WEB TECHNOLOGIES

EXPERIMENT – 5

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1. Write a JavaScript program that displays the largest integer among two integers.

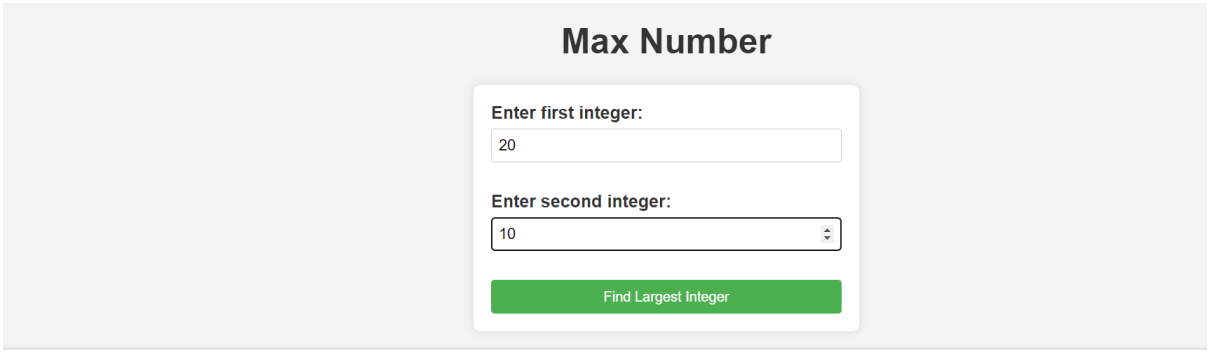
CODE:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Display Largest Integer</title>
    <style>
        body {
            font-family: Arial, sans-serif;
            background-color: #f4f4f4;
            margin: 0;
            padding: 0;
            box-sizing: border-box;
        }

        h1 {
            text-align: center;
            color: #333;
        }

        #integerForm {
            max-width: 400px;
            margin: 0 auto;
```

```
            background-color: #fff;
            padding: 20px;
            border-radius: 8px;
            box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
        }

        label {
            font-weight: bold;
            color: #333;
        }

        input[type="number"] {
            width: 100%;
            padding: 8px;
            margin-top: 6px;
            margin-bottom: 10px;
            border: 1px solid #ccc;
            border-radius: 4px;
            box-sizing: border-box;
        }

        button {
            width: 100%;
            background-color: #4CAF50;
            color: white;
            padding: 10px 20px;
            border: none;
            border-radius: 4px;
            cursor: pointer;
            font-size: 16px;
        }

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

        #result {
            margin-top: 20px;
            padding: 10px;
            background-color: #fff;
            border: 1px solid #ccc;
            border-radius: 4px;
            box-shadow: 0 0 5px rgba(0, 0, 0, 0.1);
        }
    </style>
</head>
<body>
    <h1>Max Number</h1>
```

```
    <form id="integerForm">
        <label for="num1">Enter first integer:</label>
        <input type="number" id="num1" name="num1" required><br><br>
        <label for="num2">Enter second integer:</label>
        <input type="number" id="num2" name="num2" required><br><br>
        <button onclick="findlargest(event)">Find Largest Integer</button>
    </form>

    <div id="result"></div>

    <script>
        function displayLargestInteger(num1, num2) {
            if (num1 > num2) {
                return num1;
            } else {
                return num2;
            }
        }

