Day 1 – Intro to HTML, CSS & JS

Every day the batch starts at 10 A.M ( ET) - 6 P.M

Two small breaks. (any 15 mins between 11p.m to 12p.m and 3p.m to 4 p.m)

One Lunch break ( 1 p.m to 2 p.m)

Every day 1 hour is the self study time and 1 hour for practice (hands-on)

Tools & Software Needed

1. VS Code (IDE – Integrated Development Environment) - <https://code.visualstudio.com/download>
2. Git Desktop Client (<https://git-scm.com/downloads> ) , Github client (<https://desktop.github.com/> )
3. Node JS (<https://nodejs.org/en/> 16.17.0 LTS ) LTS – Long Term Support (Stable)

HTML – HyperText Markup Language.

Normal Text – Just simple Text which will not have any additional functionalities.

Hyper Text – Unlike normal Text, it will have a link with other documents/ or pages in the same document.

HTML is the base for the Web Page.

HTML is a User friendly language.

HTML is a Markup Language – Tag based language. (All the commands in HTML are tags)

Tag means - <html> - A command with special symbol( less than and greater than symbol) at the beginning and end of the tag.

In HTML, all the Tags are pre-defined. (Each tags are already defined by the developer)

Father of HTML – Tim Berners Lee (HTML, WWW, Internet)

WWW = World Wide Web (W3)

W3C = World Wide Web Consortium

<https://www.w3schools.com/>

HTML is user -friendly ( Which will not throw any error, exception, not case and space sensitive)

Tags can be in any case (upper case or lower case or camel case)

HTML is the back bone of internet/web pages.

Simple HTML page

HTML tags are used in pairs most of the time.

HTML document is single rooted. Meaning there will be only one tag under that all other tags will come.

Example

<html> -- Root Tag (Opening Tag) will contain angular brackets (less than & greater than symbol)

</html> (Closing Tag) will have angular brackets and forward slash symbol.

Two sections

1. Head (In this section, the meta data of the page will go like title, meta, scripts, links)
2. Body (In this section, the whole web page content will be added)

Types of HTML Tags

* Heading Tags
* Formatting Tags
* Link Tags
* Table Tags
* List tags
* Form Tags
* Audio Tags
* Video Tags
* Input Tags
* Self closing Tags (Tags without closing tag – hr, br)
* Container Tags
* Geo Tags

HTML 5 (Version 5 – Latest Version)

VS Code – Visual Studio Code – Is an Open Source IDE suitable for Web Development.

DOCTYPE – tells the browser that the document type is HTML, so that the browser render it accordingly.

HTML tags will have optional attributes (key, value pairs).

Both keys and values of attributes are pre-defined. (It has defined already by the developers)

Each HTML document will have .html or .htm file extension.

HTML files/documents are opened/rendered in browsers to see the output.

If we open HTML files/documents in any editor, we can edit it contents.

HTML Elements = HTML Tags + Content (html opening tag + Content + html closing tag)

<h1> = html opening tag for heading1

</h1> = html closing tag for heading 1

<h1> Hello World!!! </h1> == HTML Element

HTML Tags

HTML Attributes (Key, value pairs which provide more info about the html tag)

Meta Data = Data about data.

Book (Java Complete Reference) --- Meta Data [1. TOC (Table of Contents) 2. Index Page ]

HTML Table

<table>

</table>

Table contains tr, th, td, thead & tbody.

Create a Registration form using HTML forms and table.

Add the following details

1. First Name
2. Last Name
3. Gender
4. Address
5. Date of Birth
6. Email ID
7. Mobile
8. Twitter
9. URL
10. Profile (File Upload)

HTML document name should be register.html and it needs to submit the form to signup.html

CSS – Cascading Style Sheet (Enhance the Look and Feel of the web page/website)

HTML is a body, CSS is the beautifier. (It improves the appearance of the webpage/website)

Ways of Adding CSS to HTML

1. Inline (Added directly to the HTML tags)
2. Internal (Using style tag)
3. External ( created a new file with .css extension and linked with html file) -- Recommended method

CSS uses the tag names without angular brackets.

CSS Syntax

Selector :

{

Property1 : Value1;

Property2 : Value2;

Property3 : Value3;

}

Types of Selector

1. Element Selector (It uses the html tag name to select any element)
2. ID selector (# - symbol denotes id selector –ID needs to be unique)
3. Class Selector (. – symbol denotes class selector – used regularly to select multiple elements at once)
4. Global selector / Universal Selector (\*)

Rules of CSS

**Note:** Do not add a space between the property value and the unit:  
Incorrect (space): margin-left: 20 px;  
Correct (nospace): margin-left: 20px;

. = class selector

# = id selector

Java Script – It is the life of the webpage/website

It improves user interaction.

JavaScript is a multi-paradigm (Functional Programming/Object Oriented Programming/ Parallel Programming/ Async programming), Loosely Typed (Dynamically typed) scripting language.

* Multi Paradigm
* Loosely Typed
* ES = ECMA Script
* Programming Lang of the Web (Page/Site)

ECMA = Electronics Computer Manufacturing Association

* The Original JavaScript ES1 ES2 ES3 (1997-1999)
* The First Main Revision ES5 (2009)
* The Second Revision ES6 (2015)
* The Yearly Additions (2016, 2017, 2018)

Restaurant == Classic Example

How the Web Page is working??

Ans : Client/Server Model [Client sents request and server process each request and provide response to it]

* Client send request throw browser (Request Object)
* Server receives the request from various sources and process each request
* After successful processing the results will be shared as a html document (Response Object)

Browser is actually Tool (To visit web pages)

Every browser will have 3 engines

1. HTML Rendering Engine ( To display the HTML tags)
2. CSS Styling Engine
3. JS Engine (To Run JS code)

Uses of JavaScript

1. DOM manipulation
2. Validation (Client Side validation)
3. User interaction

DOM = Document Object Model ( Tree like representation of each html document)