differences between document and window objects:

Window Object

* Represents the browser window or frame
* Global scope
* Provides access to browser functionalities, such as navigation, history, and cookies
* Properties related to the browser window, such as dimensions, position, and navigation history

Document Object

* Represents the HTML document loaded into the browser
* Limited scope, confined to the context of the document
* Focuses on manipulating the structure and content of the webpage
* Properties specific to the webpage's structure, such as title, character encoding, and root element

Key Differences

* Scope: Window is global, Document is limited
* Purpose: Window handles browser interactions, Document manipulates webpage content
* Properties: Window has browser-related properties, Document has webpage-related properties
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| Aspect | Document Object | Window Object |
| Representation | Represents the HTML document loaded in the browser. | Represents the browser window or tab displaying the web page. |
| Primary Purpose | Facilitates Document Object Model (DOM) manipulation. | Provides a global environment for JavaScript code within the browser. |
| Scope | Limited to the currently loaded HTML document. | Global scope for JavaScript code in the browser. |
| Hierarchy | Represents the hierarchical structure of the HTML document, including elements, nodes, and attributes. | Does not have a hierarchical structure but manages the browser environment. |
| DOM Manipulation | Mainly used for accessing and manipulating the content and structure of the HTML document. | Used for handling global events, controlling browser windows, and interacting with the browser itself. |
| Example Use Case | - Modifying text or attributes of HTML elements. <br>- Accessing elements by ID, class, or tag name. | - Opening new browser windows or tabs. <br>- Listening for global events like resizing or scrolling. |
| Access to Other Objects | Provides access to elements within the same document. | Can access other browser windows or tabs, allowing interaction between them. |
| Variable Global Scope | Variables and functions declared within script tags have local scope within the document. | Variables declared without scoping keywords have global scope and become properties of the Window object. |
| Common Methods/Properties | - getElementById(), querySelector(), innerHTML. | - open(), close(), addEventListener(). |