        function findlargest(e){
            e.preventDefault();
            var num1 = parseInt(document.getElementById("num1").value);
            var num2 = parseInt(document.getElementById("num2").value);
            var result = displayLargestInteger(num1, num2);
            document.getElementById("result").innerHTML = "The largest integer
is: " + result; // Displaying the result
        }
    </script>
</body>
</html>
```

OUTPUT:



The largest integer is: 20

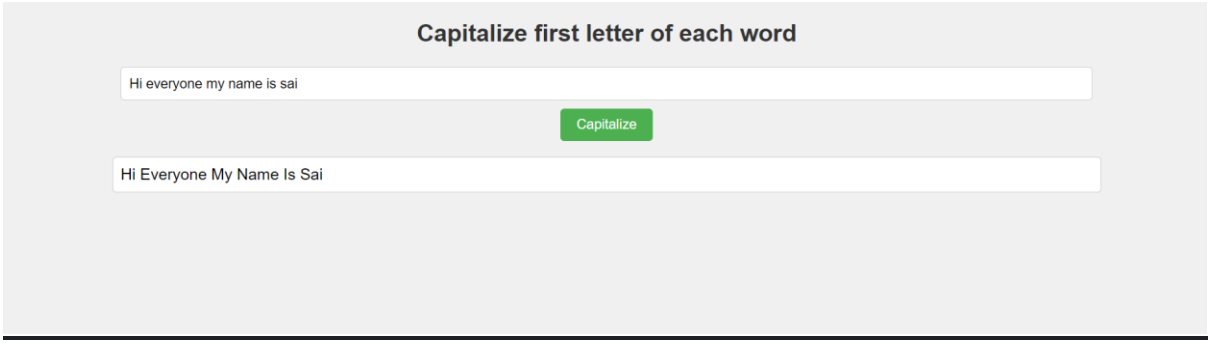
2. Write a JavaScript function that accepts a string as a parameter and converts the first letter of each word into upper case.

CODE:

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Capitalize</title>
<style>
    body {
        font-family: Arial, sans-serif;
        background-color: #f0f0f0;
        margin: 0;
        padding: 0;
    }

    h2 {
        text-align: center;
        color: #333;
    }

    input[type="text"] {
        width: 80%;
        padding: 10px;
        margin: 10px auto;
        display: block;
        border: 1px solid #ccc;
        border-radius: 5px;
        box-sizing: border-box;
    }

    button {
        padding: 10px 20px;
        margin: 10px auto;
        display: block;
        background-color: #4CAF50;
        color: white;
        border: none;
        border-radius: 5px;
        cursor: pointer;
    }

    button:hover {
```

```
        background-color: #45a049;
    }

    #output {
        width: 80%;
        margin: 20px auto;
        padding: 10px;
        background-color: #fff;
        border: 1px solid #ccc;
        border-radius: 5px;
    }
</style>
<script>
function capitalizeFirstLetterOfEachWord(str) {
    return str.replace(/\b\w/g, function(char) {

 /* \b\w matches the first character of each word in the string. The \b
ensures that it matches at the beginning of a word, and \w matches any word
character.
 /g ensures that this pattern is applied globally, so it finds all occurrences
of the pattern */

        return char.toUpperCase();
    });
}

function capitalizeAndDisplay() {
    let inputText = document.getElementById("inputText").value;
    let capitalizedText = capitalizeFirstLetterOfEachWord(inputText);
    document.getElementById("output").innerText = capitalizedText;
}
</script>
</head>
<body>

<h2>Capitalize first letter of each word</h2>

<input type="text" id="inputText" placeholder="Enter a sentence">
<button onclick="capitalizeAndDisplay()">Capitalize</button>
<div id="output"></div>

</body> </html>
```

OUTPUT:



