T1

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

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Background Color Changer</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      text-align: center;
    }

    #container {
      margin-top: 100px;
    }

    h1 {
      color: white;
      background-color: dodgerblue;
      padding: 20px;
      border-radius: 10px;
    }

    #changeButton {
      margin-top: 20px;
      padding: 10px 20px;
      font-size: 16px;
      cursor: pointer;
    }
  </style>
</head>

<body>

  <div id="container">
    <h1 id="heading">Welcome!</h1>
    <button id="changeButton" onclick="changeBackground()">Change Background Color</button>
  </div>

  <script>
    function changeBackground() {
      var heading = document.getElementById("heading");
      var button = document.getElementById("changeButton");

      var r = Math.floor(Math.random() * 256);
      var g = Math.floor(Math.random() * 256);
      var b = Math.floor(Math.random() * 256);

      document.body.style.backgroundColor = "rgb(" + r + "," + g + "," + b + ")";
```
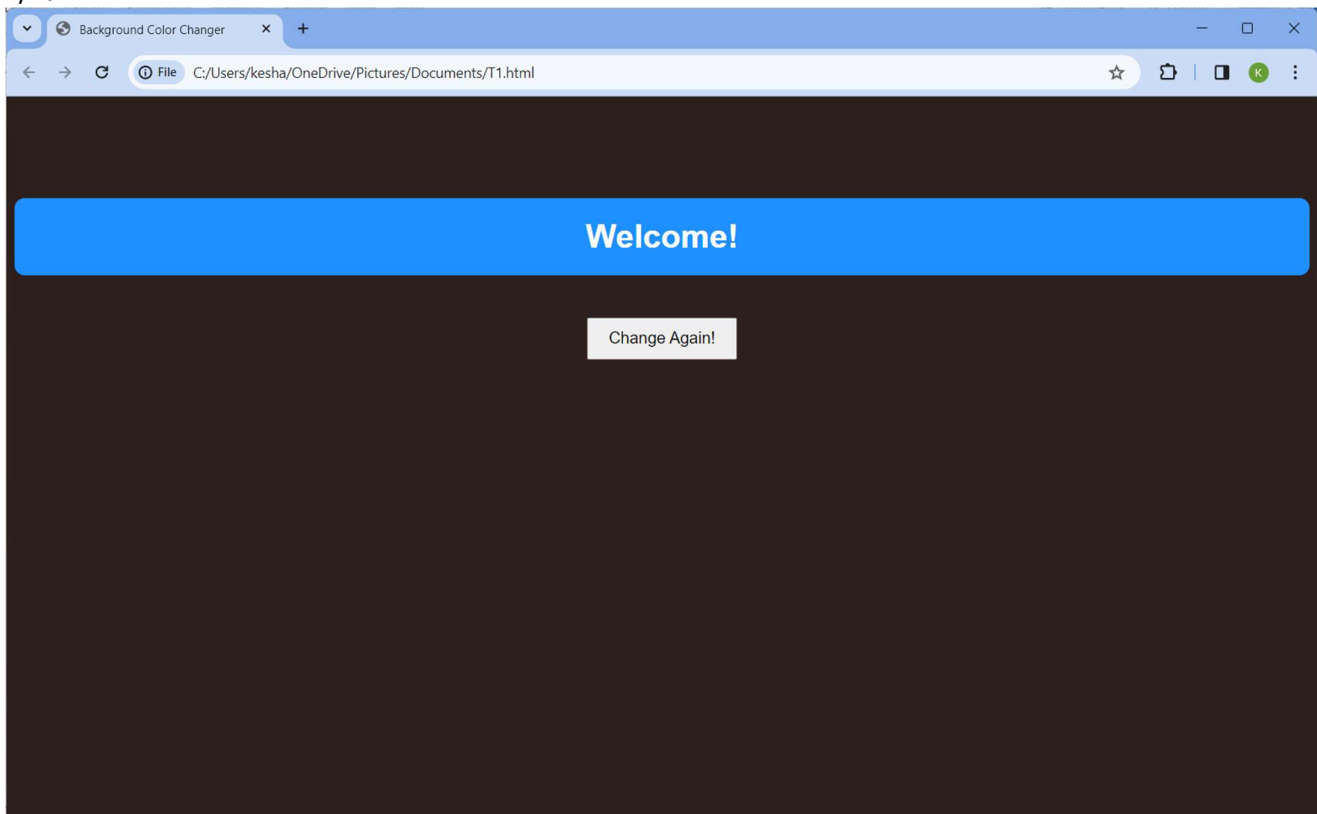
```
        var brightness = (r * 299 + g * 587 + b * 114) / 1000;
        var textColor = (brightness > 125) ? "black" : "white";
        heading.style.color = textColor;

