HTML & CSS

HTML – HyperText Markup Language (Very user friendly language)

HTML – is also called as Language of the Web/Internet

Father of HTML?? --- Tim Berners Lee

WWW – World Wide Web

Internet – Network of Networks

Network – Connecting two or more computers and other smart devices to share data and resources.

Network (Wired Network / Wireless Network)

Types Of Networks – LAN (Local Area Network), WAN (Wide Area Network), MAN (Metropolitan Area Network)

Network – Sender (sends the data) Receiver (Receives the data) – Client & Server Model

Client (send a request) and Server (Send a response)

Client & Server Model which uses Request & Response objects.

HTML – Hyper Text Markup Language

Language – It’s a medium of communication (Two computers/ Devices using http )

Markup – Tag based (everything is tags)

Tags are pre-defined, it has certain functionality which is already defined by the developer

<h1> </h1>

<h1> -- Heading1 Opening Tag

</h1> - Heading1 closing Tag

HyperText – It’s not a normal text, on clicking upon this text this will perform some action, like opening a url, downloading a file, redirecting to another page.

http = hypertext transfer protocol

Client Side – Browser (Google chrome, Firefox, safari, IE or Edge, Opera etc.,)

Server Side – Check the URL for validity, if valid, it executes some code and generate the response dynamically and send back to the place where it was requested.

REAL-Life Example (Client & Server Model or Request & Response object) – Restaurant Example

HTML is used for creating web pages and Web Applications

Web Pages are nothing but a file with an .html/.htm extension is called HTML file or web page.

Web Site is nothing but the collection of multiple web pages.

Home.html, about-us.html, contact-us.html, services.html etc.,

HTML is a case and space in-sensitive Language.

W3schools --- <https://www.w3schools.com/>

HTML – We have a concept called Elements

HTML Element or Element is nothing but, Opening html tag, data and closing html tag.

<B>Welcome ALL (/B) – Browser will print a test with bold font-face.

HTML is a user friendly language. No Error, No compilation. It will directly run in browser.

To create a html file, we can use any text editor. (Textpad, notepad, notepad++, vi editor etc.,)

HTML uses <html> as it’s root tag.

<html> tag will have two sub tags. Head & body

<head> tag will have <title> ,<meta> etc.,

<body> any valid text, html elements

Front End Coding – We use an IDE – VS Code (Visual Studio Code) –

<https://code.visualstudio.com/download> (Angular, React, Java Spring, Python, php, mysql….)

Each browser will have 3 Engines

1. HTML Rendering Engine (this is responsible for running the HTML code. – No Error Handling mechanism in HTML5)
2. JavaScript Engine (Which executes the java script code)
3. CSS Styling Engine (This will improve the Look & Feel of the Web Application)

In HTML, we can customize the HTML tags using attributes.

<a href=”about.html”> Click Here </a> -- Anchor Tag (anchor Link tag)—

Href = hyper reference = documents referred as a resource

HTML page contains three important sections

1. HTML Tags (All are pre-defined)
2. HTML Attributes ( Help us to customize the action of HTML Tags)
3. DOM Events ( Keyboard events, mouse events )

Events are triggered by the user manually or by the software automatically.

Types of Tag (HTML)

1. Inline tag (span – which will not occupy the entire viewport / entire line of the page)
2. Block Tag - div tag --- which will occupy the entire viewport

Normal & Self-closing tags (Will not have closing tags – br, hr, input

HTML help us to create normal web page structure & content.

HTML Version – HTML5 (audio, video, native video codec support)

DocType of the page refers to --- <https://developer.mozilla.org/en-US/docs/Web/HTML/Element>

DOM Tree – Document Object Model

HTML attributes will be added to the HTML opening tag only.

Attributes – get the data in key -value pair.

Input types = text, radio, checkbox, password, tel, email, url, file, selectbox (drop-down)

CSS – Cascading Style Sheet – It will beautify the web page. (Styling Engine present in the browser is responsible for the beautification)

CSS will improve the look & feel of the web page.

FireFox, Chrome, Opera , Edge, Safari

CSS can be applied in 3 ways

1. Inline styling (Style attribute will be added to the html element) [Adding directly to HTML element as a attribute)
2. Internal Styling (style tag with child tags are used) [
3. External Styling (style.css – file which have all the design data)

Selectors – This will help to identify where to access element, how to apply the style

3 types of selectors

1. ID selector (#)
2. Class selector (.)
3. Element or Pseudo selector

P0- Project

Banking Application

Customer – Account (1..N) One customer can have n number of Accounts (Saving, current etc.,)