3. Write a Java Script to create a simple calculator.

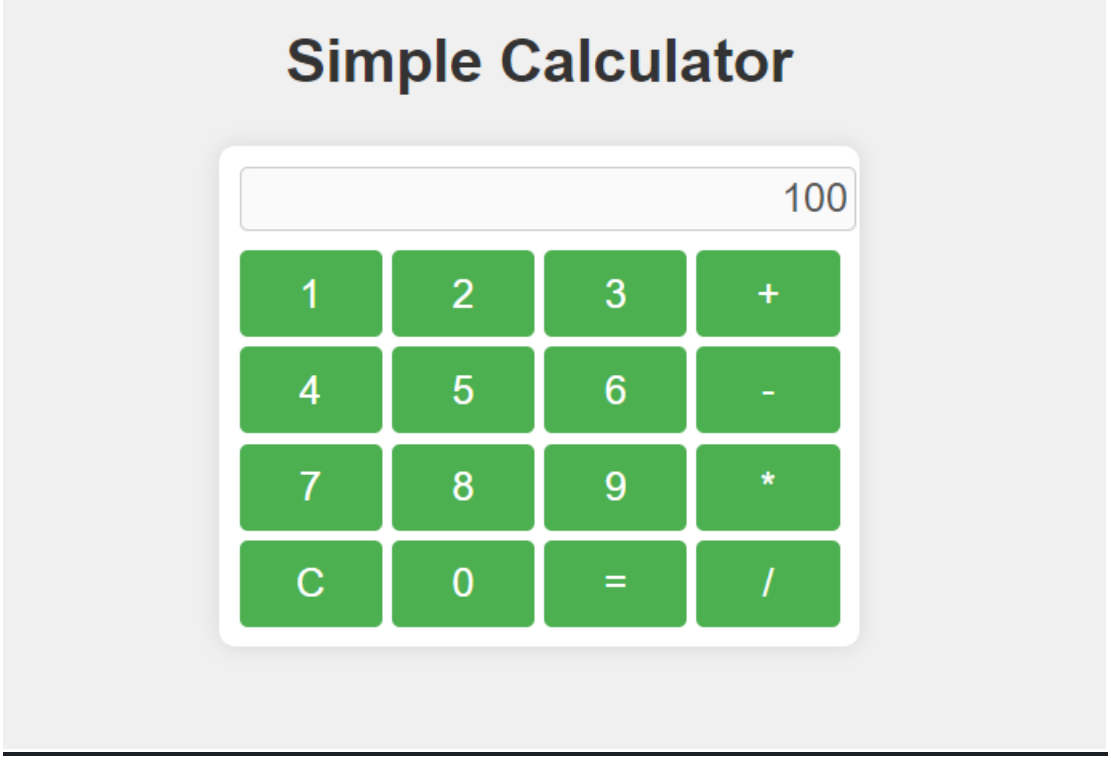
CODE:

```
<!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;
        background-color: #f0f0f0;
        margin: 0;
        padding: 0;
    }
    h2 {
        text-align: center;
        color: #333;
    }
    .calculator {
        width: 300px;
        margin: 20px auto;
        padding: 10px;
        background-color: #fff;
        border-radius: 8px;
        box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
    }
    #display {
        width: 100%;
        margin-bottom: 10px;
        padding: 3.5px;
        font-size: 20px;
        text-align: right;
```

```
        border: 1px solid #ccc;
        border-radius: 4px;
        margin-right: 30px;
    }
    .btn-container {
        display: grid;
        grid-template-columns: repeat(4, 1fr);
        grid-gap: 5px;
    }
    input[type="button"] {
        padding: 10px;
        font-size: 20px;
        background-color: #4CAF50;
        color: white;
        border: none;
        border-radius: 4px;
        cursor: pointer;
    }
    input[type="button"]:hover {
        background-color: #45a049;
    }
</style>
</head>
<body>

<h2>Simple Calculator</h2>

<div class="calculator">
    <input type="text" id="display" disabled>
    <div class="btn-container">
        <input type="button" value="1" onclick="appendToDisplay('1')">
        <input type="button" value="2" onclick="appendToDisplay('2')">
        <input type="button" value="3" onclick="appendToDisplay('3')">
        <input type="button" value="+" onclick="appendToDisplay('+')">
        <input type="button" value="4" onclick="appendToDisplay('4')">
        <input type="button" value="5" onclick="appendToDisplay('5')">
        <input type="button" value="6" onclick="appendToDisplay('6')">
        <input type="button" value="-" onclick="appendToDisplay('-')">
        <input type="button" value="7" onclick="appendToDisplay('7')">
        <input type="button" value="8" onclick="appendToDisplay('8')">
        <input type="button" value="9" onclick="appendToDisplay('9')">
        <input type="button" value="*" onclick="appendToDisplay('*')">
        <input type="button" value="C" onclick="clearDisplay()">
        <input type="button" value="0" onclick="appendToDisplay('0')">
        <input type="button" value="=" onclick="calculate()">
        <input type="button" value="/" onclick="appendToDisplay('/')">
    </div>
</div>
```

```
<script>
function appendToDisplay(value) {
    document.getElementById('display').value += value;
}

function clearDisplay() {
    document.getElementById('display').value = '';
}

function calculate() {
    let expression = document.getElementById('display').value;
    let result = eval(expression); /*built in JS func */
    document.getElementById('display').value = result;
}
</script>

</body>
</html>
```

OUTPUT:



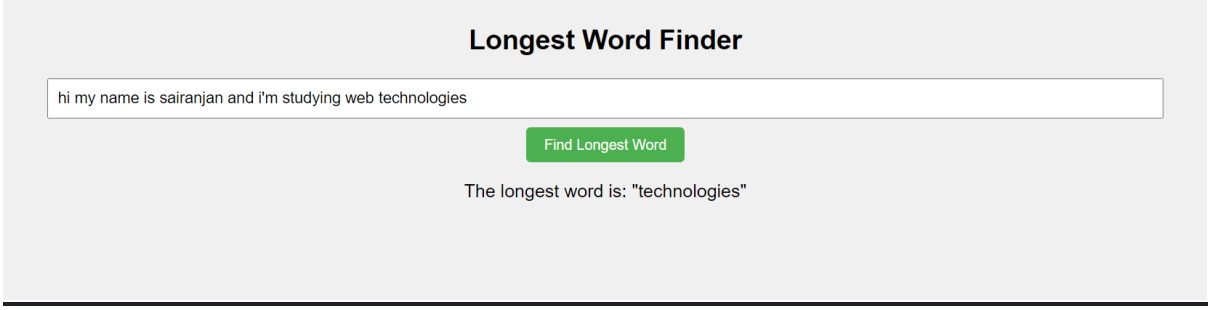
4. Write a JavaScript function that accepts a string as a parameter and finds the longest word within the string.

CODE:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Longest Word Finder</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #f0f0f0;
      margin: 0;
      padding: 0;
    }
    #container {
      width: 80%;
      margin: 50px auto;
      text-align: center;
    }
    input[type="text"] {
      width: 100%;
      padding: 10px;
      margin-bottom: 10px;
      box-sizing: border-box;
    }
    button {
      padding: 10px 20px;
      font-size: 16px;
      background-color: #4CAF50;
      color: white;
      border: none;
      border-radius: 5px;
      cursor: pointer;
    }
    button:hover {
      background-color: #45a049;
    }
    #result {
      margin-top: 20px;
    }
  </style>
</head>
<body>

<div id="container">
  <h2>Longest Word Finder</h2>
  <input type="text" id="inputString" placeholder="Enter your sentence here">
```

```
  <button type="button" onclick="findLongestWord()">Find Longest Word</button>
  <p id="result"></p>
</div>

<script>
  function findLongestWord() {
    const inputString = document.getElementById("inputString").value.trim();

    if (!inputString) {
      alert("Please enter a sentence.");
      return;
    }

    const words = inputString.split(/\s+/); /*\s+ matches one or more
whitespace characters */

    let longestWord = "";
    let longestWordLength = 0;

