

**NAME** : Chavhan Aditya Bibhishan  
**ROLL NO** : 404D016  
**EXPERIMENT NO** : 01

-----CODE-----

```
<html>
<head>
  <title> Experiment No 1</title>
  <script src ="exp1.js"></script>
</head>
  <h1> Area of Triangle</h1>
  <body>
    <label> Enter the Base</label>
    <input id ="base">
    <br>
    <br>
    <label> Enter the Height</label>
    <input id ="Height">
    <br>
    <br>
    <button type="submt" onclick="Triangle()">Compute</button>
    <br>
    <h3 id="try">Triangle Output</h3>
    <br>
    <br>
  </head>
  <script src ="exp1.js"></script>
</head>
  <h1> Area of Rectangle</h1>
  <body>
    <label> Enter the Length</label>
    <input id ="Length">
    <br>
    <br>
    <label> Enter the Breadth</label>
    <input id ="Breadth">
    <br>
    <br>
    <button type="submt" onclick="Rectangle()">Compute</button>
    <br>
    <h3 id="cal">Rectangle Output</h3>
    <br>
```

```

        <br>
        <br>
        <br>
        <head>
        <script src ="exp1.js"></script>
    </head>
    <h1> Area of Circle</h1>
    <body>
        <label> Enter the radius</label>
        <input id ="radius">
        <br>
        <br>
        <button type="submt" onclick="Circle()">Compute</button>
        <br>
        <h3 id="result">Circle Output</h3>
        <br>
        <br>
    </body>
</head>
</html>

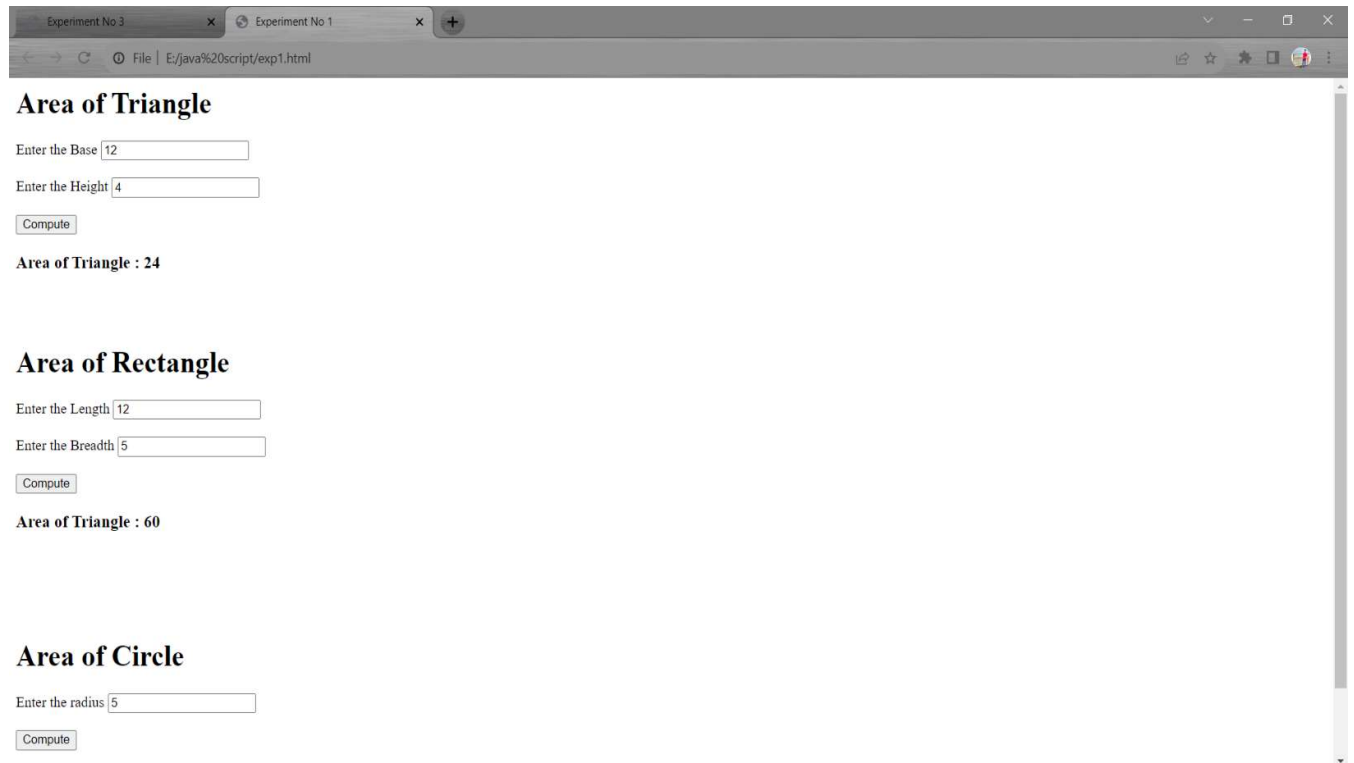
```

```

function Triangle()
{
    var b=parseFloat(document.getElementById("base").value);
    var h=parseFloat(document.getElementById("Height").value);
    var a=0.5*b*h;
    document.getElementById("try").innerHTML="Area of Triangle : " +a;
}
function Rectangle()
{
    var l=parseFloat(document.getElementById("Length").value);
    var b=parseFloat(document.getElementById("Breadth").value);
    var a=l*b;
    document.getElementById("cal").innerHTML="Area of Triangle : " +a;
}
function Circle()
{
    var r=parseFloat(document.getElementById("radius").value);
    var a= 3.14*r*r;
    document.getElementById("result").innerHTML="Area of Circle : " +a;
}

```

## -----OUTPUT-----



The screenshot shows a web browser window with two tabs: "Experiment No 3" and "Experiment No 1". The address bar shows the file path "E:/java%20script/exp1.html". The page content is as follows:

