**Day 2**

Create NewFolder

Create the Project which contains all type of files.

First Time git init

git status

git add .

git status

git commit –m “First Message”

local Repository

git config –global user.name “Akash”

git config –global user.email ”akash300383@gmail.com”

git remote add origin URL

git push –u origin master

Next time

git add.

git commit –m “Messsage”

git push –u origin HEAD (Please check your current branch)

HEAD means last commit on that branch

Banking Application

1 2 3 4 5

Master abc xyz mno master

Correct delete

git clone url : This command execute only once for new remote repository.

Next if you want see new updated on that remote repository only we have execute the command as

git pull

new folder

git clone

HTML,CSS and Basic JavaScript :

Hyper link

Table Tag

Forms tag

IDE : Integrated Developer Environment

Eclipse

Visual Studio

VS Code

Netbean

MyEclipse

RAD

Etc

<http://www.google.com> -🡪 URL

http : hyper text transfer protocol

www: world wide web

google : domain (search engine)

com : commercial

URL : Uniform Resource locator

http/htts----------🡪REq

Client Server

🡨-------Res(http/https) HTML :

CSS :

JS(JavaScript)

HTML : Hyper text Markup language which help to create the web page.

Web page may static or dynamic

Version

HTML1 to HTML5

CSS : Cascading Style Sheet : It provide set of properties which help to apply formatting style for web page.

Version CSS

CSS1, CSS2, CSS3 etc

JavaScript : JavaScript was object based interpreter scripting language. Which help to do

Validation on client side as well as make dynamic web application. (ES5)

No way day we can do validation using

1. HTML5 Features
2. JavaScript

Bootstrap : Adv of CSS . (CSS Library).

Contents : HTML/HTML5

Look and Feel : Presentation : CSS-🡪 Bootstrap

Action : JavaScript

All heading tag : h1, to h6

b tag

i tag

u tag

**Attribute :** Attribute is known as properties of a tags.

Every tag contains one or more attribute.

Attribute always we have to use in opening tag in the form of key-value pairs.

<p> </tag> Tag

Syntax

<tagName attributeName=”Value”></tagName>

So value may be single quote or double quote without any quote.

2 attribute separated by space.

Font

Image Tag :

<img src=”imageName/path.extesion”/>

**Hyper link**

2 types

External Hyper link

Internal Hyper link

Three types of application

Multi Page Application

One Page Application

Single Page application SPA (Angular or React )

List Tags

Order and Unorder list

Table Tags

Table, tr, th, td etc

Forms Tag :

Login Page :

When user click on submit button, submit button always check action attribute in form tag

And it will re-direct to that page or URL. By default every form internally follow get method

concept.

If method is get our information appended through url using URL Rewriting technique

Syntax

url?key=value&key=value&key=value

In Get method http body is empty

If you use post method then data will pass through body part. So post if safe but slow compare get method

CSS : Cascading Style Sheet:

Separation of concern : Means Actual contents and formatting style can make separate.

CSS provide lot of pre-defined formatting style.

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>

Internal CSS or Embedded CSS

Syntax

<style>

Selector {property :value}

</style>

This tag must be inside head Tag

Selector

1. Universal Selector.

\*{color:red;}

1. Specific selector

tagName {color:red}

1. Local class selector : class : collection of tags.

tagName.className{property:value}

1. Global class selector

.classname{property:value}

1. Id selector

Class : collection of tag or collection of styles. More than one tag can contains same class name.

Id : Id must be unique. Don’t provide two tag name id.

**Day 3 : 21-11-2020**

JavaScript : JavaScript was object based interpreter scripting language. Up to ES5 JavaScript

From ES6 onwards JavaScript is also known as Object Oriented Scripting language.

ES : ECMA : European Corporate Manufacture Association. ES is a concept and JavaScript is a implementation of ES.

Object based Vs Object Oriented

The language which support minimum Object, class Encapsulation, Abstraction, Inheritance and Polymorphism. That language is known as OOPs.

Up to ES5 in JavaScript there is no concept for class. It contains only pre-defined as well user-defined objects.

Interpreter Vs Compiler : Both are translater converting one format to another format.

Interpreter convert line by line where compiler convert whole code at time.

JavaScript is mainly use to do validation as well as create dynamic web page.

Syntax

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

</script> closing tag

By default type is consider JavaScript.

This tag we can write in between head tag or body tag or without any tag.

In one html page we can write more than one script tag.

Variable data types

To declare variable in JavaScript we have to use **var** keywords

Syntax

var variableName;

DataType : data type is a type of data which tells what type of value it can hold.

JavaScript support loosely data type concept.

1. Number data type like a (int and float)
2. Boolean data type : true and false
3. String : more than one character enclosed in single or double quote.
4. object reference.
5. undefined

Operators :

1. Arithmetic Operator : +, - , \*, /, %(Remainder)
2. Conditional Operator : >, >=, <, <=, ==, !=
3. Assignment operator : =
4. Logical operator : &&(and), ||(or), !(not)
5. ===
6. Increment and decrement : ++, --
7. Ternary operator : condition ? true block : false block

Increment and decrement : increment operator increment the value by 1 and decrement operator decrement the value by 1

Syntax

++varaiblename: increment operator

--variableName : decrement operator

Pre-increment / Pre-decrement and Post- increment / post-decrement

++a; pre-increment : first it increment and then assign the value or display the value.

a++; post-increment : first assign or display the value and then increment.

