*Hypertext Markup Language and Web Design*

*Objectives of learning HTML*

* *Create website - you can create a website or customize an existing web template if you know HTML Well.*
* *Become a web designer - If you want to start a career as a professional web designer, HTML and CSS designing is a must skill.*
* *Understand web - If you want to optimize your website, to boost its speed and performance, it is good to know HTML to yield best results.*
* *Learn other languages Once you understand the basic of HTML then other related technologies like java script, php, or angular are become easier to understand.*

*Introduction to HTML*

* *HTML stands for Hypertext Markup language, and it is the most widely used language to write web pages.*
* *It is used to design web pages using a markup language.*
* *HTML is not case sensitive and can be easily updated after the file created.*
* *Hypertext-refers to the way in which webpages are linked together. It is the link available on a webpage is called Hypertext.*
* *Markup language - It is used to define the structure of webpages. As its name suggests, HTML is a markup language which means you use HTML to Simply "Mark-up" a text document with tags that tell a web browser how to Structure it to display.*
* *The markup tags tell the Web browser how to display the page.*
* *HTML is a format that tells a computer how to display a webpage.*
* *HTML tags are Surrounded by the two characters ‘<’ and '>'. The surrounding characters are called “angle brackets"*
* *The majority of HTML tags are paired tags like <b> and </b>.*
* *The beginning tag “< >”is called Opening tag or start tag and the tag end tag “</>” is called end tag or close tag.*
* *Element: The text between the start and end tags is called element or element content.*
* *HTML tags are not case sensitive, <b> means same as <B>.*

*Basic HTML Document*

* *The basic structure of HTML page is below:*

*<! Doctype html>*

*<html>*

*<head>*

*<title> document or Page title /title>*

*</head>*

*<body>*

*<h1> this is a heading </h1>*

*<P> paragraph Content </P>*

*<body>*

*</html>*

|  |  |
| --- | --- |
| *Tag* | *Description* |
| *<!Doctype>* | *This tag defines the document type and HTML Version.* |
| *<html>* | *This tag encloses the complete HTML document and mainly Comprises of “document header” which is represented by <head> -- </head> and "document body" which is represented by <body> -- </body> tags.* |
| *<head>* | *This tag represents the document's header which can keep other HTML tags like <title>, <link> etc.*  *The head tag contains the "Behind the Scenes" elements for a webpage.*  *Elements within the head are not visible on the front-end web pages.* |
| *<title>* | *The <title> tag is used inside the <head> tag to mention the document title.* |
| *<body>* | *The body tag is used to enclose all the visible Content of webpage*  *In other words, the body content is what the browser will display on the front end a webpage.*  *This tag represents the document's body which keeps Other HTML tags like </h1>, <div>, <P> etc.* |
| *<h1>* | *This tag represents the heading.* |
| *<P>* | *This tag represents a paragraph.* |

* *Note: HTML elements used inside the <head> element are <style> <title>, <base>, <noscript>, <script, <meta> and <link>*

*HTM or HTML Extension*

* *When you save an HTML file, you can use either the .htm or the .html extension.*
* *The .htm extension comes from the past when some of the commonly used software only allowed three letter extensions.*
* *It is perfectly safe to use either.html or .htm. But .htm and .html are treated as different files by browser.*

*Heading tags*

* *Any document starts with a heading*
* *An HTML heading tag is used to define the heading of a webpage.*
* *You can use different sizes for your headings.*
* *There are six levels of headings defined by HTML.*
* *These Six heading use the elements Chi>, <h2>, <h3>, <h4>, <h5> and <h6>*
* *Where <h1> is the highest level and <h6> is the lowest*

*Syntax*

*<h1> heading text </h1> (or)*

*<h2> heading text </h2> (or)*

*-*

*-*

*<h6> heading text </h6>*

* *The contents of <h1>, <h2> and <h3> elements are larger than the default size of text in the document.*
* *The content of <h4> element would be the same size as default text and*
* *The content of <h5> and <h6> element would be smaller than the default size of text.*
* *The default size of HTML headings can be changed using "The style attribute”.*
* *While displaying any heading, browser adds one line before and one line after that heading.*

*Paragraph Tags*

* *HTML paragraphs are defined with the <P> tag*
* *The <p> tag offers a way to structure your text into different paragraphs.*
* *Each paragraph of text should go in between an opening <P>and a closing </p> tag.*
* *Syntax*

*<P> Paragraph of text </P>*

* *The paragraph </P> element carries an attribute whose name is name is align.*
* *Align attribute is used to indicate the alignment of paragraph on the page.*
* *The Align attribute has three possible values: left, Centre and right.*
* *Syntax*

*<P align="left" / "right” /” centre"> Paragraph text </P>*

* *Example*

*<!Doctype html>*

*<html>*

*<head>*

*<title> Paragraph tag </title>*

*</head>*

*<body>*

*</p> Here is a first paragraph of text </p>*

*<P = align="right"> Here is second paragraph of text </P>*

*</body>*

*</html>*

*Horizontal tag:*

* *This is used to define the break in an HTML Page.*
* *It does not require an end tag.*
* *It is represented as <hr>*
* *This tag is used to place horizontal line across the screen.*
* *There are three attributes for this tag align, size and no shade.*
* *E.g., My name <hr>*
* *Output: My name*

