08-10-2020

Day 1

Phase 4

Html, CSS, JS using ES5 and ES6, bootstrap

Typescript and Angular Framework

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

req(http)------------🡪

Client server

🡨-----------res(http/https) html or html5

Html : hypertext mark up language which help to create the web page. Web page can be static or dynamic.

Html provided lot of pre-defined tags which help to create the web page.

Html is not a case sensitive.

<tagName> opening tag

</tagName> closing tag

Html, head, body, title, p, heading tag h1 to h6, font tag etc.

IDE : UI VS Code

Attribute : attribute is known as properties of a tag. We can use attribute in opening tag of html page in the form of key=value pairs.

In HTML4

<!doctype HTML public url =<http://www.sasdfasdsafasfasfddf.dtd>/>

Document type definition

Inside this file they written the rules.

1. Root tag name ie html
2. Which contains two child tag ie head and boy
3. Inside head we can write title, style, meta, script tag
4. Inside body we can write more than one p, div, span, etc.

In html 5 they remove this rules and they introduce new tags to make html dynamic

<!doctype HTML/>

Hyperlink : this tag is use to connect one page to another page.

<a href=”pageName.html”>Text</a>

Anchor

Href : hyper reference

List Tag :

Unorder list

Order List

Definition List

CSS : Cascading style sheet

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

<tagName style=”property:value;”>Contents</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 : \* all tags
2. Specific selector : tagname
3. Class selector
   1. Local class selector tagName.className{property:value}
   2. Global class selector .className{property:value}
4. Id selector #idName{property:value}

<p class=”abc” id=”a1”>1st para</p>

<p id=”a2”>2nd para</p>

<div id=”a3”>1st div</div>

<p class=”abc” id=”a4”>3rd para</p>

<h1 class=”abc” id=”a5”>1st h1</h1>

<h1 id=”a6”>2nd h1</h1>

class : collection or groups of tags which have same name or different names.

Id : using id we have tag is unique which have same name or different name.

Bootstrap : it is an external open source CSS responsive web framework which provided lot of pre-defined css classes which upon the html tags.

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Day 2

HTML : it is use to display the content on browser.

CSS / Bootstrap : it is use to display the content on browser in proper format.

JavaScript : it provide programing features on browser without server.

JavaScript was object based interpreter scripting language till ES5.

From ES6 onwards JavaScript known as object oriented interpreter scripting language.

ES : ECMA : European Computer Manufacture Association

JavaScript is one of the implementation of ES.

Object based JS till ES5. In old version JS (Vanilla JS). JS provided lot of pre-defined object as well as we can create user defined without class keyword. Even we can say protocol base scripting language.

But from ES6 onward JS also supported class concept.

Interpreter : check the code line by line.

Syntax of script tag

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

</script> closing tag

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

We can write JavaScript ie internal JavaScript as well as externa JS.

In JS to declare a variable we use var keyword till ES5 JS. From ES6 onward to declare the variable we can use var, let and const keyword.

var variableName;

var a; default value of a is undefined.

Data types : In JavaScript variable behave that type of data types base upon the value which we assign or stored.

var b=10; number type consider

var c = 10.20; number type consider

var name = “Ravi”; string type consider

var result = true; Boolean type consider

var obj = new Date(); object type consider

Operators :

1. Arithmetic Operator : +, -, \*, /, %
2. Conditional operator : >, >=, <, <=, ==, ===, !=
3. Logical operator: &&, ||, !
4. Assignment operator : =
5. Increment and decrement ++, --
6. Ternary operator: condition ? true : false;
7. Type of operator or function : typeof

Condition statement

1. Simple if
2. If else
3. If else if
4. Switch statement

Looping :

While loop

Do while loop

For loop

functions

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

Function mainly divided into 2 types

1. Pre defined or global function
2. User defined function

Pre defined function

1. alert(“Msg”): it is use to display the 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
6. confirm() : it display pop message with two button if click ok it return true and if we click cancel it return false.

do {

alert 1: Add 2 :Sub

take your choice using prompt and convert using eval

switch

case 1: ask the value of a and b and display sum

case 2 ask the value of a and b display sub

do you want to continue using confirm

}while()

alert 🡪 thank you

user defined function

1. normal system for user defined function

function funtionName(parameterList) {

}

1. function no passing parameter and no return type
2. passing parameter but not return type.
3. Passing parameter and return the value
4. No passing parameter but return value

Event : event provide bridge between html and JS code.

Types of events

All event in JS start with pre-fix on followed by event name.

onClick

onDblclick

onMouseOver

onMouseOut

onKeyUp

onKeyDown

onChange

onSubmit

onLoad

onUnload

onFocus

onBlur

etc

JavaScript Object :

Object : object is any real world entity.

Person , Place, Bank, Customer etc.

In Js Object are divided into two types

1. Pre defined object
2. User defined object

Pre defined object hierarchy

BOM and DOM

Browser Object Model

Document Object Model

Object 🡪 properties

Behavior

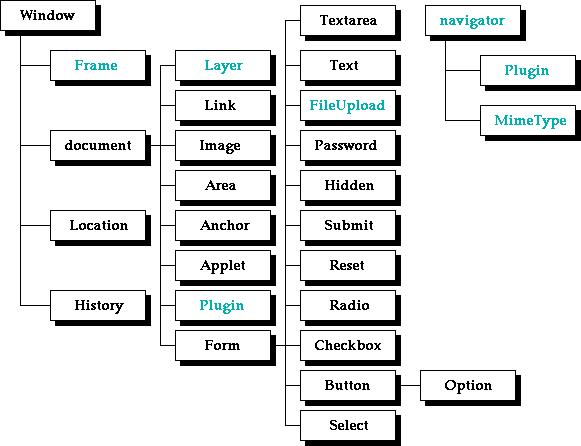
Object --🡪 properties

Behavior

Object --🡪 property

Behavior

Object



In BOM window is top most object which contains lot of property, behavior and another objects as property

window.alert(“”)

or

alert(“”)

window.confirm()

or

confirm()

document.write(“welcome”)

or

window.document.write(“Welcome”)

if we need browser details like history, location of pages, frames details then we have to work on BOM

if we need content of web page then we have to work on DOM.

index.html

DOM Hierarchy

Html

Head body

Title

textNode

Meta p

Script h1

Style

DOM API Document Object Model Application Programming interface. Lot of programming language like Java, Python, C# as well as JS provided lot of function or methods which help to read, write and update DOM element dynamically.

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Day 3

DOM Operation using External JS File

ES6 JavaScript

ES6 Features

1. From ES6 onwards we can declare the variable using let, const to declare the variable

If we declare variable using var keyword. It consider as global scope.

if we declare variable using let keyword. It consider as block scope.

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

But using let keyword we can’t re-declare same variable once again.

var a=10; int a=10;

a=20; a=20;

var a=30; int a=30; Error

let b=10;

b=20;

let b=30; //Error

for(var i=0;i<=10000;i++{

}

document.write(i);

for(let j=0;j<=10000;j++{

}

document.write(j); //Error

const k =1000;

k = 2000;

Array : array is consider as pre defined basic object which help to store more than one value of same or different types. Array provided lot of pre defined methods.

Types of functions

1. Normal function
2. Expression style function

var/let functionName = functionBody() {

}

1. Arrow function : arrow function also known as anonymous function. This function created using expression style function. In Arrow function function keyword replace by arrow. It is like a lambda expression in java.

In Arrow style function we can return the value without return keyword. In arrow style if we want to write multi line statement then we have to use curly braces and we have to return value using return keyword.