**31-03-2022**

**Day 1**

**Phase 4 : Front end technology**

Html, CSS, JavaScript, Overview of Bootstrap, Typescript, Angular Framework

Mongo DB

Self learning :

HTML, CSS, Mongo DB

**JavaScript, typescript and Angular Framework**

[**https://www.google.com**](https://www.google.com) **--🡪 URL**

http/https---------------🡪 req

Client Server

Res 🡨--------http/https html or html 5

Html is use to display the content on browser. Css or css3

With the help of css we can decide how to display the content :

JS (JavaScript)

Using JavaScript we can do programming on web page.

Hyper text mark up language which help to create the web page.

Using html we can create static web page as well as dynamic web page.

Cascading style sheet : Css provide set of properties and value which help of apply good look and feel for web page.

Front end technologies back end technologies

HTML or HTML5

CSS or CSS3 Java (JEE)

Bootstrap : open source CSS web framework Servlet, JSP and EJB

Spring framework

JavaScript : programming on web page Spring MVC and Spring boot

We can do validation, Asp.net

Dynamic programming on web page Php

And more Python

We want to read, write and update DOM

(Document Object model). Any html tag is known Node JS

As elements.

Jquery : jQuery is external library which help

To read, write and update DOM every easily.

Angular Framework using REST API

React JS Library

Before Node JS JavaScript is known as Client side scripting language but after node js JavaScript also known as Client side as well as server side scripting language.

**VS Code : (Visual Studio code )**

**Few basic html tag**

**P, all heading tags, h1 to h6**

**Br**

**Font tag**

**Img**

**Hyper link**

**List tag ul, OL and LI**

**Table tag**

**Form tag**

**Img tag**

**Hyper link**

**Div tag**

**Span tag**

**List tag :**

**Un Order list**

**Order List**

**Definition list**

**CSS : Cascading Style Sheet**

**Css provide lot of properties and values which help to apply good look and feel for web page. It complex through alone html.**

**Using css we can do separation of concern.**

**So actual content and formatting style we can write separately.**

**Css divided into 3 types**

1. **Inline css**
2. **Internal css or embedded css**
3. **External css**

**Inline CSS**

**<tagName style=”property:value;property:value;”> </tagName>**

**Internal or embedded CSS**

**This tag we have to write in between head tag.**

**<style type=”text/css”>**

**Selector {property :value}**

**</style>**

**Types of selector**

1. **Universal selector : \* {property:value}**
2. **Specific selector : tagName {property:value}**
3. **Class selector (local class selector or global class selector)**
4. **Id selector**

**<p class=”abc” id=”a1” >First Para</p>**

**<p class=”xyz” id=”a2”>second Para</p>**

**<p class=”abc” id=”a3”>third Para</p>**

**<p class=”mno” id=”a4”>fourth Para</p>**

**<h1 class=”xyz” id=”a5”>first heading </h1>**

**<h1 class=”abc” id=”a6”>second heading </h1>**

**Name attribute, class attribute and id attribute**

**Class : group of tags of same type or different types.**

**Id attribute is use to make the unique ness between two tags when two tags have same name or different names.**

**Using CSS we have to create class selector base upon our requirements.**

**Before HTML5 we want to create the responsive web page.**

**Laptop, Desktop , mobile or other device.**

**CSS web framework it display all dom element base upon the device.**

**Bootstrap is open source CSS web framework which help to create responsive web application.**

**Container bootstrap classes**

1. **Container : leave some space left side as well as right side.**
2. **Container-fluid**