*Break tag:*

* *Break tag is used to give a line break. If you want to start a new line you need to use <br> tag*
* *This element does not require an end tag*
* *E.g., <p> hi <br>Friend <p>*
* *Output: hi*

*Friend.*

*Attributes*

* *An attribute is used to define the characteristics of a HTML tag and is placed inside the element's opening tag.*
* *All attributes are made up of two parts - a name and a value.*

1. *name: It is the property you want to set*

*For e.g., <p> element carries align attribute used to indicate. Alignment of paragraph on the page.*

1. *Value: It is what you want the value of the property to be set and always put with in quotations.*

*For e.g., there are three possible values of align attribute: left, Centre and right.*

* *Attribute names and attributes values are case-insensitive.*

*Text Formatting tags.*

* *If you use a word processor you must be familiar with the ability to make text bold,italic or underlinded etc here are just few of the options available to indicate how text can appear html.*

1. *Bold text (<b>...</b>)*
   * *Anything that appears within <b> - - -</b> element, is displayed bold.*
   * *E.g., <b> Bold text <16>*

*Output:* ***Bold text***

1. *Italic text (<i>--- </i>)*

* *Anything that appears within <i>---</i> element, is displayed in “italicized."*
* *E.g., <i>italic text <li>*

*Output: italic*

1. *Underlined text (<u> ... </u>)* 
   * *Anything that appears within <u>----</u> element, is displayed with underline below the text.*
   * *E.g., <u> Underlined text </u>*

*Output: underlined text*

1. *Strike text (<strike> --- </strike>)*
   * *Anything that appears within <strike> ... </strike> element, is displayed with strike through which is a thin line through the text.*
   * *E.g., <strike> Strike text <strike>*

*Output: ~~Strike text~~*

1. *Monospaced text (<tt>--- </tt>)*

* *Anything that appears within <tt> - -</tt > element, is written In Monospaced font.*
* *Most of the fonts are known as variable-width fonts & because different letters are of different widths.*
* *In a monospaced font, each letter has the same width.*
* *E.g., <tt> Monospaced </tt>*

1. *Superscript text (<sup>-----</sup>)*
   * *The content of a <sup>- - - </sup> element, is written in Superscript.*
   * *The font size used is the same size as the characters surrounding it but is displayed half a character's height above the other characters*
   * *E.g., <P> uses a <sup> Superscript </sup> </P>*
   * *Output: Uses asuperscript*
2. *Subscript text (<sub>---</sub>)*
   * *The content of a <sub> --- </sub> element is written in Subscript.*
   * *The font size used is same size as the characters surrounding it, but is displayed half a character's height beneath the other characters.*
   * *E.g., <p> Uses a <sub> subscript /sub> </P>*
   * *Output: Uses asubscript*
3. *Inserted text (<ins> --- </ins>)*

* *Anything that appears within <ins> --- </ins> element is displayed as inserted text.*
* *E.g., <P> this is a <ins> pen. </ins> Lip>*
* *Output: this is a pen.*

1. *Deleted text (<del> --- </del>)*
   * *Anything that appears within <del>----</del> element, is displayed as deleted text.*
   * *E.g., <P> this is a <del> pen </del> </p>*
   * *Output: this is a ~~pen.~~*
2. *Larger text (<big> -- </big>)*
   * *The Content of the <big> --- </big> element is displayed one font size larger than the rest of the text surrounding it.*
   * *E.g., <P> the word is <big> big </big></p>*
   * *Output: The word is big.*
3. *Smaller text (<small> ---</small>)*
   * *The content of the <small> --- </small> element is displayed one font size smaller than the rest of the text surrounding it.*
   * *E.g., <P> the word is <small> Small </small> </P>*
   * *Output: the word is small*

*Phrase tags*

* *The phrase tags are special purpose tags, which defines the structural meaning of a block of text.*
* *The phrase tags have been designed for Specific purposes.*

1. *Emphasized text (<em> ... </em>)*

* *Anything that appears within <em>---</em> element is displayed as Emphasized text.*
* *E.g., <p> The word is <em> emphasized. </em></p>*
* *Output: The word is emphasized*

1. *Marked text (<mark> ... </mark>)*

* *Anything that appears within <mark> -- </mark> element, is displayed as marked with yellow ink.*
* *E.g., <P> The word is <mark> marked </mark> </p>*
* *Output: The word is marked.*

1. *Strong text (<strong> ... </strong>)*

* *Anything that appears within <strong>-------</strong> element is displayed as important text or emphasized text.*
* *E.g., <p> The word is <strong> Strong </strong></p>*
* *Output; The word is* ***Strong***

1. *Acronym tag (<acronym>----</acronym>)*

* *The Acronym tag is used to define the acronym.*
* *Syntax: <acronym title= “-------“> Shortform </acronym>*
* *E.g., <acronym title="Operating system"> OS </acronym>*
* *Output: OS*

