

1) Write a JavaScript to perform Arithmetic Operations.

```
<!DOCTYPE html>

<html>

<head>

  <title>Arithmetic Operations</title>

</head>

<body>

  <script>

    // Define two numbers

    var num1 = 10;

    var num2 = 5;


    // Perform arithmetic operations

    var sum = num1 + num2;

    var difference = num1 - num2;

    var product = num1 * num2;

    var quotient = num1 / num2;

    var remainder = num1 % num2;


    // Display the results

    document.write("<h2>Arithmetic Operations</h2>");

    document.write("Number 1: " + num1 + "<br>");

    document.write("Number 2: " + num2 + "<br><br>");

    document.write("Sum: " + sum + "<br>");

    document.write("Difference: " + difference + "<br>");

    document.write("Product: " + product + "<br>");

    document.write("Quotient: " + quotient + "<br>");

    document.write("Remainder: " + remainder + "<br>");

  </script>

</body>

</html>
```

2) Write a JavaScript to display simple messages using JavaScript

```
<!DOCTYPE html>

<html>

<head>

  <title>Simple Messages</title>

</head>

<body>

  <script>

    // Display simple messages

    document.write("<h2>Welcome to JavaScript</h2>");

    document.write("Hello, World!<br>");

    document.write("Learning JavaScript is fun!<br>");

    document.write("You can create interactive web pages easily.<br>");

    document.write("Happy Coding!<br>");

  </script>

</body>

</html>
```

3) Write a JavaScript to find Even and ODD Number

```
<!DOCTYPE html>

<html>

<head>

  <title>Even or Odd Number</title>

</head>

<body>

  <script>

    // Input number

    var number = 7; // Change this number to test different values


    // Check if the number is even or odd

    if (number % 2 === 0) {

      document.write("The number " + number + " is Even.");

    }

  </script>

</body>

</html>
```

```
    } else {  
        document.write("The number " + number + " is Odd.");  
    }  
</script>  
</body>  
</html>
```

4) Write a JavaScript to check the number is positive or negative

```
<!DOCTYPE html>  
<html>  
<head>  
    <title>Positive or Negative Number</title>  
</head>  
<body>  
    <script>  
        // Input number  
        var number = -5; // Change this number to test different values  
  
        // Check if the number is positive, negative, or zero  
        if (number > 0) {  
            document.write("The number " + number + " is Positive.");  
        } else if (number < 0) {  
            document.write("The number " + number + " is Negative.");  
        } else {  
            document.write("The number is Zero.");  
        }  
    </script>  
</body>  
</html>
```

5) Write a JavaScript to perform any 4 Array functions.

```
<!DOCTYPE html>  
<html>
```

```
<head>

  <title>Array Functions</title>
</head>

<body>

  <script>

    // Sample Array

    var numbers = [10, 20, 30, 40, 50];


    // 1. Array push() - Adds an element to the end of the array
    numbers.push(60);
    document.write("After push(): " + numbers + "<br>");


    // 2. Array pop() - Removes the last element of the array
    numbers.pop();
    document.write("After pop(): " + numbers + "<br>");


    // 3. Array shift() - Removes the first element of the array
    numbers.shift();
    document.write("After shift(): " + numbers + "<br>");


    // 4. Array unshift() - Adds an element to the beginning of the array
    numbers.unshift(5);
    document.write("After unshift(): " + numbers + "<br>");

  </script>
</body>

</html>
```

6) Write a JavaScript to perform any 4 String functions.

```
<!DOCTYPE html>

<html>

<head>

  <title>String Functions</title>
```

```
</head>
<body>
  <script>
    // Sample string
    var text = "Hello, JavaScript!";

    // 1. String length() - Returns the length of the string
    document.write("Length of the string: " + text.length + "<br>");

    // 2. String toUpperCase() - Converts the string to uppercase
    document.write("Uppercase: " + text.toUpperCase() + "<br>");

    // 3. String toLowerCase() - Converts the string to lowercase
    document.write("Lowercase: " + text.toLowerCase() + "<br>");

    // 4. String slice() - Extracts a part of the string
    var slicedText = text.slice(7, 18); // Extract from index 7 to 18
    document.write("Sliced part: " + slicedText + "<br>");
  </script>
</body>
</html>
```

7) Write a JavaScript to find cube of a number using function.

```
<!DOCTYPE html>
<html>
<head>
  <title>Cube of a Number</title>
</head>
<body>
  <script>
    // Function to calculate the cube of a number
    function calculateCube(num) {
```

```

        return num * num * num;
    }

    // Input number
    var number = 4; // Change this value to test different numbers

    // Find the cube and display the result
    var cube = calculateCube(number);
    document.write("The cube of " + number + " is " + cube + ".");
</script>
</body>
</html>

```

8) Write a JavaScript to find multiplication of a number using function

```

<!DOCTYPE html>
<html>
<head>
    <title>Multiplication of a Number</title>
</head>
<body>
    <script>
        // Function to multiply a number by a given multiplier
        function multiplyNumber(num, multiplier) {
            return num * multiplier;
        }

        // Input number and multiplier
        var number = 5; // Change this value to test different numbers
        var multiplier = 3; // Change this value to test different multipliers

        // Find the product and display the result
        var result = multiplyNumber(number, multiplier);
    </script>

```

```
        document.write("The result of multiplying " + number + " by " + multiplier + " is " + result + ".");
    </script>
</body>
</html>
```

9) Write a JavaScript to demonstrate use of Switch-case. Perform any 3 cases. Assume suitable Data

```
<!DOCTYPE html>
<html>
<head>
    <title>Switch Case Example</title>
</head>
<body>
    <script>
        // Example variable to test different cases
        var day = 3; // Change this number to test different cases (1 = Monday, 2 = Tuesday, etc.)
        var operation = 'addition'; // Operation to demonstrate switch-case for arithmetic operations
        var name = "John"; // Name to demonstrate switch-case with names

        // 1. Switch-case to display the day of the week based on a number
        switch(day) {
            case 1:
                document.write("Day 1 is Monday.<br>");
                break;
            case 2:
                document.write("Day 2 is Tuesday.<br>");
                break;
            case 3:
                document.write("Day 3 is Wednesday.<br>");
                break;
            case 4:
                document.write("Day 4 is Thursday.<br>");
```

```
        break;
case 5:
    document.write("Day 5 is Friday.<br>");
    break;
case 6:
    document.write("Day 6 is Saturday.<br>");
    break;
case 7:
    document.write("Day 7 is Sunday.<br>");
    break;
default:
    document.write("Invalid day number.<br>");
}
```

