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

As a web developer, it's important to understand the differences between the Document and Window objects in JavaScript. These two objects are part of the Document Object Model (DOM), which represents the structure of an HTML document as a tree of objects.

The Document object represents the web page itself, including all its content, such as images, text, and links. It provides access to the HTML elements on the page and allows you to manipulate them dynamically. For example, you can use the Document object to create, delete, or modify HTML elements, as well as to add or remove event listeners.

On the other hand, the Window object represents the browser window or tab that contains the web page. It provides access to the browser's features, such as the URL bar, the back and forward buttons, and the ability to open and close windows or tabs. In addition, the Window object also provides access to global functions and objects, such as setInterval() and clearInterval() for timing events.

Here are some key differences between the Document and Window objects:

Scope: The Document object is limited to the content of the web page itself, whereas the Window object has a global scope that includes the browser window or tab.

Methods and Properties: The Document object has its own set of methods and properties that allow you to manipulate the content of the web page, such as getElementById() and innerHTML. The Window object has its own set of methods and properties that allow you to manipulate the browser, such as open() and close().

Relationship: The Document object is a property of the Window object. In other words, the Window object contains a reference to the Document object that represents the content of the web page.

Events: Both the Document and Window objects can be used to add event listeners to HTML elements on the web page. However, the Window object can also be used to listen for browser events, such as resize and scroll events.

In conclusion, understanding the differences between the Document and Window objects is essential for web developers. The Document object provides access to the content of the web page, while the Window object provides access to the browser's features and global functions. By leveraging these two objects, developers can create dynamic and interactive web applications that provide a rich user experience.