1. *Quoting text: blockquote tag (<blockquote>----</blockquote>)*
   * *The <blockquote> tag specifies a section that is quoted from another source.*
   * *It is used to display the long quotations. The text inside a <blockquote> element uses an italicized fount*
   * *E.g., <block quote> Winners are not those who never fail but those who never quit. </block quote>*
   * *Output: Winners are not those who never fail but those who never quit.*
2. *Short quotations tag (<q>---</q>)*

* *The <q> -- </q> element is used when you want to add a double quote within a sentence.*
* *E.g., <p> This is a <q> Pen </q></p>*
* *Output: This is a "Pen".*

1. *Text citation tag (<cite> --- </cite>)*

* *If you are quoting a text, you can indicate the source placing it between an opening <cite> ... </cite> tag.*
* *The content of the <cite> element is displayed in italicized text by default.*
* *E.g., <p> This is derived from <cite> Google </cite></p>*
* *Output This is derived from Google.*

1. *Computer code tag: (<code>--- </code>)*
   * *Any programming code to appear on a web page Should be placed inside <code>--</code> tags*
   * *The content of the <code> element is presented in a monospaced font by default*
   * *E.g., <p> Standard input <code> stdin </code > </p>*
2. *Text Abbreviation (<abbr>--- </abbr>)*
   * *You can abbreviate a text by putting it inside <abbr>---</abbr> element.*
   * *It present, the “title attribute" must contain this full description and in nothing else.*
   * *E.g., <p> the chapter is <abbr title = "Hypertext markup language"> HTML</abbr> </p>*
   * *Output The chapter is HTML*
   * *Note: To see the abbreviation of text Hover the mouse over the content and see the abbreviation.*
3. *Text Direction (<bdo> -- -</bdo>)*

* *The <bdo> -----</bdo> element stands for "Bi-Directional Override" and it is used to override the current text direction.*
* *E.g., <p> this is a <bdo dir = "rtl"> pencil </bdo> </p>*
* *Output: this is a licnep*
* *The dir is attribute used with <bdo> tag to describe the text direction and the attribute can have values "rtl" = right to left or "ltr" =left to right*
* *The default value of dir attribute is "ltr".*

*Comment*

* + *Comment is a piece of code which is ignored by any web browser.*
  + *It is a good practice to add comments into your HTML code, especially in complex documents, to indicate sections of a document, and any other notes to anyone looking at the code.*
  + *Comments help you and others understand your code and increases Code readability.*
  + *HTML Comments are placed in between <! ------>tags.*
  + *Any content placed with-in <! ----> tags will be treated as comment and will be completely ignored by the browser.*

*Valid vs Invalid Comments.*

* + *Comment do not nest which means a comment cannot be put inside another comment.*
  + *The double-dash sequence "--" may not appear inside a comment except as part of opening and closing tag.*
  + *You must also make sure that there are no spaces in the start of comment string.*

*Multiline comments.*

* + *HTML Supports multi line comments as well.*
  + *You can comment multiple lines by the special beginning tag <! -- and ending tag --> placed before the first line and end of the last line.*
  + *Syntax: <! -- This is a multiline*

*Comment -->*

***Image tag***

* *Images are very important to beautify a webpage as well as to depict many complexes in simple way on your webpage.*
* *Any image can be inserted in webpage by using <img> tag*

*Syntax: - <img src ="Image URL" --attributes list>*

* *The "src attribute" is used to add the image source or path of image i.e., URL of the image.*
* *It is an empty tag, containing only attributes and the closing tag is not required.*

*Choosing Right Image format*

*Choosing the right file format to save your images is important.*

*There are three formats, while you choose the format you should choose it based on the requirement for both image's quality and file size*

*The three image formats are*

1. *GIF - Graphics interchange format*

*Use GIF when your graphic uses low number of a colours, large areas of solid colour. They are ideal for small navigational icons, simple diagrams, to display basic graphics, logos and animations. It can't support more than 256 colours*

1. *JPEG - Joint Photographic Experts Group*

*Use JPEG for storing high-quality digital photos with detail colour. It is used when you want to use small files.*

1. *PNG - Portable Network Graphics*

*We use PNG when we want high quality clear image and want website logos in various colour backgrounds.*

*You can use PNG, JPEG or GIF Image file based on your comfort but make sure you specify correct image file name in src attribute.*

*Image name is always case sensitive.*

*The "alt attribute" is a mandatory attribute which specifies an alternate text for an image, if the image cannot be displayed.*

*The various attributes used with <img> tag is width, height, align, border and alt.*

*Set Image Width / Height*

* *You can set image width and height based on your requirement using width and height attributes*
* *You can specify width and height of image in term of either pixels or percentage of its actual size.*
* *Width: To set the width of image. The value from 1 to 100 percent*

*Syntax: <img src="URL" width=" ">*

* *Height: To set the height of the image. The value from 1 to 100 percent.*

*Syntax: <img src="URL" height=” “>*

*Set Image Alignment*

* *By default, Image will align at the left side of the page, but you can use align attribute to set it in the centre or right.*

