**Day 2 Task**

Write a blog on the difference between document and window object

Answer:

**Document object:**

* The document object represents a web page that is loaded in the browser. By accessing the document object, we can access the element in the HTML page.
* With the help of document objects, we can add dynamic content to our web page. The document object can be accessed with a **window.document**or just**document.**
* **Syntax:**
* document.property\_name;
* The **Document** interface represents any web page loaded in the browser and serves as an entry point into the web page's content, which is the [DOM tree](https://developer.mozilla.org/en-US/docs/Web/API/Document_object_model/Using_the_Document_Object_Model#what_is_a_dom_tree).
* The DOM tree includes elements such as [<body>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/body) and [<table>](https://developer.mozilla.org/en-US/docs/Web/HTML/Element/table), among [many others](https://developer.mozilla.org/en-US/docs/Web/HTML/Element). It provides functionality globally to the document, like how to obtain the page's URL and create new elements in the document.
* The Document interface describes the common properties and methods for any kind of document. Depending on the document's type (e.g. [HTML](https://developer.mozilla.org/en-US/docs/Web/HTML), [XML](https://developer.mozilla.org/en-US/docs/Web/XML), SVG, …), a larger API is available: HTML documents, served with the "text/html" content type, also implement the [HTMLDocument](https://developer.mozilla.org/en-US/docs/Web/API/HTMLDocument) interface, whereas XML and SVG documents implement the [XMLDocument](https://developer.mozilla.org/en-US/docs/Web/API/XMLDocument) interface.
* Few properties and methods of Document Object Model:
* **Properties:**
* **document.activeElement:** Returns the element that currently has focus.
* **document.body:** Returns the<body> or <frameset> node of the current document.
* **document.head:** Returns the<head> of the current document.
* **document.images:** Returns an HTMLCollection of the images in the document.
* **document.links:** Returns an HTMLCollection of the hyperlinks in the document.
* **Methods:**
* **document.adoptNode():** Adopt node from external document.
* **document.append():** Inserts a set of Node objects or string objects after the last child of the document.
* **document.getElementById():** Returns an object reference to the identified element.
* **document.getElementByClassName():** Returns a list of elements with given class name.
* **document.getElementByTagName():** Returns a list of elements with the given tag name.

**Window object:**

* The window object is the topmost object of the DOM hierarchy. It represents a browser window or frame that displays the contents of the webpage.
* Whenever a window appears on the screen to display the contents of the document, the window object is created.
* **Syntax:**
* window.property\_name
* The Window object is a global object in client-side JavaScript, representing the browser window containing a DOM document and acting as the root of the document object model.
* The window object, supported by all browsers, represents the browser’s window and automatically includes global JavaScript objects, functions, and variables as members.
* The Window object is responsible for managing global variables, functions, and objects, providing methods for browser interaction and managing properties related to frames, tabs, or windows, such as alert(), confirm(), setTimeout(), and setInterval().
* Few properties and methods of window objects:
* **Properties:**
* **window.innerHeight:** Gets the inner height of the browser window (in pixels).
* **window.innerWidth:** Gets the inner width of the browser window (in pixels).
* **window.console:** Returns a reference to the console object which provides access to the browser’s debugging console.
* **window.document:** Returns a reference to the document that the window contains.
* **window.length:** Returns the number of frames in the window.
* **Methods**:
* **window.open()**:Opens a new window
* **window.close():**Closes the current window.
* **window.alert():** Display an alert dialog.
* **window.blur():**Sets focus away from the window
* **window.focus():**Sets focus on the current window

**Difference between document and window:**

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| **Document** | ****Window**** |
| * It represents any HTML document or web page that is loaded in the browser. | * It represents a browser window or frame that displays the contents of the webpage. |
| * It is loaded inside the window | * It is the very first object that is loaded in the browser. |
| * It is the object of window property. | * It is the object of the browser. |
| * All the tags, elements with attributes in HTML are part of the document. | * Global objects, functions, and variables of JavaScript are members of the window object. |
| * We can access the document from a window using the window. document | * We can access the window from the window only. i.e. window.window |
| * The document is part of BOM (browser object model) and dom (Document object model) | * The window is part of BOM, not DOM. |
| * Properties of document objects such as title, body, cookies, etc can also be accessed by a window like this window. document.title | * Properties of the window object cannot be accessed by the document object. |