        button.textContent = "Change Again!";
      }
    </script>

  </body>

</html>
```


T2

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

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Background Color Changer</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      text-align: center;
    }

    #container {
      margin-top: 100px;
    }

    h1 {
```

```html
            color: white;
            background-color: dodgerblue;
            padding: 20px;
            border-radius: 10px;
        }

        #changeButton {
            margin-top: 20px;
            padding: 10px 20px;
            font-size: 16px;
            cursor: pointer;
        }
    </style>
</head>

<body>

    <div id="container">
        <h1 id="heading">Welcome!</h1>
        <button id="changeButton" onclick="changeBackground()">Change Background Color</button>
        <button onclick="changeText()">Click Me</button>
    </div>

    <script>
        function changeBackground() {
            document.body.style.backgroundColor = "lightgreen";

            var heading = document.getElementById("heading");
            heading.style.color = "red";

            heading.style.fontSize = "48pt";
        }

        function changeText() {
            var heading = document.getElementById("heading");
            heading.textContent = "Greetings!";
        }
    </script>

</body>

</html>
```
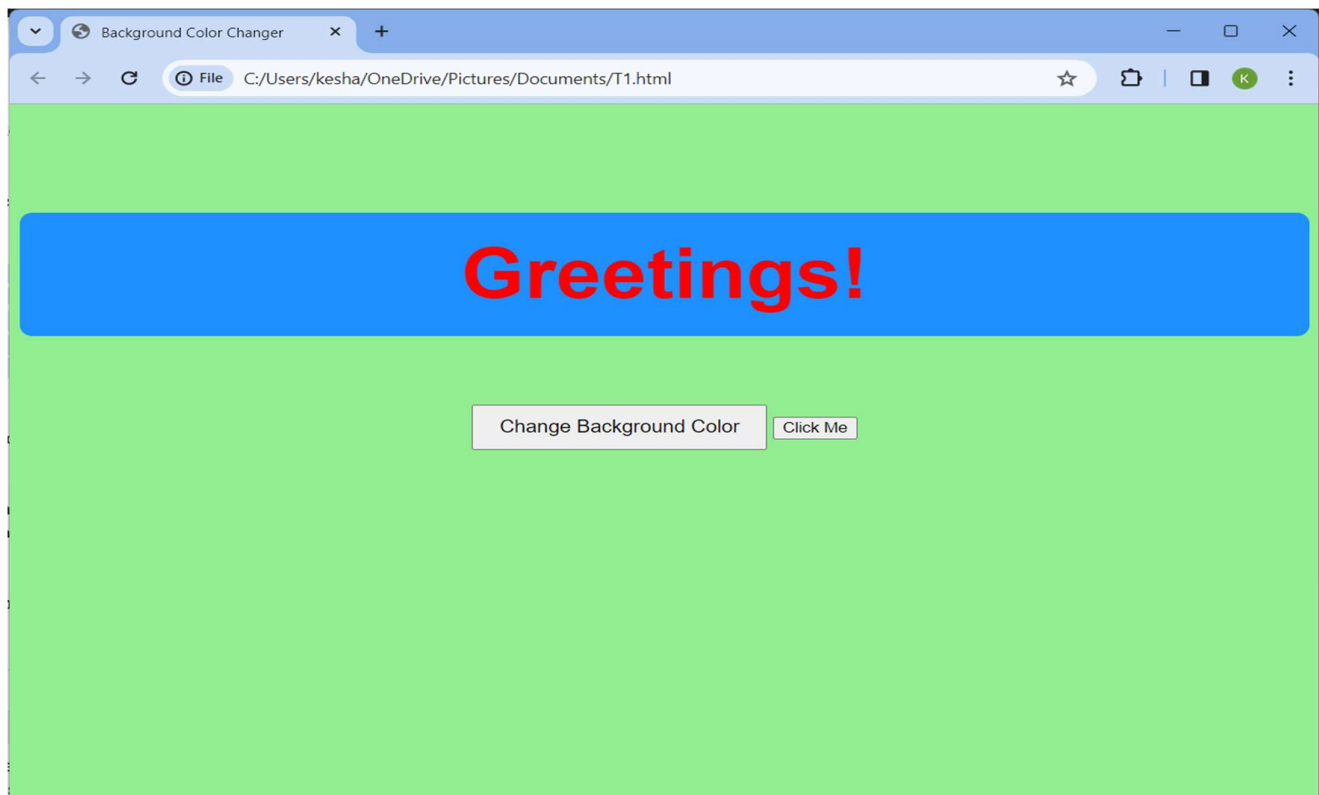
T3

