```
<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Remove Items from Dropdown</title>
</head>
<body>
    <h2>Remove Items from Dropdown List</h2>
    <select id="dropdown">
        <option value="1">Option 1</option>
        <option value="2">Option 2</option>
        <option value="3">Option 3</option>
        <option value="4">Option 4</option>
        <option value="5">Option 5</option>
    </select>
    <button onclick="removeSelectedItem()">Remove Selected Item
        function removeSelectedItem() {
            var dropdown = document.getElementById('dropdown');
            if (dropdown.selectedIndex !== -1) {
                dropdown.remove(dropdown.selectedIndex);
            } else {
                alert('Please select an item to remove.');
   </script>
</body>
</html>
```

```
<h2>Replace Question Marks with <a>(h2)</a></h2>
   This is a sample paragraph with some question marks (?) and other
punctuation marks.
       How many question marks are there? Are there any here: ?
   <button onclick="replaceQuestionMarks()">Replace Question Marks</button>
   <script>
       function replaceQuestionMarks() {
           var paragraph = document.getElementById('paragraph');
           var text = paragraph.textContent;
           var replacedText = text.replace(/\?/g, '@');
           paragraph.textContent = replacedText;
   </script>
</body>
</html>
```

```
if (newItem !== '') {
    var li = document.createElement('li');
    li.textContent = newItem;
    document.getElementById('itemList').appendChild(li);
    document.getElementById('itemInput').value = '';
} else {
    alert('Please enter a valid item.');
}

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

```
<!DOCTYPE html>
<html>
  <title>Shopping List</title>
</head>
 <h1>Shopping List</h1>
 <input type="text" id="new-item">
  <button onclick="addItem()">Add Item</putton>
 <script>
       function addItem() {
 var newItem = document.getElementById('new-item').value;
 var li = document.createElement('li');
 li.textContent = newItem;
 var list = document.getElementById('shopping-list');
 list.appendChild(li);
 document.getElementById('new-item').value = '';
   </script>
</body>
</html>
```

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Random Image</title>
    <style>
       img {
           max-width: 300px;
           max-height: 300px;
           margin-bottom: 20px;
    </style>
</head>
    <h1>Random Image Generator</h1>
    <button onclick="displayRandomImage()">Show Random Image/button>
    <div id="imageContainer"></div>
    <script>
        const images = [
            'https://via.placeholder.com/300',
            'https://via.placeholder.com/300?text=Hello',
            'https://via.placeholder.com/300?text=Random+Image',
            'https://via.placeholder.com/300?text=JS+Demo'
        ];
        function displayRandomImage() {
            const randomIndex = Math.floor(Math.random() * images.length);
            const imgElement = document.createElement('img');
            imgElement.src = images[randomIndex];
            const imageContainer = document.getElementById('imageContainer');
            imageContainer.innerHTML = ';
            imageContainer.appendChild(imgElement);
    </script>
</body>
</html>
```

```
text-align: center;
            padding-top: 50px;
       input {
            padding: 8px;
           font-size: 16px;
           margin-right: 10px;
       button {
            padding: 8px 20px;
           font-size: 16px;
            cursor: pointer;
       #welcome-message {
           margin-top: 20px;
    </style>
</head>
<body>
    <h1>Welcome!</h1>
    >Please enter your name:
    <input type="text" id="nameInput" placeholder="Your name">
    <button onclick="showWelcomeMessage()">Submit</button>
    <div id="welcome-message"></div>
    <script>
       function showWelcomeMessage() {
            const input = document.getElementById('nameInput');
            const name = input.value.trim();
            if (name.length > 3) {
                const welcomeMessage = document.createElement('p');
                welcomeMessage.textContent = `Welcome, ${name}!`;
                const welcomeDiv = document.getElementById('welcome-message');
                welcomeDiv.innerHTML = ';
               welcomeDiv.appendChild(welcomeMessage);
            } else {
                alert('Please enter a name longer than 3 characters.');
            }
   </script>
</body>
</html>
```

