Phase 4

Day 1 :

05-15-2023

HTML, CSS, JavaScript(ES5 and ES6), Bootstrap, React JS and Mongo DB

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

req(http/https)---🡪

Client Server

🡨--res(http/https)------ HTML/HTML5

HTML : Hyper text mark up language. Which provide lot of pre defined tags or elements which help to develop the web page.

Using html we can develop static as well as dynamic web page. Dynamic web page we can create from html4/html5.

VSCode

<tagName> opening tag

</tagName> closing tag

If we write anything but file extension must be .html or .htm then it is consider as html code.

In html 4 version

<!doctype html public url=[www.asfafafasd.dtd](http://www.asfafafasd.dtd)/>

Document type definition file contains the rules for the html page

What is the root tag name, that tag contains how many child tags, tag mandatory or optional.

In html 5 they remove these rules they introduce new tags to make html dynamic.

<!doctype HTML>

CSS : Cascading Style Sheet

Attribute : Attribute is known as properties of tag. We can use attribute in the form of key-value pairs and attribute must be use in opening tag.

<tagName key1=”value1” key2=”value2”></tagName>

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

Using CSS we can make separation of concern.

Means actual content and formatting style we can write separately.

Types of CSS

1. Inline CSS

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

1. Internal or embedded CSS

In this type of css

We need to use css rules inside style tag and that tag must be in between head tag

<style type=”text/css”>

Selector {property:value};

</style>

1. Universal selector : \*
2. Specific selector : tagName{property:value}
3. Local Class selector : tagName.className
4. Global class selector .className
5. Id selector : #idname

Class selector Vs Id selector

Class attribute : group of tags which have same name or different name we need to add class.

Id attribute : using id attribute we can make uniqueness between two tag which have same name or different name.

1. External CSS

Global css rules

We need to create external css file with any name with extension .css and write more or more rules with different types of selector and this file we need to include in every html page with help of link tag.

Box Model :

Day 2 :

05-16-2023

Bootstrap : Bootstrap is an open source front – end web css framework. Bootstrap is first css framework which help to create responsive web application.

Mobile, tab, desktop etc.

If we develop any responsive web application the application alignment arrange according device with and height.

We will see first responsive web page using html5 features.

Bootstrap provided external CSS library or files which contains set of pre defined css classes with respective all html tags like div, p, h1 to h6, form, table etc.

If we want to apply bootstrap features to our application

1. We need to download external bootstrap file and add in our application (offline)
2. We need to link bootstrap url (CDN) path.
3. We can download using node js.

Button classes

Btn-success

Btn-primary

Btn-secondary

Etc

Container classes

container and container-fluid : these two classes generally we use with div tag.

Alert : Alert is use to display contextual feedback message on web page.

Table classes :

Bootstrap Grid layout :

Bootstrap grid layout helps to arrange the component in html page in table format ie using row and columns.

Using grid layout only we can arrange component alignment base upon device width.

In Bootstrap grid layout each row by default divided into 12 columns.

Device size width

<576 px extra small

>=576 px small

>=768 px medium

>=992 large

>=1200 extra large

>=1400 double extra large

Day 3 :

05-17-2023

JavaScript :

JavaScript was known as object based interpreter scripting language till EC5 JS.

But from EC6 onward JavaScript known as object oriented scripting language.

Till ES5 JavaScript was not supporting class concept. It provided lot of pre defined object as well as we were/are creating user defined object using functions.

Till ES5 JavaScript was known as object based or prototype base.

But from ES6 onward JS support object, class from EC6 we can say JS also object oriented scripting language.

ES : ECMA (European Computer Manufacture Association)

ES is a concept. One of implementation of ES is JavaScript.

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

If we want to do JavaScript code in html we need to use script tag.

Syntax

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

We can do programming

document.write(“Welcome to JavaScript”);

</script> closing tag

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

document is a pre defined object and write is a pre defined function.

JavaScript is care sensitive. We need to write in lower case.

Variable : In JavaScript we can declare the variable using var keyword till ES5.

From ES6 onward we can declare the variable using let as well as const keyword.

Syntax

var variableName;

Data Types : in JavaScript data types are divided into four types.

1. Number type
2. String type
3. Boolean type
4. Object reference type

JavaScript is known as loosely data type scripting language.

var a; document.write(a); default value is undefined.

var b =10; it consider as number type data type

var c=10.20; it consider as number type data type.

var name = “Ravi Kumar”; it consider as string type

var result=true; it consider as boolen type

var obj = new Date(); it consider as object reference type.