**Type() operator or functions :** This operator is use to check the data type of that variable.

**If statement and switch statement**

1. Simple if :

Syntax

if(condition) {

}

1. If else

Syntax

if(condition) {

true block

}else {

false block

}

1. Nested if statement : if within another if statement

Syntax

if(statement) {

if(statement) {

}else {

}

}else {

if(statement) {

}

}

1. If else if or if ladder

if(condition1) {

true block1

}else if(condition2) {

True block2

}else if(condition3) {

True block3

}else {

False block

}

In switch statement user can decide which block has to execute.

Syntax

switch(variableName) {

case value1:block1;

break;

case value2:block1;

break;

case value3:block1;

break;

default : wrongblock

break;

}

switch, case, break and default are keywords.

Here variable type must be number or string type.

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

2 types

1. Pre-defined function or built-function
2. User-defined function or custom function

Few pre-defined function in JavaScript

1. alert(“Msg ”): this function is use to display message or pop message on web page.
2. prompt(): This function is use to receive the value from keyboards.
3. eval(), parseInt(), parseFloat() : This function is use to convert string to number, integer and float.
4. confirm() : This function display the pop message with 2 button ok and cancel. If user click on ok it return true if it click cancel it true false.

Looping : It is use to execute the task again and again till the condition become false.

Type of loop in ES5

1. while loop
2. do while loop
3. for loop

all loop syntax

initialization : start and stop

condition : true

increment or decrement

while loop

initialization i=1,n=10

while(condition) { i<n i <= n or i>n

body of the loop d.w(“Hello”); d.w(i) d.w(n)

increment / decrement i++ or n--

}

1 2 4

for(initialization ; condition; increment/decrement) {

3

}

1 only one time then 2 3 and 4 till the condition become false.

MEAN Stack

MEAN Phase 1 :

HTML/HTML5

CSS/CSS3

JavaScript

Boot strap

Phase 2 and 3

Node JS

Express module

MongoDB/Mongoose

Mongo DB (Database)

Angular 10 Version

**Day 4 :**

User-defined functions

Syntax

function functionName(parameterList) {

}

1. function no passing parameter and no return type

function display() {

document.write(“Welcome to User Defined function….”)

}

1. function passing parameter but no return type

function addNumber(a,b) {

var sum = a+b;

alert(“Sum is “+sum);

}

1. function passing parameter as well as return value

function empInfo(id,name,salary) {

//coding

return salary+5000;

}

1. function no passing parameter but return value

function sayHello() {

//coding

return “Welcome to UserDefined function”

}

Events : Event is a interaction between user and components. Component are html DOM(Document Object Model) all html tags like p, button, textfield, radiobutton, checkbox, submit button, div tag etc

Event is providing bridge between html and JavaScript code.

Type of events : In JavaScript all events start with on prefix followed by event name.

Syntax

on\*

like

onClick

onDblClick : button or any html tag

onMouseOver

onMouseOut : images

onKeyUp

onKeyDown : textfields or textarea

onChange : dropdown

onBlur : exit from textfield

onFocus : enter inside textfield

onSubmit : validation

onLoad : when page load

onUnLoad : when page or window close

Register the event with DOM( all html tags).

DOM : Document Object Model : DOM is a API (Application Programming Interface) which provide set of properties and methods which help to read, write and update the tag values dynamically.

**Form Validation** : Without writing username, password, min length, max length, valid number, valid emailId when user click on submit button you have to get error message.

Validation always happen on client side.

**Verification** : Verification always happen from Server side with database using technologies like Java, .net, php, python or node js.

Validation

1. Using JavaScript
2. Using HTML5 Features (browser must be support HTML5 features).

Object: object is a any real world entity.

Properties or State : have : fields or variable or property

Person

Behaviour : do/does : function / methods

Bank

Animal

Car

In JavaScript object are divided into 2 types

Pre-defined objects

JavaScript internally follow object hierarchy concept.

object-🡪property

behaviour

object --🡪 property

behaviour

object --🡪 property

behaviour

BOM : Browser Object model

DOM : Document Object model

Basic JavaScript pre-defined objects.

array : array is use to store collection of elements of any types.

Using array literal

Using Array object

Date :

var obj = new Date();

User-defined object

**Day 5 :**

User defined objects.

ES5 :ECMA : European Computer Manufacture Association

No class So we want to create user-defined object we have to take the help of function concept.

Employee

Car

Bank

Manager

callback function : passing the function body or function itself to another function as a parameter is known as callback functions.