### Area of Triangle

Enter the Base

Enter the Height

**Area of Triangle : 24**

### Area of Rectangle

Enter the Length

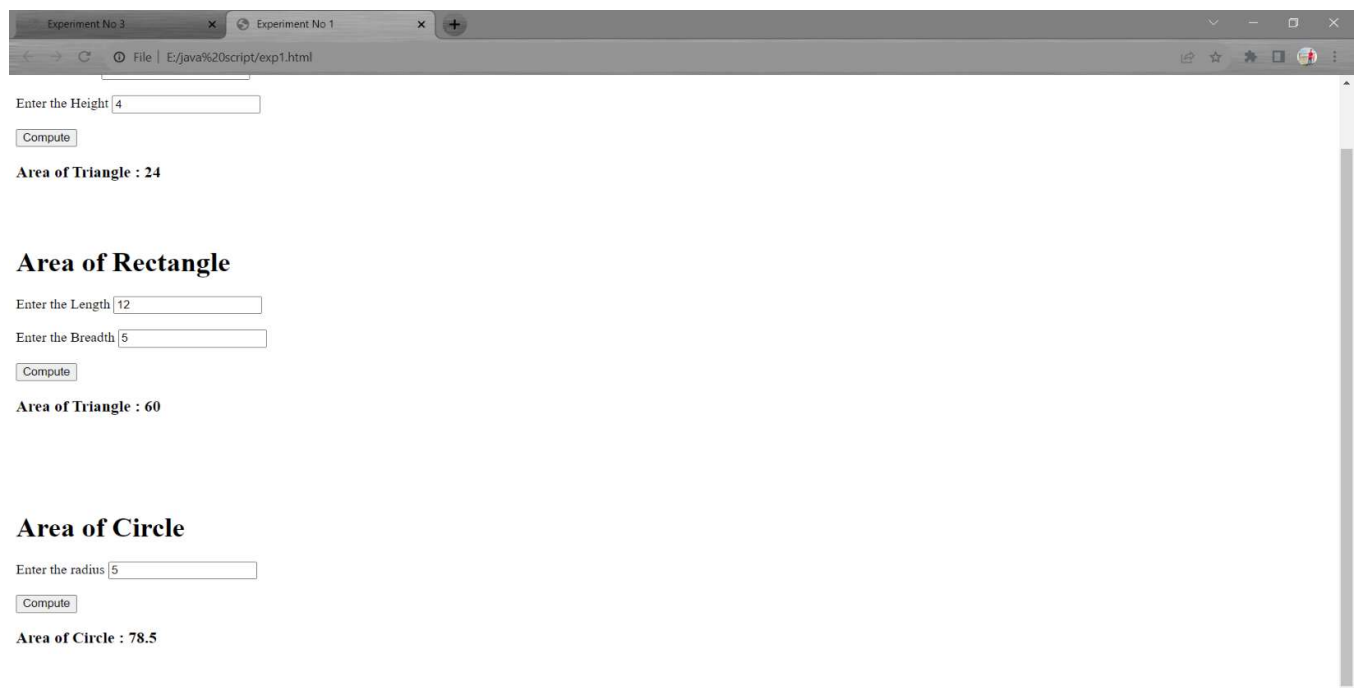
Enter the Breadth

**Area of Triangle : 60**

### Area of Circle

Enter the radius



The screenshot shows a web browser window with two tabs: "Experiment No 3" and "Experiment No 1". The address bar shows the file path "E:/java%20script/exp1.html". The page content is as follows:

Enter the Height

**Area of Triangle : 24**

### Area of Rectangle

Enter the Length

Enter the Breadth

**Area of Triangle : 60**

### Area of Circle

Enter the radius

**Area of Circle : 78.5**

**NAME : Chavhan Aditya Bibhishan**

**ROLL NO : 404D016**

**EXPERIMENT NO : 02**

-----CODE-----

```
<html>
<head>
  <title> Experiment No 2</title>
  <script src ="exp2.js"></script>
</head>
<h1> Create table</h1>
<body>
  <label> Enter the Number</label>
  <input id ="base">
  <br>
  <br>

  <button type="submt" onclick="Multiple()">Compute</button>
  <br>
  <h3 id="try"></h3>
  <br>
  <br>
</body>
</html>

function Multiple()
{
  var b=parseFloat(document.getElementById("base").value);
  for(var i=1; i<=10; i++){

    document.getElementById("try").innerHTML +=b +" X "+i+" = "+ b * i + "<br/>";
  }
}
```

-----OUTPUT-----



## Create table

Enter the Number

Compute

10 X 1 = 10  
10 X 2 = 20  
10 X 3 = 30  
10 X 4 = 40  
10 X 5 = 50  
10 X 6 = 60  
10 X 7 = 70  
10 X 8 = 80  
10 X 9 = 90  
10 X 10 = 100

**NAME : Chavhan Aditya Bibhishan**

**ROLL NO : 404D016**

**EXPERIMENT NO : 03**

-----CODE-----

```
<html>
<head>
  <title> Experiment No 3</title>
</head>
<h1> String Operations</h1>
<br>
<body>
  <label> Enter the Sring</label>
  <input id ="base">
  <br>
  <br>
  <h2> Using for Loop</h2>
  <button type="submt" onclick="reverse()">Reverse</button>
<h3 id="try"></h3>
  <br>
  <h2> Using Built in function</h2>
  <button type="submit" onclick="bultin()">Reverse</button>
<h3 id="me"></h3>
  <br>
  <h2> Using Replace function</h2>
  <br>
  <label> Enter the Charcater to be Remove</label>
  <input id ="remove">
  <br>
  <br>
  <label>Enter the Charcater to be Added</label>
  <input id ="add">
  <br>
  <br>
  <button type="submit" onclick="rep()">Replace & add</button>
<h3 id="result1"></h3>
  <h2> Using Replaceall function</h2>
  <br>
  <br>
  <label> Enter the Charcater to be Remove</label>
<input id ="remov">
  <br>
```

```

<br>
<label>Enter the Charcater to be Added</label>
<input id ="ad">
<br>
<br>
<button type="submit" onclick="repall()">Replace & add</button>
<h3 id="result2"></h3>
<br>
<h2> Check String is Palindrome or Not </h2>
<button type="submit" onclick="check()">Check</button>
<h3 id="result3"></h3>
<script>
// Using For loop
function reverse()
{
    var str=(document.getElementById("base").value);
    let reversedStr = "";
    for (let i = str.length - 1; i >= 0; i--) {
        reversedStr += str[i];
    }
    document.getElementById("try").innerHTML ="Reverse String is "+ reversedStr;
    return reversedStr;
}
// Built in Function
function bultin(){
    var str=(document.getElementById("base").value);
    const arr=str.split("");
    const arr1=arr.reverse();
    const join=arr1.join("");
    document.getElementById("me").innerHTML ="Reverse String is "+ join;
}

function rep(){
    var str=(document.getElementById("base").value);
    var str1=(document.getElementById("remove").value);
    var str2=(document.getElementById("add").value);
    var newstr=str.replace(str1, str2);
    document.getElementById("result1").innerHTML ="New String is "+ newstr;
}

function repall(){
    var str=(document.getElementById("base").value);
    var str1=(document.getElementById("remov").value);