// 2. Switch-case to perform an arithmetic operation (Addition, Subtraction, etc.)

```
switch(operation) {
    case 'addition':
        var result = 5 + 3;
        document.write("Addition result: " + result + "<br>");
        break;
    case 'subtraction':
        var result = 5 - 3;
        document.write("Subtraction result: " + result + "<br>");
        break;
    case 'multiplication':
        var result = 5 * 3;
        document.write("Multiplication result: " + result + "<br>");
        break;
    default:
        document.write("Invalid operation.<br>");
}
```



```
// 3. Switch-case to print a message based on a name
switch(name) {
    case "John":
        document.write("Hello, John! Welcome back!<br>");
        break;
    case "Alice":
        document.write("Hello, Alice! How are you?<br>");
        break;
    case "Bob":
        document.write("Hello, Bob! Nice to see you!<br>");
        break;
    default:
        document.write("Hello, stranger!<br>");
}
</script>
</body>
</html>
```

10) Create a webpage to design simple registration form with all major controls.

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Registration Form</title>
</head>
<body>

<h2>Registration Form</h2>

<form id="registrationForm">
```

<label for="firstName">First Name:</label>

<input type="text" id="firstName" name="firstName" required>

<label for="lastName">Last Name:</label>

<input type="text" id="lastName" name="lastName" required>

<label for="email">Email:</label>

<input type="email" id="email" name="email" required>

<label for="password">Password:</label>

<input type="password" id="password" name="password" required>

<label for="gender">Gender:</label>

<input type="radio" id="male" name="gender" value="Male"> Male

<input type="radio" id="female" name="gender" value="Female"> Female

<label for="dob">Date of Birth:</label>

<input type="date" id="dob" name="dob" required>

<label for="country">Country:</label>

<select id="country" name="country" required>

<option value="india">India</option>

<option value="usa">USA</option>

<option value="uk">UK</option>

</select>

<label for="terms">I agree to the terms and conditions:</label>

<input type="checkbox" id="terms" name="terms" required>

<input type="submit" value="Submit">

</form>

```

<script>

    document.getElementById("registrationForm").onsubmit = function(event) {

        event.preventDefault();

        // Get the form values

        var firstName = document.getElementById("firstName").value;
        var lastName = document.getElementById("lastName").value;
        var email = document.getElementById("email").value;
        var password = document.getElementById("password").value;
        var gender = document.querySelector('input[name="gender"]:checked').value;
        var dob = document.getElementById("dob").value;
        var country = document.getElementById("country").value;

        // Display the values using document.write

        document.write("<h3>Registration Successful!</h3>");
        document.write("<p>First Name: " + firstName + "</p>");
        document.write("<p>Last Name: " + lastName + "</p>");
        document.write("<p>Email: " + email + "</p>");
        document.write("<p>Password: " + password + "</p>");
        document.write("<p>Gender: " + gender + "</p>");
        document.write("<p>Date of Birth: " + dob + "</p>");
        document.write("<p>Country: " + country + "</p>");

    }

</script>

```

```

</body>

```

```

</html>

```

11) Write a JavaScript to demonstrate use of onBlur Event.

```

<!DOCTYPE html>

```

```

<html lang="en">

```

```
<head>

  <meta charset="UTF-8">

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

  <title>onBlur Event Example</title>

</head>

<body>


<h2>onBlur Event Example</h2>


<form>

  <label for="username">Username:</label>

  <input type="text" id="username" name="username" onblur="checkUsername()"><br><br>

  <label for="email">Email:</label>

  <input type="email" id="email" name="email" onblur="checkEmail()"><br><br>

  <p id="message"></p>

</form>


<script>

function checkUsername() {

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

  if (username === "") {

    document.getElementById("message").innerHTML = "Username cannot be empty.";

  } else {

    document.getElementById("message").innerHTML = "Username looks good!";

  }

}


function checkEmail() {

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

```

var emailPattern = /^[a-zA-Z0-9._-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,6}$/;
if (!emailPattern.test(email)) {
    document.getElementById("message").innerHTML = "Please enter a valid email address.";
} else {
    document.getElementById("message").innerHTML = "Email is valid!";
}
}
</script>

```

```

</body>

```

```

</html>

```

12) Write a JavaScript to demonstrate use of onFocus Event.

```

<!DOCTYPE html>

```

```

<html lang="en">

```

```

<head>

```

```

    <meta charset="UTF-8">

```

```

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

```

```

    <title>onFocus Event Example</title>

```

```

</head>

```

```

<body>

```

```

<h2>onFocus Event Example</h2>

```

```

<form>

```

```

    <label for="username">Username:</label>

```

```

    <input type="text" id="username" name="username"
onfocus="displayMessage('username')"><br><br>

```

```

    <label for="email">Email:</label>

```

```

    <input type="email" id="email" name="email" onfocus="displayMessage('email')"><br><br>

```

```

    <p id="message"></p>
</form>

<script>
    function displayMessage(inputField) {
        var message = "";
        if (inputField === "username") {
            message = "You are now focused on the Username field.";
        } else if (inputField === "email") {
            message = "You are now focused on the Email field.";
        }
        document.getElementById("message").innerHTML = message;
    }
</script>

</body>
</html>

```

13) Write a JavaScript to demonstrate use of onChange Event.

