Exp1 Area of Rectangle

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Rectangle Area Calculator</title>

</head>

<body>

    <script>

        let b=10, h=5;

        let area\_r;

        area\_r=b\*h;

        alert("Area of rectangle is "+ area\_r);

        document.write("area of rectangle is"+ area\_r);

        confirm("area of Rectangle is"+ area\_r);

    </script>

</body>

</html>

Exp1 Area of Triangle

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Triangle Area Calculator</title>

</head>

<body>

    <script>

        let base = 10;

        let height = 5;

        let area\_triangle;

        area\_triangle = 0.5 \* base \* height;

      alert("Area of the triangle is " + area\_triangle);

        document.write("Area of the triangle is: " + area\_triangle);

        confirm("Area of the triangle is " + area\_triangle);

    </script>

</body>

</html>

Exp1AreaofCircle

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

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

<title>Circle Area Calculator</title>

</head>

<body>

<script>

let radius = 5;

let area\_circle;

area\_circle = Math.PI \* Math.pow(radius, 2);

alert("Area of the circle is " + area\_circle);

document.write("Area of the circle is: " + area\_circle);

confirm("Area of the circle is " + area\_circle);

</script>

</body>

</html>

Exp2 Multiplicationtable

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Document</title>

</head>

<body>

    <script>

       t=prompt("Enter value");

       let i =1;

       while(i<=10){

        document.write(`${t} X ${i}=${t\*i}<br>`);

        i++;

       }

    </script>

</body>

</html>

Exp3 ReverseString

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>String Reversal</title>

</head>

<body>

    <script>

        function reverseString(str) {

            let array = str.split('');

            let reversedArray = array.reverse();

            let reversedString = reversedArray.join('');

            return reversedString;

        }

        let originalString = "Hello World!";

        document.write("Original String: " + originalString);

        let reversedString = reverseString(originalString);

        document.write("<br>Reversed String: " + reversedString);

    </script>

</body>

</html>

Exp3ReplaceCharacter

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Character Replacement</title>

</head>

<body>

    <script>

        function replaceCharacters(str, charToReplace, replacementChar) {

            let modifiedStr = str.replace(new RegExp(charToReplace, 'g'), replacementChar);

            return modifiedStr;

        }

        let inputString = "Hello, World!";

        let charToReplace = 'o';

        let replacementChar = '\*';

        let result = replaceCharacters(inputString, charToReplace, replacementChar);

        document.write("Original String: " + inputString + "<br>");

        document.write("Modified String: " + result);

    </script>

</body>

</html>

Exp3stringPalindrome

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Palindrome Checker</title>

</head>

<body>

    <script>

        function isPalindrome(str) {

            let cleanedStr = str.toLowerCase().replace(/[^a-z0-9]/g, '');

            let reversedStr = cleanedStr.split('').reverse().join('');

            return cleanedStr === reversedStr;

        }

        let inputString = prompt("Enter a string to check if it's a palindrome:");

        if (isPalindrome(inputString)) {

            document.write(`"${inputString}" is a palindrome.`);

        } else {

            document.write(`"${inputString}" is not a palindrome.`);

        }

    </script>

</body>

</html>

Ex4Compare String

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>String Comparison</title>

</head>

<body>

    <script>

        function compareStrings(str1, str2) {

            return str1 === str2;

        }

        let string1 = prompt("Enter the first string:");

        let string2 = prompt("Enter the second string:");

        if (compareStrings(string1, string2)) {

            document.write("The strings are the same.");

        } else {

            document.write("The strings are different.");

        }

    </script>

</body>

</html>

EX5Countdowntimer:

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Countdown Timer with Days, Hours, Minutes, and Seconds</title>

    <style>

        body {

            font-family: Arial, sans-serif;

            text-align: center;

            margin-top: 50px;

        }

        h1 {

            font-size: 48px;

        }

        #timer {

            font-size: 36px;

            margin-top: 20px;

        }

    </style>

</head>

<body>

    <h1>Countdown Timer</h1>

    <div id="timer">Loading...</div>

    <script>

        const targetDate = new Date('2024-12-31T23:59:59');

        function updateCountdown() {

            const currentDate = new Date();

            const difference = targetDate - currentDate;

            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("timer").innerText =

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

            if (difference < 0) {

                clearInterval(countdownInterval);

                document.getElementById("timer").innerText = "Time's up!";

            }

        }

        const countdownInterval = setInterval(updateCountdown, 1000);

        updateCountdown();

    </script>

</body>

</html>

Ex6removespecificelementfrom array

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Remove Item from Array</title>

</head>

<body>

    <script>

        function removeItemFromArray(array, n) {

            const newArray = [];

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

                if (array[i] !== n) {

                    newArray.push(array[i]);