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

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Background Color Changer</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      text-align: center;
    }

    .light-green-bg {
      background-color: lightgreen;
    }

    #container {
      margin-top: 100px;
    }

    h1 {
      color: white;
      background-color: dodgerblue;
      padding: 20px;
      border-radius: 10px;
    }

    #changeButton {
      margin-top: 20px;
      padding: 10px 20px;
```

```
        font-size: 16px;
        cursor: pointer;
      }
  </style>
</head>

<body>

  <div id="container">
    <h1 id="heading">Welcome!</h1>
    <button id="changeButton" onclick="changeBackground()">Change Background Color</button>
  </div>

  <script>
    function changeBackground() {
      alert("Before assigning class attribute");

      document.body.className = "light-green-bg";

      alert("After assigning class attribute");
    }
  </script>

</body>

</html>
```

T4

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

<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Content Replacement</title>
    <style>
        body {
            font-family: Arial, sans-serif;
            text-align: center;
        }

        main {
            margin: 20px;
            padding: 20px;
            border: 2px solid #ccc;
            border-radius: 10px;
        }

        .original-content {
            color: #333;
        }

        .new-content {
            color: red;
            font-weight: bold;
        }

        #changeButton {
            margin-top: 20px;
            padding: 10px 20px;
            font-size: 16px;
            cursor: pointer;
        }
    </style>
</head>

<body>

    <h1>Page Content</h1>

    <main class="original-content">
        <p>This is the original content within the main section.</p>
    </main>

    <button id="changeButton" onclick="changeContent()">Change Main Content</button>

    <script>
        function changeContent() {
            var mainSection = document.querySelector("main");
            mainSection.innerHTML = "<p class='new-content'>This is the new content with different styles.</p>";
        }
    </script>
```
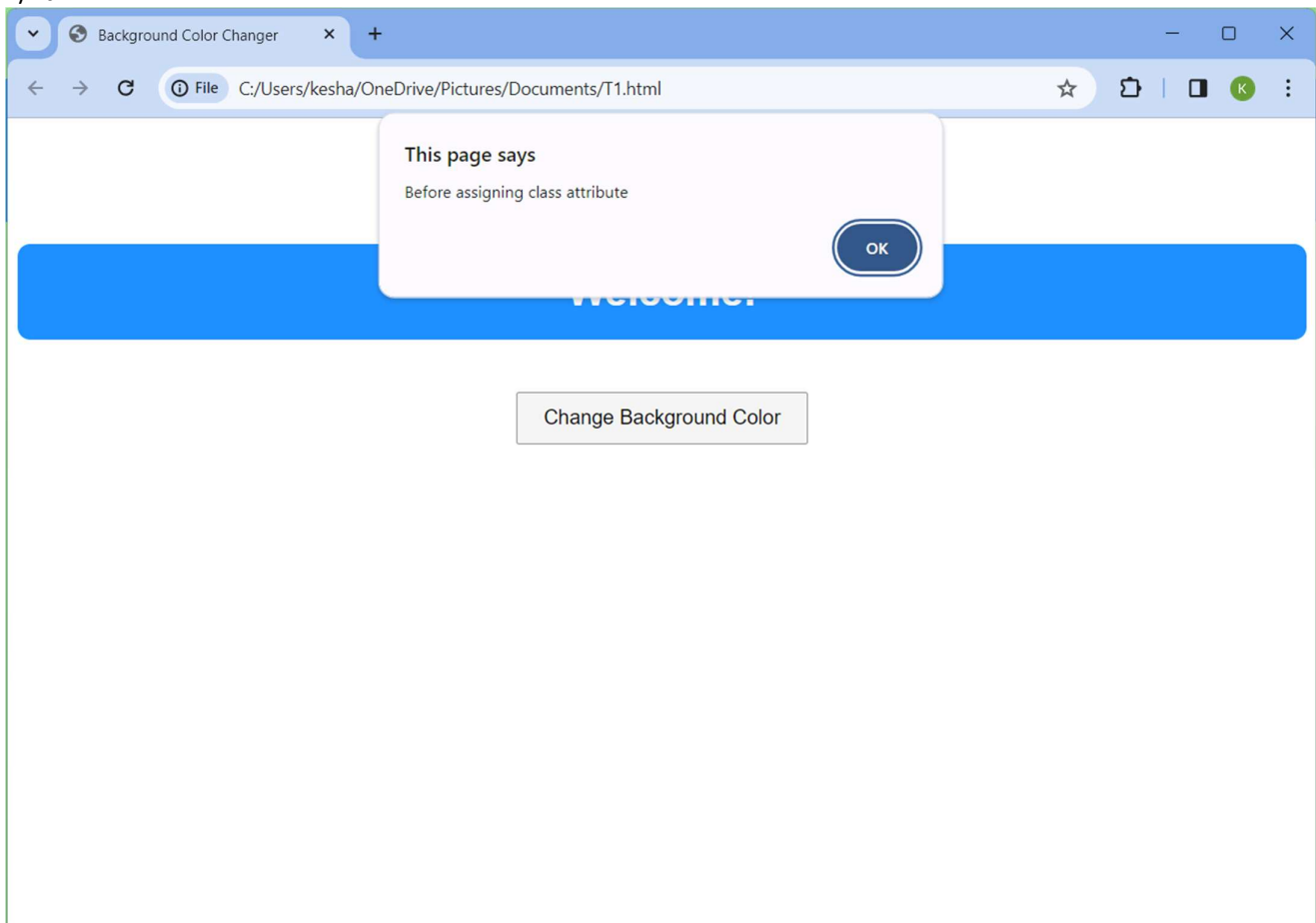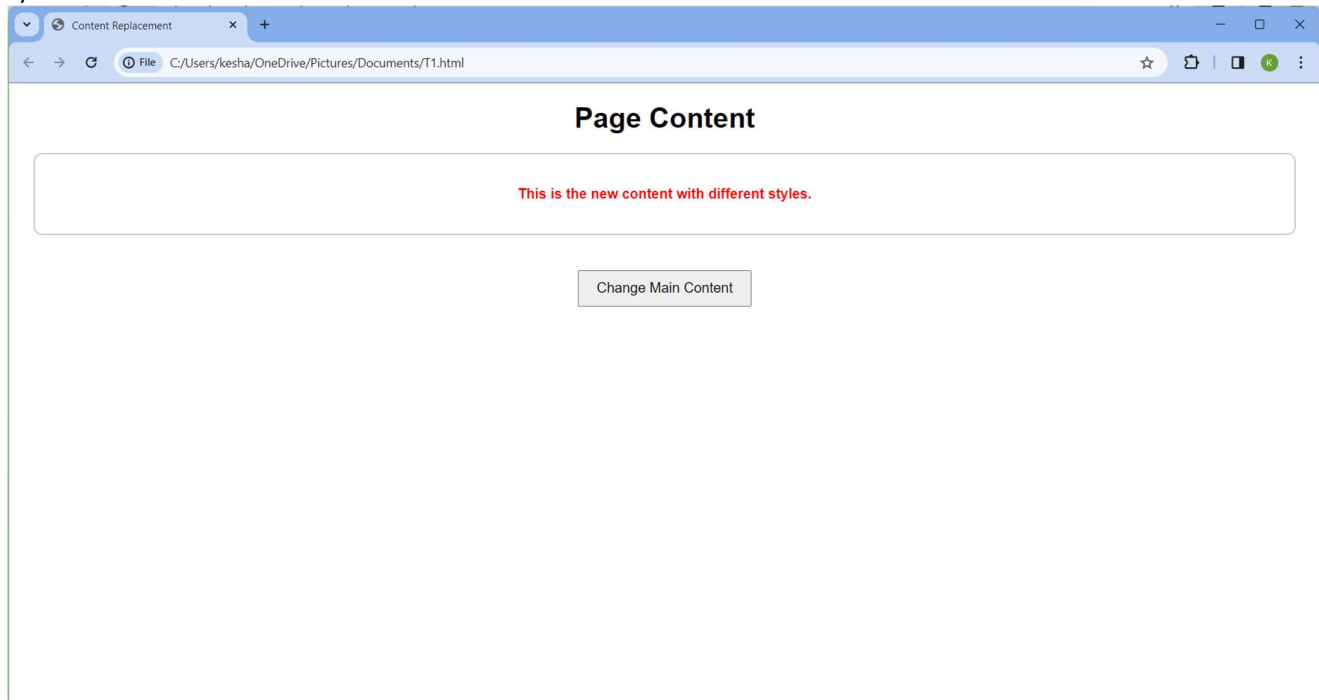
</body>