```

```

var str2=(document.getElementById("ad").value);

var newstr1=str.replaceAll(str1,str2);

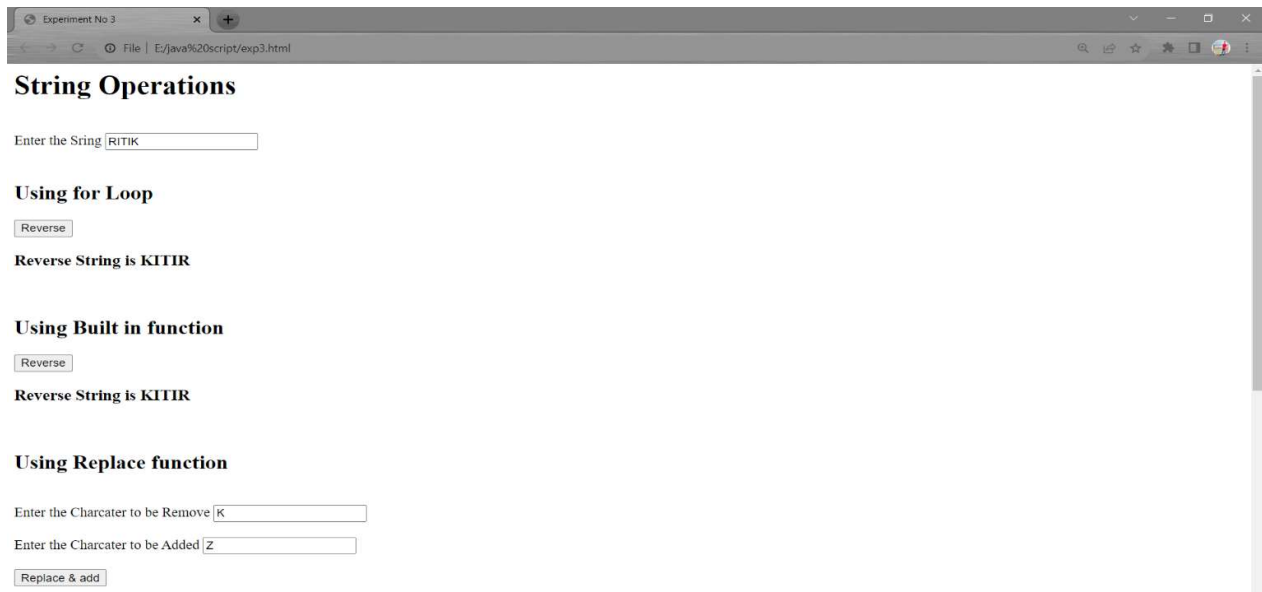
document.getElementById("result2").innerHTML ="New String is "+ newstr1;
}

function check()
{
var str=(document.getElementById("base").value);
var str1=reverse();
if(str==str1){
document.getElementById("result3").innerHTML =" String is Palindrome ";
}
else{
document.getElementById("result3").innerHTML =" String is not Palindrome ";
}
}

</script>
</body>
</html>

```

-----**OUTPUT**-----





Experiment No 3

File | E:/java%20script/exp3.html

Using Replace function

Enter the Charcater to be Remove | K

Enter the Charcater to be Added | Z

Replace & add

New String is RITIZ

Using Replaceall function

Enter the Charcater to be Remove | I

Enter the Charcater to be Added | T

Replace & add

New String is RTTTK

Check String is Palindrome or Not

Check

String is not Palindrome

Experiment No 3

File | E:/java%20script/exp3.html

String Operations

Enter the Sring | MADAM

Using for Loop

Reverse

Reverse String is MADAM

Using Built in function

Reverse

Reverse String is MADAM

Using Replace function

Enter the Charcater to be Remove | M

Enter the Charcater to be Added | A

Replace & add

Experiment No 3

File | E:/java%20script/exp3.html

Using Replace function

Enter the Charcater to be Remove | M

Enter the Charcater to be Added | A

Replace & add

New String is AADAM

Using Replaceall function

Enter the Charcater to be Remove | A

Enter the Charcater to be Added | M

Replace & add

New String is MMDMM

Check String is Palindrome or Not

Check

String is Palindrome

**NAME : Chavhan Aditya Bibhishan**

**ROLL NO : 404D016**

**EXPERIMENT NO : 04**

-----CODE-----

```
<html>
<head>
  <title> Experiment No 3</title>
</head>
  <h1> String Comparison </h1>

  <br>
  <body>
    <h3> <label>Enter the first String</label>
    <input id ="firststr"></h3>

    <h3><label>Enter the Second String</label>
    <input id ="secondstr"></h3>

    <br>

    <h2> Mathematical Operations</h2>
    <br>
    <button type="submit" onclick="compare()">Compare</button>
  <h4 id="try"></h4>
  <br>

  <h2> Strict Equality Operator</h2>
  <br>
  <button type="submit" onclick="strictequality()">Compare</button>
  <h4 id="result"></h4>
  <br>

  <h2> Using match method</h2>
  <br>
  <button type="submit" onclick="match()">Compare</button>
  <h4 id="result1"></h4>
  <br>

  <h2> Using matchAll method</h2>
  <br>
  <button type="submit" onclick="matchall()">Compare</button>
  <h4 id="result2"></h4>
  <br>
  <h2> Using localeCompare method</h2>
  <br>
  <button type="submit" onclick="localcompare()">Compare</button>
```

```
<h4 id="result3"></h4>
```

```
<script>
function compare()
{
    var str1=(document.getElementById("firststr").value);
    var str2=(document.getElementById("secondstr").value);
    if(str1>str2)
    {
        document.getElementById("try").innerHTML =" String 1 is greater then String 2 ";
    }
    else if(str1<str2){
        document.getElementById("try").innerHTML =" String 2 is greater then String 1";
    }
    else{
        document.getElementById("try").innerHTML ="Both String are equal "
    }
}
function strictequality()
{
    var str1=(document.getElementById("firststr").value);
    var str2=(document.getElementById("secondstr").value);
    if(str1===str2)
    {
        document.getElementById("result").innerHTML ="Both String are equal ";
    }
    else{
        document.getElementById("result").innerHTML ="String are not Equal";
    }
}
function match()
{
    var str1=(document.getElementById("firststr").value);
    var str2=(document.getElementById("secondstr").value);
    let result= str1.match(str2);
    var cmp ;
    let y=str1.indexOf(result);
    if(result!=str2){
        cmp="String 1 is not macthing with string 2";
    }
    else
    {
        cmp="String 1 is matching with string 2 <br>Index : "+y+"<br>"+ " Element : "+ result;
    }
    document.getElementById("result1").innerHTML = cmp ;
}

function matchall()
{

