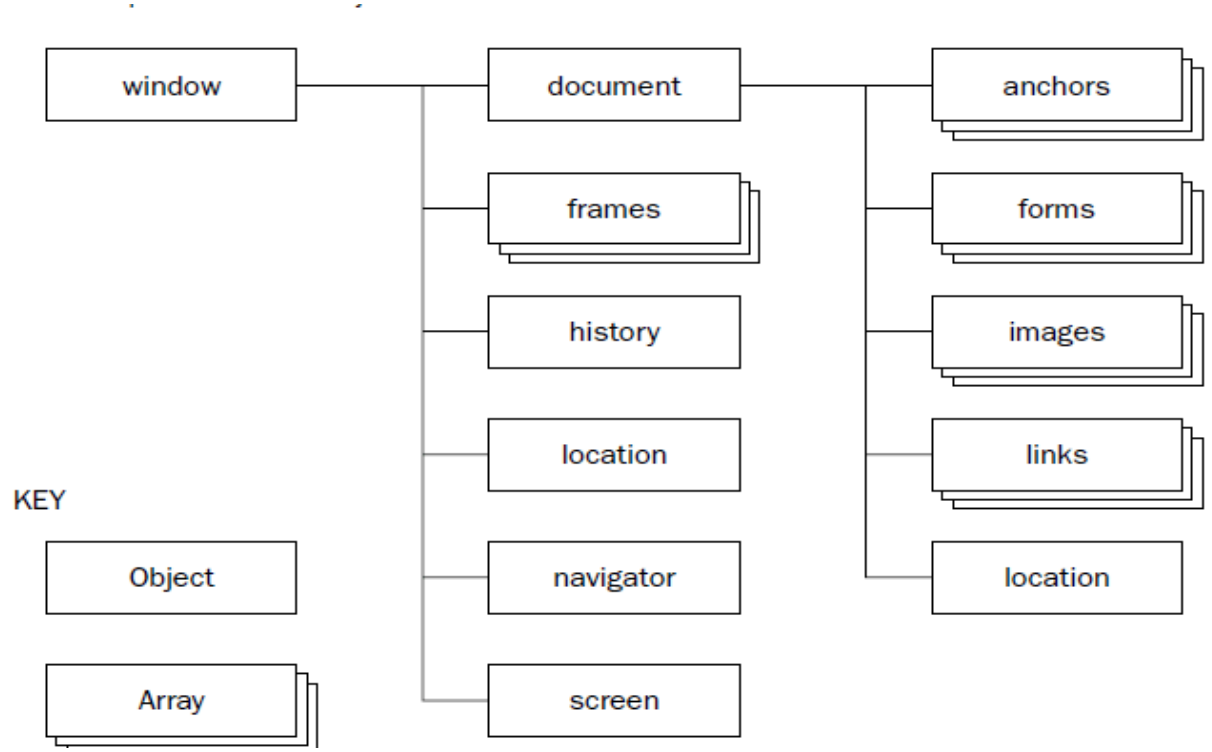
JavaScript Browser BOM

- The Browser Object Model (BOM) is used to interact with the browser.
- The top level object in the BOM is the window object.
- The window object represents the browser window.
- All other browser objects are contained within the window object.

The window object includes a number of properties and methods that can be used to control the Web browser



- The document object represents the Web page displayed in the browser.
- All elements on a Web page including HTML tags are contained within the document object.
- Since the document object is often considered the most important part of the BOM

BOM Objects

- The default object of browser is window means you can call all the functions of window by specifying window or directly.

BOM Objects:

Sr. No	Reference	Object
1	Window	The main browser window
2	window.navigator	Information about the browser itself
3	window.screen	The user's screen
4	window.history	URLs visited by a user
5	window.location	The current URL
6	window.document (document)	The document appearing in the main browser window

Window Object

The default object of browser is window means you can call all the functions of window by specifying window or directly. For example:

```
window.alert("hello world");
```

is same as:

```
alert("hello world");
```

- The window object represents a window in browser.
- An object of window is created automatically by the browser.
- Window is the object of browser, it is not the object of java script.
- Java script objects are string, array, date etc.

Methods of Window Object:

alert()	displays the alert box containing message with ok button.	<script type="text/javascript"> function msg(){ alert("Hello Alert Box"); } </script> <input type="button" value="click" onclick="msg()" />

confirm()	displays the confirm dialog box containing message with ok and cancel button. It displays the confirm dialog box. It has message with ok and cancel buttons.	<script type="text/javascript">
		function msg(){
		var v= confirm("Are u sure?");
		if(v==true){ alert("ok"); }
		else
		{ alert("cancel"); }
		}
		</script>
		<input type="button" value="delete record" onclick ="msg()"/>

Prompt()	displays a dialog box to get input from the user. It displays prompt dialog box for input. It has message and textfield.	<script type="text/javascript">
		function msg(){
		var v= prompt("Who are you?");
		alert("I am "+v);
		
		}
		</script>
		<input type="button" value="click" onclick="msg()" />

open()	opens the new window.	<html>
		<body>
		<button onclick="myFunction()">Open Windows</button>
		
		<script>
		function myFunction() {
		window.open("http://www.google.com/");
		window.open("https://www.uvpce.ac.in /");
		}
		</script>
		</body>
		
