Experiment no 1:

Name: Kartik Shelke

Roll No: 404C031

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Area of triangle, rectangle and circle</title>

</head>

<body>

<div>

<h1>Find area of triangle</h1>

<label for="triangle1">Height</label>

<input type="number" name="triangle1" id="trih">

<label for="triangle2">Base</label>

<input type="number" name="triangle2" id="trib">

<button onclick="triArea()">Calculate Area</button>

<h3 id="result1"></h3>

</div><br><br><br>

<div>

<h1>Find area of rectangle</h1>

<label for="rectangle1">Length</label>

<input type="number" name="rectangle1" id="recl">

<label for="rectangle2">Breadth</label>

<input type="number" name="rectangle2" id="recb">

<button onclick="recArea()">Calculate Area</button>

<h3 id="result2"></h3>

</div><br><br><br>

<div>

<h1>Find area of circle</h1>

<label for="circle">Radius</label>

<input type="number" name="circle" id="cirr">

<button onclick="cirArea()">Calculate Area</button>

<h3 id="result3"></h3>

</div>

<script src="./script\_exp\_1.js"></script>

</body>

</html>

// Area of triangle

function triArea() {

let height = document.getElementById("trih").value;

script\_exp\_1.js file:

let base = document.getElementById("trib").value;

let triResult = (1 / 2) \* base \* height;

document.getElementById(

"result1"

).innerHTML = `Area of triangle: ${triResult}.`;

}

// Area of rectangle

function recArea() {

let length = document.getElementById("recl").value;

let breadth = document.getElementById("recb").value;

let recResult = length \* breadth;

document.getElementById(

"result2"

).innerHTML = `Area of rectangle: ${recResult}.`;

}

// Area of circle

function cirArea() {

let radius = document.getElementById("cirr").value;

let cirResult = radius \* radius \* 3.14;

document.getElementById(

"result3"

).innerHTML = `Area of triangle: ${cirResult}.`;

}

Experiment no 2:

Name:Kartik Shelke

Roll No: 404C031

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Multiplication table</title>

</head>

<body>

<h1>Create Multiplication Table</h1>

<input type="number" name="" id="table" placeholder="Enter Number">

<button onclick="create()">Create</button>

<h3 id="result"></h3>

<script src="./script\_exp\_2.js"></script>

</body>

</html>

Script\_exp\_2.js file:

function create() {

let num = document.getElementById("table").value;

let arr = [];

for (let i = 1; i <= 10; i++) {

arr.push(`${num} X ${i} = ${num \* i}`);

}

for (let i = 0; i < arr.length; i++) {

document.getElementById("result").innerHTML += ` ${arr[i]}<br>`;

}

}

Experiment no 3:

Name: Kartik Shelke

Roll No: 404C031

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>String programs</title>

</head>

<body>

<div>

<h1>Reverse String</h1>

<input type="text" id="reverse" placeholder="Enter String">

<button onclick="reverseString()">Reverse</button>

<h3 id="result1"></h3>

</div><br><br>

<div>

<h1>Replace characters of String</h1>

<h2>String : Welcome to Sinhgad</h2>

<input type="text" id="replace1" placeholder="Enter String">

<input type="text" id="replace2" placeholder="Enter String">

<button onclick="replaceString()">Replace</button>

<h3 id="result2"></h3>

</div><br><br>

<div>

<h1>Check Pallindrom of Strings</h1>

<input type="text" id="string1" placeholder="Enter String">

<button onclick="checkPall()">Check</button>

<h3 id="result3"></h3>

</div>

<script src="./script\_exp\_3.js"></script>

</body>

</html>

Script\_exp\_3.js file:

function reverseString() {

let str = document.getElementById("reverse").value;

let result = str.split("").reverse().join("");

document.getElementById(

"result1"

).innerHTML = `Reverse of ${str}: ${result}.`;

}

function replaceString() {

let string = "String : Welcome to Sinhgad";

let str1 = document.getElementById("replace1").value;

let str2 = document.getElementById("replace2").value;

let result = string.replace(str1, str2);

document.getElementById("result2").innerHTML = `Final string is: ${result}.`;

}

function checkPall() {

let str = document.getElementById("string1").value;

let rev = str.split("").reverse().join("");

if (str.toLowerCase() === rev.toLowerCase()) {

document.getElementById("result3").innerHTML = `The string is pallindrom.`;

} else {

document.getElementById(

"result3"

).innerHTML = `The string is not pallindrom.`;

}

}

Experiment no 4:

Name: Kartik Shelke

Roll No: 404C031

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>String Comparison</title>

</head>

<body>

<h1>String Comparison program</h1>

<form onsubmit ="return false">

<input type="text" name="string" id="string1" placeholder="Enter your string 1" onchange='saveValue(this)'>

<input type="text" name="string" id="string2" placeholder="Enter your string 2" onchange='saveValue(this)'>

<button onclick="strComp()">Compare Strings</button>

</form><br><br>

<div>

<h3>Using '===': </h3>

<h3 id="result1"></h3>

</div><br><br>

<div>

<h3>Using localCompare(string): </h3>

<h3 id="result2"></h3>

</div><br><br>

<div>

<h3>Using includes(): </h3>

<h3 id="result3"></h3>

</div>

<br><br>

<div>

<h3>Using RegExp(): </h3>

<h3 id="result4"></h3>

</div>

<script src="./script\_exp\_4.js"></script>

</body>

</html>

Script\_exp\_4.js file:

let string1, string2

function strComp() {

string1 = document.getElementById("string1").value

string2 = document.getElementById("string2").value

let s1 = string1.toLowerCase();

let s2 = string2.toLowerCase();

if(s1 === s2){

document.getElementById("result1").innerHTML = "Strings are same"

