|  |  |
| --- | --- |
| **document** | **window** |
| It represents any HTML document or web page that is loaded in the browser. | It represents a browser window or frame that displays the contents of the webpage. |
| It is loaded inside the window. | It is the very first object that is loaded in the browser. |
| It is the object of window property. | It is the object of the browser. |
| All the tags, elements with attributes in HTML are part of the document. | Global objects, functions, and variables of JavaScript are members of the window object. |
| We can access the document from a window using the window. document | We can access the window from the window only. i.e. window.window |
| The document is part of BOM (browser object model) and dom (Document object model) | The window is part of BOM, not DOM. |
| Properties of document objects such as title, body, cookies, etc can also be accessed by a window like this window. document.title | Properties of the window object cannot be accessed by the document object. |
| syntax:        document.propertyname; | syntax:  window.propertyname; |
| example:       document.title :  will return the title of the document | example:  window.innerHeight : will return the height of the content area of the browser |

# **Difference between Window and document in JavaScript**

A clear understanding of Browser Object Model (BOM) and Document Object Model(DOM) resolves the problem.

## **Browser Object Model (BOM)**

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 iframe 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, innerWidthand methods like resizeTo() will affect the whole browser window.

## **Document Object Model**

When a web page is loaded, the browser creates a Document Object Model of the page. The document object represents the whole html document as a tree of Objects(HTML, HEAD, BODY, and other HTML tags). It is the root element that represents the html document.

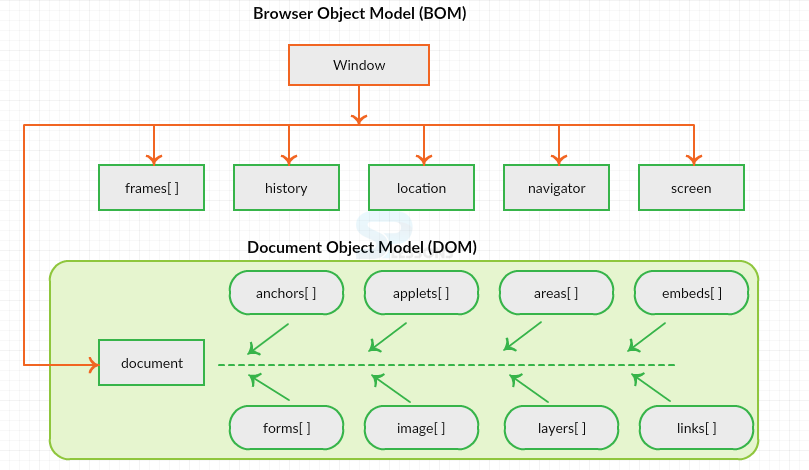


Figure 1 : Hierarchy of Window and Document object using BOM and DOM

Now lets visualize the difference between window and document.

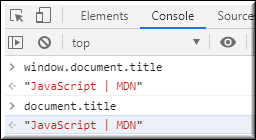
## **Window Vs Document**

**Window object** : It is the top most object and outermost element of the object hierarchy as shown in Figure 1.

**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.