**Alert classes**

**Bootstrap Grid : Boot strap grid layout is use to arrange the component in row and column format.**

**Using this grid layout we can arrange the component base upon the device.**

**Device screen size.**

**XS extra small <576px**

**SM small**

**MD medium >=768px**

**LG large >=992px**

**XL extra large >=1200px**

**By default grid layout allow up to 12 column across the page.**

**We can divide our container in number of row and each row consider as 12 columns.**

**JavaScript :**

**Using ES5 old version**

**JavaScript was known as object base or proto type base interpreter scripting language.**

**Using JavaScript we can do programming on web page.**

**Syntax to write the JavaScript code**

**This tag we can write in between head tag or body tag of web page.**

**<script type=”text/JavaScript”>**

**document.write(“Welcome to JavaScript”)**

**</script>**

**Declaring the variable**

**In JavaScript we can declare the variable using keyword var**

**Operator :**

**== ===**

**== : it check only value**

**=== : it check value as well as data types.**

**If statement**

**Switch statement**

**Looping**

**While loop**

**Do while loop**

**For loop**

**JavaScript function :**

**In JavaScript function are divided into two types**

1. **Pre-defined function (global function)**
2. **User-defined functions**
3. **alert(“Msg”);**

**alert(“Welcome to JS”);**

1. **prompt(“Enter the name”)**
2. **parseInt() : without decimal**
3. **parseFloat : with decimal**
4. **eval() : int and float**
5. **confirm() : This pre-defined display pop message . it contains two button ok and cancel. If we click ok it return true and if click cancel it return false.**

**do {**

**alert : 1 Add 2: Sub**

**prompt() take the choice through keyboard.**

**Conversation using eval, parseInt or parseFloat**

**switch() {**

**case 1: add operation**

**case 2: sub operation**

**default wrong choice**

**}**

**Confirm -🡪 do you want to continue**

**}while();**

**User-defined function**

1. **Normal function declaration syntax**

**function functionName() {**

**}**

1. **Function no passing parameter as well as not return type.**
2. **Function passing parameter and no return type.**
3. **Function no passing parameter and return type.**
4. **Function passing parameter and return type.**

**Events : Event provide bridge between html and JavaScript. Event is known as delegation model.**

**When user interact with any html tag different types of event generate.**

**In JavaScript all event start with pre-fix on followed by event name.**

**Like**

**onClick : button**

**onDblclick : button**

**onMouseOver**

**onKeyUp**

**onKeyDown**

**onSubmit**

**onChange**

**onLoad**

**onUnload**

**onFocus**

**onBlur**

**etc**

**04-04-2022**

**Day 3**

**JavaScript is object based interpreter scripting language which provided lot of pre-defined object as well as we can create user-defined objects.**

**Pre-defined object**

**BOM : Browser Object Model**

**DOM : Document Object Model**

**JavaScript follow object hierarchy**

**Object --🡪 property**

**Behaviour**

**Object**

**Property**

**Behaviour**

**Object**

**Property**

**Behaviour**

**DOM is a property of window object**

**window.document.write();**

**Or**

**document.write();**

**DOM : document object model : in HTML Every tags is known as DOM elements. Like html, head, body, p, h1 etc.**

**DOM API : lot of programming language provided predefined function or methods which help to read, write and update dom element or html content dynamically.**

**Like Java, Python, C# as well as JavaScript etc.**

**Using ES6 Version**

**From ES6 (ECMA Script )**

**From ES6 onwards we can declare the variable using var, let and const keyword.**

**Using var keyword we can re-declare same variable once again with same value or different values.**

**Using let keyword we can’t do re-declaration.**

**var a=10; int a=10;**

**a=20; re-assign a=20;**

**var a =”Ravi”; re-declaration int a=30;**

**using var keyword it is consider as global scope.**

**Using let keyword we can declare local or block scope.**

**const keyword is use to declare the constant variable we can’t change the value.**

**types of function**

1. **Normal function**
2. **Expression style function**
3. **IIFE Function Immediate Invoke function expression.**

**(functionbody)(functionCall)**

**It will invoke then the function load. This type of function we can call only once when it loaded. Because this function doesn’t contains any name which also known as anonymous function.**

1. **Arrow style function**
2. **callback function : passing the function itself or function body to another function as a parameter is known as callback function.**

**Typescript**