# Day -2 Task:-

1. Difference between Document and Windows Object model in Js.

## Difference between Document and Windows Object model in Js:

Windows Object Model:-

* The Browser Object Model contains objects that represent the current browser window or tab. The topmost object in the BOM is the window object representing the window or tab or an frame sometimes. Window object has properties like browser history, location and the device’s screen etc. In case of multi tab browser, a window object represents a single tab, but some of its properties like innerHeight, innerWidth and methods like resizeTo() will affect the whole browser window.
* The Window object is a global object in client-side JavaScript, representing the browser window containing a DOM document and acting as the root of the document object model.
* The window object, supported by all browsers, represents the browser’s window and automatically includes global JavaScript objects, functions, and variables as members.
* The Window object is responsible for managing global variables, functions, and objects, providing methods for browser interaction and managing properties related to frames, tabs, or windows, such as alert(), confirm(), setTimeout(), and setInterval().

Few properties and methods of window objects are,

Properties

1. window.innerHeight - the inner height of the browser window (in pixels)
2. window.innerWidth - the inner width of the browser window (in pixels)

Methods

1. window.open() - open a new window
2. window.close() - close the current window
3. window.moveTo() - move the current window
4. window.resizeTo() - resize the current window

Document Object Model:-

The Document object is the HTML document that appears in the browser window and serves as an interface for interacting with the web page’s content. The browser generates a Document Object Model of a web page upon loading it.

The DOM is a logical tree in a document, with methods allowing programmatic access to change its structure, style, or content.

The DOM manipulation tool offers methods to access and manipulate the structure and content of a document, such as getElementById(), querySelector(), createElement(), and innerHTML. It represents the entire HTML document as a node tree, with the Document object as the root node. It allows dynamic updates and interactions with web page content.

Few properties and methods of Document Object Model,

Properties

1. element.innerHTML = new html content//Change the inner HTML of an
2. elementelement.attribute = new value//Change the attribute value of an HTML element

Methods

1. document.createElement(element//Create an HTML element
2. document.removeChild(element)//Remove an HTML element

Window Vs Document

Window object : It is the top most object and outermost element of the object hierarchy.

Document object : Each HTML document that gets loaded into a window becomes a document object. The document contains the contents of the page. Using document object, JavaScript can modify, add and delete the HTML elements, attributes CSS styles in the page

The window object represents a window/tab containing a DOM document where as document object is property of window object that points to the DOM document loaded in that window.

You can access a document object either using window.document property or using document object directly as window is global object. In the below example, title is the property of document object.

The other major difference is that both window object and document object have properties and methods. Few method names are same in both objects but with different behavior. In the below example window.open() opens a new tab or window and document.open() creates a blank document within the window.

Screen

Screen is the window property that holds information of browser screen. It refers to screen object associated with that window object. Used to display screen width, height, colorDepth, pixelDepth etc

Similar to document screen can be accessed either by window.screen or screen object directly. Screen object doesn't have any methods as in window and document objects.