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>onChange Event Example</title>
</head>
<body>

<h2>onChange Event Example</h2>

<form>

```

```
<label for="color">Select Your Favorite Color:</label>
<select id="color" name="color" onchange="displayColor()">
  <option value="red">Red</option>
  <option value="blue">Blue</option>
  <option value="green">Green</option>
  <option value="yellow">Yellow</option>
</select><br><br>
```

```
<label for="subscribe">Subscribe to Newsletter:</label>
<input type="checkbox" id="subscribe" name="subscribe" onchange="checkSubscription()"> Yes, I
want to subscribe<br><br>
```

```
<p id="message"></p>
</form>
```

```
<script>
function displayColor() {
  var selectedColor = document.getElementById("color").value;
  document.getElementById("message").innerHTML = "You selected the color: " + selectedColor;
}

function checkSubscription() {
  var isSubscribed = document.getElementById("subscribe").checked;
  if (isSubscribed) {
    document.getElementById("message").innerHTML = "You have subscribed to the newsletter.";
  } else {
    document.getElementById("message").innerHTML = "You have not subscribed to the
newsletter.";
  }
}
</script>
```

```
</body>
```

```
</html>
```

14) Write a JavaScript to demonstrate any 4 Date class functions.

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
  <meta charset="UTF-8">
```

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

```
  <title>Date Class Functions</title>
```

```
</head>
```

```
<body>
```

```
<h2>JavaScript Date Class Functions</h2>
```

```
<p id="currentDate"></p>
```

```
<p id="dayOfWeek"></p>
```

```
<p id="currentYear"></p>
```

```
<p id="millisecondsSinceEpoch"></p>
```

```
<script>
```

```
  // Create a new Date object
```

```
  var date = new Date();
```

```
  // 1. Get the current date
```

```
  var currentDate = date.toString();
```

```
  document.getElementById("currentDate").innerHTML = "Current Date: " + currentDate;
```

```
  // 2. Get the current day of the week
```

```
  var daysOfWeek = ["Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday",  
"Saturday"];
```



```

var dayOfWeek = daysOfWeek[date.getDay()];

document.getElementById("dayOfWeek").innerHTML = "Today is: " + dayOfWeek;


// 3. Get the current year
var currentYear = date.getFullYear();

document.getElementById("currentYear").innerHTML = "Current Year: " + currentYear;


// 4. Get the time in milliseconds since the Unix Epoch (January 1, 1970)
var milliseconds = date.getTime();

document.getElementById("millisecondsSinceEpoch").innerHTML = "Milliseconds since January 1,
1970: " + milliseconds;

</script>

</body>

</html>

```

15) Write a JavaScript to demonstrate any 4 Math class functions

```

<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

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

  <title>Math Class Functions</title>

</head>

<body>


<h2>JavaScript Math Class Functions</h2>


<p id="sqrtResult"></p>

<p id="roundResult"></p>

<p id="maxResult"></p>

<p id="randomResult"></p>

```

```

<script>

    // 1. Calculate the square root of a number

    var number = 25;

    var sqrtResult = Math.sqrt(number);

    document.getElementById("sqrtResult").innerHTML = "Square root of " + number + " is: " +
sqrtResult;


    // 2. Round a number to the nearest integer

    var floatNumber = 7.8;

    var roundResult = Math.round(floatNumber);

    document.getElementById("roundResult").innerHTML = "Rounded value of " + floatNumber + " is: "
+ roundResult;


    // 3. Find the maximum value from a set of numbers

    var maxNumber = Math.max(10, 20, 30, 40, 50);

    document.getElementById("maxResult").innerHTML = "Maximum value from 10, 20, 30, 40, 50 is: "
+ maxNumber;


    // 4. Generate a random number between 0 and 1

    var randomResult = Math.random();

    document.getElementById("randomResult").innerHTML = "Random number between 0 and 1 is: "
+ randomResult;

</script>

```

```

</body>

```

```

</html>

```

16) Write a JavaScript to demonstrate use of Window.open() method.

```

<!DOCTYPE html>

```

```

<html lang="en">

```

```

<head>

```

```

    <meta charset="UTF-8">

```

```

    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Window.open() Example</title>
</head>
<body>

<h2>Window.open() Method Example</h2>

<button onclick="openNewWindow()">Open New Window</button>

<script>
    function openNewWindow() {
        // Open a new window with the specified URL, size, and features
        var newWindow = window.open("https://www.example.com", "_blank",
"width=600,height=400");

        // Check if the window was successfully opened
        if (newWindow) {
            console.log("New window opened successfully!");
        } else {
            console.log("Failed to open new window.");
        }
    }
</script>

</body>
</html>

```

17) Write a JavaScript to create a Cookie.

```

<!DOCTYPE html>
<html lang="en">
<head>

```

```

<meta charset="UTF-8">

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

<title>Create Cookie Example</title>
</head>
<body>

<h2>Creating a Cookie with JavaScript</h2>

<button onclick="setCookie('username', 'JohnDoe', 7)">Create Cookie</button>
<p id="cookieMessage"></p>

<script>
    // Function to create a cookie
    function setCookie(name, value, days) {
        var date = new Date();
        date.setTime(date.getTime() + (days * 24 * 60 * 60 * 1000)); // Set expiry date
        var expires = "expires=" + date.toUTCString(); // Cookie expiry date in UTC format
        document.cookie = name + "=" + value + ";" + expires + ";path=/"; // Set cookie
        document.getElementById("cookieMessage").innerHTML = "Cookie created: " + name + "=" +
value;
    }
</script>

</body>
</html>

```

18) Write a JavaScript to find a character is vowel or not using regular Expression.

```

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

```

```

    <title>Vowel Check Using Regular Expression</title>
</head>
<body>

<h2>Check if a Character is a Vowel</h2>

<input type="text" id="charInput" maxlength="1" placeholder="Enter a character">
<button onclick="checkVowel()">Check</button>
<p id="result"></p>

<script>
    function checkVowel() {
        var char = document.getElementById("charInput").value;
        var regex = /^[aeiouAEIOU]$/; // Regular expression to match vowels

        if (regex.test(char)) {
            document.getElementById("result").innerHTML = char + " is a vowel.";
        } else {
            document.getElementById("result").innerHTML = char + " is not a vowel.";
        }
    }
</script>

</body>
</html>

