

Copilot

Creating a prime number series using HTML and JavaScript involves writing a script to identify and display prime numbers. Here's a simple example to get you started:

HTML Code

First, create the HTML structure:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Prime Number Series</title>
  <script src="prime-series.js"></script>
</head>
<body>
  <h1>Prime Number Series</h1>
  <label for="limit">Enter a number:</label>
  <input type="number" id="limit" name="limit">
  <button onclick="generatePrimes()">Generate Primes</button>
  <div id="result"></div>
</body>
</html>
```

JavaScript Code

Next, add the JavaScript code to find and display prime numbers:

```
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 generatePrimes() {
  const limit = document.getElementById('limit').value;
  const resultDiv = document.getElementById('result');
  resultDiv.innerHTML = '';

  for (let i = 2; i <= limit; i++) {
    if (isPrime(i)) {
      resultDiv.innerHTML += i + ' ';
    }
  }
}
```

Explanation

- **HTML:** The form includes an input field for the user to enter a number and a button to trigger the prime number generation.
- **JavaScript:**
 - The `isPrime` function checks if a number is prime by testing divisibility up to the square root of the number.
 - The `generatePrimes` function retrieves the user input, checks each number up to the limit, and displays the prime numbers in the result div.

This example will generate and display all prime numbers up to the number entered by the user. Would you like to see more advanced features or have any specific requirements for this script?