```

```

var str1=(document.getElementById("firststr").value);
var str2=(document.getElementById("secondstr").value);
var cmp;
var result=str1.matchAll(str2);
var y=" ";
for(var x of result)
{
    y=y+x.index + " "

}
if(x!=str2){
    cmp="String 1 is not matching with string 2";
}
else{
    cmp="String 1 is matching with string 2 <br>Index : "+y+"<br>"+ " Element : "+ x;
}
document.getElementById("result2").innerHTML = cmp ;

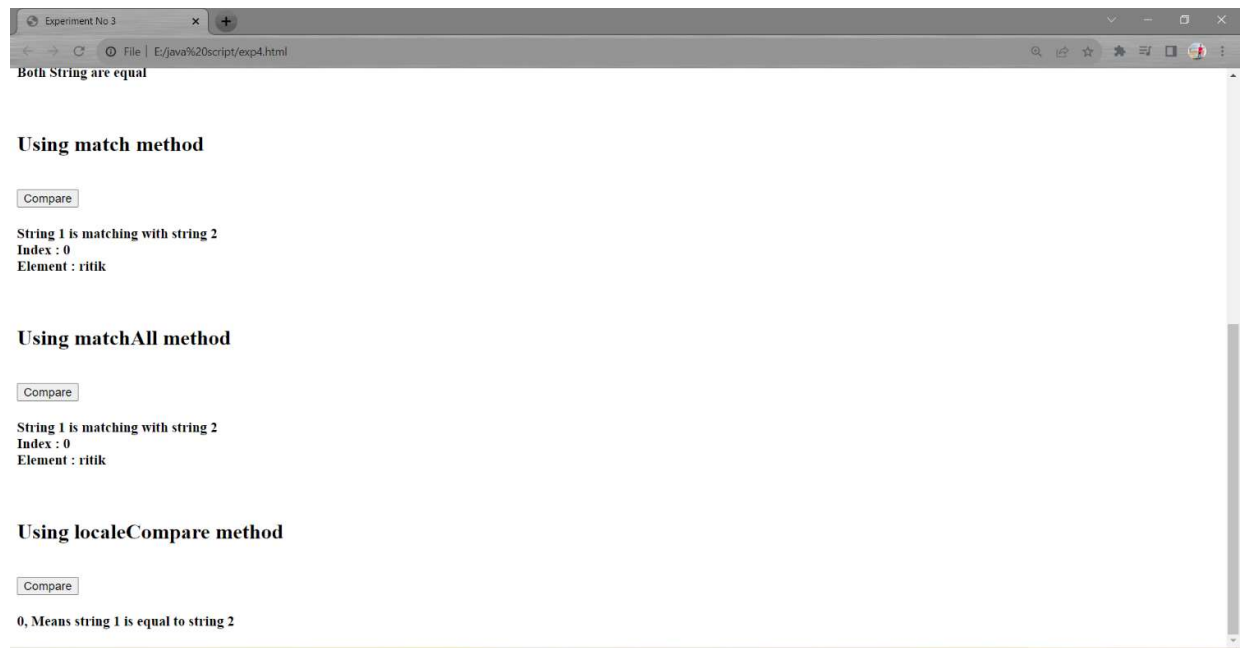
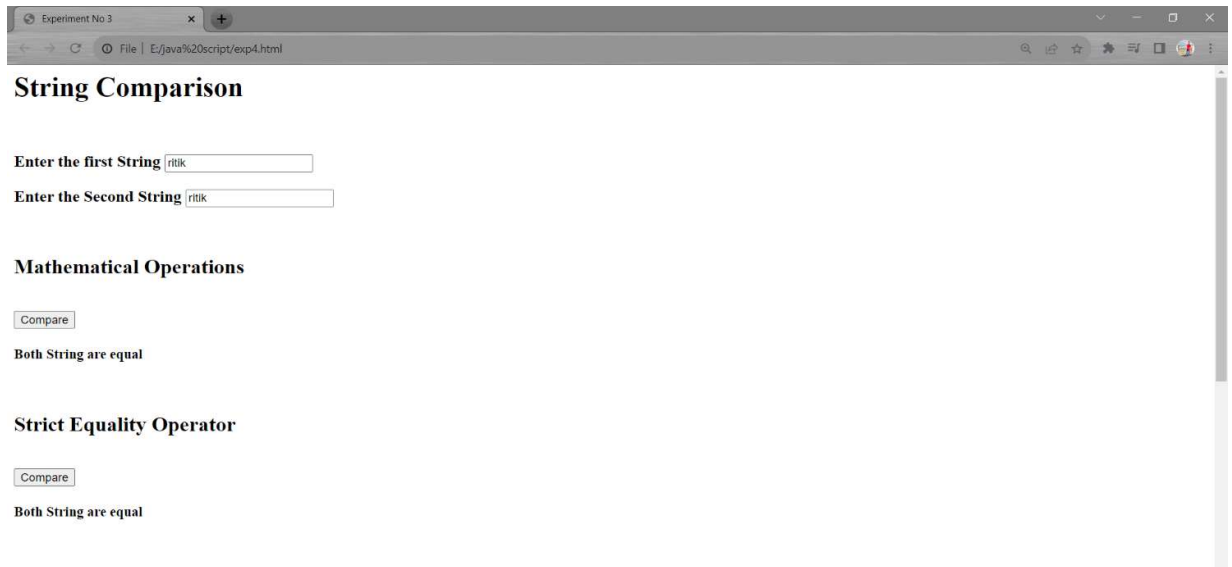
}

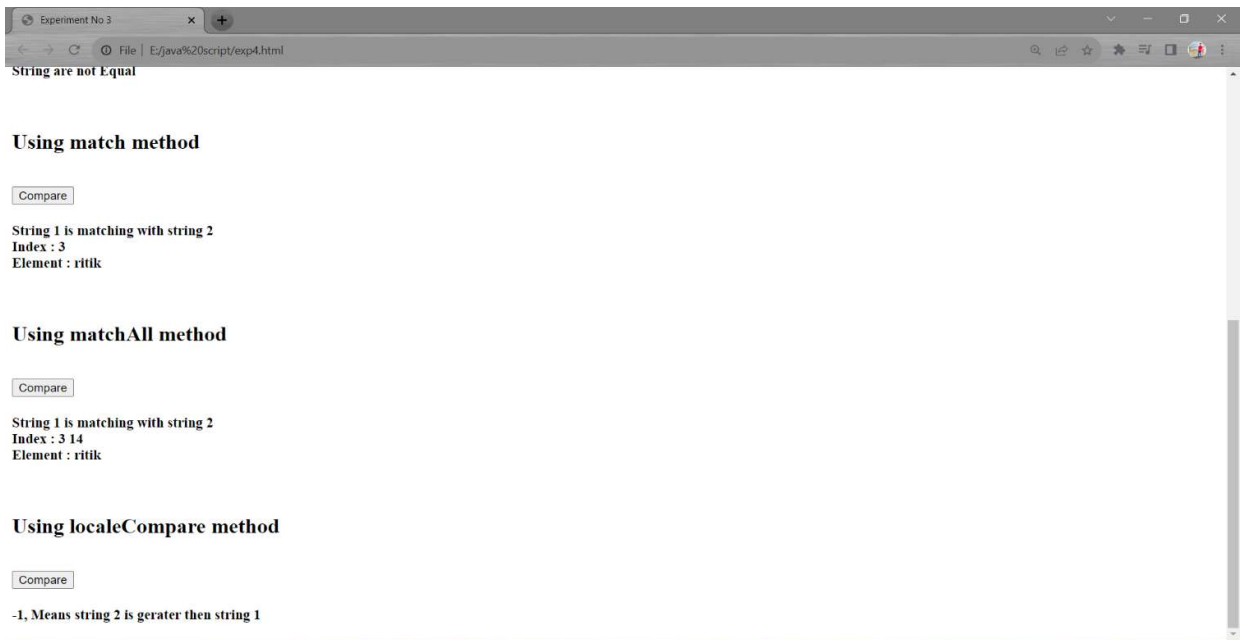
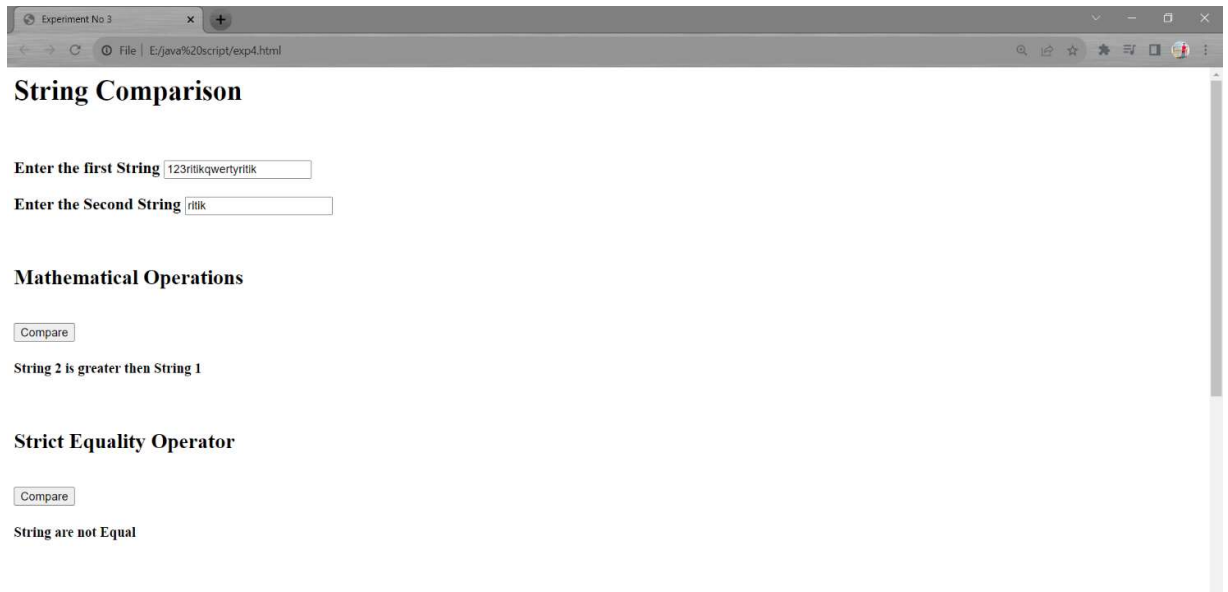