*Align: this attribute is used to position your image in the webpage.*

* *This attribute provides both horizontal and vertical alignment options.*
* *It can take any of the five values below left, right, top, center and bottom.*

*Syntax <img src ="URL" align="left/right/top/center/bottom”>*

*Set Image Border*

* *Border: By default, no border appears around an image unless that image is an active link.*
* *To Specify a border for an image we use "border" attribute in <img>tag.*
* *You can specify border thickness in terms of pixels, A thickness of 0 means no border around the picture*
* *Syntax <img src="URL" border=” “>*
* *Example*

*<html>*

*<head>*

*<title> Image tag </title>*

*</head>*

*<body>*

*<img src="img\_exm.jpg" alt="output" width="200" height="400">*

*</body>*

*</html>*

*Table tag*

* *The HTML tables are created using the <table>tag.*
* *The HTML table tag is used for defining a table.*
* *The table tag contains other tags in which the <tr> is used to create table rows and <td> tag is used to create data cells. And another tag is <th>tag is used to give headings.*
* *HTML represents a basic table wring four elements.*

1. *<Table> -- </Table>: All the table data and all table elements are written within these tags.*
2. *<tr> --</tr>: This element is used to create single row in a table. The number of <tr> elements in a table determines the number of rows in a table.*

*The contents of the rows must be written within these tags. A table row may include <th> or <td>tags.*

1. *<th>--</th>: Each <th> tag represent the contents of a single cell in a table. This tag is used to give column headings. The data represents within these tags is displayed in bold and centred within the cell.*
2. *<td>---</td>: Each <td> tag represents the contents of a Single cell in a table. This tag is used to write data in a table. This tag is used to write in each cell. The data represented within these tags by default displayed in normal text and left aligned within the cell.*

* *Syntax:*

*<table>*

*<tr>*

*<th> text -- Column heading </th>*

*<td> data cell text </td>*

*</tr>*

*</table>*

* *Example*

*<html>*

*<head>*

*<title> table tag </title>*

*<head>*

*<body>*

*<table>*

*<tr>*

*<th> S.NO </th>*

*<th> name </th>*

*<th> Roll no </th>*

*</tr>*

*<tr>*

*<td> 1 </td>*

*<td> Srikanth </td>*

*<td> 001</td>*

*</tr>*

*<tr>*

*<td>2</td>*

*<td> Asish </td>*

*<td>002 </td>*

*</tr>*

*</table>*

*</body>*

*</html>*

*Attributes in table*

1. *Table border: In order to draw border to table, we use border attribute. The value given is a number which specifies the thickness of the border*

*Syntax: <table border= ““>-----</table>*

1. *Cellpadding: The cell padding is used to adjust the white space in table cells. The cell padding represents the distance between cell borders and the content with in a cell.*

*Syntax: <table cellpadding="”>------</table>*

1. *Cell spacing: The cellspacing is used to adjust the white space in table cells. The cell spacing represents the space between table cells.*

*Syntax: <table cellspacing=" “>-----</table>*

1. *Col span: The colspan attribute is used, if we want to merge two or more columns into a single column.*

*Syntax:*

*<table>*

*<tr>*

*<td colspan=" "> text </td>*

*</tr>*

*</table>*

1. *Row Span: Row span is used, if we want to merge two or more rows*

*Syntax:*

*<table>*

*<tr>*

*<td rowspan=""> text </td>*

*</tr>*

*</table>*

1. *Table Background: You can set table background image for whole table or just for one cell.*

*Syntax:<table background="path">*

1. *Table Background color: You can set background color for whole table or just for one cell.*

*Syntax: <table bgcolor="">*

1. *Table border color: You can also set border color for table using bordercolor attribute.*

*Syntax: <table bordercolor=" “>*

1. *Table Width: You can set a table width using width attributes. You can specify table width in terms of pixels or in terms of percentage of available screen area.*

*Syntax: <table border=" “width=" “>*

1. *Table height: You can set a table height using height attribute. You can specify table height in terms of pixels or in terms of percentage of available screen area.*

*Syntax: <table height="">*

*Other Elements Related to table*

*Table Caption:*

* *The caption element defines a table caption.*
* *When used, caption must be the first element in the table.*
* *The caption tag will serve as a title or explanation for table and it shows up at the top of table*
* *Align attribute of caption specifies the alignment of the caption.*
* *Possible values are top (the default), bottom, left and right.*
* *Syntax:*

*<table>*

*<caption> this is the caption text </caption>*

*Table Header and Footer*

* *Tables can be divided into three portions*

1. *a header*
2. *a body and*
3. *a foot.*

* *The head and foot are rather similar to headers and footer in a word-processed document that remain the same for every page, while body is the main content holder of the table.*
* *The three elements for separating the head, body and foot of a table are-*
* *<thead> - to create a separate table header*
* *<tbody>-to indicate the main body of the table.*
* *<tfoot> To create a separate table footer.*
* *A table may contain several <tbody> elements to indicate different pages or groups of data.*
* *But it is notable that <thead> and <tfoot> tags should appear before <tbody>*
* *Syntax:*

