

# Document and Window Objects

Two of the most significant objects in JavaScript are the window and document objects. They give access to the HTML document and the browser window, respectively.

The HTML document loaded in the browser window is represented by the Document Object in web development. The document's browser window is represented by the Window Object. The location object and setTimeout method are two of the many helpful properties of the window object, which is the top-level object in the DOM hierarchy. The document object, a property of the window object, is used to access the currently loaded webpage and displays any HTML documents.

The window object is endowed with a number of beneficial properties, including length, innerWidth, innerHeight, name, whether it has been closed, its parents, and more. The page's contents are contained in the document object.

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

The current browser window or tab is represented by objects in the browser object model. The window object, which sometimes represents a window, tab, or an iframe, is the topmost item in the BOM. The properties of a window object include things like location, screen information, and browser history. A window object in a multi-tab browser represents a single tab, but certain of its properties, such as innerHeight and innerWidth, and methods, such as resizeTo(), have an impact on the entire browser window.

## **(DOM) Document Object Model**

When you load a web page, the browser builds a Document Object Model for the page. As a tree of objects (HTML, HEAD, BODY, and other HTML tags), the document object represents the entire HTML page. The HTML document is represented by this root element.

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Feature	Window Object	Document Object
Description	Represents the browser window	Represents the HTML document
Properties	Title, URL, size, location, navigator, screen, etc.	Title, body, head, elements, innerHTML, textContent, etc.
Methods	Open, close, alert, confirm, prompt, setTimeout, clearTimeout, etc.	getElementById, getElementsByTagName, querySelector, querySelectorAll, innerHTML, textContent, etc.
Root of object model	Browser's object model	DOM

## Description

- The browser window itself is represented by the window object. The title, URL, and size are just a few of the attributes and methods that provide you access to and control over the window. All other objects in the browser are available through the window object since it is the root of the browser's object model.
- The HTML document that is open in the window is represented by the document object. The title, body, and elements are just a few of the properties and methods that provide you access to and control over the document. The DOM (Document Object Model), a tree-like structure that represents the HTML document, has its root in the document object.

## Properties

- The size, title, and URL of the browser window are among the properties of the window object. For instance, the window.location property returns the URL of the page that is presently loaded in the window, and the window.title property returns the title of the window.
- The title, body, and elements of the HTML document are among the properties of the document object. For instance, the document.body property returns the document's body, whereas the document.title property returns the document's title.

## Methods

- The window object includes methods that let you interact with the browser window, such as opening new windows, shutting windows, and showing notifications. For instance, the window.open() and window.alert() methods launch new windows, respectively, and display alert messages.
- The document object provides methods that let you interact with the HTML document, such as retrieving and altering the text of elements and adding and removing elements. For instance, the document and the element with the supplied ID are returned by the document.getElementById() method. The first element that matches the supplied selection is returned by the querySelector() function.

## Initial object model node

- The window object is the root of the browser's object model (BOM), which implies that it provides access to all other objects in the browser. When using the window.document property, for instance, the document object is available.
- The root of the DOM (Document Object Model), which is a tree-like structure that represents the HTML document, is the document object. This indicates that every component of the document is reachable via the document object.

## Summary

Two of the most significant objects in JavaScript are the window and document objects. They give access to the HTML document and the browser window, respectively. The document

object is the root of the DOM, whereas the window object is the root of the browser's object model. The window object is typically used to gain access to browser window-specific attributes and functions, such as the title, URL, and size. The document object will be used to gain access to elements like the title and body, as well as other HTML-related properties and methods.