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**DAY-2-TASK**

**Title:** Difference between Document and Window Objects in JavaScript

**Introduction:**

JavaScript, being a versatile scripting language, interacts with the Document Object Model (DOM) to manipulate and control web pages dynamically. Two fundamental objects in this process are the `document` and `window` objects. While they might seem interchangeable, they serve distinct roles in the web development ecosystem. Let's look into the differences between these two objects to gain a better understanding of their functionalities.

**1. Scope and Hierarchy:**

**- Window Object:**

- The `window` object is the global object in the browser environment.

- It represents the browser window and serves as the global scope for JavaScript execution.

- Variables and functions declared without the `var`, `let`, or `const` keywords become properties of the `window` object.

- **Document Object:**

- The `document` object is a property of the `window` object.

- It represents the HTML document loaded in the browser.

- It serves as an interface to manipulate the content and structure of the document.

**2. Global vs. Document-Specific:**

**- Window Object:**

- Global variables and functions are attached to the `window` object.

- Manages properties like `location`, `history`, and `navigator` which deal with the overall browser environment.

**- Document Object:**

- Focuses on the structure and content of the loaded HTML document.

- Provides methods and properties for interacting with elements, such as `getElementById` and `querySelector`.

**3. Manipulating Content:**

**- Window Object:**

- Controls the overall behaviour of the browser window.

- Manages events like resizing, closing, or navigating to a new URL.

**- Document Object:**

- Allows manipulation of the content within the HTML document.

- Offers methods to create, modify, or delete elements and their attributes.

**4. Hierarchy of Objects:**

**- Window Object:**

- The `window` object encapsulates the `document` object and other global objects like `console` and `alert`.

**- Document Object:**

- Represents the structure of the HTML document, containing elements, attributes, and text content.

**5. Event Handling:**

**- Window Object:**

- Manages global events such as resizing the window or closing the browser.

**- Document Object:**

- Handles events related to elements within the document, like clicks, keypresses, or form submissions.

**Conclusion:**

The `window` and `document` objects in JavaScript serve distinct purposes. While the `window` object manages the overall browser environment, the `document` object focuses on the content and structure of the loaded HTML document.