

Web Technology Lab

Assignment - 4

Name: Dushaynth

Roll No: 22MC3038

T1. Create a webpage that has a heading and a button. Write a script to change the background color and text when the button is clicked.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>LAB 4</title>
  <style>
body {
    font-family: Arial,
sans-serif;
text-align: center;
padding: 20px;
}

    h1 {
color: #333;
    }

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

  <h1 id="heading">Click the button to change color!</h1>
  <button id="changeButton" onclick="changeColor()">Change
Color</button>
```

```

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

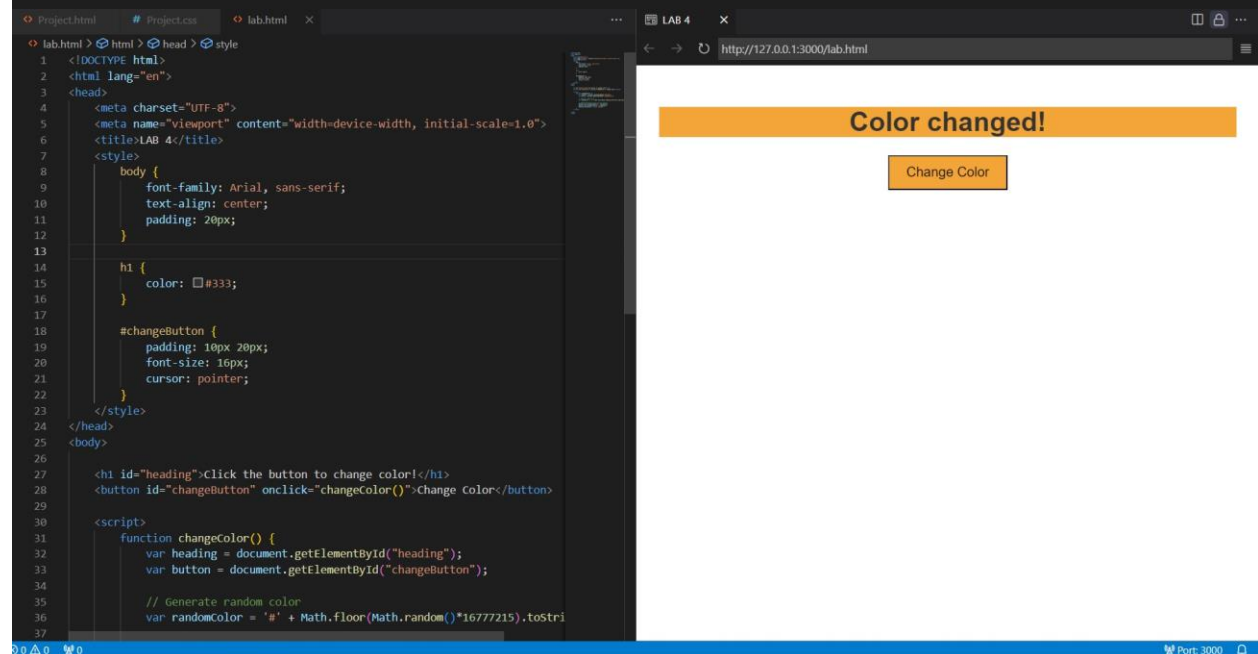
        // Generate random color
var randomColor = '#' +
Math.floor(Math.random()*16777215).toString(16);

        // Change background color and text content
heading.style.backgroundColor = randomColor;
button.style.backgroundColor = randomColor;
heading.textContent = "Color changed!";          }

</script>

</body>
</html>

```



T2. For T1, experiment with the Javascript code by trying the following things:

a. Make the background light green.

- b. Add a line that makes the text red.
- c. Change the fontSize to 48pt.
- d. Change the wording inside the <h1> tag in the Javascript.
- e. Add <button>Click Me</button> after the closing </h1>.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>LAB 4</title>    <style>
body {
    font-family: Arial,
sans-serif;            text-align: center;
padding: 20px;        }

    h1 {
color: #333;            }

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

  <h1 id="heading">Click the button to change color!</h1>
  <button id="changeButton" onclick="changeColor()">Change
Color</button>

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

```

        // Change background color to light green
heading.style.backgroundColor = 'lightgreen';

        // Change text color to red
heading.style.color = 'red';

        // Change font size to 48pt
heading.style.fontSize = '48pt';