```

19) Write a JavaScript to find a character is in upper case or not using regular

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

```

```

    <title>Check if Character is Uppercase</title>
</head>
<body>

<h2>Check if a Character is Uppercase</h2>

<input type="text" id="charInput" maxlength="1" placeholder="Enter a character">
<button onclick="checkUppercase()">Check</button>
<p id="result"></p>

<script>
    function checkUppercase() {
        var char = document.getElementById("charInput").value;
        var regex = /^[A-Z]$/; // Regular expression to match uppercase letters

        if (regex.test(char)) {
            document.getElementById("result").innerHTML = char + " is an uppercase letter.";
        } else {
            document.getElementById("result").innerHTML = char + " is not an uppercase letter.";
        }
    }
</script>

</body>
</html>

```

20) Write a JavaScript to find a character is in lower case or not using regular Expression.

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">

```

```

    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Check if Character is Lowercase</title>
</head>
<body>

<h2>Check if a Character is Lowercase</h2>

<input type="text" id="charInput" maxlength="1" placeholder="Enter a character">
<button onclick="checkLowercase()">Check</button>
<p id="result"></p>

<script>
    function checkLowercase() {
        var char = document.getElementById("charInput").value;
        var regex = /^[a-z]$/; // Regular expression to match lowercase letters

        if (regex.test(char)) {
            document.getElementById("result").innerHTML = char + " is a lowercase letter.";
        } else {
            document.getElementById("result").innerHTML = char + " is not a lowercase letter.";
        }
    }
</script>

</body>
</html>

```

21) Create a webpage with Rollover Effect

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">

```

```

<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Rollover Effect</title>
</head>
<body>

<h2>Image Rollover Effect</h2>

<p>Hover over the image below to see the rollover effect:</p>



<script>
    // Function to change the image when the mouse hovers over it
    function changeImage() {
        document.getElementById("rolloverImage").src =
"https://via.placeholder.com/300/ff0000/ffffff?text=Hovered";
    }

    // Function to restore the original image when the mouse leaves
    function restoreImage() {
        document.getElementById("rolloverImage").src = "https://via.placeholder.com/300";
    }
</script>

</body>
</html>

```

22) Develop a webpage for implementing pulldown menu. Assume suitable data.

```
<!DOCTYPE html>
```



```
<html lang="en">

<head>

  <meta charset="UTF-8">

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

  <title>Pulldown Menu Example</title>

</head>

<body>


<h2>Pulldown Menu Example</h2>


<p>Select a country from the dropdown menu:</p>


<select id="countryMenu" onchange="showCountry()">
  <option value="">--Select a Country--</option>
  <option value="India">India</option>
  <option value="USA">USA</option>
  <option value="Canada">Canada</option>
  <option value="Australia">Australia</option>
  <option value="Germany">Germany</option>
</select>


<p id="selectedCountry"></p>


<script>
function showCountry() {
  var country = document.getElementById("countryMenu").value;
  if (country) {
    document.getElementById("selectedCountry").innerHTML = "You selected: " + country;
  } else {
    document.getElementById("selectedCountry").innerHTML = "";
  }
}
```

```
}  
</script>
```

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

23) Develop a webpage for disabling a mouse right click.

```
<!DOCTYPE html>  
<html lang="en">  
<head>  
  <meta charset="UTF-8">  
  <meta name="viewport" content="width=device-width, initial-scale=1.0">  
  <title>Disable Right Click</title>  
</head>  
<body>  
  
  <h2>Right-click is Disabled on This Page</h2>  
  
  <p>Try right-clicking anywhere on this page. The context menu will be disabled.</p>  
  
  <script>  
    // Disable the right-click menu by preventing the default action on the contextmenu event  
    document.addEventListener("contextmenu", function(event) {  
      event.preventDefault(); // Prevent the right-click context menu from appearing  
      alert("Right-click is disabled on this page.");  
    });  
  </script>  
  
</body>  
</html>
```

24) Develop a webpage for creating rotating (changing) banner.

```
<!DOCTYPE html>  
<html lang="en">
```

```
<head>

  <meta charset="UTF-8">

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

  <title>Rotating Banner</title>

  <style>

    #banner {

      width: 100%;

      height: 200px;

      text-align: center;

      font-size: 30px;

      line-height: 200px;

      background-color: #f3f3f3;

      border: 2px solid #ccc;

    }

    img {

      width: 100%;

      height: 200px;

      object-fit: cover;

    }

  </style>
</head>

<body>

  <h2>Rotating Banner Example</h2>

  <div id="banner">

    

  </div>

  <script>
```

```

var images = [
    "https://via.placeholder.com/1200x200?text=Image+1",
    "https://via.placeholder.com/1200x200?text=Image+2",
    "https://via.placeholder.com/1200x200?text=Image+3",
    "https://via.placeholder.com/1200x200?text=Image+4"
];

var currentIndex = 0;

function rotateBanner() {
    currentIndex = (currentIndex + 1) % images.length; // Move to the next image
    document.getElementById("bannerImage").src = images[currentIndex]; // Change image
}

// Set the interval for rotating the banner every 3 seconds
setInterval(rotateBanner, 3000);
</script>

</body>
</html>

```

25) Develop a webpage for creating slideshow using banner.

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Slideshow Banner</title>
    <style>
        #slideshow-container {
            width: 100%;
            height: 300px;

```

```
position: relative;
overflow: hidden;
text-align: center;
background-color: #f3f3f3;
}
```

```
#slideshow {
display: flex;
width: 100%;
height: 100%;
transition: transform 1s ease;
}
```

```
#slideshow img {
width: 100%;
height: 100%;
object-fit: cover;
}
```

```
.btn {
position: absolute;
top: 50%;
background-color: rgba(0, 0, 0, 0.5);
color: white;
font-size: 20px;
border: none;
cursor: pointer;
padding: 10px;
z-index: 10;
transform: translateY(-50%);
}
```

```

        .prev {
            left: 10px;
        }

        .next {
            right: 10px;
        }
    </style>
</head>
<body>

<h2>Slideshow Banner Example</h2>

<div id="slideshow-container">
    <div id="slideshow">
        
        
        
        
    </div>

    <button class="btn prev" onclick="moveSlide(-1)">&#10094;</button>
    <button class="btn next" onclick="moveSlide(1)">&#10095;</button>
</div>

<script>
    var currentIndex = 0;
    var slides = document.querySelectorAll('#slideshow img');
    var totalSlides = slides.length;

    function moveSlide(direction) {