function localcompare()
{
    var str1=(document.getElementById("firststr").value);
    var str2=(document.getElementById("secondstr").value);
    var str3=str1.localeCompare(str2);
    var cmp;
    if(str3==0)
    {
        cmp=str3+ " , Means string 1 is equal to string 2 ";
    }
    else if(str3==-1)
    {
        cmp=str3+", Means string 2 is gerater then string 1";
    }
    else{
        cmp=str3+", Means String 1 is gerater then string 2";
    }
    document.getElementById("result3").innerHTML = cmp ;
}

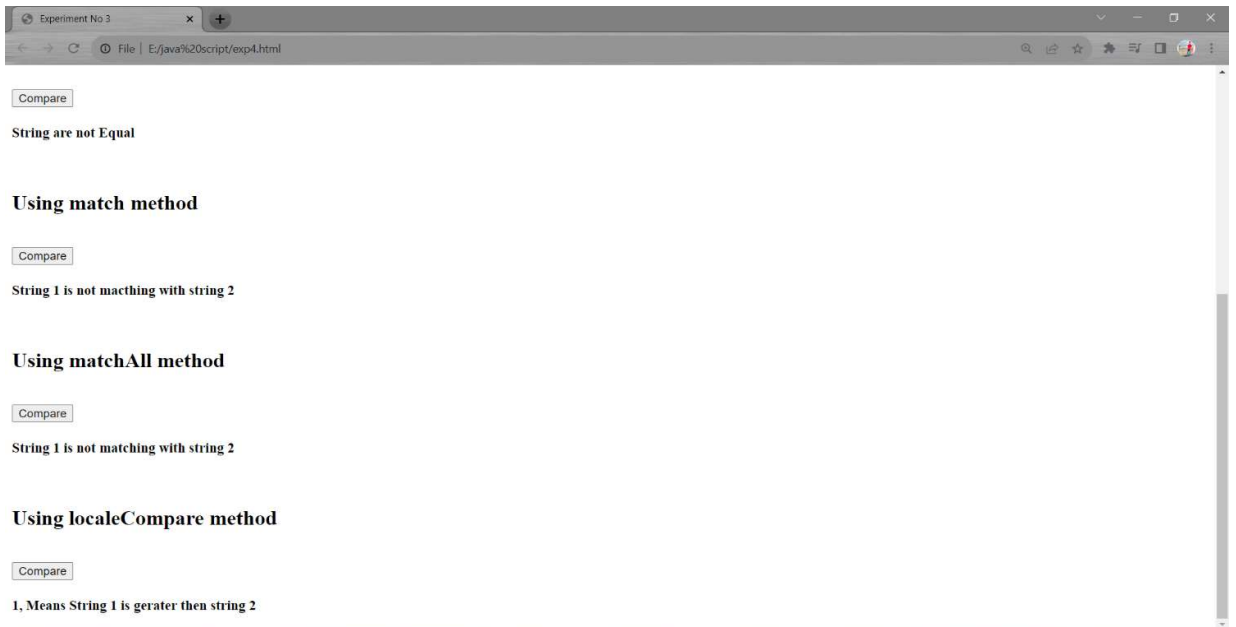
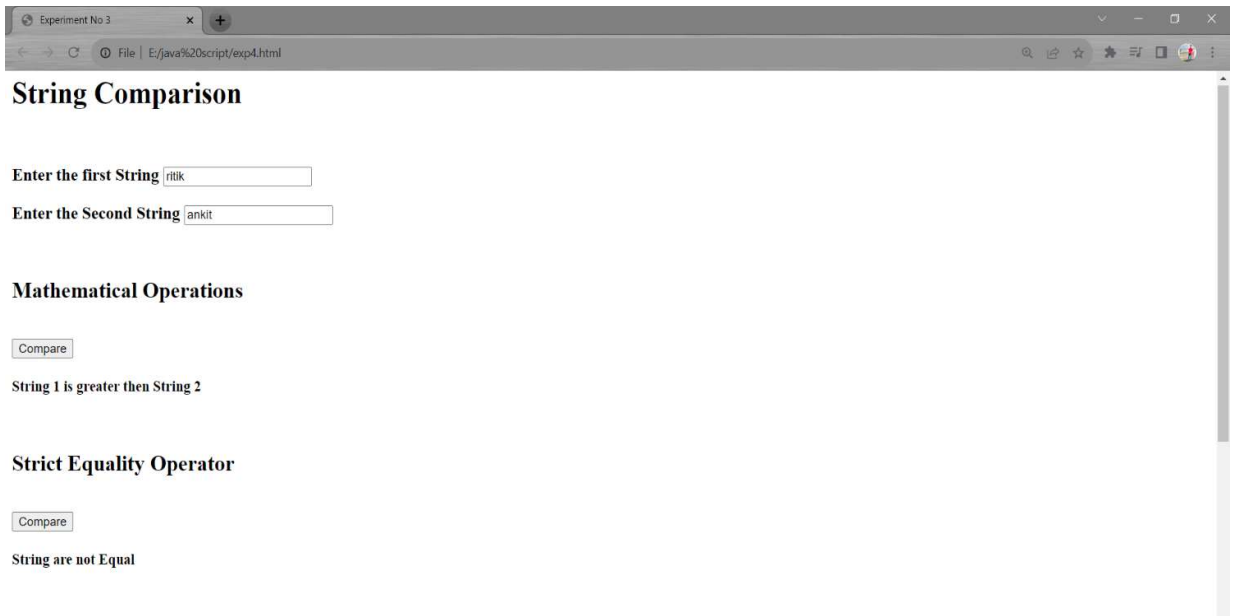
</script>

