**HTML**

**What is HTML?**

* HTML stands for Hyper Text Markup Language.
* HTML describes the structure of a webpage.
* HTML consists of a series of elements.
* HTML elements tell the browser how to display the content.

**HTML Documents: -**

* All the HTML documents must start with a document type declaration. i.e. <!DOCTYPE html>
* The HTML document itself begins with <html> and ends with </html>
* The visible part of the HTML document is between <body> and </body>

**The <!DOCTYPE> declaration: -**

* The <!DOCTYPE> declaration represents the document type, and helps browsers to display web pages correctly.
* It must only appear once, at the top of the page (before any HTML Tags)
* The <!DOCTYPE> declaration is not case sensitive.

**HTML ELEMENTS: -**

* An HTML element is defined by a start tag, some content, and an end tag.
* E.g. <h1> My first heading </h1>
  + <h1> - start tag
  + “My first heading” – content
  + </h1> - end tag\

**Nested HTML Element: -**

* HTML elements can be nested (this means that elements can contain other elements).
* All HTML documents consist of nested HTML elements.

Note: never skip the End tag.

Some HTML elements will display correctly, even if you forget the end tag.

However, never do this, an unexpected results and error may occur if you for the end tag.

**Empty HTML Element: -**

* HTML elements with no content are called empty elements.
* E.g. the <br> tag defines a line break, and is an empty element without a end tag.

NOTE: HTML is not Case sensitive.

**HTML Attributes: -**

* HTML attributes provide additional information about HTML elements.
* All HTML elements can have attributes.
* Attributes are always specified in the start tag.
* Attributes usually come in name/value pairs like: name = “value”.

Some of the most common attributes are:

1. **The href Attribute:**

* The <a> anchor tag defines a hyperlink.
* The href attribute specifies the URL of the page the link goes to.

1. **The src Attribute:**

* The <img> tag is used to embed an image in an HTML page.
* The src attribute specifies the path to the image to be displayed.

1. **The Style Attribute:**

* The style attribute is used to add styles to an element, such as color, font, size and more.
* Example: <p style= “color: red;”> this is a red paragraph. </p>

**HTML HEADINGS: -**

* HTML headings are titles or subtitles that you want to display on a webpage.
* There are 6 heading tags to define most important to least important.
  + <h1>……</h1>
  + <h2>……</h2>
  + <h3>……</h3>
  + <h4>……</h4>
  + <h5>……</h5>
  + <h6>……</h6>
* Search engines use the headings to index the structure and content of your web pages.

**HTML paragraphs: -**

* A paragraph always starts on a new line, and it is usually a block of text.
* The HTML **<p>** element defines a paragraph
* A paragraph always starts on a new line, and browsers automatically add some white space (a margin) before and after a paragraph

**HTML Display:**

You cannot be sure how HTML will be displayed. Large or small screens, and resized windows will create different results.

With HTML, you cannot change the display by adding extra spaces or extra lines in your HTML code.

The browser will automatically remove any extra spaces and lines when the page is displayed.

**HTML Horizontal Rules: -**

* The **<hr>** tag defines a thematic break in an HTML page, and is most often displayed as a horizontal rule.
* The **<hr>** element is used to separate content (or define a change) in an HTML page.
* The **<hr>** tag is an empty tag, which means that it has no end tag.

**HTML Line Breaks: -**

* The HTML **<br>** element defines a line break
* Use **<br>,** if you want a line break (a new line) without starting a new paragraph.
* The **<br>** tag is an empty tag as well, which means that it has no end tag.

**The Poem Problem:**

* Sometimes we need to display the content with spaces and new lines. Say for example: Poem
* But with usual **<p>** paragraph tag, the browser removes the extra spaces and the new line.
* The HTML **<pre>** tag helps in such conditions for preformatted text
* The text inside a **<pre>** element is displayed in a fixed-width font, and it preserves both spaces and line breaks.

**HTML STYLES: -**

* the HTML Style attribute is used to add styles to an element, such as color, font, size, and more.

Syntax:

<tagname style = “property:value;”>

* the property is a CSS property. The value is a CSS value.

**HTML TEXT FORMATTING: -**

* HTML contains several elements for defining text with a special meaning.
* Formatting elements we designed to display special types of text:
  + <b> - bold text
  + <strong> - important text
  + <i> italic text
  + <em> - emphasized text
  + <mark> - marked text
  + <small> - smaller text
  + <del> - deleted text
  + <ins> - inserted text
  + <sub> - subscript text
  + <sup> - superscript text

**HTML Quotation and Citation elements: -**

* In this topic, we will go through some of the tags called <blockquote>, <q>, <abbr>, <address>, <cite> and <bdo> elements.

**HTML <blockquote> for Quotations:**

* The HTML <blockquote> defines a section that is quoted from another source.
* Browsers usually indent <blockquote> elements.

**HTML <q> for short Quotations:**

* The HTML <q> tag defines a short quotation.
* Browsers normally insert quotation marks around the quotation.

**HTML <abbr> for Abbreviations:**

* The HTML <abbr> tag defines an abbreviation or an acronym, like “HTML”, “CSS”, “Mr.”, “Dr.”, “ASAP”, “ATM”.
* Marking abbreviations can give useful information to browsers, translation systems and search-engines.

Note: use the global title attribute to show the description for the abbreviation/acronym when you mouse over the element.

**HTML <address> for Contact Information:**

* The HTML <address> tag defines the contact information for the author/owner of a document or an article.
* The contact information can be an email address, URL, physical address, phone number, social media handle, etc.
* The text in the <address> element usually renders in italic, and browsers will always add a line break before and after the <address> element.

**HTML <cite> for Work Title:**

* The HTML <cite> tag defines the title of a creative work (e.g. a book, a poem, a song, a movie, a painting, etc.)
* The text in the <cite> element usually renders in italic.

**HTML <bdo> for Bi-Directional Override:**

* BDO stands for Bi-Directional Override.
* The HTML <bdo> tag is used to override the current text direction.