                }

            }

            return newArray;

        }

        const result = removeItemFromArray([1, 2, 3, 4, 5], 2);

        console.log("Updated Array:", result); *// Logs [1, 3, 4, 5]*

    </script>

</body>

</html>

Ex6 Arraycontain Specifiedvalue

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Check if Array Contains Value</title>

</head>

<body>

    <script>

        function arrayContainsValue(array, value) {

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

                if (array[i] === value) {

                    return true;

                }

            }

            return false;

        }

        const result = arrayContainsValue([1, 2, 3, 4, 5], 2);

        console.log("Array contains value:", result);

    </script>

</body>

</html>

Ex6 Array empty

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Check if Array is Empty</title>

</head>

<body>

    <script>

        function isArrayEmpty(array) {

            return array.length === 0;

        }

        const result = isArrayEmpty([]);

        console.log("Array is empty:", result);

    </script>

</body>

</html>

EX7 append object of array and check obj is array

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Append Object to Array and Check if Variable is Array</title>

</head>

<body>

    <script>

        function appendObjectToArray(array, object) {

            if (Array.isArray(array)) { *// Check if the variable is an array*

                array.push(object); *// Append the object to the array*

                return array;

            } else {

                console.log("Provided variable is not an array.");

                return null;

            }

        }

        const myArray = [ { name: "Alice" }, { name: "Bob" } ];

        const newObject = { name: "Charlie" };

        const result = appendObjectToArray(myArray, newObject);

        console.log("Updated Array:", result);

        console.log("Is myArray an array?", Array.isArray(myArray));

        console.log("Is newObject an array?", Array.isArray(newObject));

    </script>

</body>

</html>

Ex 8 create home pg change colour

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Home Page</title>

    <style>

        body {

            font-family: Arial, sans-serif;

            display: flex;

            flex-direction: column;

            align-items: center;

            margin: 0;

            padding: 0;

            height: 100vh;

            justify-content: center;

            transition: background-color 0.3s;

        }

        h1 {

            color: #333;

        }

        button, input {

            padding: 10px;

            margin: 10px;

            font-size: 16px;

            border-radius: 5px;

            border: none;

        }

    </style>

</head>

<body>

    <h1>Welcome to My Website</h1>

*<!-- Button to change background color on mouse over -->*

    <button onmouseover="changeBackgroundColor('lightblue')" onmouseout="resetBackgroundColor()">Hover to Change Background</button>

*<!-- Input field to change background color on focus -->*

    <input type="text" placeholder="Focus to change background" onfocus="changeBackgroundColor('lightgreen')" onblur="resetBackgroundColor()">

    <script>

*// Function to change background color*

        function changeBackgroundColor(color) {

            document.body.style.backgroundColor = color;

        }

*// Function to reset background color*

        function resetBackgroundColor() {

            document.body.style.backgroundColor = ''; *// Resets to default*

        }

    </script>

</body>

</html>

Ex 9 Calculator:

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Simple Calculator</title>

    <style>

        body { font-family: Arial, sans-serif; display: flex; justify-content: center; align-items: center; height: 100vh; margin: 0; background-color: #f0f0f0; }

        .calculator { background-color: #fff; padding: 20px; border-radius: 8px; box-shadow: 0 4px 8px rgba(0, 0, 0, 0.2); width: 300px; text-align: center; }

        input, button { font-size: 18px; margin: 5px; padding: 10px; width: calc(100% - 22px); border: 1px solid #ccc; border-radius: 5px; }

        button { background-color: #4CAF50; color: white; cursor: pointer; }

        button:hover { background-color: #45a049; }

    </style>

</head>

<body>

    <div class="calculator">

        <h2>Simple Calculator</h2>

        <input type="number" id="num1" placeholder="Enter first number">

        <input type="number" id="num2" placeholder="Enter second number (optional)">

        <button onclick="calculate('add')">Add</button>

        <button onclick="calculate('sub')">Subtract</button>

        <button onclick="calculate('mul')">Multiply</button>

        <button onclick="calculate('div')">Divide</button>

        <button onclick="calculate('sqr')">Square</button>

        <h3 id="result">Result: </h3>

    </div>

    <script>

        function calculate(op) {

            const num1 = parseFloat(document.getElementById("num1").value);

            const num2 = parseFloat(document.getElementById("num2").value);

            let result;

            switch(op) {

                case 'add': result = num1 + num2; break;

                case 'sub': result = num1 - num2; break;

                case 'mul': result = num1 \* num2; break;

                case 'div': result = num2 !== 0 ? num1 / num2 : "Cannot divide by zero"; break;

                case 'sqr': result = num1 \* num1; break;

            }

            document.getElementById("result").innerText = "Result: " + result;

        }

    </script>

</body>

</html>