```

```

        currentIndex = (currentIndex + direction + totalSlides) % totalSlides; // Move to next or previous
slide
        updateSlidePosition();
    }

```

```

function updateSlidePosition() {
    var offset = -currentIndex * 100; // Calculate the offset for the slideshow
    document.getElementById('slideshow').style.transform = 'translateX(' + offset + '%)';
}

```

```

// Auto-slide every 3 seconds
setInterval(function() {
    moveSlide(1); // Move to the next slide
}, 3000);
</script>

```

```
</body>
```

```
</html>
```

26) Accept full name of user in single text box and separate first, middle and last name from accepted name and display it in capitalized form.

```

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Separate and Capitalize Name</title>

</head>

<body>

    <h2>Separate First, Middle, and Last Name</h2>

    <p>Enter your full name (First Middle Last):</p>

```

```
<input type="text" id="fullName" placeholder="Enter your full name" />
```

```
<button onclick="processName()">Submit</button>
```

```
<p><strong>First Name:</strong> <span id="firstName"></span></p>
```

```
<p><strong>Middle Name:</strong> <span id="middleName"></span></p>
```

```
<p><strong>Last Name:</strong> <span id="lastName"></span></p>
```

```
<script>
```

```
function processName() {
```

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

```
    // Split the full name into an array of words
```

```
    var nameParts = fullName.trim().split(/\s+/);
```

```
    // Capitalize the names and assign them to respective variables
```

```
    var firstName = capitalize(nameParts[0] || "");
```

```
    var middleName = capitalize(nameParts[1] || ""); // Middle name is optional
```

```
    var lastName = capitalize(nameParts[2] || "");
```

```
    // Display the names in capitalized form
```

```
    document.getElementById("firstName").textContent = firstName;
```

```
    document.getElementById("middleName").textContent = middleName;
```

```
    document.getElementById("lastName").textContent = lastName;
```

```
}
```

```
function capitalize(name) {
```

```
    // Capitalize the first letter and make the rest lowercase
```

```
    return name.charAt(0).toUpperCase() + name.slice(1).toLowerCase();
```

```
}
```

```
</script>
```



```
</body>
```

```
</html>
```

27) WAP to replace following specified string value with another value in the string String = "I will fail" Replace = "fail" by "pass"

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
    <meta charset="UTF-8">
```

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

```
    <title>Replace String Example</title>
```

```
</head>
```

```
<body>
```

```
<h2>String Replacement</h2>
```

```
<p>Original String: "I will fail"</p>
```

```
<p><strong>Replaced String:</strong> <span id="replacedString"></span></p>
```

```
<script>
```

```
    var originalString = "I will fail";
```

```
    var replacedString = originalString.replace("fail", "pass");
```

```
    // Display the replaced string
```

```
    document.getElementById("replacedString").textContent = replacedString;
```

```
</script>
```

```
</body>
```

```
</html>
```

28) Create a slideshow with the group of three images, also simulate the next and previous transition between slides in your JavaScript.

```
<!DOCTYPE html>
```

```
<html lang="en">

<head>

  <meta charset="UTF-8">

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

  <title>Slideshow with Next and Previous Buttons</title>

  <style>

    #slideshow-container {

      width: 100%;

      height: 300px;

      position: relative;

      overflow: hidden;

      text-align: center;

      background-color: #f3f3f3;

    }


    #slideshow {

      display: flex;

      width: 300%;

      transition: transform 1s ease;

    }


    #slideshow img {

      width: 33.33%; /* Show 3 images in a row (100% divided by 3 images) */

      height: 100%;

      object-fit: cover;

    }


    .btn {

      position: absolute;

      top: 50%;

      background-color: rgba(0, 0, 0, 0.5);
```

```
color: white;

font-size: 20px;

border: none;

cursor: pointer;

padding: 10px;

z-index: 10;

transform: translateY(-50%);

}
```

```
.prev {

  left: 10px;

}
```

```
.next {

  right: 10px;

}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<h2>Slideshow with Next and Previous Buttons</h2>
```

```
<div id="slideshow-container">
```

```
  <div id="slideshow">
```

```
    
```

```
    
```

```
    
```

```
  </div>
```

```
  <button class="btn prev" onclick="moveSlide(-1)">&#10094;</button>
```

```
  <button class="btn next" onclick="moveSlide(1)">&#10095;</button>
```

```
</div>
```

```
<script>

    var currentIndex = 0; // Start at the first slide

    var slides = document.querySelectorAll('#slideshow img');

    var totalSlides = slides.length;


    // Function to move to the next or previous slide
    function moveSlide(direction) {

        currentIndex = (currentIndex + direction + totalSlides) % totalSlides; // Move to next or previous
slide
        updateSlidePosition();
    }


    // Update the position of the slides based on the current index
    function updateSlidePosition() {

        var offset = -currentIndex * 100; // Calculate the offset for the slideshow

        document.getElementById('slideshow').style.transform = 'translateX(' + offset + '%)';
    }