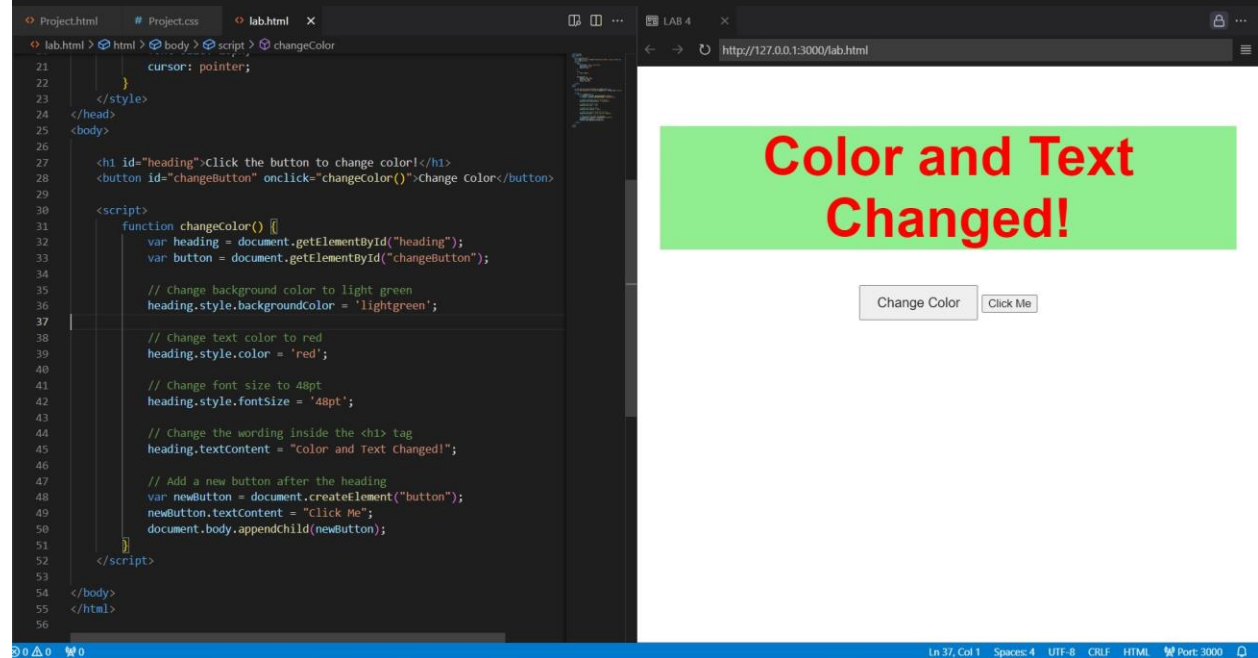
        // Change the wording inside the <h1> tag
heading.textContent = "Color and Text Changed!";

        // Add a new button after the heading
var newButton = document.createElement("button");
newButton.textContent = "Click Me";
document.body.appendChild(newButton);
    }

</script>

</body>
</html>

```



T3. For T1, set the color of the background directly with the class attribute. Generate alerts before and after assigning the class attribute to document object.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>LAB 4</title>    <style>
body {
    font-family: Arial,
sans-serif;          text-align: center;
padding: 20px;      }

    .lightGreenBackground {
background-color: lightgreen;      }

    h1 {
color: #333;          }

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

  <h1 id="heading">Click the button to change color!</h1>
  <button id="changeButton" onclick="changeColor()">Change
Color</button>

  <script>          function
changeColor() {
```

```
        var heading = document.getElementById("heading");
var button = document.getElementById("changeButton");

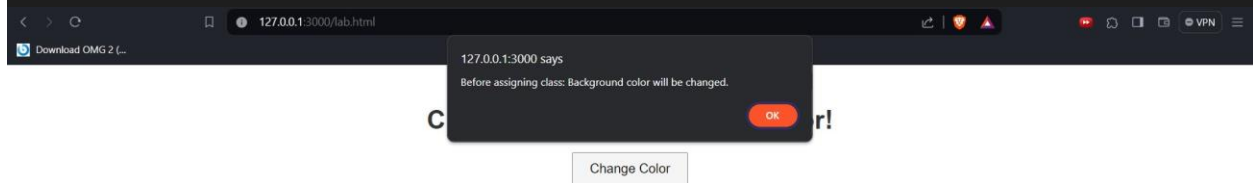
        // Alert before assigning the class
alert("Before assigning class: Background color will be changed.");

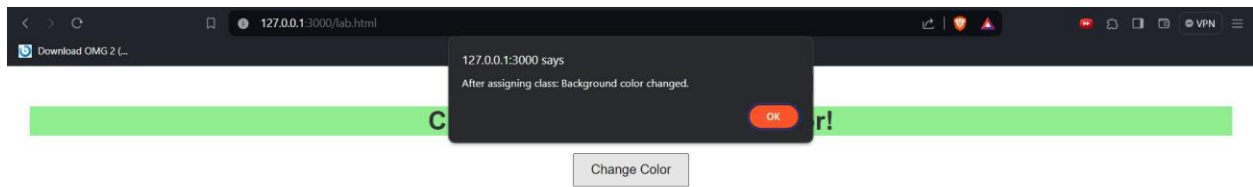
        // Assign the class to change the background color
heading.classList.add("lightGreenBackground");

        alert("After assigning class: Background color changed.");

    }
</script>

</body>
</html>
```





