**DIFFERENCE BETWEEN DOCUMENT AND WINDOW**

| **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. |
| syntax:        Document. property name; | syntax:  Window. property name; |
| example:       Document .title :  will return the title of the document | example:  Window. inner Height : will return the height of the content area of the browser |

**Properties of document:**

* [**Active Element**](https://www.geeksforgeeks.org/html-dom-activeelement-property/): It returns the currently active elements in the document.
* [**Body**](https://www.geeksforgeeks.org/html-dom-body-property/): It returns the contents of the body element.
* **Anchors**: It returns all <a> elements that have a name attribute.
* [**Base URI**](https://www.geeksforgeeks.org/html-dom-baseuri-property/): It returns a string value that represents the base URI of the document.
* [**Cookie**](https://www.geeksforgeeks.org/html-dom-cookie-property/): It returns the cookie of the current document.
* [**Char Set**](https://www.geeksforgeeks.org/html-dom-script-charset-property/): It returns a string, representing the document’s character encoding.
* [**Default View**](https://www.geeksforgeeks.org/html-dom-defaultview-property/): It returns the current Window Object.
* [**Design Mode**](https://www.geeksforgeeks.org/html-dom-designmode-property/): It is used to set documents as editable or read-only.
* [**Domain**](https://www.geeksforgeeks.org/html-dom-domain-property/): It returns the domain name of the document server.
* [**Doctype**](https://www.geeksforgeeks.org/html-dom-doctype-property/): It returns the document’s doc type.
* **Embeds**: It returns the collection of all embedded elements.
* [**URL**](https://www.geeksforgeeks.org/html-dom-url-property/): It returns the complete URL of the document.
* **Forms**: It returns all the elements of the form.
* [**Full Screen Element**](https://www.geeksforgeeks.org/html-dom-fullscreenelement-property/): It returns the element that is currently present in full-screen mode.
* [**Title**](https://www.geeksforgeeks.org/html-dom-title-property/): It returns the title element of the document.
* [**Head**](https://www.geeksforgeeks.org/html-dom-head-property/): It returns the head element of the document.
* **Links**: It returns all <area> and <a> elements that have a href attribute.
* [**Last Modified**](https://www.geeksforgeeks.org/html-dom-lastmodified-property/): It returns the date and time of the current document that was last modified.
* **Images**: It returns the collection of <img> elements in the document.
* [**Implementation**](https://www.geeksforgeeks.org/html-dom-implementation-property/): It returns the DOM Implementation object associated with the current document.
* [**Ready State**](https://www.geeksforgeeks.org/html-dom-readystate-property/): It returns the loading status of the current document.
* [**Referrer**](https://www.geeksforgeeks.org/html-dom-referrer-property/): It returns the URI of the page that is linked to the current page.
* **Scripts**: It returns all script elements present in the document.
* [**Strict Error Checking**](https://www.geeksforgeeks.org/html-dom-stricterrorchecking-property/): It sets or returns whether strict error checking can be enforced on a document or not.

**Methods of Document:**

The lists of most commonly used methods are listed below:

* [**Add Event Listener()**](https://www.geeksforgeeks.org/html-dom-addeventlistener-method/): It is used to attach an event handler to the specified element.
* [**Adopt Node()**](https://www.geeksforgeeks.org/html-dom-adoptnode-method/): It is used to adopt a node from another document and it returns a node object, representing the adopted node.
* [**Close()**](https://www.geeksforgeeks.org/html-dom-close-method/): It is used to close the output stream.
* [**Create Attribute()**](https://www.geeksforgeeks.org/html-dom-createattribute-method/)**:** It is used to create an attribute node with the specified name and returns the attribute object.
* [**Create Comment()**](https://www.geeksforgeeks.org/html-dom-createcomment-method/)**:** It is used to create a comment node with some text.
* [**Create Document Fragment()**](https://www.geeksforgeeks.org/html-dom-createdocumentfragment-method/): It is used to create the document fragment to change the content of the document.
* [**Create Element()**](https://www.geeksforgeeks.org/html-dom-createelement-method/)**:** It is used to create HTML element .
* [**Create Event()**](https://www.geeksforgeeks.org/html-dom-createevent-event-method/): It is used to create a new events object.
* [**Create Text Node()**](https://www.geeksforgeeks.org/html-dom-createtextnode-method/): It is used to create a textnode.
* [**Exec Command()**](https://www.geeksforgeeks.org/html-dom-execcommand-method/): It is used to execute a command specified by the user on the editable selected section. It returns a Boolean value.
* [**Fullscreen Enabled()**](https://www.geeksforgeeks.org/html-dom-fullscreenenabled-method/): It is used to check whether the document can be viewed in full screen mode or not. It returns a boolean value.
* [**Get Element By Id()**](https://www.geeksforgeeks.org/html-dom-getelementbyid-method/): It returns the object of the given ID. If no object with that id exists then it returns null.
* [**Get Elements By Class Name()**](https://www.geeksforgeeks.org/html-dom-getelementsbyclassname-method/): It returns an object containing all the elements with the specified class names in the document as objects.
* [**Get Elements By Name()**](https://www.geeksforgeeks.org/html-dom-getelementsbyname-method/): It returns an object containing all the elements with the specified name in the document as objects.
* [**Get Elements By Tag Name()**](https://www.geeksforgeeks.org/html-dom-getelementsbytagname-method/): It returns an object containing all the elements with the specified tag names in the document as objects.
* [**Has Focus()**](https://www.geeksforgeeks.org/html-dom-hasfocus-method/): It returns a boolean value that indicates whether the document or element has focus or not.
* [**Import Node()**](https://www.geeksforgeeks.org/html-dom-importnode-method/): It imports the copy of a node from another document in the current document.
* [**Normalize()**](https://www.geeksforgeeks.org/html-dom-normalize-method/): It flushes out the empty nodes and merges the adjacent text nodes with the first text node and
* [**Normalize Document()**](https://www.geeksforgeeks.org/html-dom-normalizedocument-method/): It is used to normalize an HTML document by removing any empty text nodes and joining the adjacent text nodes.
* **Open()**: It is used to open the output stream to collect the output.
* [**Query Selector()**](https://www.geeksforgeeks.org/html-dom-queryselector-method/)**:** It returns the first element that matches a specified CSS selector(s) in the document.
* [**Query SelectorAll()**](https://www.geeksforgeeks.org/html-dom-queryselectorall-method/): It returns a collection of an element’s child elements that matches a specified CSS selector(s) in the document
* [**Remove Event Listener()**](https://www.geeksforgeeks.org/html-dom-removeeventlistener-method/): It removes the event handler from an element that has an attached event.
* [**Rename Node()**](https://www.geeksforgeeks.org/html-dom-renamenode-method/)**:** It is used to rename the node.
* [**Write()**](https://www.geeksforgeeks.org/html-dom-write-method/): It is used to write some content or javascript code in the document.
* [**Write ln()**](https://www.geeksforgeeks.org/html-dom-writeln-method/): It is used to write a document with a newline character after each statement.

**Example:** This example describes the implementation of the document object.

**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.

The properties of Window objects that are commonly used are listed in the below table:

**Properties of the window:**

* [**Closed**](https://www.geeksforgeeks.org/javascript-window-close-method/): It holds a Boolean value that represents whether the window is closed or not.
* **Console:** It returns a reference to the console object which provides access to the browser’s debugging console.
* **Default Status:** It is used to define the default message that will be displayed in the status bar when no activity is carried on by the browser.
* **Controllers:** It returns the XUL controller objects for the current Chrome window.
* [**Custom Elements**](https://www.geeksforgeeks.org/html-dom-window-customelements-property/): It returns a reference to the Custom Element Registry object, which can be used to register new custom elements and also get information about already registered custom elements.
* [**Crypto**](https://www.geeksforgeeks.org/html-dom-window-crypto-property/): It returns the browser crypto object.
* [**Device Pixel Ratio**](https://www.geeksforgeeks.org/html-dom-window-devicepixelratio-property/): It returns the ratio between physical pixels and device-independent pixels in the current display.
* [**Document**](https://www.geeksforgeeks.org/html-dom-window-document-property/): It returns a reference to the document object of that window.
* **DOM Matrix:** It returns a reference to a DOM Matrix object, which represents 4×4 matrices, suitable for 2D and 3D operations.
* [**Frames []**](https://www.geeksforgeeks.org/html-dom-window-frames-properties/): It represents an array that contains all the frames of a given window.
* **DOM Point**: It returns a reference to a DOM Point object, which represents a 2D or 3D point in a coordinate system.
* **History:** It provides information on the URLs visited in the current window.
* [**Length**](https://www.geeksforgeeks.org/html-window-length-property/): It represents the number of frames in the current window.
* **DOM React:** It returns a reference to a DOM Rect object, which represents a rectangle.
* [**Full Screen**](https://www.geeksforgeeks.org/web-window-api-dom-window-fullscreen-property/): This property indicates whether the window is displayed on full screen or not.
* **Location:** It contains the URL of the current window.
* [**Inner Height**](https://www.geeksforgeeks.org/html-window-innerheight-property/): It is used to get the height of the content area of the browser window.
* [**Inner Width**](https://www.geeksforgeeks.org/html-window-innerwidth-property/): It is used to get the width of the content area of the browser window.
* [**Name**](https://www.geeksforgeeks.org/html-window-name-property/): It contains the name of the referenced window.
* **Window:** It returns the current window or frame.
* [**Navigator**](https://www.geeksforgeeks.org/html-dom-window-navigator-property/): It returns a reference to the navigator object.
* [**Outer Height**](https://www.geeksforgeeks.org/html-window-outerheight-property/): It will get the height of the outside of the browser window.
* [**Outer Width**](https://www.geeksforgeeks.org/html-window-outerwidth-property/): It will get the width of the outside of the browser window.
* [**Status**](https://www.geeksforgeeks.org/html-dom-window-status-property/): It overrides the default status and places a message in the status bar.
* [**Top**](https://www.geeksforgeeks.org/html-window-top-property/): It returns a reference to the topmost window containing a frame if many windows are opened.
* [**Toolbar**](https://www.geeksforgeeks.org/web-window-api-window-toolbar-property/): It will result in the toolbar object, whose visibility can be toggled in the window.
* [**Opener**](https://www.geeksforgeeks.org/html-dom-window-opener-properties/): It contains a reference to the window that opened the current window.
* [**Parent**](https://www.geeksforgeeks.org/html-dom-window-parent-property/): It refers to the frameset in which the current frame is contained.
* **Screen:** It refers to the screen object
* [**Self**](https://www.geeksforgeeks.org/html-window-self-property/): It provides another way to refer to the current window.