    // Auto-slide every 3 seconds (optional)
    setInterval(function() {

        moveSlide(1); // Move to the next slide automatically

    }, 3000);
</script>


</body>
</html>
```

29) Write HTML Script that displays drop-down-list containing options New Delhi, Mumbai, Bangalore. Write proper JavaScript such that when the user selects any options corresponding description of about 20 words and image of the city appear in table which appears below on the same page.

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

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

  <title>City Description and Image</title>

  <style>

    table {

      width: 100%;

      margin-top: 20px;

      border-collapse: collapse;

    }

    table, th, td {

      border: 1px solid black;

    }

    th, td {

      padding: 10px;

      text-align: left;

    }

    img {

      width: 200px;

      height: auto;

    }

  </style>

</head>

<body>

  <h2>Select a City to View Description and Image</h2>
```

```
<select id="citySelect" onchange="showCityInfo()">
  <option value="">Select a City</option>
  <option value="delhi">New Delhi</option>
  <option value="mumbai">Mumbai</option>
  <option value="bangalore">Bangalore</option>
</select>
```

```
<table id="cityTable" style="display:none;">
  <tr>
    <th>Description</th>
    <th>Image</th>
  </tr>
  <tr id="cityDescriptionRow">
    <td id="cityDescription"></td>
    <td id="cityImage"><img id="cityImageDisplay" src="" alt="City Image"></td>
  </tr>
</table>
```

```
<script>
function showCityInfo() {
  var city = document.getElementById("citySelect").value;
  var description = "";
  var imageUrl = "";

  // Set description and image based on selected city
  if (city === "delhi") {
    description = "New Delhi is the capital of India, known for its rich history, beautiful
monuments, and bustling streets.";
    imageUrl = "https://via.placeholder.com/200x150?text=New+Delhi";
  } else if (city === "mumbai") {
```

```
        description = "Mumbai, the financial capital of India, is known for its vibrant culture, historic landmarks, and Bollywood.";
```

```
        imageUrl = "https://via.placeholder.com/200x150?text=Mumbai";
```

```
    } else if (city === "bangalore") {
```

```
        description = "Bangalore, also called Bengaluru, is the tech capital of India, known for its pleasant weather and modern culture.";
```

```
        imageUrl = "https://via.placeholder.com/200x150?text=Bangalore";
```

```
    } else {
```

```
        description = "";
```

```
        imageUrl = "";
```

```
    }
```

```
// Display the description and image
```

```
document.getElementById("cityDescription").innerText = description;
```

```
document.getElementById("cityImageDisplay").src = imageUrl;
```

```
// Show or hide the table based on selection
```

```
if (city) {
```

```
    document.getElementById("cityTable").style.display = "table";
```

```
} else {
```

```
    document.getElementById("cityTable").style.display = "none";
```

```
}
```

```
}
```

```
</script>
```

```
</body>
```

```
</html>
```

30) Write a JavaScript function that checks whether a passed string is palindrome or not.

```
<!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>

<h2>Palindrome Checker</h2>
<p>Enter a string to check if it's a palindrome:</p>
<input type="text" id="inputString" placeholder="Enter string">
<button onclick="checkPalindrome()">Check</button>

<p id="result"></p>

<script>
    function checkPalindrome() {
        var str = document.getElementById("inputString").value;
        var cleanedStr = str.replace(/[^A-Za-z0-9]/g, "").toLowerCase(); // Remove non-alphanumeric
        characters and convert to lowercase
        var reversedStr = cleanedStr.split("").reverse().join(""); // Reverse the string

        if (cleanedStr === reversedStr) {
            document.getElementById("result").textContent = "The string is a palindrome.";
        } else {
            document.getElementById("result").textContent = "The string is not a palindrome.";
        }
    }
</script>

</body>
</html>

```

31) Write a HTML script which displays 2 radio buttons to the users for fruits and vegetables and 1 option list. When user select fruits radio button option list should present only fruits names to the

user & when user select vegetable radio button option list should present only vegetable names to the user

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

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

  <title>Radio Button and Option List</title>

</head>

<body>


<h2>Select Category and Choose from the List</h2>


<!-- Radio Buttons for Fruits and Vegetables -->

<input type="radio" id="fruitsRadio" name="category" onclick="updateOptions('fruits')" />

<label for="fruitsRadio">Fruits</label>

<input type="radio" id="vegetablesRadio" name="category" onclick="updateOptions('vegetables')" />

<label for="vegetablesRadio">Vegetables</label>


<br><br>


<!-- Dropdown list to display options based on selection -->

<select id="optionsList">

  <option value="">Select an option</option>

</select>


<script>

  // Function to update the dropdown based on selected category

  function updateOptions(category) {

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

    optionsList.innerHTML = ""; // Clear previous options
```

```

if (category === "fruits") {
    var fruits = ["Apple", "Banana", "Orange", "Grapes", "Mango"];
    for (var i = 0; i < fruits.length; i++) {
        var option = document.createElement("option");
        option.value = fruits[i];
        option.textContent = fruits[i];
        optionsList.appendChild(option);
    }
} else if (category === "vegetables") {
    var vegetables = ["Carrot", "Broccoli", "Spinach", "Potato", "Cucumber"];
    for (var i = 0; i < vegetables.length; i++) {
        var option = document.createElement("option");
        option.value = vegetables[i];
        option.textContent = vegetables[i];
        optionsList.appendChild(option);
    }
}
}
</script>

</body>

</html>

```

32) Write a Java script to modify the status bar using on MouseOver and on MouseOut with links. When the user moves his mouse over the links, it will display “MSBTE” in the status bar. When the user moves his mouse away from the link the status bar will display nothing.

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Status Bar Example</title>

```

```

</head>

<body>

<h2>Hover over the link to see the status bar change</h2>

<!-- Link with MouseOver and MouseOut events -->

<a href="#" onmouseover="changeStatus('MSBTE')" onmouseout="clearStatus()">Hover over
me</a>

<script>

    // Function to change the status bar when mouse is over the link
    function changeStatus(message) {
        window.status = message; // Set the status bar text
    }

    // Function to clear the status bar when mouse moves out of the link
    function clearStatus() {
        window.status = ""; // Clear the status bar
    }
</script>

</body>

</html>

```

33) Write a javascript that displays all properties of window object

```

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Window Object Properties</title>

```

```
</head>
```

```
<body>
```

```
<h2>Open the browser console to see all properties of the Window object</h2>
```

```
<script>
```

```
    // Loop through all properties of the window object and log them to the console
```

```
    for (var property in window) {
```

```
        if (window.hasOwnProperty(property)) {
```

```
            console.log(property + ": " + window[property]);
```

```
        }
```

```
    }
```

```
</script>
```

```
</body>
```

```
</html>
```

34) Write a function that prompts the user for a color and uses what they select to set the background color of the new webpage opened.

