1. **DIFFERENCE BETWEEN DOCUMENT AND WINDOW OBJECTS**

**DOCUMENT OBJECT INTRODUCTION:**

The document object represents a web page that is loaded in the browser. By accessing the document object, we can access the element in the HTML page. With the help of document objects, we can add dynamic content to our web page. The document object can be accessed with a window.document or just document.

**Syntax:**

document.property\_name;

**WINDOW OBJECT INTRODUCTION:**

The window object is the topmost object of the DOM hierarchy. It represents a browser window or frame that displays the contents of the webpage. Whenever a window appears on the screen to display the contents of the document, the window object is created.

**Syntax:**

window.property\_name;

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| **DOCUMENT** | **WINDOW OBJECTS** | |
| **SCOPE** | | |
| Document is a property of the window object, representing the actual HTML document loaded in the window. | | Window is the global object that represents the browser window and contains properties and methods that deal with the window itself. |
| **ACCESS to DOM** | | |
| Document focuses on the DOM (Document Object Model) and provides methods to access, manipulate, and modify the content of the loaded HTML document. | | Window encompasses the document object but extends beyond it, providing access to the browser's properties, methods, and functionalities. |
| **CONTENT VS. ENVIRONMENT** | | |
| Document deals specifically with the content of the HTML document, such as elements, attributes, and text within the document. | | Window deals with the broader browser environment, including the document, but also manages navigation, history, location, timing, and other browser-related features. |
| **DOCUMENT MANIPULATION** | | |
| Document object methods allow the selection and manipulation of DOM elements, such as getElementById, querySelector, createElement, etc. | | Window object doesn’t directly manipulate the document content but provides methods to manage the window and its properties like resizing, opening, closing, and controlling pop-ups. |
| **HIERARCHY** | | |
| Document is nested within the window object and can be accessed via window. | | Window is the highest-level object in the browser's JavaScript object model. |
| **DOCUMENT-SPECIFIC EVENTS** | | |
| Document object handles events related to the document, such as DOMContentLoaded, click, submit, etc. | | Window object handles broader events like load, resize, scroll, etc., affecting the entire browser window. |
| **DOCUMENT PROPERTIES** | | |
| document object includes properties like title, URL, body, head, representing elements or meta-information about the loaded document. | | window object includes properties like location, history, navigator, screen, providing information and control over the browser environment. |
| **WINDOW METHODS** | | |
| Document object does not have these window management methods. | | Window object has methods for timers (setTimeout, setInterval), opening new windows (open), handling alerts and prompts (alert, confirm, prompt), etc. |
| **GLOBAL CONTEXT** | | |
| Document is a sub-object of the window object but doesn’t extend beyond the document structure. | | window is the global object that encompasses various properties and methods, including the document object. |
| **VISIBILITY AND FOCUS** | | |
| Document doesn’t have methods to manage the window's visibility or focus. | | Window object has methods to handle the visibility of the window (blur, focus) and manage pop-up blockers (blocked, allowPopups). |
| **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. |

A screenshot of a computer

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