```

## -----OUTPUT-----







**NAME : Chavhan Aditya Bibhishan**

**ROLL NO : 404D016**

**EXPERIMENT NO : 05**

-----CODE-----

```
<html>
<head>
  <title>Countdown Timer</title>
</head>
<body>
  <div class="timer-container">
    <h1>Countdown Timer</h1>
    <h2><label for="expiry-input">Enter Timer Expiry Date and Time (YYYY-MM-DD
    HH:MM:SS):</label></h2>
    <input type="text" id="expiry-input" placeholder="YYYY-MM-DD HH:MM:SS">
    <button id="start-button">Start Countdown</button>
    <div class="timer">
      <br>
      <br>
      <h1 id="days">00 : 00 : 00 : 00</h1>
      <h1 id="me">Message Loading.....</h1>
    </div>
  </div>
  <script src="script.js"></script>
</body>
</html>
```



```

let expiryDate = 0;
let timerInterval;
document.getElementById("start-button").addEventListener("click", function () {
    const inputDate = document.getElementById("expiry-input").value;
    const parsedDate = new Date(inputDate).getTime();
    if (!isNaN(parsedDate) && parsedDate > new Date().getTime()) {
        expiryDate = parsedDate;
        clearInterval(timerInterval);
        timerInterval = setInterval(updateTimer, 1000);
    } else {
        document.getElementById("me").textContent = "Please enter a valid future date and time.";
    }
});

```

```

function updateTimer() {
    const currentDate = new Date().getTime();
    const difference = expiryDate - currentDate;
    if (difference <= 0) {
        clearInterval(timerInterval);
        document.getElementById("me").textContent = "WELCOME RITIK";
    } else {
        const days = Math.floor(difference / (1000 * 60 * 60 * 24));
        const hours = Math.floor((difference % (1000 * 60 * 60 * 24)) / (1000 * 60 * 60));
        const minutes = Math.floor((difference % (1000 * 60 * 60)) / (1000 * 60));
        const seconds = Math.floor((difference % (1000 * 60)) / 1000);
        document.getElementById("days").textContent = days + " : " + hours + " : " + minutes + " : " + seconds;
    }
}

```

-----OUTPUT-----

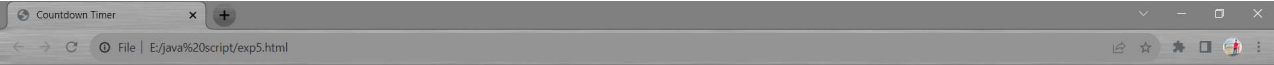


**Countdown Timer**

**Enter Timer Expiry Date and Time (YYYY-MM-DD HH:MM:SS):**

**0 : 0 : 0 : 25**

**Message Loading.....**



**Countdown Timer**

**Enter Timer Expiry Date and Time (YYYY-MM-DD HH:MM:SS):**

**0 : 0 : 0 : 1**

**Message Loading.....**





## Countdown Timer

Enter Timer Expiry Date and Time (YYYY-MM-DD HH:MM:SS):

0 : 0 : 0 : 0

WELCOME RITIK



## Countdown Timer

Enter Timer Expiry Date and Time (YYYY-MM-DD HH:MM:SS):

0 : 0 : 0 : 0

Please enter a valid future date and time.



