Phase 4

Total session 9

Day 2 : 18 Java 2024

Frontend technologies

Event : event provide bridge between html DOM (document object model) any tags like html, head, body, p, button, radio button etc to JavaScript code. Even event also known as delegation model.

JavaScript provided lot of event. All those event start with pre fix on followed by event name. like

onClick	
onDblClick	with button or any tag
onMouseOver	
onMouseOut	image
onKeyUp	
onKeyDown	text field, passwordfield
onSubmit	submit button
onChange	drop down
onFocus	
onBlur	text field
onload	
onUnload etc	body tags.

if we want to work with event. We need to register the event on dom elements. Any tags.

Once you register the event with specific tags. Event get fired. To capture that event we need to use the function which help to catch the generated event and do the specific task depending upon our requirements.

Object : any real world entity

Like person, bank, animal, customer, etc.

Object mainly contains two thing ie property(variables) and behaviour(functions or methods).

In JavaScript object mainly divided into two types.

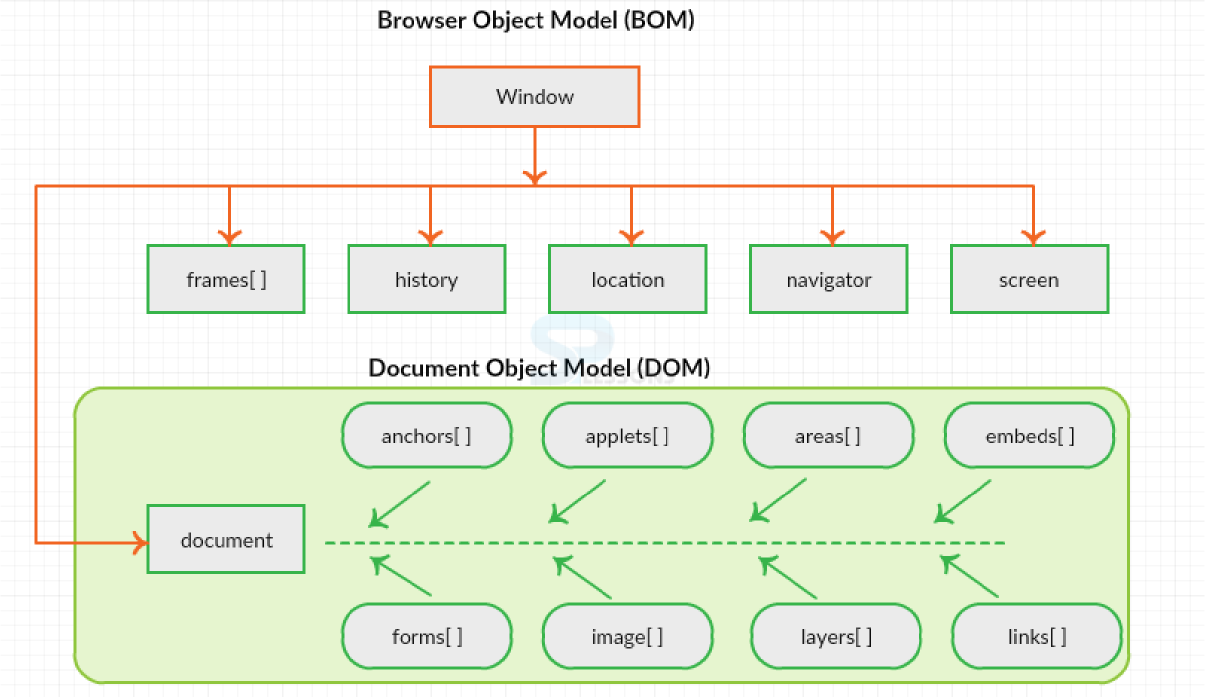
Pre defined object

JavaScript provided lot of pre defined object with help of two mainly hierarchy.

Ie

BOM : browser object model.

DOM : document object model.



Object --→property (variables)

Behaviour (functions)

Object --→ property (variables)

Behaviour (functions)

Object ----→ property

Behaviour

Object

In BOM window is top most object.

DOM is a property of BOM.

DOM hierarchy or DOM Parser

Index.html. once we run this page on browser. Browser internally create dom hierarchy.

Html

Head body

Title div

Meta p → hello

Style

Script

DOM Parser : document object model. All programming language like Java python, php, c# as well as JavaScript it provided lot of functions , method or classes which help to read, write and update DOM or tags contents dynamically.

JavaScript

React JS

jQuery

Angular

Backbone js

How to read, write and update DOM properly.

Reading text field value using name attribute

document.getElementsByName(“name”)[indexPosition].value

External JS file

From ES6 onward we can declare the variable in JavaScript using

var, let and const keyword.

var vs let

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

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

Using var we can declare global scope.

But using let we can declare block scope ie if block, for loop etc.

const keyword is use to declare the constant variable like final in java.

Types of functions

1. Normal function
   ```
   function functionName() {
                   function body;
   }
   ```

2. Expression style function
   ```
   var/let functionName = function() {
           function body;
   }
   ```

Normal style function we can call before declaration as well as after declaration. It support JS hosting

Expression style function can call after function declaration not before declaration. It doesn't support js hosting

3. Arrow function : arrow function is also known as anonymous function. It is like a lambda expression in java8 features.

   Arrow function is created base upon expression style function

   Let/var functionName = ()=>function body;

   Function keyword is replace by arrow.

   Arrow function can return the value without return keyword.

   But in normal style as well as expression style we need use return keyword if you want to return the value.

   In arrow style function if we want to write more than one statement then we need to use curly braces and explicitly we need to use return value if need.

4. Callback function : passing the function name or function body or function itself to another function as a parameter is known as callback.
5. IIFE : Immediate Invoke function expression.
   IIFE function is use to invoke only one time.
   (functionBody)(functionCall);

User defined object