**HTML – Hyper Text Markup Language.**

* HTML - Describes the structure of a web page.
* HTML - Consists of a series of elements.
* HTML - Elements tell the browser, how to display.
* HTML - Elements are represented by tags.
* HTML tags label pieces of content such as “heading” , “ paragraph” ,”table” so on.

HTML document consists of:

<!DOCTYPE html> - defines HTML version, from 2014 it is HTML5.

<html> - element is the root element of an html page.

<head> - element contains meta information about document.

<title> - element specifies a title for the document.

<body> - element contains the visible page content.

<h1> element defines a large heading.

<p> element defines a paragraph heading.

HTML Tags: are element names surrounded by angle brackets.

<tagname> content </tagname>

Eg: <p> content </p>

**HTML Attributes: provides additional information about HTML elements.**

* All HTML elements can have attributes.
* Attributes provide additional information about an element.
* Attributes are always specified in the **start tag**.
* Attributes usually come in name/value pair like (**name=”value”**).

Eg:

**href** Attribute: links are defined with <a> tag and link address is specified in the href attribute.

<a href=<http://www.yahoo.com/mail>>

**src** Attribute: images are defined with <img> tag and file name of image source is specified in src

<img src=”img1.jpg”>

**width** and **height** Attribute: width and height are specified in pixels width in width and height.

<img src=”img1.jpg” width=”500” height=”500”>

**alt** Attribute: alt specifies an alternative test to be used (displayed next to the element).

<img src=”img1.jpg” alt=”to listen to click hear>

**style** Attribute specifies the styling of an element.

<p style=”color:red”> this is paragraph</p>

**lang** Attribute: language of the document is declared in <html> tag

<html lang=”en-US”>

**title** Attribute: value of title attribute is displayed as tooltip when mouse hover on it.

<p title=”I am tooltip”> this is paragraph</p>

<hr> tag – Horizontal Rules – defines a thematic break (separate content/ draws horizontal line).

<br> tag – line break (a new line).

<pre> tag – defines preformatted text (displayed in fixed-width font spaces and line breaks).

**HTML Formatting Elements: is not like style attribute but special elements.**

HTML also defines special elements for defining for defining test with a special meaning.

<b> - Bold text.

<strong> - Important text.

<i> - Italic text.

<em> - Emphasized text.

<mark> - Marked text.

<small> - Small text.

<del> - Deleted text.

<ins> - Inserted text.

<sub> - Subscript text.

<sup> - Superscript text.

HTML Quotation and Citation elements:

<q> - short quotations (displays “).

<blockquote> - defines a section that quoted from another source.

<abbr> - defines an abbreviation or acronym.

<address> defines contact information of a document.

<bdo> - defines bi-directional override (displays in text in reverse).

**HTML Links: allows user to click their way from page to page. (a mouse arrow will into a little hand)**

**Note: a does not have to a text, it can be an image or other HTML element.**

**<a> tag - defines hyperlinks.** [ href Attribute specifies the destination address of the link>

Syntax:

< a href:”url”><link text</a>

Local link ( link on same website ) is specified with a relative URL ( with specific file)

Eg:

<a href=”html\_img.asp”> image page</a>

**HTML Link colors:**

Blue – an unvisited link is underlined.

Purple – a visited link is underlined.

Red – an active link is underlined.

Note: We can the default color using CSS.

**HTML Links – *target Attribute*: specific where to open the linked document.**

**Target attribute values:**

\_blank – opens the linked document in new window or tab.

\_self – opens the linked document in the same window or tab.

\_parent – opens the linked document in the parent frame.

\_top – opens the linked document in the full body of the window.

framename – opens the linked document in named frame.

**HTML Links – Create a Bookmark: allows reader to jump to specific parts of a same web page.**

First, create a bookmark with the id attribute

**<h2> id=”C4”> chapter 4</h2>**

Then, add a link to the bookmark, from with the same page.

**<a href=”#C4”> Jump to chapter 4</a>**

Or add a link to the bookmark, from another page.

**<a href=”demopage.html#C4”> Jump to chapter 4</a>**

**External paths: can be referenced with full URL to web page.**

Eg:

<a href=”full url”> link text </a>

**HTML Tables : is defined with <table> tag.**

**Each table row is defined with <tr>, table header is defined with <th> tag, table data/cell is defined by <td> tag.**

**By default, table headers are bold and centered**

<table>

<tr>

<th> first name</th>

<th>last name</th>

<th> age </th>

</tr>

<tr>

<td> John</td>

<td>Smith</td>

<td> 45 </td>

</tr>

</table>

**HTML List:**

**Unorder HTML List starts with the <ul> tag. Each list itme with <li> tag.**

<ul>

<li> milk </li>

<li> coffee</li>

<li> sugar</li>

</ul>

**Unorder HTML List starts with the <ul> tag. Each list itme with <li> tag.**

<ol>

<li> milk </li>

<li> coffee</li>

<li> sugar</li>

</ol>

**Ordered HTML list – type Attribute.**

type =”1” – list items will be numbered with number (default).

type =”A” – list items will be numbered with uppercase letters.

type =”a” – list items will be numbered with lowercase letters.

type =” I” – list items will be numbered with uppercase roman numbers.

type =”i” – list items will be numbered with lowercase roman numbers.

