Phase 4 : Web Application

Total number of days 7

HTML

CSS

Basic JavaScript : Self learning

Adv JS

Typescript and Angular Framework : : live session

HTML :

https://[www.google.com](http://www.google.com) : URL : Uniform Resource Locator

hyper text transfer protocol

www :; word wide web

google : domain name

commercial application

---------🡪 req(http/https)---------------------------------🡪

Client Server

🡨---------res(http/https)---------------------

HTML :

HTML : Hypertext markup language : HTML is use to create the web page. HTML provided lot of pre-defined tags.

Syntax

<tagName> opening tag

</tagName> closing tag

VSCode

Html tags

Html

Head

Body

P

Heading tag h1 to h6

H1 is largest

H6 is smallest

Attribute : attribute is known as properties of tags.

We can use attribute in the opening tag in the form of key-value pairs.

<tagName name=”value”></tagName>

Font tag : This tag is use to change the color, style and size.

Hyper link : this tag is use connect one page to another page.

Syntax

<a href=”pageName.html”></a> a means anchor tag and href means hyper reference.

To add the images

<img src=”imageName”/>

List tags :

This tag is use to display list of items in property order.

Unorder list

Order list

Table tag

<file:///D:/Desktop/Java%20Full%20Stack%20may%202022%20Batch%202/Phase%204/Programs/HTML%20Programs/application.html>

<file:///D:/Desktop/Java%20Full%20Stack%20may%202022%20Batch%202/Phase%204/Programs/HTML%20Programs/application.html?fname=Raj&lname=Deep&gender=male&hobbies=Reading&hobbies=Playing&city=Bangalore&dob=2022-08-02&add=RT+Nagar+%0D%0A>++++++++

CSS : Cascading Style sheet :

CSS provided lot of pre-defined properties and values which help to apply formatting style for the web page.

With help of CSS we can achieve separation of concern means actual content and formatting style we can write separately.

Types of CSS

1. Inline CSS
2. Internal CSS or embedded CSS
3. External CSS

Inline CSS

Syntax

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

This is good if we are planning to apply formatting style of few tags.

Internal or Embedded CSS

<style type=”text/css”>

Selector {property:value;property:value;}

</style>

This tag we have to write in between head tag.

Types of selector

1. Universal selector : \* means all tags : \* {property:value;property:value;}
2. Specific selector : tagName p {property:value};
3. Local class selector : tagName.className{property:value}
4. Global class selector : .className{property:value}
5. Id selector #idName{property:value}
6. Child selector parentTagName childTagName{property:value}

Class selector Vs Id selector

Two tags which have same name or different name belong to same class. Class attribute groups of the tags.

But to make unique ness between two tag we have to use id. So id must be unique when tag have same name or different name.

<p class=”abc” id=”p1”>This is first para tag</p>

<p class=”xyz” id=”p2”>This is second para tag</p>

<h1 class=”abc” id=”p3”>This is h1 tag </h1>

<p class=”abc” id=”p4”>This is third para tag</p>

<h2 class=”abc” id=”p5”>This is h2 tag </h2>

<p class=”xyz” id=”p6”>This is fourth para tag</p>

CSS Box Model

Every HTML tags internally follow BOX Model

Day 2 23-08-2022

JavaScript : JavaScript was known as object based interpreter scripting language.

From ES6 onward JavaScript also known as object oriented interpreter scripting language.

ES : ECMA Script

Old Version JavaScript using ES5 version

New version JavaScript using ES6, ES7…. Version

JavaScript using ES5 version

Using JavaScript we can do programming on web page without server.

To write the JavaScript code we have to use tag ie

<script type=”text/JavaScript”> opening tag

</script> closing tag

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

We write more than one script tag in between head and body tag.

Variable and data types

To declare a variable in JavaScript we use var keyword till ES5. From ES6 JS onward we can use let and const keyword.

JavaScript is known as loosely data types.

Syntax

var variableName;

var a; In JS default value for the variable is undefined.

Number type

String type

Boolean type

Object reference type

JS Operator

Arithmetic Operator : +, -, \*, /, %

Logical operator && ||, !

Conditional Operator >, >=, <, <=, ==, ===

Assignment operator =

Increment and decrement ++ --

typeof

if statement and switch statement

if statement

if else

if else if

switch statement

looping : it is use to execute the statement again and again till the condition become false.

While loop

Do while loop

Initialization : start and end position

Condition : it must be true

Body of the loop

Increment or decrement

For loop

Functions : function is use to write the set of instruction to perform a specific task.

Functions are mainly divided into two types.

Pre-defined function or built in function

1. alert(“msg”); it is a type of pre defined function which help to display pop up message.
2. prompt(): it is use to take the value through keyboards.
3. parseInt() : it is use to convert string to integer.
4. parseFloat() : it is use to convert string to float
5. eval() : it is use to convert string to number it may be integer or float.
6. confirm() : it display pop message with two button. If user click ok it return true or return false.

User defined functions

Syntax to write user defined function

function functionName(parameterList) {

}

1. function no passing parameter and no return type
2. function passing parameter and no return type
3. function passing parameter and return type
4. no passing parameter and return type.

Normal syntax of function

Events : Events is a interaction between user and component ie button, textfield, radio button , checkbox, keyboard, mouse etc.

Types of events : in JavaScript all event start with pre-fix on followed by event name

onClick

onDblClick

onMouseOver

onMouseOut

onKeyUp

onKeyDown

onBlur

onFocus

onChange

onSubmit

onLoad

onUnload

etc

event provide the bridge between html and JS code.

DOM : Document Object Model :

When we run any html page in browser internally it will create the DOM hierarchy.

Index.html

Html

Head body

Meta p

Title h1

Script div

Style

DOM API : Document Object Model Application Programming interface.

Lot of programming language like Java, Python, JavaScript provided lot of pre-defined function which help to read, write and update HTML content dynamically.

Day 3 :

DOM Operation : Creating new tag, adding dynamic value and removing the tags.

JavaScript using ES6 as well as ES5

From ES6 onward 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 value.

But using let keyword we can’t do.

var a=10;

a=20; re-initialization

var a=30; // no error

let b=10;

b=20;

let b=30; // error re-declaration

using var we can declare global scope

but using let we can declare local or block scope.

Normal style function

Expression style function

Arrow style function

Callback function : passing the function name or function body to another function as parameter is known as callback function.

JavaScript objet :

JavaScript provided lot of pre-defined object as well as we can create user-defined object.

In JavaScript we can create user defined object 3 ways.

1. Literal style object creation : ES5 JavaScript concept
2. Using function style : ES5 JavaScript concept
3. Using class style : ES6 JavaScript concept.