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Number Classification</title>
    <style>
        #numberContainer {
            display: flex;
            flex-wrap: wrap;
            justify-content: center;
        }
        .number {
            width: 50px;
            height: 50px;
            display: flex;
            justify-content: center;
            align-items: center;
            margin: 5px;
            font-weight: bold;
            font-size: 16px;
        .even { background-color: lightgreen; }
        .odd { background-color: yellow; }
        .prime { background-color: red; }
    </style>
</head>
    <div id="numberContainer"></div>
    <script>
        document.addEventListener('DOMContentLoaded', function() {
            const container = document.getElementById('numberContainer');
            function isPrime(num) {
                for (let i = 2; i <= Math.sqrt(num); i++) {</pre>
                    if (num % i === 0) return false;
                }
                return num > 1;
            }
            for (let i = 1; i <= 100; i++) {
                const numberDiv = document.createElement('div');
                numberDiv.textContent = i;
                numberDiv.className = 'number';
                if (i % 2 === 0) {
                    numberDiv.classList.add('even');
```

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Append Parent to Child and Change Colors</title>
        #parent {
            width: 200px;
            height: 100px;
            background-color: lightblue;
            display: flex;
            justify-content: center;
            align-items: center;
            transition: background-color 0.3s ease;
        #child {
            width: 100px;
            height: 50px;
            background-color: lightgreen;
            transition: background-color 0.3s ease;
    </style>
</head>
<div id="parent">
    <div id="child"></div>
</div>
```

```
<script>
    const parentElement = document.getElementById('parent');
    const childElement = document.getElementById('child');
    function changeColors() {
        const randomColor = getRandomColor();
        parentElement.style.backgroundColor = randomColor;
        childElement.style.backgroundColor = randomColor;
    function getRandomColor() {
        const letters = '0123456789ABCDEF';
        let color = '#';
        for (let i = 0; i < 6; i++) {
            color += letters[Math.floor(Math.random() * 16)];
        return color;
    }
   parentElement.appendChild(childElement);
   changeColors();
    parentElement.addEventListener('click', changeColors);
</script>
</body>
</html>
```

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Loading Screen</title>
        .loader {
            border: 16px solid #f3f3f3; /* Light grey */
            border-top: 16px solid #160292; /* Blue */
            border-radius: 50%;
            width: 120px;
            height: 120px;
            animation: spin 2s linear infinite;
            position: fixed;
            top: 50%;
            left: 50%;
            transform: translate(-50%, -50%);
            z-index: 9999;
```

```
display: none;
        }
        @keyframes spin {
            0% { transform: rotate(0deg); }
            100% { transform: rotate(360deg); }
   </style>
</head>
<div class="loader" id="loader"></div>
<script>
    document.addEventListener('DOMContentLoaded', function() {
        const loader = document.getElementById('loader');
        loader.style.display = 'block';
        setTimeout(function() {
            loader.style.display = 'none';
        }, 5000);
    });
</script>
<script>
   window.addEventListener('load', function() {
        setTimeout(function() {
            const loader = document.getElementById('loader');
            loader.style.display = 'none';
        }, 5000);
   });
</script>
</body>
</html>
```

```
function calc() {
           const radiusInput = prompt("Enter the radius of the sphere:");
           const radius = parseFloat(radiusInput);
           if (!isNaN(radius) && radius > 0) {
               const volume = (4 / 3) * Math.PI * Math.pow(radius, 3);
               const resultElement = document.getElementById('result');
               resultElement.textContent = `The volume of the sphere with
radius ${radius} units is ${volume.toFixed(2)} cubic units.`;
           } else {
               alert("Invalid input. Please enter a valid positive number for
the radius.");
           }
   </script>
</head>
   <h1>Calculate Sphere Volume</h1>
   <button onclick="calc()">Calculate Volume</putton>
   </body>
</html>
```