    for (const word of words) {
      if (word.length > longestWordLength) {
        longestWord = word;
        longestWordLength = word.length;
      }
    }
    const resultElement = document.getElementById("result");
    resultElement.textContent = `The longest word is: "${longestWord}"`;
  }
</script>
</body>
</html>
```

OUTPUT:



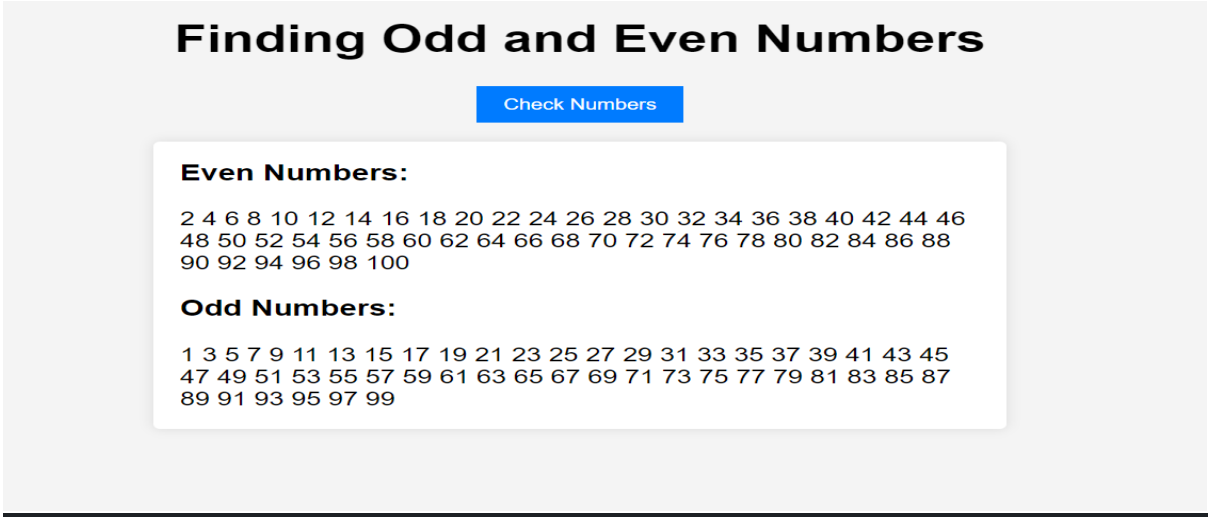
5. Write a JavaScript program to find odd and even numbers from 1 to 100.

CODE:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Odd and Even Numbers</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      margin: 0;
      padding: 0;
      background-color: #f4f4f4;
    }

    h1 {
      text-align: center;
    }

    button {
      display: block;
      margin: 20px auto;
      padding: 10px 20px;
      font-size: 16px;
      border: none;
      background-color: #007bff;
      color: #fff;
      cursor: pointer;
    }

    button:hover {
      background-color: #0056b3;
    }

    #results {
      max-width: 600px;
      margin: 0 auto;
      padding: 20px;
      background-color: #fff;
      border-radius: 5px;
      box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
    }

    h3 {
      margin-top: 0;
    }
```

```
    p {
      margin: 0;
    }
  </style>
</head>
<body>
  <h1>Finding Odd and Even Numbers</h1>
  <button onclick="checkNumbers()">Check Numbers</button>
  <div id="results"></div>
  <script>
    function checkNumbers() {
      const results = document.getElementById("results");
      results.innerHTML = ""; // Clear previous results

      let evenNumbers = "";
      let oddNumbers = "";

      for (let i = 1; i <= 100; i++) {
        if (i % 2 === 0) {
          evenNumbers += i + " ";
        } else {
          oddNumbers += i + " ";
        }
      }

      results.innerHTML = `<h3>Even Numbers:</h3> <p>${evenNumbers}</p> <br>
<h3>Odd Numbers:</h3> <p>${oddNumbers}</p>`;
    }
  </script>
</body>
</html>
```

OUTPUT:



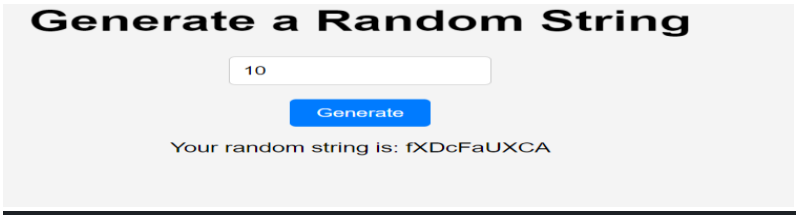
6. Write a JavaScript program to generate a random string.

CODE:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Random String Generator</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      margin: 0;
      padding: 0;
      background-color: #f4f4f4;
    }

    h1 {
      text-align: center;
    }

    input[type="number"] {
      display: block;
      margin: 20px auto;
      padding: 10px;
      font-size: 16px;
      width: 200px;
      border: 1px solid #ccc;
      border-radius: 5px;
      box-sizing: border-box;
    }

    button {
      display: block;
      margin: 10px auto;
      padding: 10px 20px;
      font-size: 16px;
      border: none;
      background-color: #007bff;
      color: #fff;
      cursor: pointer;
      border-radius: 5px;
    }

    button:hover {
```

```
      background-color: #0056b3;
    }

    p#result {
      text-align: center;
      margin-top: 20px;
      font-size: 18px;
    }
  </style>
</head>
<body>
  <h1>Generate a Random String</h1>
  <input type="number" id="stringLength" placeholder="Enter String Length">
  <button onclick="generateString()">Generate</button>
  <p id="result"></p>
  <script>
    function generateString() {
      const stringLength = document.getElementById("stringLength").value;
      const result = document.getElementById("result");

      if (stringLength === "" || isNaN(stringLength) || stringLength <= 0) {
        result.textContent = "Please enter a valid positive number for string
length.";
        return;
      }

