**Document vs window object**

In web development, both the document and window objects are fundamental components of the browser's JavaScript environment, but they serve different purposes and have distinct roles. Here’s a detailed comparison between the two:

Window Object: The **window object** represents the browser window or a frame that contains a document. It is the global object in the browser environment.

* Global Scope: All global JavaScript objects, functions, and variables automatically become members of the window object. For example, window.alert() and simply alert() are the same.
* Properties and Methods:

Browser Interaction: Methods for controlling the browser window, like alert(),confirm(),prompt(),open(),close(),setTimeout(),setInterval(), etc.

Location: Access to the current URL via window. Location.

History: Access to the browser's history via window.history.

Navigator: Information about the browser via window.navigator.

Screen: Information about the user's screen via window.screen.

* Event Handling: Global events like resize, scroll, load, and unload are associated with the window object.
* Document Object: The document object is a property of the window object (window.document).

Document Object**:** The **document object** represents the HTML or XML document that is loaded into the window. It is a property of the window object.

* DOM Interface: Provides a way to access and manipulate the content of the web page. It is the root of the Document Object Model (DOM).
* Properties and Methods:

Element Selection: Methods like getElementById(), getElementsByClassName(),getElementsByTagName(),querySelector(), and querySelectorAll().

Content Manipulation: Methods for creating elements (createElement), adding text (createTextNode), and modifying the DOM (appendChild, removeChild, replaceChild, innerHTML, etc.).

Document Information: Properties like document.title, document.URL, document.domain, and document.cookie.

* Event Handling: Handles events specific to the document content like click, keydown, submit, etc.
* Rendering: The document object is responsible for the rendering of the content within the window. It provides access to the structure and style of the webpage.

**DIFFERENCES**

1. Scope:

* window is the global scope object and represents the entire browser window.
* document is a property of window and represents the content of the webpage.

2. Functionality:

* window is concerned with the browser window and overall environment.
* document is focused on the webpage content and the DOM.

3. Usage:

* Use window for tasks like opening new browser windows, controlling the current window, accessing global properties and methods, and handling global events.
* Use document for manipulating the HTML content, traversing the DOM, handling document-specific events, and accessing information about the webpage.