**Brower Object Model (BOM)**

**Browser Object Model (BOM)** is a programming interface JavaScript tool for working with web browsers. This enables access & manipulation of the browser window, frames, and other browser-related objects by facilitating the JavaScript code.

The main object is “**window**,” which helps to interact with the browser.

Window height and width method:

* innerHeight
* innerWidth
* outerHeight
* outerWidth

Let insideHeight = window.innerHeight

Console.log(insideHeight )

Let outsideHeight = window.outerHeight

Console.log(outsideHeight )

Let insideWidth = window.innerWidth

Console.log(insideWidth)

Let outsideWidth = window.outerWidth

Console.log(outsideWidth)

We can use **“onresize()”** in body to check height and width.

const checkSize = () => {

console.clear()

let inner = window.innerHeight

console.log("inner:"+ inner);

let outerHeight = window.outerHeight

console.log(outerHeight,"outer");

};

**Window open and close method:**

Window.open (URL, name, specs) : These parameters are optional

URL : website domain name

Name: instead of name we can give pre-defined parameters like \_blank, \_parent etc

\_blank will open new window

\_parent will replace that window and opens new window

Spec : specification here we can pre-defined values like width, height, left and top, it means if we are going to open any new window then we can give width, height, left and top

Window.open()

1. function newWindow(){

window.open()

}

<button onclick="newWindow()">Open</button>

It will open the blank window

1. function newWindow(){

window.open("http://www.google.com")

}

<button onclick="newWindow()">Open</button>

It will open the google In new window

1. function newWindow(){

window.open("http://www.google.com", “blank”)

}

<button onclick="newWindow()">Open</button>

It will open the google In new window

1. function newWindow(){

window.open("http://www.google.com",”\_parent”)

}

<button onclick="newWindow()">Open</button>

It will open the google In same window

1. function newWindow(){

window.open("http://www.google.com","","width=500px, height=400px")

}

<button onclick="newWindow()">Open</button>

It will open the google In new window with given width and height

1. function newWindow(){

window.open("http://www.google.com","","width=500px, height=400px, left=100px, top=200px")

}

<button onclick="newWindow()">Open</button>

It will open the google In new window with given width, height, left and top

function newWindow(){

mywindow= window.open("","","width=500px, height=400px, left=500px, top=100px")

}

**Close()**

var mywindow;

function closeWindow(){

mywindow.close();

}

<button onclick="newWindow()">Open</button>

<button onclick="closeWindow()">Close</button>

# **Window moveBy & moveTo Method**

**moveTo() work on the absolute positions**

var mywindow;

function newWindow(){

mywindow= window.open("","","width=200px, height=200px, left=200px, top=100px")

mywindow.document.write("<h1> Hello window </h1> ")

}

function moveWindow(){

mywindow.moveTo(100,100) //left and top

}

**moveBy works on the relative positions**

var mywindow;

function newWindow(){

mywindow= window.open("","","width=200px, height=200px, left=200px, top=100px")

mywindow.document.write("<h1> Hello window </h1> ")

}

function moveWindow(){

mywindow.moveBy(100,100) //left and top

}

# **Window resizeBy & resizeTo**

**resizeTo()**

var mywindow;

function newWindow(){

mywindow= window.open("","","width=200px, height=200px, left=200px, top=200px")

mywindow.document.write("<h1> Hello window </h1> ")

}

function resizeWindow(){

mywindow.resizeTo(400,400) //width and height

}

<button onclick="newWindow()">Open</button>

<button onclick="resizeWindow()">Resize Window</button>

**resizeBy ()**

var mywindow;

function newWindow(){

mywindow= window.open("","","width=200px, height=200px, left=200px, top=200px")

mywindow.document.write("<h1> Hello window </h1> ")

}

function resizeWindow(){

mywindow.resizeBy(400,400) //width and height

}

<button onclick="newWindow()">Open</button>

<button onclick="resizeWindow()">Resize Window</button>

# **scrollBy & scrollTo**

We have two scroll bars:

* Vertical scroll = Y-Axis

If we want that scroll will go up then we have to give “ - ” and down is “ + ”

* Horizontal scroll = X-Axis

If we want that scroll will go left then we have to give “ - ” and right is “ + ”

**Vertical Scroll**

1. <button onclick="scrollWindow()" style="position: fixed; left: 50px; bottom: 50px;"> Scroll</button>

function scrollWindow(){

window.scrollBy(0,20) // two parameters x-axis and y-axis

}

1. <button onclick="scrollWindow()" style="position: fixed; left: 50px; bottom: 50px;"> Scroll</button>

function scrollWindow(){

window.scrollBy(0,-20) // two parameters x-axis and y-axis

}

**Horizontal Scroll**

1. <button onclick="scrollWindow()" style="position: fixed; left: 50px; bottom: 50px;"> Scroll</button>

function scrollWindow(){

window.scrollBy(40,0) // two parameters x-axis and y-axis

}

1. <button onclick="scrollWindow()" style="position: fixed; left: 50px; bottom: 50px;"> Scroll</button>

function scrollWindow(){

window.scrollBy(-40,0) // two parameters x-axis and y-axis

}

**ScrollTo:**

<button onclick="scrollWindow()" style="position: fixed; left: 50px; bottom: 50px;">Scroll</button>

var scrollAmount = 0;

function scrollWindow() {

scrollAmount += 500; // Increment scroll amount

window.scrollTo({

left: scrollAmount, // Scroll horizontally

top: 400, // Keep vertical scroll position at 0

behavior: 'smooth' // Smooth scrolling

});

}

**Location Object Properties:**

* Hash
* Host
* Hostname
* Href
* Origin
* Pathname
* Port
* Protocol
* Search

location.href="http://www.google.com"

OR

<button onclick="handelHref()" >Click Me</button>

function handelHref(){

location.href="http://www.google.com"

}

**Location Object Methods:**

* Assign()
* Reload()
* Replace()

<button onclick="handelAssign()" >Click Me</button>

function handelAssign(){

location.assign("http://www.google.com")

}

<button onclick="handelLoad()" >Click Me</button>

function handelLoad(){

location.reload()

}

<button onclick="handelReplace()" >Click Me</button>

function handelAssign(){

location.replace("http://www.google.com")

}