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

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <link rel="stylesheet" href="prime.css">
  <title>Document</title>
</head>

<body>
  <div class="input-container">
    <input type="text" id="number-input" placeholder="Enter Number" onkeypress="enterSubmit(event)"
onsubmit="return false;">
    <button style="display:inline" id="start-button" onclick="startClick()">START</button>
  </div>
  <div class="container">
    <div class="prime-list">
      <h2>Prime Numbers</h2>
      <ul id="prime-numbers"></ul>
      <button onclick="calcSum('prime')">SUM</button><p class = "sum" id="nonP-total">Total: 0</p>
    </div>
    <div class="non-prime-list">
      <h2>Non-Prime Numbers</h2>
      <ul id="non-prime-numbers">
        </ul>
      <button onclick="calcSum('nonPrime')">SUM</button><p class="sum" id="p-total">Total: 0</p>
    </div>
  </div>
  <script src="prime.js"></script>
</body>

</html>

```

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// Thomas Personett
// 10/04/2023
// CPSC 3750
// program exam #1
// grade level you completed - A

```

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document.addEventListener("DOMContentLoaded", function () {
  var primeList = document.getElementById("prime-numbers");
  var nonPrimeList = document.getElementById("non-prime-numbers");
  var startButton = document.getElementById("start-button");
  var totalNonP = document.getElementById("nonP-total");
  var totalPrime = document.getElementById("p-total");
  var inputNum = document.getElementById("number-input");

  isPrime = (n) => {
    if (n === 1) return false;
    for (var i = 2; i <= Math.sqrt(n); i++) {

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    if (n % i === 0) {
        return false;
    }
}
return true;
};

genLists = (n) => {
    for (var i = 1; i <= n; i++) {
        var listItem = document.createElement("li");
        listItem.textContent = i;
        if (isPrime(i)) {
            primeList.appendChild(listItem);
        } else {
            nonPrimeList.appendChild(listItem);
        }
    }
};

changeColors = () => {
    primeList.style.backgroundColor = getRandomColor();
    nonPrimeList.style.backgroundColor = getRandomColor();
};

getRandomColor = () => {
    var varters = "0123456789ABCDEF";
    var color = "#";
    for (var i = 0; i < 6; i++) {
        color += varters[Math.floor(Math.random() * 16)];
    }
    return color;
};

calcSum = (type) => {
    var list, field, p;
    if (type === "prime") {
        list = primeList;
        field = totalNonP;
    } else {
        list = nonPrimeList;
        field = totalPrime;
    }
    var items = list.querySelectorAll("li");
    var sum = 0;
    items.forEach((item) => {
        sum += parseInt(item.innerHTML);
    });
    field.innerHTML = "Total: "+sum;
};

startClick = () => {
    genLists(num.value);
    setInterval(changeColors, 5000);
};

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enterSubmit = (event) => {  
  if (event.keyCode === 13) {  
    startButton.click();  
  }  
};  
});
```

```
.container {  
  display: flex;  
  justify-content: space-between;  
}
```

```
.input-container {  
  text-align: center;  
}
```

```
.prime-list,  
.non-prime-list {  
  width: 45%;  
  padding: 10px;  
  border: 1px solid #4e4e4e;  
  margin: 10px;  
  transition: background-color 5s;  
}
```

```
button {  
  display: block;  
  margin-top: 10px;  
  display: inline;  
}
```

```
p.sum {  
  display: inline;  
  margin-left: 10px;  
}
```