</html>

T5

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

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Heading Color Change</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      text-align: center;
    }

    main {
      margin: 20px;
      padding: 20px;
      border: 2px solid #ccc;
      border-radius: 10px;
    }

    .original-content {
      color: #333;
    }

    h1 {
      margin-top: 50px;
      color: blue;
      /* Default color */
    }
  </style>
</head>
```

```
<body>

  <h1>This is a heading outside the main section.</h1>

  <main class="original-content">
    <p>This is the original content within the main section.</p>
  </main>

  <button onclick="changeHeadingColor()">Change Heading Color</button>

  <script>
    function changeHeadingColor() {
      var heading = document.querySelector("h1");

      // Method 1: Changing color using inline style
      heading.style.color = "red";

      // Method 2: Changing color using a class
      heading.className = "green-text";

      // Method 3: Changing color using direct attribute manipulation
      heading.setAttribute("style", "color: purple;");
    }
  </script>

</body>

</html>
```


T6

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

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Browser Grid</title>
  <style>
    .grid-container {
      display: grid;
```

```
      grid-template-columns: repeat(5, 1fr);
      gap: 10px;
      padding: 20px;
    }

    .grid-item img {
      width: 100%;
      max-width: 100px;
      height: auto;
      display: block;
      margin: 0 auto;
    }

    .grid-item {
      text-align: center;
    }
  </style>
</head>

<body>
  <div class="grid-container">

    <div class="grid-item"><img
        src="https://upload.wikimedia.org/wikipedia/commons/8/87/Google_Chrome_icon_%282011%29.png"
        alt="Chrome">
    </div>
    <div class="grid-item"><img
        src="https://upload.wikimedia.org/wikipedia/commons/thumb/2/28/Firefox_logo%2C_2017.svg/2048px-
Firefox_logo%2C_2017.svg.png"
        alt="Firefox"></div>
    <div class="grid-item"><img src="https://static-00.iconduck.com/assets.00/edge-icon-2048x2048-amdajrk0.png"
        alt="Edge"></div>
    <div class="grid-item"><img
        src="https://upload.wikimedia.org/wikipedia/commons/thumb/5/52/Safari_browser_logo.svg/2057px-
Safari_browser_logo.svg.png"
        alt="Safari"></div>
    <div class="grid-item"><img
        src="https://upload.wikimedia.org/wikipedia/commons/thumb/4/49/Opera_2015_icon.svg/512px-
Opera_2015_icon.svg.png"
        alt="Opera"></div>


    <div class="grid-item">57.0</div>
    <div class="grid-item">52.0</div>
    <div class="grid-item">16.0</div>
    <div class="grid-item">10</div>
    <div class="grid-item">44</div>
  </div>

</body>

</html>
```
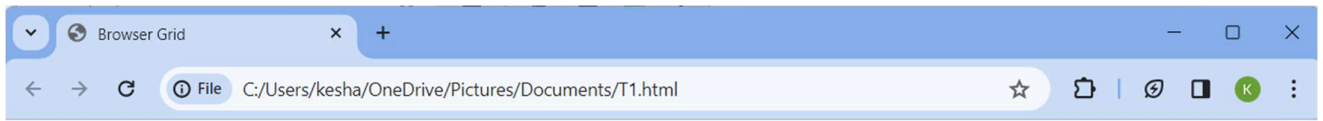
57.0

52.0

16.0

10

44