**NAME : Chavhan Aditya Bibhishan**

**ROLL NO : 404D016**

**EXPERIMENT NO : 06**

-----CODE-----

```
<html>

<head>

    <title> Experiment No 6</title>


</head>

    <h1> Array Operations</h1>

    <body>

        <label> Enter Array Element </label>

        <input id ="arr">

        <br>

        <button type="submt" onclick="arrayfrom()">Dispaly</button>    <br>

        <h3 id="try"></h3>

        <br>

        <label> Enter Element to be Remove</label>

        <input id = "Remove">

        <br>

        <button type="submt" onclick="remove()">Remove</button>    <br>

        <h3 id="try1"></h3>

        <br>

        <label> Enter Element to be Check</label>

        <input id = "check">

        <br>

        <button type="submt" onclick="check()">Check</button>    <br>
```

```
<h3 id="try2"></h3>
```

```
<br>
```

```
<label> Empty Array</label>
```

```
<input id = "empty">
```

```
<br>
```

```
<button type="submt" onclick="empty()">Empty</button>
```

```
<br>
```

```
<h3 id="try3"></h3>
```

```
<script>
```

```
function arrayfrom(){
```

```
    var x=(document.getElementById("arr").value);
```

```
    var arr= x.split(',');
```

```
    document.getElementById("try").innerHTML="Array is "+ arr;
```

```
}
```

```
function remove(){
```

```
    var x=(document.getElementById("arr").value);
```

```
    var arr= x.split(',');
```

```
    var y=(document.getElementById("Remove").value);
```

```
    var i=arr.indexOf(y);
```

```
    var myarray= arr.splice(i,1);
```

```
    document.getElementById("try1").innerHTML="Array After Removing Element "+ arr;
```

```
}
```

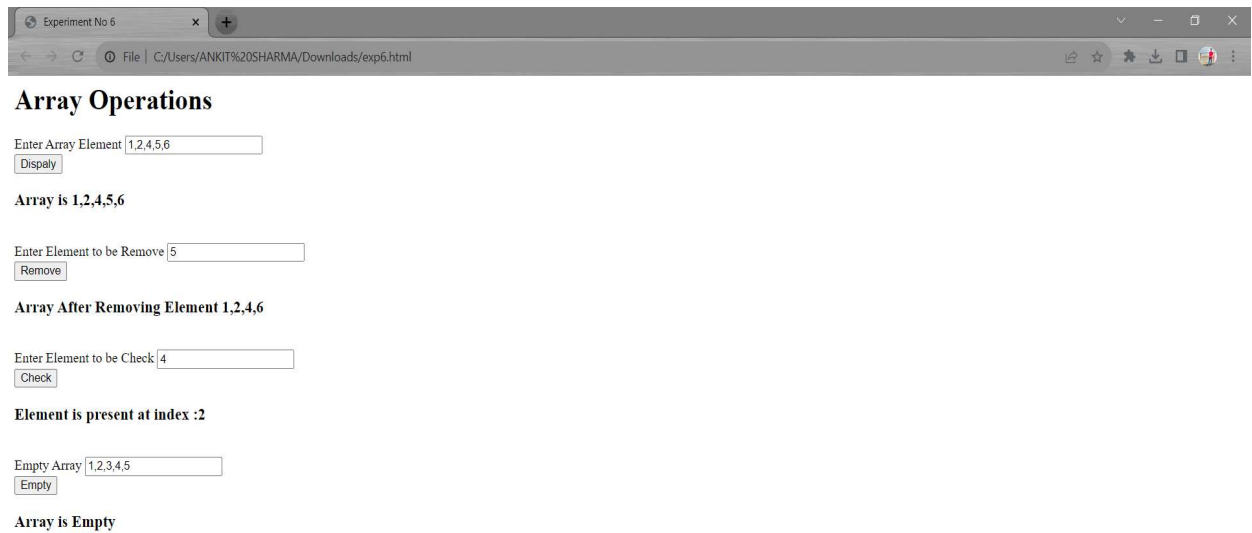
```
function check(){
```

```
var x=(document.getElementById("arr").value);
var arr= x.split(',');
var y=(document.getElementById("check").value);
var i=arr.indexOf(y);
if(i!=-1){

    document.getElementById("try2").innerHTML="Element not present in array ";
}
else{
    document.getElementById("try2").innerHTML="Element is present at index :"+i;
}
}
function empty(){
    var x=(document.getElementById("empty").value);
    var arr= x.split(',');
    arr.length=0;
    document.getElementById("try3").innerHTML="Array is Empty "+ arr;
}

</script>
</body>
</html>
```

## -----OUTPUT-----



Experiment No 6

File | C:/Users/ANKIT%20SHARMA/Downloads/exp6.html

### Array Operations

Enter Array Element

Array is 1,2,4,5,6

Enter Element to be Remove

Array After Removing Element 1,2,4,6

Enter Element to be Check

Element is present at index :2

Empty Array

Array is Empty

**NAME : Chavhan Aditya Bibhishan**

**ROLL NO : 404D016**

**EXPERIMENT NO : 07**

-----CODE-----

```
<html>

<title>Experiment No:7</title>
<head>

    <h1>Object Array Demo</h1>
</head>
<body>
    <br>
    <h2><label for="field">Field:</label>
    <input type="text" id="field"></h2>
    <br>
    <h2><label for="value">Value:</label>
    <input type="text" id="value"></h2>
    <br>
    <button onclick="addObjectToArray()">Add to Array</button>
    <br>
    <h2>Array Contents:</h2>
    <h2 id="output"></h2>
    <br>
    <h2><label for="checkVariable">Check Variable:</label>
    <input type="text" id="checkVariable"></h2>
    <br>
    <br>
    <button onclick="checkInArray()">Check in Array</button>
```



<br>

<h2 id="result"></h2>

<script >

var objectArray = [];

// Function to add an object to the array

function addObjectToArray() {

var field = document.getElementById("field").value;

var value = document.getElementById("value").value;

// Create an object with the given field and value

var newObject = { field: field, value: value };

// Add the object to the array

objectArray.push(newObject);

// Clear input fields

document.getElementById("field").value = "";

document.getElementById("value").value = "";

// Display the updated array

displayArray();

