Introduction to HTML

What is HTML?

1. HTML stands for Hyper Text Markup Language
2. HTML is the standard markup language for creating Web pages
3. HTML consists of a series of elements
4. HTML elements tell the browser how to display the content that is added to the document.

In order to start building a website, two basic tools are needed,

1. Text Editor (examples includes: Visual studio code, Atom, Notepad ++ etc.)
2. Browser (examples includes: Microsoft Edge, Google Chrome, Safari etc.)

Html is a document file and just like all document file it has its own set extension. Html documents always ends with the extension .html

Tags, Elements And Attributes

1. Tags are the starting and ending parts of an HTML element. They begin with < symbol and end with > symbol. Whatever written inside < and > are called tags. example <p> </p> .
2. HTML elements are whatever written within an HTML tag, these are the command being interpreted by your browser  engine.
3. Tags usually have an opening tag and a closing tag. the opening tag is written with the element inside while the closing tag is written with a / before the element.
4. Attributes specify various additional properties to the existing HTML element. HTML attributes are used to describe the characteristic of an HTML element in detail.
5. HTML attributes are found only on the opening tag of an element. example <h1 width="300">Hello World! <h1>

<!DOCTYPE html>

<html>

<head>

<title>Page Title</title>

</head>

<body>

<h1>My First Heading</h1>

<p>My first paragraph.</p>

</body>

</html>

Structure of the HTML Document

1. The <!DOCTYPE html> declaration defines that this document is an HTML5 document
2. The <html> element is the root element of an HTML page
3. The <head> element contains meta information about the HTML page
4. The <title> element specifies a title for the HTML page (which is shown in the browser's title bar or in the page's tab)
5. The <body> element defines the document's body, and is a container for all the visible contents, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.

### Introduction to CSS?

### What is CSS?

The Cascading Style Sheet (CSS) is used for styling web page to be attractive and perceived to be more organized. CSS is used for describing the presentation of the HTML document.

### How To Use CSS

1. Inline CSS: allows you to write CSS within HTML elements using the style attribute.
2. Internal CSS: internal is slightly more organized than inline CSS.
3. External CSS: with external CSS, you can create a separate CSS document that you can use to style all the pages on your website.

### CSS TYPOGRAPHY

This is **a module of CSS that defines font-related properties and how font resources are loaded**. It lets you define the style of a font, such as its family, size and weight, line height, and the glyph variants to use when multiple are available for a single character. such as

1. Font style, Font weight
2. Text transform, Text decoration, Text alignment
3. Word and letter spacing
4. Line height

#### **Color Usage**

The color property specifies the color of text.

Some ways of using colors are:

1. Common colour names
2. Hex codes
3. RGB
4. RGBA

## The CSS BOX MODEL

What is the CSS Box Model?

In CSS, the term "box model" is used to refer to design and layout. The CSS box model is simply a box that wraps around every HTML element.

It consists of margins, padding, borders and the actual content. This can also include width and height properties.

The Box Model Includes:

1. Margin
2. Padding
3. Borders
4. Width
5. Height
6. Length units: px, em, rem, percentage%

CSS Combinator

CSS Combinator

There are four different combinators in CSS:

1. descendant selector (space):   
   The descendant selector matches all elements that are descendants of a specified element.
2. child selector (>):   
   The child selector selects all elements that are the children of a specified element.
3. adjacent sibling selector (+):  
   The adjacent sibling selector is used to select an element that is directly after another specific element.
4. general sibling selector (~):  
   The general sibling selector selects all elements that are next siblings of a specified element.

PSEUDO CLASSES

A pseudo-class is used to define a special state of an element.

The syntax of pseudo-classes: selector:pseudo-class e.g: a:hover{}.

1. link
2. visited
3. hover
4. active
5. focus.

The Display Property

The display property specifies the display behavior of an element. The syntax is : display: *value*;

Types of Display Properties values

1. Block: Displays an element as a block element (like
2. Inline: Displays an element as an inline element (like ). Any height and width properties will have no effect
3. Inline-block: Displays an element as an inline-level block container. The element itself is formatted as an inline element, but you can apply height and width values.
4. Flex: Displays an element as a block-level flex container, This places all elements inside, side by side.
5. Grid: Displays an element as a block-level grid container. It allows us to create a grid like design with rows and columns.
6. None: The element is completely removed.

). It starts on a new line, and takes up the whole width.