*<table>*

*<thead>*

*<tr>*

*<td colspan=" "> text </td>*

*</thead>*

*<tfoot>*

*<tr>*

*<td colspan="">text </td>*

*</tfoot>*

*<tbody>*

*<tr>*

*<td> text </td>*

*<td> text </td>*

*</tr>*

*</tbody>*

*</table>*

* *Example*
* *<html>*
* *<head>*
* *<title> table tag </title>*
* *</head>*
* *<body>*
* *<table border="2" Bordercolor="Green">*
* *<Caption> Book, Author and price </caption>*
* *<tr bgcolor="red">*
* *<th> Name of Book </th>*
* *<th> Name of Author </th>*
* *<th> Price </th>*
* *</tr>*
* *<tr>*
* *<td> Data Structure using C </td>*
* *<td Rowspan="2" bgcolor="yellow” > yashavant </td>*
* *<td> 350 </td>*
* *</tr>*
* *<tr>*
* *<td> python programming </td>*
* *<td> 400 </td>*
* *</tr>*
* *<tr>*
* *<td>Internet and web Technology </td>*
* *<td> raj Kamal </td>*
* *<td> 300</td>*
* *</tr>*
* *<table>*
* *</body>*
* *</html>*

|  |  |  |
| --- | --- | --- |
| *Name of Book* | *Name of author* | *price* |
| *Data Structure using C* | *yashavant* | *350* |
| *python programming* | *400* |
| *Internet and web Technology* | *raj Kamal* | *300* |

*Lists tags*

* *A list is a record of related information*
* *In HTML the lists are used to display lists of information on webpages in the ordered or unordered form.*
* *All lists may contain one or more list elements.*
* *There are three different types of HTML lists*

1. *Ordered List or Numbered list (ol)*
2. *Unordered list or Bulleted list (ul)*
3. *Definition list or Description list (dl)*

* *Each list item is added Using <li> tags*

1. *Unordered list (<ul>------------</ul>)*

* *The "UL" tag is used to create an unordered list.*
* *An unordered list is the list of items marked with bullet points.*
* *The unordered list starts with <ul> and end with </ul>tag.*
* *Each list item starts with <li> tag*
* *The list Item are marked with bullets i.e., small black circle by default.*
* *The "type attribute" is used to change the default.*
* *The following are the passible options: Circle, Square and disc (default)*
* *Syntax:*

*<ul type=” “>*

*<li> item 1</li>*

*<li> item 2 </li>*

*</ul>*

* *Example:*

*<ul>*

*<li> Apple </li>*

*<li> Banana </li>*

*</ul>*

*Output*

* *Apple*
* *Banana.*

1. *Ordered List (<ol>------------</ol>)*

* *The <ol> tag is used to create an ordered list.*
* *Each list & item in ordered list starts with <li> tag.*
* *The list items are marked with number by default.*
* *The "type attribute" is used to change the default*
* *The following are the possible outcomes: Upper case letters (A), lower case letters (a), Upper case Roman number (I), lower case roman (i) and Numbers (1)(Default)*
* *The" Start attribute” is used to specify the starting point of numbering you need.*
* *Syntax:*

*<ol type= “” Start = " “>*

*<li>item1</li>*

*<li> item 2 </li>*

*</ol>*

* *Example:*
* *<ol type="i" start="4"> Numeral starts with iv*
* *<li> Apple </li>*
* *<li> Banana </li>*
* *</ol>*
* *Output:*

1. *Apple*
2. *Banana*
3. *Definition list (<dl>-------</dl>)*

* *The definition list is unordered list in which each item has 2 parts*

1. *Item and*
2. *its corresponding definition.*

* *The definition lists are specified as <dl> -- </dl>tags.*
* *The definition list is the ideal way to present a glossary.*
* *The definition list makes use of following three tags*

*<dl> -------” Defines the start of the list”*

*<dt>-------- "A term name"*

*<dd>--------" term definition"*

*</dd>------- "Defines the end of the list"*

* *Syntax:*

*<dl>*

*<dt> term1 </dt>*

*<dd> term1 definition </dd>*

*<dt> term2 </dt>*

*<dd> term2 definition </dd>*

*</dl>*

* *Example*

*<dl>*

*<dt> HTML </dt>*

*<dd> Hypertext Markup language </dd>*

*<dt> HTTP </dt>*

*<dd> Hypertext Transfer Protocol </dd>*

*</dd>*

*Output*

*HTML*

*Hyper Text Markup Language*

*HTTP*

*Hypertext Transfer Protocol.*

*Links tags*

* *A webpage can contain various links that take you directly to other pages and even Specific parts of a given page. These links are known as hyperlinks*
* *“A hyperlink is an HTML object that allows user to jump to a new location when user click or tap it."*
* *Hyperlinks allow visitors to navigate between websites by words, phrases and images. Thus we can create hyperlinks using text or images available on a webpage.*
* *This hyperlink is used to link the webpage to other webpages or some section of the same webpage.*