		</html>

close()	closes the current window.	<html>
		<body>
		
		<button onclick="openWin()">Open "myWindow"</button>
		<button onclick="closeWin()">Close "myWindow"</button>
		
		<script>
		var myWindow;
		
		function openWin() {
		  myWindow = window.open("www.gmail.com", "myWindow", "width=200,height=100");
		  myWindow.document.write(" This is 'myWindow' "); }
		
		function closeWin() { myWindow.close(); }
		
		</script>
		
		</body>
		
		</html>

setTimeout()	performs action after specified time like calling function, evaluating expressions etc. It performs its task after the given milliseconds.	<script type="text/javascript">
		function msg(){
		setTimeout(
		function(){
		alert("Welcome to Javatpoint after 2 seconds")
		},2000);
		
		}
		</script>
		
		<input type="button" value="click" onclick="msg()" />

EXERCISE:

Write JavaScript that take College Name as Input. Confirm name of college. If Name of College is UVPCE than open web page www.uvpce.ac.in after 2000 ms if not close window.

JavaScript History Object

- The JavaScript history object represents an array of URLs visited by the user.
- By using this object, you can load previous, forward or any particular page.
- The history object is the window property, so it can be accessed by:

window.history OR history

Property of JavaScript history object

Property	Description	Property

length	specifies the number of elements contained in the object	length
current	specifies the URL of the current entry in the object	current
next	specifies the URL of the next element in the History list	next
previous	specifies the URL of the previous element in the History list	previous

Methods of JavaScript history object

No.	Method	Description
1	forward()	loads the next page.
2	back()	loads the previous page.
3	go()	loads the given page number.

Example: Write down output produced by the given JavaScript history object.

```
<html>
<head>
    <title>JavaScript History Object</title>
    <script type="text/javascript">
        function dispCount()
        {
```

```
                var historyCount = history.length;

                alert("Hi, you have visited " + historyCount + " web pages so far.");

        }

    </script> </head> <body>

<h3>JavaScript History Object Example</h3>

<form>

    <input type="button" name="history" value="My History" onclick="dispCount()">

</form>

</body>

</html>
```

Example: Write down output produced by the below JavaScript code.

```
<html>
<head>
    <title>JavaScript History Object</title>
    <script type="text/javascript">
        function funBackward()
        {
            window.history.back()
        }
        function funForward()
        {
            window.history.forward()
        }
        function funGo()
        {
            window.history.go(1)
        }
    </script>
</head>
<body>
```

```
<h3>JavaScript History Object Example</h3>

<input type="button" id="btgo" value="Go to Next Link" onclick="funGo();">

<input type="button" id="btfo" value="Forward" onclick="funForward();">

<input type="button" id="btba" value="Backward" onclick="funBackward();">

</body>
</html>
```

EXERCISE:

Design 4 web pages using java script.1st web page named page1.html having background color Blue and having link which redirect to page2.html

Design web pages using java script named page2.html having background color Yellow and having link which redirect to move.html

Design JavaScript page named move.html contains 2 button Next , Back and one link which redirect to page3.html.By clicking on back button it redirect to page2.html and click on next button it redirect to page3.html.

Design web pages using java script named page3.html having background color green and having link which redirect to www.google.com.

JavaScript Navigator Object

- The JavaScript navigator object is used for browser detection.
- It can be used to get browser information such as appName, appCodeName, userAgent etc.

Property of JavaScript navigator object

No.	Property	Description
1	appName	returns the name
2	appVersion	returns the version
3	appCodeName	returns the code name
4	cookieEnabled	returns true if cookie is enabled otherwise false
5	userAgent	returns the user agent
6	Language	returns the language. It is supported in Netscape and Firefox only.
7	userLanguage	returns the user language. It is supported in IE only.
8	Plugins	returns the plugins. It is supported in Netscape and Firefox only.
9	systemLanguage	returns the system language. It is supported in IE only.
10	mimeTypes[]	returns the array of mime type. It is supported in Netscape and Firefox only.
11	Platform	returns the platform e.g. Win32.

12	Online	returns true if browser is online otherwise false.

Methods of JavaScript navigator object

No.	Method	Description
1	javaEnabled()	checks if java is enabled.
2	taintEnabled()	checks if taint is enabled. It is deprecated since JavaScript 1.2.

The onLine property returns true if the browser is online:

```
<html>
<body>

<h2>The Navigator Object</h2>

<p>The onLine property returns true if the browser is online:</p>

<p id="demo"></p>

<script>
document.getElementById("demo").innerHTML =
"navigator.onLine is " + navigator.onLine;
</script>

</body>
</html>
```

JavaScript Screen Object

- The JavaScript screen object holds information of browser screen.
- It can be used to display screen

  width, height, colorDepth, pixelDepth etc.

Property of JavaScript Screen Object

No.	Property	Description
1	width	returns the width of the screen
2	height	returns the height of the screen
3	availWidth	returns the available width
4	availHeight	returns the available height
5	colorDepth	returns the color depth
6	pixelDepth	returns the pixel depth.

EXERCISE:

Write a JavaScript which take properly name from user and return value of relevant property using switch case.