      const characters =
"ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789";
      let randomString = "";

      for (let i = 0; i < stringLength; i++) {
        const randomIndex = Math.floor(Math.random() * characters.length);
        randomString += characters.charAt(randomIndex);
      }
      result.textContent = "Your random string is: " + randomString;
    }
  </script>
</body>
</html>
```

OUTPUT:



7. Write a JavaScript Program to Print All Prime Numbers in an Interval.

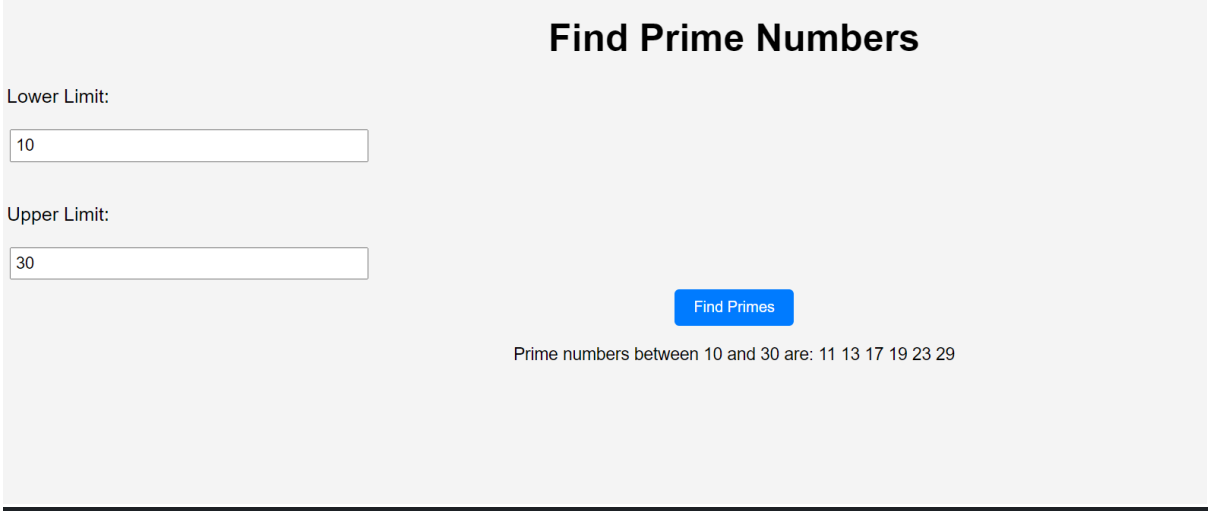
CODE:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Prime Number Finder</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      margin: 0;
      padding: 0;
      background-color: #f4f4f4;
      margin-left: 4px;
    }

    h1 {
      text-align: center;
    }

    label {
      display: block;
      margin-top: 10px;
    }

    input[type="number"] {
      display: block;
      margin-bottom: 10px;
      padding: 5px;
      width: calc(25% - 5px);
      box-sizing: border-box;
      margin-left:3px ;
    }

    button {
      display: block;
      margin: 10px auto;
      padding: 10px 20px;
      font-size: 16px;
      border: none;
      background-color: #007bff;
      color: #fff;
      cursor: pointer;
```

```
      border-radius: 5px;
    }

    button:hover {
      background-color: #0056b3;
    }

    p#result {
      text-align: center;
      margin-top: 20px;
      font-size: 18px;
    }
  </style>
</head>
<body>
  <h1>Find Prime Numbers</h1>
  <label for="lowerLimit">Lower Limit:</label> <br>
  <input type="number" id="lowerLimit" placeholder="Enter lower limit"> <br>
  <label for="upperLimit">Upper Limit:</label> <br>
  <input type="number" id="upperLimit" placeholder="Enter upper limit">
  <button onclick="findPrimes()">Find Primes</button>
  <p id="result"></p>
  <script>
    function isPrime(num) {
      if (num <= 1) {
        return false;
      }
      for (let i = 2; i <= Math.sqrt(num); i++) {
        if (num % i === 0) {
          return false;
        }
      }
      return true;
    }

    function findPrimes() {
      const lowerLimit =
parseInt(document.getElementById("lowerLimit").value);
      const upperLimit =
parseInt(document.getElementById("upperLimit").value);
      const result = document.getElementById("result");

      result.textContent = "Prime numbers between " + lowerLimit + " and " +
upperLimit + " are:";

      for (let i = lowerLimit; i <= upperLimit; i++) {
        if (isPrime(i)) {
          result.textContent += " " + i;
```