}

function displayArray() {

var output = document.getElementById("output");

output.innerHTML = "";

objectArray.forEach(function(obj) {

var listItem = document.createElement("li");

listItem.textContent = JSON.stringify(obj);

```
        output.appendChild(listItem);
    });
}

// Function to check if a variable is in the array
function checkInArray() {
    var variableToCheck = document.getElementById("checkVariable").value;

    // Check if the variable is in the array
    var isInArray = objectArray.some(function(obj) {
        return obj.field === variableToCheck;
    });

    var result = document.getElementById("result");
    if (isInArray) {
        result.textContent = "Variable is in the array.";
    } else {
        result.textContent = "Variable is not in the array.";
    }
}

</script>
</body>
</html>
```

## -----OUTPUT-----



**NAME : Chavhan Aditya Bibhishan**

**ROLL NO : 404D016**

**EXPERIMENT NO : 08**

-----CODE-----

```
<html>
<head>
  <title> Experiment No 8</title>
</head>
<body>
  <h1 style="text-align: center;"><u>Experiment No: 8</u></h1>
  <br>
  <div id="div1" style="height: 100px; width: 100%; background-color:blueviolet"
onmousemove="changeDivColor();"
  onmouseout="this.style.backgroundColor='blue'">
  <h3 style="text-align: center;"><u>Mouseover</u></h3> </div>
  <br>
  <br>
  <br>
  <div style="text-align: center; height: 100px; width: 100%; background-color:grey" >
    <a style="height: 100%; width: 100%;" href="https://www.google.com" target="blank"
    onfocus="this.style.backgroundColor='blue'"
onblur="this.style.backgroundColor='red'">Onfocus</a>
  </div>
  <script>
    function changeDivColor(){
      div1.style.backgroundColor="grey";
    }
  </script>
</body>
```

-----OUTPUT-----



## Experiment No: 8

Mouseover

Onfocus



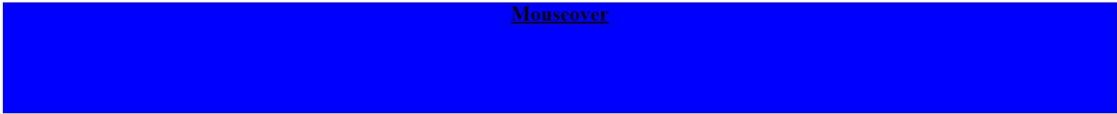
## Experiment No: 8

Mouseover

Onfocus



**Experiment No: 8**



Mouseover



Mouseout



**Experiment No: 8**



Mouseover



Mouseout

**NAME : Chavhan Aditya Bibhishan**

**ROLL NO : 404D016**

**EXPERIMENT NO : 09**

-----CODE-----

```
<html>
<head>
  <title> Experiment No 9</title>
</head>
<body>
<h1> Calculator Program in JavaScript </h1>
<div class= "formstyle">
<form name = "form1">
  <input id = "calc" type ="text" name = "answer"> <br> <br>
  <input type = "button" value = "1" onclick = "form1.answer.value += '1' ">
  <input type = "button" value = "2" onclick = "form1.answer.value += '2' ">
  <input type = "button" value = "3" onclick = "form1.answer.value += '3' ">
  <input type = "button" value = "+" onclick = "form1.answer.value += '+' ">
  <br> <br>

  <input type = "button" value = "4" onclick = "form1.answer.value += '4' ">
  <input type = "button" value = "5" onclick = "form1.answer.value += '5' ">
  <input type = "button" value = "6" onclick = "form1.answer.value += '6' ">
  <input type = "button" value = "-" onclick = "form1.answer.value += '-' ">
  <br> <br>

  <input type = "button" value = "7" onclick = "form1.answer.value += '7' ">
  <input type = "button" value = "8" onclick = "form1.answer.value += '8' ">
  <input type = "button" value = "9" onclick = "form1.answer.value += '9' ">
```

```
<input type = "button" value = "*" onclick = "form1.answer.value += '*' ">
```

```
<br> <br>
```

```
<input type = "button" value = "/" onclick = "form1.answer.value += '/' ">
```

```
<input type = "button" value = "0" onclick = "form1.answer.value += '0' ">
```

```
<input type = "button" value = "." onclick = "form1.answer.value += '.' ">
```

```
<!-- When we click on the '=' button, the onclick() shows the sum results on the calculator screen. ->
```

```
<input type = "button" value = "=" onclick = "form1.answer.value = eval(form1.answer.value) ">
```

```
<br> <br>
```

```
<!-- Display the Cancel button and erase all data entered by the user. -->
```

```
<input type = "button" value = "Clear All" onclick = "form1.answer.value = ' ' " id= "clear" >
```

```
<br>
```

```
</form>
```

```
</div>
```

```
</body>
```

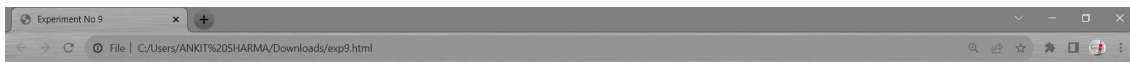
```
</html>
```



## -----OUTPUT-----



### Calculator Program in JavaScript

### Calculator Program in JavaScript

**NAME : Chavhan Aditya Bibhishan**

**ROLL NO : 404D016**

**EXPERIMENT NO : 10**

-----CODE-----

```
<!DOCTYPE html>

<html>

<head>

  <title>Experiment No 10</title>

</head>

<body>

  <h1>JavaScript Properties</h1>

  <h3 id="browserInfo"></h3>

  <h3 id="screenInfo"></h3>

  <h3 id="historyInfo"></h3>

  <h3 id="paragraphCount"></h3>

  <h3 id="replaceText">Original Text</h3>

  <script>

    const browserInfo = `Browser Name: ${navigator.appName}, Version: ${navigator.appVersion}`;

    document.getElementById('browserInfo').textContent = browserInfo;

    const screenInfo = `Screen Width: ${window.screen.width}, Screen Height: ${window.screen.height}`;

    document.getElementById('screenInfo').textContent = screenInfo;

    const historyInfo = `History Length: ${window.history.length}`;

    document.getElementById('historyInfo').textContent = historyInfo;

    const paragraphCount = document.getElementsByTagName('p').length;

    document.getElementById('paragraphCount').textContent = `Number of <p> tags:
    ${paragraphCount}`;

    const replaceTextElement = document.getElementById('replaceText');

    replaceTextElement.textContent = 'Replaced Text';
```

```
</script>
</body>
</html>
```

-----OUTPUT-----



## JavaScript Properties

**Browser Name:** Netscape, Version: 5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/117.0.0.0 Safari/537.36

**Screen Width:** 1536, **Screen Height:** 864

**History Length:** 1

**Number of <p> tags:** 0

**Replaced Text**