*Linking documents*

* *The links in the web pages are specified using HTML tag <a>*
* *This tag is called anchor tag.*
* *Anything between the opening <a> tag and the </a>tag becomes part of the link and a user can click that part to reach to the linked document.*
* *The most important attribute of the <a> element is the "href attribute."*
* *The href attribute is used to define the address of the file to be linked. In other words, it points out the destination page*
* *Syntax*

*<a href="Document URL"--attributes-list> Link Text </a>*

* *Note the link text is the part that will be visible to the reader. Clicking on the link text, will send the reader to the Specified URL address.*
* *Example*

*<html>*

*<head>*

*<title> HYPER LINKS </title> </head>*

*<body>*

*<a href="d:\imageas html"> click here </a>*

*<body>*

*</html>*

*Target Attribute*

* *The "target attribute" is used to specify where to open the linked document.*
* *By default, the linked page will be opened in the same browser window.*
* *To change this, or to open page The linked in another browser window, you must specify another target for the link.*
* *The target attribute can only use with href attribute in anchor tag.*
* *The target attribute can have one of the following values.*

|  |  |
| --- | --- |
| *Value* | *Description* |
| *\_self* | *Default. opens the linked document in the same window or tab.* |
| *\_ blank* | *opens the linked document in a new window or tab.* |
| *\_ Parent* | *opens the linked document in the parent frame.* |
| *\_top* | *opens the linked document in the full body of the window.* |
| *Target frame* | *Opens the linked document in a named target frame.* |

* *The links will appear as follows in all browsers by default*
* *An unvisited link is underlined and blue.*
* *A visited link is underlined and purple.*
* *An active link is underlined and red.*

*Image Links*

* *A link does not have to be text. A link can also be an image.*
* *To use an image as link, just put the <img> tag inside the <a>tag*
* *Syntax*

*<a href="Path"> <img src="URL"> </a>*

* *Example*

*<html>*

*<head>*

*<title> Image link </title>*

*</head>*

*<body>*

*<p> the image below is a link </p>*

*<a href = "html images.asp"><img src="/images/computer.jpg"></a>*

*</body>*

*</html>*

*Email links*

* *It is not difficult to put an HTML email link on your webpage but it can cause unnecessary Spamming problem for your email account.*
* *There are people, who can run programs to harvest these types of emails and later use them for spamming in various ways.*
* *Email tag*
* *HTML <a> tag provides you option to specify an email address to send an email.*
* *While using <a> tag as an email fag, you will use "mailto: email address" inside the href attribute to create a link that opens the user's email program to let them send a new email.*
* *following is the syntax of using mailto instead of using http.*
* *<a href="mailto: abc@example.com">Send Email </a>*

*FRAME Tags*

* *The HTML frames are used to divide your browser window into multiple sections where each section can load a separate HTML document.*
* *A Collection of frames in the browser window is known as a Frameset.*
* *The window is divided into frames in a similar way the tables are organized: into rows and columns.*

*Creating Frames*

* *To Create frame, we use <frame> tag along with <frameset>*
* *To use frames on page we use <frameset > tag instead of <body> tag.*
* *The <frameset> tag defines, how to divide the window into frames.*
* *The rows attribute of <frameset> tag defines horizontal frames.*
* *The cols attribute of <frameset > tag defines vertical frames.*
* *Each frame is indicated by <frame> tag and it defines which HTML document shall open into the frame*
* *Note: Frames does not contain any body of HTML*
* *The <frame> tag deprecated in HTML5. Don't use this element.*
* *Syntax*

*</head>*

*<Frameset rows/cols="”>*

*< frame src=" ">*

*< frame src=" “>*

*</frameset>*

*Attributes of <Frameset> tag*

* *Following are important attributes of the <frameset > tag:*

1. *Cols:*

* *The cols attribute is used to create vertical frames in web browser. This attribute specifies how many columns are contained in the frameset and the size of each column.*
* *You can specify the size or width of each column in one of the three ways:*

1. *Using absolute values in Pixels:*

*Example: to create 3 vertical frames*

*Cols="100, 500, 100".*

1. *Using percentage values of the browser window*

*Example: to create 3 vertical frames*

*Cols = 10%, 80%, 10%"*

1. *Using wild card values:*

*Example: To create 3 vertical frames.*

*Cols = "20%, \*, 20%”*

*In this case wild card takes the remainder of window*

1. *Rows:*

* *The rows attribute is used to create horizontal frames in web browser.*
* *This attribute specifies how many Rows are contained in the Frameset and the size of each row.*
* *You can specify the size of rows or height of each row in one of the three ways:*
  + 1. *Using absolute values in pixels*
    2. *Using percentage values of the browser window*
    3. *Using wildcard values*

1. *Border:*

* *This attribute specifies the width of border of each frame in pixels.*
* *Zero value is used for no border.*
* *Example <frameset border="4">*

1. *frame border:*

* *This attribute is used to specify whether the three-dimensional border should be displayed between the frames or not.*
* *This attribute takes two values 0 and 1*
* *Where 0 defines for no border and 1 defines for yes there will be border.*
* *Example <frameset frameborder="0">*