ES5 to declare the variable we were using only var keyword

From ES6 onwards we are using let as well as const keywords.

var : var is use to declare global scope

using var we can re-declare same once again with same value or different value.

let : let is use to declare block scope

Using let we can’t re-declare same variable.

const : It is use to declare constant value (like final in Java). We can’t change the value.

Asynchronous communication

Overview AJAX

Promise Object

Regular Expression

Node JS Overview

Using Node JS Run JavaScript file

npm

Babel or TypeScript

LocalStorage and SessionStorage

Add, Update and Remove Items : Project Task.

WebStorage

MEAN Stack : Mongo DB, Express Module , Angular and Node JS

MERN Stack : React JS

MEVN Stack : Vue JS

**Day 6 :**

**Menu Driven App Insert / Delete and Load the Data.**

**1st List 2nd List 3rd List**

**Using Purely HTML to load the html content base upon the event we have to use frameset tag.**

**It require Server : tomcat or IIS or any other server to run that application.**

**Another way using jQuery with the load() method we can load**

**Using Ajax concept we can load**

**Chrome browser also providing small web server.**

**Frameset tag is use to combine more than one web page as single page.**

**jQuery : jQuery is external library. Which contains more than one function which internally connected to each other which help to read, write , update DOM elements very easily.**

**DOM : all elements tag is known as a DOM elements.**

How to add the jQuery to current HTML page

1. Download the jQuery file from jQuery documentation or website and give the path of the file.
2. Refer to on link to jQuery file.

To call jquery function we have to use

$()

Or

jQuery()

jQuery syntax

$(selector).action();

Web Storage :

Using hyperlink and button or any other event we more from one page to another page. We want to share the data from one page to another page.

Web Storage is use to share the database between more than one page.

2 types

sessionStorage :

localStorage :

sessionStorage.setItem(“key”,value) : set the value

Where value may be string type.

sessionStorage.getItem(“key”);

sessionStorage.removeItem(“key”);

sessionStorage hold the value till the application is open once application close the value of sessionStorage get destroy..

localStorage it hold the value after application close.

http is stateless protocol.

1st Request ----------🡪 check user name and password

Home Page

Cookies, sessionId

JWT

Json Web Token

Json : Java Script Object Notation

JSON is to share data between front end and backend technologies.

Between two technologies like Java, .net, php, python, node using RESTWeb Service.

HDFC JSON HSBC

Java .net

JSON Data in the form of key-value pairs

{“key1”:value,”key2”:value2};

**Day 7**

Regular Expression : Regular Expression help to check the text contents base upon the patterns.

Regular Expression support by all technologies like JavaScript (ES5/ES6)

Java, Python, C# etc

var obj = “ab@123”

In JavaScript we can create the Regular Expression 2 ways

1. Using literal style
2. Using Object style(new keywords)

var r1 = /pattern/ : Literal style

var r2 = new RegExp(“pattern”); object style

**Bootstrap :**

CSS : Cascading Style Sheet

Inline CSS

Internal CSS or embedded CSS

External CSS

<style>

abc{background-color:yellow;font-size:24pt;font-family:’arial’}

</style>

In html code

<p class=”abc”></p>

<div class=”abc”></div>

<b class=”abc”></b>

Class selector and Id selector

Group of tags can use same class selector. Class is a group of dom elements.

Id must be unique : don’t use same for more than one tag.

Using id in dom we can read, write, or update etc.

In Web page we have only one header, only one footer,

Bootstrap : Bootstrap is open source CSS framework. CSS Framework contains lot of pre-defined CSS classes respective type of DOM elements.

Using bootstrap we can use responsive web page which we can run on browser as well as mobile.

When we can to implement bootstrap features to current web page

1. We have to download the bootstrap external CSS file and keep in the current project.
2. We can use the CDN path for the bootstrap.

Universal selector

\*{margin:0}

Box Model :

Top Tag bootstrap classes

1. Container : container is fixed width size.
2. Container-fluid : This type of class take the full width of the view page. And it will resize the contents or dom tags base upon the device.

In HTML 5 inside a head tag

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

Meta : meta data tag : given the instruction to browser about the data. name="viewport" this attribute gives the instruction to browser to control the page’s dimension and scaling.

content="width=device-width, initial-scale=1.0"

GridLayout :

Bootstrap follow grid layout system which uses series of containers, rows and cols.

Whenever we use grid layout for our web page it add one or more rows and each row default divided into 12 columns

Div is use to add collection of tags.

Span : it is use to apply css effect to particular contents.

<div>

One Two <span>Three>/span> Four

</div>

CSS child class selector

<style>

div p{color:red} div is parent and p is child

</style>

<body>

<div>

<p>Welcome to CSS Effect</p>

</div>

<p>Welcome to not CSS Effect </p>

</body>

Button types

btn

ButtonGroup

Jumbotron : It is use to displaying list and contents showcase formats.

Important bootstrap classes

DropDown

MenuBar

Scrolling down functions

CSS3 Animation

Custom Pop message box

Login page with Pop up message

sessionStorage or localStorage :

<!—

Html comments.

Node JS Overview :

Typescript and Angular : MEAN Stack

React JS : MERN Stack