Java Phase 4 Training

Web Application using React JS

HTML, CSS and JS using ES5 and ES6.

http://[www.google.com](http://www.google.com) -🡪 URL : Uniform resource locator

http/https: protocol : set of rules which help to communicate more than one machine

Hyper text transfer protocol.

www : world wide web

google : domain or server machine

com :commercial

req(http/https)----------------🡪

Client Server

🡨--------Res(http/https)

Html or html5

CSS or CSS3

JavaScript or JS

Html 🡪 it is use to display on content on web page.

Css 🡪 apply formatting style or presentation on web page

Js : programming on web page as well as Client side validation using JS or HTML5.

JEE :

Servlet, JSP and EJB

Spring framework and boot

Asp.net

Php

Python

Node JS

Html : hyper text markup language which help to create the web page.

Html provided lot of pre-defined tags or elements. Html is not a case sensitive. We can write tags in lower case or upper case.

Syntax

<tagName> opening tag

</tagName> closing tag

VS Code IDE.

Html,

Head

Title

Body

P

Heading h1 to h6

H1 : largest

H6 smallest

B bold tag

I italics tag

Hyperlink : connecting one page to another page.

List tags : order list and unorder list

HTML is not a structure means no need to write the tags.

In html4 version

<!doctype html public url =”url…………………………dtd”/>

Document type definition : This file contains the rules for the html page. What is root tag name, which contains how many child tags. Few tags are optional.

Html5 they remove this rules and introduce new elements or tags to make html file dynamic.

<!DOCTYPE html>

So we are giving the instruction to browser we are going to write html5 features. Without this tag also we can use html5 features.

Attribute : Attribute is known as properties of a tag.

Syntax

<tagName name1=”value1” name2=’value2’ name3=value3></tagName>

Attribute we use in opening in the form of key-value pairs.

Value can be double quote or single quote or without quote.

Adding the images to web page

Img tag

Tables :

Form is use to carry one or more data to server side technologies.

[Document](http://127.0.0.1:5500/home.html?fname=Raj&lname=Deep&gender=male&hobbies=Reading&hobbies=Playing&city=Bangalore&skillset=Java&skillset=Python&salary=45000&dob=2022-08-11T20%3A27&pid=100&profileurl=http%3A%2F%2Fwww.raj.com)

CSS : Cascading Style sheet

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

With help of CSS we can do separation of concern.

Types of CSS

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

Inline CSS :

Syntax

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

Internal CSS 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 : \* Example \*{color:red;}
2. Specific selector : tagName Example p{color:green} h1{color:blue} h2 {color:green}
3. Local class selector tagName.className{property:value}
4. Global class selector : .className{property:value};
5. Id selector

Class selector : group of tags is a part of one class or more than one class.

Id : we have to give unique id for each tag.

<p class=”abc” id=”obj1”>First Para</p>

<h1 class=”abc” id=”obj2”>First heading</h1>

<p class=”abc” id=”obj3”>Second para</p>

<p class=”xyz” id=”obj4”>Third para</p>

<h2 class=”xyz” id=”obj5”>Second heading</h2>

<p class=”xyz” id=”obj6”>Fourth para</p>

<h2 class=”xyz” id=”obj7”>Third heading</h2>

<p class=”abc” id=”obj8”>Fifth para</p>

External CSS file

JavaScript JavaScript was object based interpreter scripting language till ES5 JS.

From ES6 onward we can say JavaScript is object oriented interpreter scripting language.

ES : ECMA (European Computer Manufacture Association).

ECMA is a concept and JavaScript is a one of the implementation of ES.

Using JavaScript we can do programming on web page. JavaScript is known a Client side scripting language.

To write a code using JS we have to use the tag as

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

</script> closing tag

This tag we can write in between head tag or body tag.

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

To declare a variable in JavaScript we use var keyword till ES5. After ES6 onward we can use let and const keyword to declare the variable.

Syntax

var variableName;

var a; // default value is undefined consider

var b=100; // number type consider

var c=100.50; // number type consider

var name=”Raj Kumar”; // string type consider

var result = true; // Boolean type consider

var obj = new Date(); // it is object type consider

JavaScript is known as loosely typed data types. Base upon the value the variable behave that type of data types.

Operator :

Arithmetic operator

Logical operator

Conditional operator

Increment and decrement

= == ===

typeof

Day 2 :

If statement

If else

If else if

Switch statement

Looping

While loop

Do while loop

For loop

JavaScript functions

Function is use to write the set of instruction to perform a specific task.

Function are divided into two types

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

Pre-defined function

1. alert(“Msg”); it is a pre-defined function which help to display pop up message.
2. prompt() it is a pre defined function which help to take the value through keyboard.
3. parseInt() : it is use to convert string to int.
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 : this function display pop message with two button ok and cancel. If user click ok it will return true else return false.

User defined function

Normal function style

Syntax

function functionName(parameterList){

function body;

}

1. Function passing parameter and no return type.
2. Function passing parameter and return type
3. Function no passing parameter and no return type
4. Function no passing parameter but return type.

Events : Events is interaction between user and component (html tags, p, div, form ie button, radio button, checkbox, drop down box).

Types of events : In JS all event start with prefix on followed by event name.

onClick

onDblClick we can register with button

onMouseOver

onMouseOut on image

onKeyUp

onKeyDown textfield, password field, search field.

onSubmit validation

onChange change drop down value.

onFocus when we enter in text field

onBlur when we exit from text field

onLoad when page load

onUnload when page unload or refresh.

etc

DOM : Document Object Model :

Index.html

DOM hierarchy will generate in browser memory

Html root tag

Head body

Title tag p Hello Message

TextNode

Meta tag h1

Script tag div

DOM API : document Object model application programming interface.

Lot of programing language provided DOM API like Java, Python, C# or JavaScript which help to read, write and update html or DOM content dynamically.

JavaScript is known as prototype or object hierarchy scripting language.

object 🡪 property

behavior

object 🡪 property

behavior

object 🡪 property

behavior

object

BOM : Browser Object Model

DOM : Document Object Model

DOM is a property come under the BOM.

ES6 Features

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

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

Using let we can’t re-declare same value once again.

var a=10; int a=10;

a=20; re-initialize

var a=30; re-declare int a=30; Error in Java

using var keyword we can declare global scope but using let keyword we can declare local or block scope

var x=1000;

x=2000;

const y = 3000;

y=4000; Error

Types of function

Normal function

Expression function

Arrow function :

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

Array :In JavaScript is known as pre-defined object.

Which allow to store any types of value and it provided lot of pre-defined method which help to do some operation on array element. It is like a data structure.