1. *Frame Spacing:*

* *This attribute is used to specify the amount of spacing between the frames in a frameset.*
* *This attribute takes any integer value. Basically, denotes value in pixel.*
* *Example <frameset frame spacing="20">*

*Attributes of Frame tag*

* *The following are the important attributes of <frame> tag*

1. *Src - This attribute is used to give the file name that should be loaded in the frame.*

* *The value of src can be any URL*
* *Syntax: <frame src="URL">*

1. *Name: This attribute is used to give names to the frame.*

* *It is used to indicate which frame a document should loaded into.*
* *This is especially important when you want to create links in One frame that load pages into another foam, in which case the second frame needs a name to identify itself as the target of the link.*

1. *Frameborder: This attribute specifies whether or not the borders of that frame are shown*

* *It overrides the value given in the frame border attribute on the <frameset> tag if one is given, and this can take.*
* *Values either 1(yes) or 0(no).*

1. *Margin width: This attribute is used to specify the width of the Space between the border and contents of left and right frame.*

* *The value is given in pixels.*
* *Example*

*<frame margin width = "20">*

1. *Margin height: This attribute is used to specify height of the Space between the border and contents of top and bottom frame.*

* *The value is given in pixels.*
* *Examples:*

*<frame margin height= "20">*

1. *Scrolling: This attribute controls the appearance of scrollbar in Frame.*

* *The value of this attribute can be yes, no or auto. Where the value no denotes there will be no appearance of scroll bar.*

1. *Target attribute: one of the most popular uses of frames is to place navigation bars in one frame and then load main pages into a separate fame.*

* *So, whenever user click any of the links in one frame, the available link will open main page in other frame.*
* *The value of target attribute is the name of the frame into which you wish to load the new webpage.*
* *Example: <a href="http://www.google.com" target="main page">Google</a>*

*Form Tag*

* *An HTML forms are used to take keyboard input from the user*
* *HTML forms are required, when you want to collect some data from the site visitors.*
* *The form tag consists of one or more elements, which are elements that allow the user to enter data.*

*Syntax: <form> Form elements like input, text area etc</form>*

*HTML form Controls*

* *There are different types of form controls that you can use to collect data using HTML form. The different HTML form controls are as follows*
  + 1. *Text Input Controls----- Text, Password, date, email*
    2. *Check boxes controls*
    3. *Radio Box Controls*
    4. *Select Box Control*
    5. *file select boxer*
    6. *Hidden Controls*
    7. *clickable buttons*
    8. *Submit and Reset Button.*

*Input Tag*

* *The HTML <input>element is fundamental form element.*
* *It is used to create from fields, to take input from over.*
* *The <input> element is the element used to specify other form controls.*

*Attributes of Input tag*

1. *The following is the list of attributes for <input> tag for creating from* 
   * 1. *Type: It specifies the type of the form control*
     2. *Name: It is used to give a name to the control which is sent to the server to be recognized and get the value.*
     3. *Values: This can be used to specify the default or initial value displayed inside the control.*
     4. *Size: Allows to specify the width of the text box*
     5. *Max length: Allows to specify the maximum number of characters that a user can enter into the text box.*
     6. *Placeholder: Short hint is displayed about an expected format before User enters a value.*

*Form Control*

1. *Text input control*
2. *Single line text input control*

* *This control is used for items that require only one line of user input.*
* *Single Iine text input controls are created using an <input> element, whose type Attribute has a value of text.*
* *Example:*

*<form>*

*First name: <input type="text" Name="first\_name" Value = "first\_name">*

*</form>*

* *Output*

*first name: First name*

1. *Password Input control*

* *This is also a single line text input, but only difference is the characters in password field are masked as soon as user enters it.*
* *This is created using an <input> element whose type attribute has a value of password.*
* *Example*

*<form>*

*Password: <input type="password" name="password" value="password">*

*</form>*

* *Output*

*password: …………….*

1. *Multi-line Text input Control*

* *Text area is the multiple-line input control that allows a user to enter more than one line of text.*
* *Multi line text input controls are created using a <textarea> element.*

*Attributes of textarea tag*

* *Name: used to give a name to the control which is sent to the server to be recognized and get the value*
* *Rows: Indicates the number of rows of text area box.*
* *Cols: Indicates the number of columns of text area box.*
* *Example:*

*<form>*

*Address: <textarea rows = "5” cols="50" name="description">*

*Enter description here*

*</textarea>*

*</form>*

* *Output*

*Enter description here*

*Address:*

1. *Check Box Control*

* *Checkboxes allows the user to select one or more option from a predefined set of options.*
* *It is created using an <input> element where type attribute has a value of checkbox.*
* *The attribute checked can be used if you want to select it by default*
* *Example:*
* *<form>*
* *Subject: <input type="checkbox" name="Subject"> Maths*
* *<input type="checkbox" name="subject">physics*
* *</form>*
* *Output*
* *Subject: maths physics*