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
    <meta charset="UTF-8">
```

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

```
    <title>Set Background Color</title>
```

```
</head>
```

```
<body>
```

```
<h2>Click the button to set background color of a new window</h2>
```

```
<button onclick="openWindowWithColor()">Open New Window with Selected Background Color</button>
```

```

<script>

function openWindowWithColor() {

    // Prompt the user to select a color

    var userColor = prompt("Please enter a color for the background (e.g., 'red', 'blue', '#FF5733'):");


    // Open a new window

    var newWindow = window.open("", "", "width=500,height=500");


    // Check if the user entered a valid color

    if (userColor) {

        // Set the background color of the new window

        newWindow.document.body.style.backgroundColor = userColor;

    } else {

        // If no color was entered, set the background to white

        newWindow.document.body.style.backgroundColor = "white";

    }


    // Optionally, add some content to the new window

    newWindow.document.body.innerHTML = "<h1>The background color has been set!</h1>";

}

</script>


</body>
</html>

```

35) Write a JavaScript program that create a scrolling text on the status line of a window

```

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

```

```

    <title>Scrolling Text on Status Line</title>
</head>
<body>

<h2>Scroll text on the status line</h2>
<p>This page will create scrolling text in the status line.</p>

<script>
    // The scrolling text message
    var message = "This is a scrolling text on the status line... ";

    // Function to scroll the message
    function scrollText() {
        // Set the status line to the current message
        window.status = message;

        // Move the first character of the message to the end to create a scroll effect
        message = message.substring(1) + message.charAt(0);
    }

    // Set the scrolling text effect to run every 200 milliseconds
    setInterval(scrollText, 200);
</script>

</body>
</html>

```

36) Develop a JavaScript Program to Create Rotating Banner Ads with URL Links. Create a slideshow with the group of four images, also simulate the next and previous transition between slides in your JavaScript

```

<!DOCTYPE html>

<html lang="en">

```

```
<head>

<meta charset="UTF-8">

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

<title>Rotating Banner Ads</title>

<style>

    /* Style for the banner container */

    .banner-container {

        position: relative;

        width: 500px;

        height: 300px;

        margin: auto;

        overflow: hidden;

        border: 2px solid #ccc;

    }


    /* Style for each slide image */

    .banner-slide {

        width: 100%;

        height: 100%;

        display: none;

    }


    /* Style for the navigation buttons */

    .prev, .next {

        position: absolute;

        top: 50%;

        transform: translateY(-50%);

        font-size: 18px;

        color: white;

        background-color: rgba(0, 0, 0, 0.5);

        border: none;
```

```

padding: 10px;
cursor: pointer;
}

.prev {
    left: 0;
}

.next {
    right: 0;
}

/* Optional: Style for hover effect on buttons */
.prev:hover, .next:hover {
    background-color: rgba(0, 0, 0, 0.8);
}
</style>
</head>
<body>

<h2>Rotating Banner Ads with Next and Previous Controls</h2>

<!-- Banner Container -->
<div class="banner-container">

    <!-- Banner Slides -->

    

    

    

```



```

```

```
<!-- Next and Previous Buttons -->
```

```
<button class="prev" onclick="changeSlide(-1)">&#10094;</button>
```

```
<button class="next" onclick="changeSlide(1)">&#10095;</button>
```

```
</div>
```

```
<script>
```

```
var currentSlideIndex = 0;
```

```
var slides = document.getElementsByClassName("banner-slide");
```

```
// Function to display the current slide
```

```
function showSlide(index) {
```

```
    if (index >= slides.length) {
```

```
        currentSlideIndex = 0; // Reset to first slide if index exceeds
```

```
    }
```

```
    if (index < 0) {
```

```
        currentSlideIndex = slides.length - 1; // Go to the last slide if index is negative
```

```
    }
```

```
// Hide all slides
```

```
for (var i = 0; i < slides.length; i++) {
```

```
    slides[i].style.display = "none";
```

```
}
```

```
// Show the current slide
```

```
slides[currentSlideIndex].style.display = "block";
```

```
}
```

```
// Function to change slide (next or previous)
```

```

function changeSlide(direction) {
    currentSlideIndex += direction;
    showSlide(currentSlideIndex);
}

// Initialize the first slide
showSlide(currentSlideIndex);

// Auto-rotate slides every 3 seconds
setInterval(function() {
    changeSlide(1); // Automatically go to the next slide every 3 seconds
}, 3000);
</script>

```

```
</body>
```

```
</html>
```

37) Write a webpage that accepts Username and adharcard as input texts. When the user enters adhaarcad number ,the JavaScript validates card number and diplays whether card number is valid or not. (Assume valid adhaar card format to be nnnn.nnnn.nnnn or nnnn-nnnn-nnnn)

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
    <meta charset="UTF-8">
```

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

```
    <title>Aadhaar Card Validation</title>
```

```
</head>
```

```
<body>
```

```
<h2>Aadhaar Card Validation</h2>
```

```
<!-- Form to accept Username and Aadhaar Card Number -->
```

```
<form id="aadhaarForm">
```

```
<label for="username">Username: </label>
```

```
<input type="text" id="username" name="username" required><br><br>
```

```
<label for="aadhaar">Aadhaar Card Number: </label>
```

```
<input type="text" id="aadhaar" name="aadhaar" required><br><br>
```

```
<button type="button" onclick="validateAadhaar()">Validate Aadhaar</button>
```

```
</form>
```

```
<!-- Paragraph to display the validation result -->
```

```
<p id="validationResult"></p>
```

```
<script>
```

```
function validateAadhaar() {
```

```
    // Get the Aadhaar input value
```

```
    var aadhaarNumber = document.getElementById("aadhaar").value;
```

```
    var resultElement = document.getElementById("validationResult");
```

```
    // Regular expression for validating Aadhaar number in two formats
```

```
    var aadhaarPattern = /^\\d{4}[-.]\\d{4}[-.]\\d{4}$/;
```

```
    // Validate Aadhaar number
```

```
    if (aadhaarPattern.test(aadhaarNumber)) {
```

```
        resultElement.textContent = "Valid Aadhaar Card Number.";
```

```
        resultElement.style.color = "green";
```

```
    } else {
```

```
        resultElement.textContent = "Invalid Aadhaar Card Number. Please enter in the format nnnn-  
nnnn-nnnn or nnnn.nnnn.nnnn.";
```

```
        resultElement.style.color = "red";
```

```
    }
```

```
}
```

```
</script>
```

```
</body>
```

```
</html>
```

