http-equiv =”refresh” content=”30”> |
| Setting the view port to make your website look good on all device | <meta name=”viewport” content=”width=device-width , initial-scale=1.0”> |

HTML EMMENTS :-

|  |  |
| --- | --- |
| H1.heading | <h1 class=”heading”> |
| H1.heading.main-heading | <h1 class=”heading main-heading”> |
| P#heading | <p id=”heading”> |
| .newdiv | <div class=”newdiv”> |
| #newdiv | <div Id=”newdiv”> |
| div>ul>li | <div>  <ul>  <li> <li>  <ul>  <div> |
| div>ul>li\*3 | <div>  <ul>  <li> <li>  <li> <li>  <li> <li>  <ul>  <div> |
| P{some text} | <p>some text</p> |
| Ul>li \*6{$} | <ul>  <li>1</li>  <li>2<l/i>  <li>3</li>  <li>4<l/i>  <li>5</li>  <li>6<l/i>  </ul> |

|  |  |  |
| --- | --- | --- |
| PARAMETERS | HTML4 | HTML-5 |
| STRUCUTRE | Uses common structure like header and footer | Uses new structure like drag and drop. |
| DOCTYPE DECLARATION | Very lengthy and refers to an external resource | Simple and in one line |
| MULTIMEDIA  TAGS | Not present | Present |
| TAGS | Acronym tag is removed | A new tag <abbr> introduced in place of acronym |
| COOKIES | It provides local storage in place of cookies. | HTML5 has use cookies. |
| DRAWING | Not possible to draw shapes like circle , rectangle , triangle. | Possible to draw shapes like circle , rectangles , triangles |
| BROWSER SUPPORTS | Works with old browsers | Support by all new browsers. |

Library vs Framework :-

* Small amount of code is known as library.
* Scalable code is known as Framework.