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

OUTPUT:



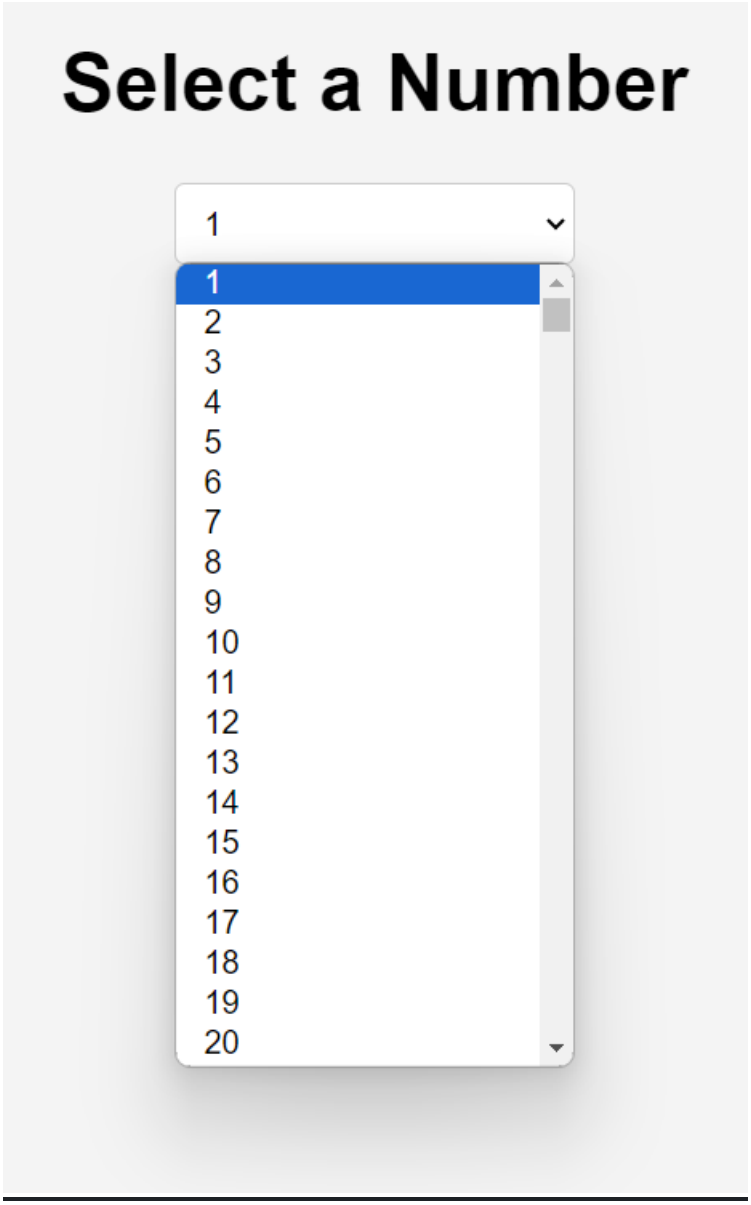
8. Write a JavaScript program to populate a drop-down box from 1 to 1000.

CODE:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Number Dropdown</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      margin: 0;
      padding: 0;
      background-color: #f4f4f4;
    }

    h1 {
      text-align: center;
```

```
    }

    select {
      display: block;
      margin: 20px auto;
      padding: 10px;
      font-size: 16px;
      width: 200px;
      border: 1px solid #ccc;
      border-radius: 5px;
      box-sizing: border-box;
    }
  </style>
</head>
<body>
  <h1>Select a Number</h1>
  <select id="numberDropdown"></select>
  <script>
    const dropdown = document.getElementById("numberDropdown");

    function populateDropdown() {
      for (let i = 1; i <= 1000; i++) {
        const option = document.createElement("option");
        option.value = i;
        option.text = i;
        dropdown.appendChild(option);
      }
    }

    populateDropdown();
  </script>
</body>
</html>
```

OUTPUT:


Select a Number
1
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20