38) Write HTML Script that displays textboxes for accepting Name, middlename, Surname of the user and a Submit button. Write proper JavaScript such that when the user clicks on submit button: i) All texboxes must get disabled and change the color to “RED” and with respective labels.

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
  <meta charset="UTF-8">
```

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

```
  <title>User Information Form</title>
```

```
  <style>
```

```
    /* Style for the labels and input fields */
```

```
    label {
```

```
      font-size: 16px;
```

```
      margin-top: 10px;
```

```
      display: inline-block;
```

```
    }
```

```
    input[type="text"] {
```

```
      font-size: 16px;
```

```
      padding: 5px;
```

```
      margin: 5px 0;
```

```
    }
```

```
    /* Style for the submit button */
```

```
    button {
```

```
      padding: 10px 20px;
```

```
      font-size: 16px;
```

```
      cursor: pointer;
```

```

    }
</style>
</head>
<body>

<h2>User Information Form</h2>

<!-- Form to accept Name, Middle Name, and Surname -->
<form id="userForm">
    <label for="name">Name: </label>
    <input type="text" id="name" name="name"><br><br>

    <label for="middlename">Middle Name: </label>
    <input type="text" id="middlename" name="middlename"><br><br>

    <label for="surname">Surname: </label>
    <input type="text" id="surname" name="surname"><br><br>

    <button type="button" onclick="disableFields()">Submit</button>
</form>

<script>
function disableFields() {
    // Get the form elements
    var nameField = document.getElementById("name");
    var middleNameField = document.getElementById("middlename");
    var surnameField = document.getElementById("surname");

    var nameLabel = document.querySelector("label[for='name']");
    var middleNameLabel = document.querySelector("label[for='middlename']");
    var surnameLabel = document.querySelector("label[for='surname']");

```

```

// Disable the textboxes and change the background color to RED
nameField.disabled = true;
middleNameField.disabled = true;
surnameField.disabled = true;

nameField.style.backgroundColor = "red";
middleNameField.style.backgroundColor = "red";
surnameField.style.backgroundColor = "red";

// Change the color of the labels to RED
nameLabel.style.color = "red";
middleNameLabel.style.color = "red";
surnameLabel.style.color = "red";
}
</script>

</body>
</html>

```

39) Write a JavaScript program to find the area of a triangle where lengths of the three of its sides are 5, 6, and 7.

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Area of Triangle</title>
</head>
<body>

<h2>Calculate the Area of a Triangle</h2>

```

```
<p>Enter the lengths of the sides of the triangle:</p>
```

```
<form>
```

```
  <label for="sideA">Side A: </label>
```

```
  <input type="number" id="sideA" value="5"><br><br>
```

```
  <label for="sideB">Side B: </label>
```

```
  <input type="number" id="sideB" value="6"><br><br>
```

```
  <label for="sideC">Side C: </label>
```

```
  <input type="number" id="sideC" value="7"><br><br>
```

```
  <button type="button" onclick="calculateArea()">Calculate Area</button>
```

```
</form>
```

```
<p id="result"></p>
```

```
<script>
```

```
  function calculateArea() {
```

```
    // Get the values of the sides from the user input
```

```
    var a = parseFloat(document.getElementById("sideA").value);
```

```
    var b = parseFloat(document.getElementById("sideB").value);
```

```
    var c = parseFloat(document.getElementById("sideC").value);
```

```
    // Calculate the semi-perimeter (s)
```

```
    var s = (a + b + c) / 2;
```

```
    // Apply Heron's formula to calculate the area
```

```
    var area = Math.sqrt(s * (s - a) * (s - b) * (s - c));
```

```
    // Display the result
```

```
        document.getElementById("result").textContent = "The area of the triangle is: " +  
        area.toFixed(2) + " square units."  
    }  
</script>
```

```
</body>
```

```
</html>
```

40)Fruits, Flowers and Cities are links to the webpage fruits.html, flowers.html, cities.html respectively. When these links are clicked corresponding data appears in “FRAME3”.

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
    <meta charset="UTF-8">
```

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

```
    <title>Frames Example</title>
```

```
</head>
```

```
<body>
```

```
<frameset rows="100,*,*" cols="*,*" border="5">
```

```
    <!-- Frame1: Contains links to the pages -->
```

```
    <frame src="frame1.html" name="frame1" noresize="noresize">
```

```
    <!-- Frame2: Contains the links for Fruits, Flowers, and Cities -->
```

```
    <frame src="frame2.html" name="frame2" noresize="noresize">
```

```
    <!-- Frame3: Displays the content of the clicked link -->
```

```
    <frame src="fruits.html" name="frame3">
```

```
</frameset>
```

```
</body>
```

```
</html>
```


Frame 1

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

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

  <title>Links</title>

</head>

<body>

  <ul>

    <li><a href="fruits.html" target="frame3">FRUITS</a></li>

    <li><a href="flowers.html" target="frame3">FLOWERS</a></li>

    <li><a href="cities.html" target="frame3">CITIES</a></li>

  </ul>

</body>

</html>
```

Frame 2

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

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

  <title>Fruits</title>

</head>

<body>

  <h1>Fruits</h1>

  <p>Here is some information about fruits.</p>

</body>

</html>
```