**HTML Description Lists. A description list is a list of terms, with a description of each item.**

**The <dl> tag defines the description list, <dt> defines the term (name) and the <dd> tag defines each term.**

<dl>  
  <dt>Coffee</dt>  
  <dd>- black hot drink</dd>  
  <dt>Milk</dt>  
  <dd>- white cold drink</dd>  
</dl>

**HTML Block and Inline elements.**

**Every HTML element has default display value depending on what type of element it is .**

**Two display values are:**

1. **block : A block-level elements starts on a new line and takes up full width available.**

**(stretches out to left and right as far it can).**

1. **inline: An inline element does not start on a new line and only takes up as much width as necessary.**

**1.block-level elements:**

**The <div> element is a block-level element.**

The <div> element is often used as a container for other HTML elements.

The <div> element has no required attributes, but style, class and id are common.

When used together with CSS, the <div> element can be used to style blocks of content:

**Block level elements in HTML:**

<address> <article> <aside> <blockquote> <canvas> <dd> <div> <dl> <dt> <fieldset> <figcaption>

<figure> <footer> <form> <h1>-<h6> <header> <hr> <li> <main> <nav> <noscript> <ol> <p> <pre>

<section> <table> <tfoot> <ul> <video>.

**2.inline elements:**

**The <span> element insude a paragraph.**

The <span> element is often used as a container for some text.

The <span> element has no required attributes, but style, class and id are common.

When used together with CSS, the <span> element can be used to style parts of the text:

**Inline elements in HTML:**

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

**HTML –** the **class Attribute:**

The HTML class attribute is used to define equal styles for elements with the same class name.

So, all HTML elements with the same class attribute will get the same style.

Tip: The class attribute can be used on any HTML element.

Note: The class name is case sensitive!

**HTML –** the **id Attribute:**

The id attribute specifies a unique id for an HTML element (the value must be unique within the HTML document).

The id value can be used by CSS and JavaScript to perform certain tasks for the element with the specific id value.

In CSS, to select an element with a specific id, write a hash (#) character, followed by the id of the element:

Tip: The id attribute can be used on any HTML element.

Note: The id value is case-sensitive.

**Difference Between Class and ID:**

An HTML element can only have **one unique id** that **belongs** to that **single element**, while a **class name** can be **used by multiple elements**.

**HTML iframes: An iframe is used to display a web page within a web page.**

**An HTML iframe is defined with <iframe> tag.**

Syntax:

<iframe src=”url”></iframe>

**HTML Forms:**

**The HTML <form> element defines a form that is used to collect user input**

**Action** attribute defines the action performed when the form is submitted.

If action is omitted. The action is set to current page.

**Target** attribute specifies if the submitted will open in a new browser or current browser.

**Method** attribute specifies the HTTP method (GET or POST) to be used when submitting the form data.

The **Name** attribute: **Each input field must have name attribute to be submitted**. If the name attribute is omitted the data of input field will not be sent.

**<form action=”/action\_page.jsp” target=”\_blank” method=”get”>**

**Form elements**

**</form>**

**FORM elements:**

Form elements are different types of input elements, like text fields ,checkbox, radio button etc..

The **<input>** element is the most important **<form>** element.

The **<input>** element can be displayed in several ways, Depending on the **type attributes**.

**The type attributes:**

<input type="button"> <input type="checkbox"> <input type="color"> <input type="date">

<input type="datetime-local"> <input type="email"> <input type="file"> <input type="hidden">

<input type="image"> <input type="month"> <input type="number"> <input type="password">

<input type="radio"> <input type="range"> <input type="reset"> <input type="search"> <input type="submit"> <input type="tel"> <input type="text"> <input type="time"> <input type="url">

<input type="week">

**value attribute** specifies the **initial value** for an **input field.**

**readonly attribute** specifies that the **input field** is **read only.**

**disabled attribute** specifies that **input field** is **disabled.**

**size attribute** specifies the **size** (in characters) for the **input filed**.

**maxlength attribute** specifies **maximum allowed length** for the **input field**.

**The autocomplete Attribute**

The autocomplete attribute specifies whether a form or input field should have autocomplete on or off.

When autocomplete is on, the browser automatically completes the input values based on values that the user has entered before.

Tip: It is possible to have autocomplete "on" for the form, and "off" for specific input fields, or vice versa.