**Methods of Window:**

The methods of Window objects that are commonly used are listed in the below table:

* [**Alert ()**](https://www.geeksforgeeks.org/html-window-alert-method/): It is used to display an alert box. It displays a specified message along with an OK button and is generally used to make sure that the information comes through the user.
* [**Atob()**](https://www.geeksforgeeks.org/html-window-atob-method/): It is used for decoding a base-64 encoded string. It is used to decode a string of data that has been encoded using the btoa() method.
* [**Blur()**](https://www.geeksforgeeks.org/javascript-window-blur-and-window-focus-method/): It is used to remove focus from the current window.
* [**Btoa()**](https://www.geeksforgeeks.org/html-dom-window-btoa-method/): It is used for encoding a string in base-64 format.
* [**Clear Interval()**](https://www.geeksforgeeks.org/javascript-cleartimeout-clearinterval-method/): It clears the interval which has been set by the set Interval() function before that.
* [**Clear Timeout()**](https://www.geeksforgeeks.org/javascript-cleartimeout-clearinterval-method/)**:**It clears the timeout which has been set by the set Timeout()function before that.
* [**Close()**](https://www.geeksforgeeks.org/javascript-window-close-method/)**:**It is used for closing a certain window or tab of the browser which was previously opened.
* [**Confirm()**](https://www.geeksforgeeks.org/javascript-window-confirm-method/)**:**It is used to display a modal dialog with an optional message and two buttons i.e. OK and Cancel. It returns true if the user clicks “OK”, and false otherwise.
* [**Focus()**](https://www.geeksforgeeks.org/javascript-window-blur-and-window-focus-method/)**:**It is used to give focus to an element in the current window.
* [**Get Computed Style()**](https://www.geeksforgeeks.org/javascript-window-getcomputedstyle-method/)**:**It is used to get all the computed CSS properties and values of the specified element.
* **Get Selection():** It returns a Selection object representing the range of text selected by the user
* [**Match Media()**](https://www.geeksforgeeks.org/html-window-matchmedia-method/): It is used to return a Media Query List object which represents the result of the specified CSS media query string.
* [**Open()**](https://www.geeksforgeeks.org/javascript-window-open-method/): It is used to open a new tab or window with the specified URL and name.
* [**Move By()**](https://www.geeksforgeeks.org/html-window-moveby-method/): It is used for moving a window with a specified number of pixels relative to its current coordinates.
* [**Move To()**](https://www.geeksforgeeks.org/html-window-moveto-method/): It is used in the window to move the window from the left and top coordinates.
* [**Prompt()**](https://www.geeksforgeeks.org/javascript-window-prompt-method/): It is used to display a dialog with an optional message prompting the user to input some text
* [**Resize By()**](https://www.geeksforgeeks.org/html-window-resizeby-method/): It is used to resize a window by the specified amount.
* [**Resize To()**](https://www.geeksforgeeks.org/html-window-resizeto-method/): It is used to resize a window to the specified width and height.
* [**Scroll By()**](https://www.geeksforgeeks.org/html-window-scrollby-method/): It is used to scroll the document by the given number of pixels.
* [**Scroll To()**](https://www.geeksforgeeks.org/javascript-window-scrollto-method/): It is used to scroll to a particular set of coordinates in the document.
* [**Set Interval()**](https://www.geeksforgeeks.org/java-script-settimeout-setinterval-method/)**:** It repeats a given function at every given time interval.
* [**Set Timeout()**](https://www.geeksforgeeks.org/java-script-settimeout-setinterval-method/): It executes a function, after waiting a specified number of milliseconds.
* [**Stop()**](https://www.geeksforgeeks.org/html-dom-window-stop-method/): It is used to stop the window from loading resources in the current browsing context.

**Example:**This example describes the implementation of the window object.