**Difference Between Document and Window Objects in JavaScript**

**Document Object**

The Document object represents the HTML document loaded in the browser window. It serves as an entry point to the content of a web page, providing access to elements such as paragraphs, headings, images, forms, and more. Here are some key points about the Document object:

**Hierarchy:**

The Document object represents the entire HTML document, organized in a hierarchical structure. It contains properties and methods to navigate and manipulate the document's structure, such as accessing elements by their IDs, classes, or tags.

**DOM Manipulation:**

The Document Object Model (DOM) is a programming interface provided by the Document object, allowing developers to interact with the HTML structure dynamically. With the Document object, you can create, modify, or remove elements and their attributes on the web page.

**ContentLoaded Event:**

The Document object emits the DOMContentLoaded event when the initial HTML document has been completely loaded and parsed, including stylesheets, images, and subframes. This event is often used to trigger JavaScript code that needs to execute after the document is ready.

**Window Object**

On the other hand, the Window object represents the browser window that contains the Document object. It serves as the global object in client-side JavaScript, providing access to various properties and methods related to the browser window and its interaction with the user. Let's explore some characteristics of the Window object:

**Global Scope:**

All global JavaScript variables and functions are attached to the Window object. This means that variables declared without the var , let , or const keywords become properties of the Window object. For example, window.myVariable refers to a global variable myVariable .

**Browser Interaction:**

The Window object provides methods for interacting with the browser window, such as opening new windows or tabs ( window.open() ), navigating to a different URL ( window.location ), and resizing or moving the current window.

**Event Handling:**

The Window object handles various events related to user interaction, including mouse events, keyboard events, and window resize events. Event listeners can be attached to the Window object to execute JavaScript code in response to these events.

**Key Differences**

Now that we've outlined the characteristics of the Document and Window objects, let's summarize their key differences:

**Scope:**

The Document object represents the content of an HTML document, while the Window object represents the browser window containing that document.

**Hierarchy:**

The Document object provides access to the structure and content of the HTML document through the DOM, whereas the Window object provides access to browser-related properties and methods.

**Global Object:**

While both objects serve as entry points for JavaScript code, the Window object acts as the global object in client-side JavaScript, whereas the Document object is specific to the loaded HTML document.