1. Write a blog on the difference between document and window objects

**1. Document Object:**

The Document object represents the HTML document loaded in the browser window. It serves as an interface to the content of the web page, allowing JavaScript to access and manipulate its elements. Here are some important points about the Document object:

• DOM Tree: The Document object provides a hierarchical representation of the HTML document through the Document Object Model (DOM) tree. Each element in the HTML document, such as , , , , , etc., is represented as a node in the DOM tree.

• Accessing Elements: One of the primary functions of the Document object is to facilitate access to HTML elements within the document. Developers can use methods like getElementById, getElementsByClassName, getElementsByTagName, or querySelector to retrieve specific elements based on their IDs, classes, tags, or CSS selectors.

• Manipulating Content: With the Document object, JavaScript can dynamically modify the content and structure of the web page. Developers can create, remove, or +modify elements, change their attributes, alter text content, and more.

**2. Window Object:**

The Window object represents the browser window that contains the Document object. It serves as the global object in client-side JavaScript and provides access to various browser-related functionalities. Here are some key aspects of the Window object:

• Global Scope: All JavaScript code running in a browser operates within the context of a Window object. Variables and functions declared in the global scope are attached to the Window object. For example, a variable declared using var without being part of any function becomes a property of the Window object.

• Browser Interaction: The Window object enables interaction with the browser environment. It provides methods to manipulate the browser history, open new windows or tabs, set timeouts and intervals, handle user events, and more.

• Window Properties: The Window object exposes properties that contain information about the browser window, such as its dimensions, location, scroll position, and references to frames or iframes.

Key Differences:

• Scope: While the Document object represents the content of the web page, the Window object represents the browser window itself. The Document object deals with the structure and content of the HTML document, whereas the Window object handles browser-related functionalities and properties.

• Hierarchy: The Document object is a part of the Window object hierarchy. It is contained within the Window object and can be accessed through the Window object’s document property.

• Purpose: The Document object is primarily used for accessing and manipulating the content of the web page, while the Window object is used for interacting with the browser environment and controlling browser behavior.

In summary, while both the Document and Window objects are essential components of client-side JavaScript programming, they serve different purposes and provide access to distinct sets of functionalities. Understanding their differences is crucial for effective web development and JavaScript programming.