Web Design and Development I

Topic 4: Basic HTML tags

1.0 Overview

As told earlier, HTML is a markup language and makes use of various tags to format the content. These tags are enclosed within angle braces **<tagname>**. Except few tags, most of the tags have their corresponding closing tags. For example, **<html>** has its closing tag **</html>** and **<body>** tag has its closing tag **</body>** tag etc. HTML is the standard Markup language for creating Web pages. HTML stands for Hyper Text Markup Language. HTML describes the structure of Web pages using Markup. HTML elements are the building blocks of HTML pages. HTML elements are represented by tags. HTML tags label pieces of content such as "heading", "paragraph", "table", and so on. Browsers do not display the HTML tags, but use them to render the content of the page

1.1 Basic HTML Tags

HTML tags are element names surrounded by angle brackets: <tagname> content goes here...</tagname>

HTML tags normally come **in pairs** like <p> and </p>. The first tag in a pair is the **start tag,** the second tag is the **end tag.** The end tag is written like the start tag, but with a **forward slash** inserted before the tag name.

    i.   The <!DOCTYPE html> declaration defines this document to be HTML5

    ii.   The <html> element is the root element of an HTML page

    iii.   The <head> element contains meta information about the document

    iv.   The <title> element specifies a title for the document

    v.   The <body> element contains the visible page content

    vi.   The <h1> - <h6> element defines a large heading

    vii.   The <p> element defines a paragraph

viii.   The <! ------- comments ----> used to add comments to your code

1.1.1 <!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.

The <!DOCTYPE> declaration for HTML is: `<!DOCTYPE html>`

1.1.2 <h1> - <h6> tags

Headings are defined with the <h1> to <h6> tags. <h1> defines the most important heading. <h6> defines the least important heading.

1.1.3 <p> tags

Defines paragraphs in and html page

1.2 HTML Elements

An HTML element usually consists of a **start** tag and **end** tag, with the content inserted in between:

<tagname> content goes here...</tagname>

The HTML **element** is everything from the start tag to the end tag. The HTML **<head>** element has nothing to do with HTML headings. The <head> element is a container for metadata. HTML metadata is data about the HTML document. Metadata is not displayed. The <head> element is placed between the <html> tag and the <body> tag:

1.3 HTML Attributes

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 pairs like: **name="value"**

1.3.1 The tittle attribute

Here, a **title** attribute is added to the **<p>** element. The value of the title attribute will be displayed as a tooltip when you mouse over the paragraph:

```
<h2>The title attribute</h2>
<p title="I'm a tooltip">
Mouse over this paragraph, to display the title attribute as a tooltip.
</p>
```

1.3.2 The href attribute

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

```
<a href="http://www.tum.ac.ke">This is a link</a>
```

1.3.3 Size attribute

HTML images are defined with the **<img>** tag. The filename of the source (**src**), and the size of the image (**width** and **height**) are all provided as **attributes**:

```
<img src="images.jpg" width="104" height="142">
```

1.3.4 The alt attribute

The **alt** attribute specifies an alternative text to be used, when an image cannot be displayed. The value of the attribute can be read by screen readers. This way, someone "listening" to the webpage, e.g., a blind person, can "hear" the element.

```
<img src="images.jpg" alt="we cannot find this image" width="104" height="142">
```

1.3.5 The HTML Style attribute

Setting the style of an HTML element, can be done with the **style attribute**. The HTML style attribute has the following **syntax**:

```
<tagname style="property:value;">
```

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

1.3.5.1 HTML Background color

The **background-color** property defines the background color for an HTML element. This example sets the background color for a page to powderblue:

```
<body style="background-color:powderblue;">

<hl>This is a heading</hl>

<p>This is a paragraph.</p>

</body>
```

1.3.5.2 HTML Text color

The **color** property defines the text color for an HTML element:

```
<h1 style="color:blue;">This is a heading</h1>

<p style="color:red;">This is a paragraph.</p>
```

1.3.5.3 HTML Fonts

The **font-family** property defines the font to be used for an HTML element:

```
<h1 style="font-family:verdana;">This is a heading</h1>

<p style="font-family:courier;">This is a paragraph.</p>
```

1.3.5.4 HTML Text size

The **font-size** property defines the text size for an HTML element:

```
<h1 style="font-size:300%;">This is a heading. </h1>

<p style="font-size:160%;">This is a paragraph. </p>
```

1.3.5.5 HTML Text alignment

```
<h1 style="text-align:center;">Centered Heading</h1>
```

```
<p style="text-align:center;">Centered paragraph.</p>
```

1.4 HTML Block and Inline elements

Every HTML element has a default display value depending on what type of element it is. The default display value for most elements is block or inline.

1.4.1 Block level elements

A block-level element always starts on a new line and takes up the full width available (stretches out to the left and right as far as it can).

Examples of block-level elements:

    i.   \<div>

   ii.   \<h1> - \<h6>

  iii.   \<p>

  iv.   \<form>

1.4.2 Inline elements

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

Examples of inline elements:

- \<span>

- \<a>

- \<img>

1.4.3 The <div> element

The <div> element is often used as a container for other HTML elements. The <div> element has no required attributes, but both **style** and **class** are common. When used together with CSS, the <div> element can be used to style blocks of content:

```
<div style="background-color:black;color:white;padding:20px;">

    <h2>London</h2>

    <p>London is the capital city of England. It is the most populous city in
    the United Kingdom, with a metropolitan area of over 13 million
    inhabitants. </p>

     <p>Standing on the River Thames, London has been a major
    settlement for two millennia, its history going back to its founding by
    the Romans, who named it Londinium.</p>

</div>
```

1.4.4 The <span> element

The <span> element is often used as a container for some text. The <span> element has no required attributes, but both **style** and **class** are common. When used together with CSS, the <span> element can be used to style parts of the text:

```
<h1>My <span style="color:red">Important</span> Heading</h1>
```