1. *Radio Button Control*

* *Radio buttons are used to let the user select exactly one option from a pre-defined set of options.*
* *It is created using on <input> element whose type attribute has a value of radio*
* *The Checked attribute is used if you want to set a default value.*
* *Example:*

*<form>*

*Subject: <input type="radio" Name="subject" value="maths"> Maths*

*<input type="radio" name="subject" value="physics" >physics*

*</form>*

* *Output*

*Subject: maths physics.*

1. *Select Box Control*

* *A select box, is also called drop down box which allows the user to select one or more option from a drop-down list of options.*
* *select box is created using the <select>element and <option> element.*
* *The <option> elements within the <select> element define each list item.*

*Attributes of <select> tag*

* *name: used to give a name to the control which is sent to the server to be recognized and get the value.*
* *Size: This can be used to present a scrolling list box*
* *multiple: the multiple allows a user to select multiple items from the menu*

*Attributes of <option>tag*

* + - * *value: The value that will be used it an option in the select box is selected.*
      * *Selected: Specifies that this option should be initially selected value. When the page loads*
      * *Example:*

*<form>*

*Subject: <select name=" Subject ">*

*<option value = "Subject">subject </option>*

*<option value="maths"> Maths </option>*

*<option value = "physics" selected > Physics </option>*

*</form>*

* + - * *Output*

*Subject: Physics V*

1. *File Upload Box*
   * + - *If you want to allow a user to upload a file to your website, you will need to use a file upload box.*
       - *This is created using the <input> element whose type attribute has a value of file.*

*Attributes of fill upload box*

* + - * *Name: used to give a name to the control which is sent to the server to be recognized and get the value.*
      * *Accept: Specifies the types of files that the server accepts.*
      * *Example:*

*<form>*

*Upload: <input type="file" name="upload" Accept = "Image">*

*</form>*

* + - * *Output*

*Upload: Choose File*

1. *Button Controls/Submit and Reset Buttons*
   * + - *A submit button is used to send the form data to a web server.*
       - *When submit button is clicked the form data is sent to the server.*
       - *A reset button is used to reset all the form control to default values.*
       - *The submit is created using an <input> element where type attribute has a value of submit*
       - *The rest is created using an <input> element whose type attribute has a value of Reset.*
       - *Example:*

*<form>*

*<input type="submit" value="submit" name="submit">*

*<input type="reset" value="Reset" name="reset">*

*</form>*

* + - * *Output: Submit Reset*

*Font tags*

* + - * *The<font> tag plays an important role in the making the website attractive and readable.*
      * *The font tag is used to change the color, size and style of a text.*
      * *The <base font> tag is used to set all text to the same Size, Color and face.*
      * *The font tag is having three attributes and they are.*

1. *size*
2. *color*
3. *face.*

* *Syntax: <font attribute="value"> content </font>*

1. *font size*

* *This attribute is used to adjust the size of the text in the HTML document*
* *The range of size of the font is HTML is from 1 to 7*
* *Default size of font is 3.*

*Syntax: <font size="value"> content </font>*

1. *font face / type*

* *The font type can be set by using face attribute with font tag*
* *The fonts used by the user need to be installed in the system first*
* *It is also possible to specify two or more font face alternatives by listing the font face names, separated by a comma.*
* *Syntax <font face="font\_family"> Content </font>*

1. *Font Color*

* *The font color is used to set the text color.*
* *You can specify the color that you want by either the Color name or hexadecimal code for that color.*
* *Syntax <font color="Color name I hex-number l rgb\_number">*

*Other HTML tags*

*Div tag and Span tag*

*Div tag*

* *The div tag is Known as "Division tag”*
* *The div tag is used in HTML to make divisions of content on the web page like (text, Images, header, footer, Navigation bar, etc).*
* *Div tag has both opening <div> and closing </div> tags*
* *Div tag is a block level tag.*
* *That mean that the div tag takes entire width of the screen and it will display div tag each time on a newline not on the same line.*

*Syntax: <div>Elements </div>*

*Span tag*

* *The Span tag is the inline tag*
* *It is used to group element for styling purposes.*
* *The span tag is a paired tag means it has both opening and closing bags.*

*Syntax: <span> text </span>*

*Nav tag*

* *The nav element represent a section of the page whore purpose is to provide navigational links either in the current document or to another document.*
* *It defines set of navigation links and it is intended only for major blocks of navigation links, note that NOT all links of a document should be inside a <nav> element*
* *links within nav tag can be codes within a ul list or. Simply coded a separate links. Without ul element*
* *syntax: <nav> links </nav>*

*Marquee tag*

* *The Marquer tag in HTML is used to create scrolling text or image in a web pages.*
* *It scrolls either from horizontally left to right or right to left or vertically top to bottom or bottom to top.*
* *Syntax: <marquee >Contents </marquee >*
* *The three major attributes of marquee tag*

1. *bgcolor - define the background color of the marquee*
2. *direction — define the direction of scrolling the content i.e., Top, Down, left and right.*
3. *Scroll amount - Specifies how many times content move. Infinite is the default value. It can be any number.*