}else{

document.getElementById("result1").innerHTML = "Strings are not same"

}

let s3 = string1.localeCompare(string2)

if(s3 === 0){

document.getElementById("result2").innerHTML = "Strings are same"

}else{

document.getElementById("result2").innerHTML = "Strings are not same"

}

let result = s1.includes(s2);

if(result){

document.getElementById("result3").innerHTML = "Strings are same"

}else{

document.getElementById("result3").innerHTML = "Strings are not same"

}

let pattern = new RegExp(string1, 'gi')

result2 = pattern.test(string2)

if(result2){

document.getElementById("result4").innerHTML = "Strings are same"

}else{

document.getElementById("result4").innerHTML = "Strings are not same"

}

}

Experiment no 5:

Name: Kartik Shelke

Roll No: 404C031

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Countdown Timer</title>

</head>

<body>

<h1>Countdown Timer</h1>

<input type="datetime-local" name="" id="timer">

<button onclick="startTimer()">Start Timer</button>

<h3 id="result"></h3>

<script src="./script\_exp\_5.js"></script>

</body>

</html>

Script\_exp\_5.js file:

function startTimer() {

let x = setInterval(function () {

let countDownDate = document.getElementById("timer").value;

let timer = new Date(countDownDate);

let now = new Date().getTime();

let distance = timer - now;

let days = Math.floor(distance / (1000 \* 60 \* 60 \* 24));

let hours = Math.floor(

(distance % (1000 \* 60 \* 60 \* 24)) / (1000 \* 60 \* 60)

);

let minutes = Math.floor((distance % (1000 \* 60 \* 60)) / (1000 \* 60));

let seconds = Math.floor((distance % (1000 \* 60)) / 1000);

document.getElementById("result").innerHTML = ` Timer will end in

${days} d : ${hours} h : ${minutes} m : ${seconds} s`;

if (distance < 0) {

clearInterval(x);

document.getElementById("result").innerHTML = "EXPIRED";

}

}, 1000);}

Experiment no 6:

Name: Kartik Shelke

Roll No: 404C031

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>JS Array Practical</title>

</head>

<body>

<h1>Javascript Array Programs</h1>

<h3 id="array"></h3>

<label for="no\_remove">Enter number to remove element from array: </label>

<input type="number" name="no\_remove" id="no\_remove">

<button onclick="remove()">Remove Element</button>

<br><br>

<label for="no\_search">Enter number to search in the array: </label>

<input type="number" name="no\_search" id="no\_search">

<button onclick="search()">Search Element</button>

<br><br>

<button onclick="empty()">Empty array</button>

<script src="./script\_exp\_6.js"></script>

</body>

</html>

Script\_exp\_6.js file:

const removeArray = (num, array) =>{

let index = array.indexOf(num)

if(index !== -1){

array.splice(index,1)

console.log(array)

return `Element is removed successfuly form index ${index}`

}else{

return "Element not found....."

}

}

const searchArray = (num, array) =>{

let index = array.indexOf(num)

if(index !== -1){

return `Element is present at index ${index}!`

}else{

return "Element not found....."}}

const emptyArray = (array) =>{

array.splice(0, array.length)

console.log(array)}

let array = [2, 5, 6, 9, 20, 17]

console.log(array)

let numToRemove, numToSearch;

let htmlText = document.getElementById("array").innerHTML = `Array : [${array}]`

const remove = () =>{

numToRemove = document.getElementById("no\_remove").value

if(numToRemove.length === 0){

alert("Please enter some number....");

}else{

let result = removeArray(Number(numToRemove), array)

document.getElementById("result").innerHTML = `${result}`

}}

const search = () =>{

numToSearch = document.getElementById("no\_search").value

if(numToSearch.length === undefined){

alert("Please enter some number.....");

}else{

let result = searchArray(Number(numToSearch), array)

document.getElementById("result").innerHTML = `${result}`

}}

const empty = () =>{

emptyArray(array);

document.getElementById("result").innerHTML = "Array is empty."

}

Experiment no 7:

Name: Kartik Shelke

Roll No: 404C031

let arr = [];

let obj1 = {

name: "Nidi Patil",

age: 21,

College: "SCOE",

RollNo: 23,

};

arr.push(obj1);

console.log(arr);

let obj2 = {

name: "Sandhya Goykar",

age: 21,

College: "SCOE",

RollNo: 40,

};

arr.unshift(obj2);

console.log(arr);

let obj3 = {

name: "Sakshi Sharma",

age: 21,

College: "SCOE",

RollNo: 61,

};

arr.push(obj3);

console.log(arr);

console.log(Array.isArray(arr));

Experiment no 8:

Name: Kartik Shelke

Roll No: 404C031

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta http-equiv="X-UA-Compatible" content="IE=edge">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Mouse Event</title>

</head>

<style>

#home {

height: 70vh;

width: 100%;

text-align: center;

border: 1px solid black;

}

.second {

height: 40vh;

width: 100%;

display: flex;

}

#second\_1 {

height: 40vh;

width: 50%;

text-align: center;

border: 1px solid black;

}

.second\_2 {

height: 40vh;

width: 50%;

text-align: center;

border: 1px solid black;

}

</style>

<body>

<div id="home" onmouseover="changeBgColor()">

<h1>Home Page</h1>

</div>

<div class="second">

<div id="second\_1" onclick="changeFocus()" onBlur="iBlur();">

<h3>Sub\_div\_1</h3>

</div>

<div class="second\_2">

<h3>Sub\_div\_2</h3>

</div>

</div>

<script>

function changeBgColor() {

let element = document.getElementById("home")

element.style.backgroundColor = "#87CEEB";

}

function changeFocus() {

let element = document.getElementById("second\_1")

element.style.backgroundColor = "#90EE90";

}

</script>

</body>

</html>