T4. Design a page having contents within and outside the main section. The page must contain a button that when clicked replaces the content of the main section with another content having different style.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>LAB 4</title>  <style>
body {
    font-family: Arial,
sans-serif;          text-align: center;
padding: 20px;        }

    main {
        border:
2px solid #333;
padding: 20px;        margin:
20px;
    }
```



```

        #changeButton {
padding: 10px 20px;
font-size: 16px;
cursor: pointer;        }

        .newContent {
color: red;              font-
size: 24px;              font-
weight: bold;            }
    </style>
</head>
<body>

    <header>
        <h1>Webpage with Content Replacement</h1>
    </header>

    <main id="mainSection">
        <p>This is the initial content of the main section.</p>
    </main>

    <button id="changeButton" onclick="replaceContent()">Replace
Content</button>

    <footer>
        <p>Footer content outside the main section.</p>
    </footer>

    <script>        function replaceContent() {                var
mainSection = document.getElementById("mainSection");

        // Create new content                var newContent =
document.createElement("p");                newContent.textContent =
"This is the new content with a different style.";
newContent.classList.add("newContent");

```

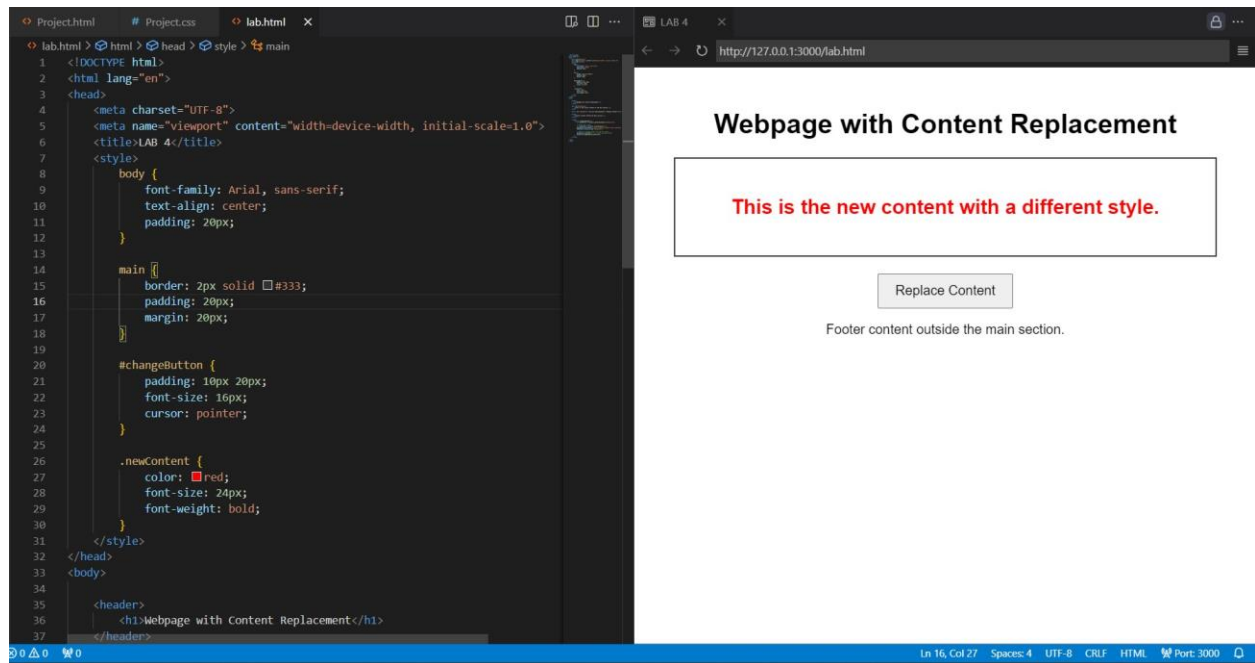
```

        // Replace existing content with the new content
mainSection.innerHTML = ""; // Clear existing content
mainSection.appendChild(newContent);
    }

</script>

</body>
</html>

```



T5. Consider a h1 heading lying outside the main section in the page. Try changing the color of h1 in at least 3 different ways.

```

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>LAB 4</title>
    <style>
body {
    font-family: Arial,
sans-serif;
text-align: center;
padding: 20px;
    }

```

```
        h1 {                margin-
bottom: 20px;                }

        /* Method 1: Using a specific color */
.method1 {                  color: red;                }

        /* Method 2: Using hexadecimal color code
*/
        .method2 {          color: #00ff00;
/* Green color */          }

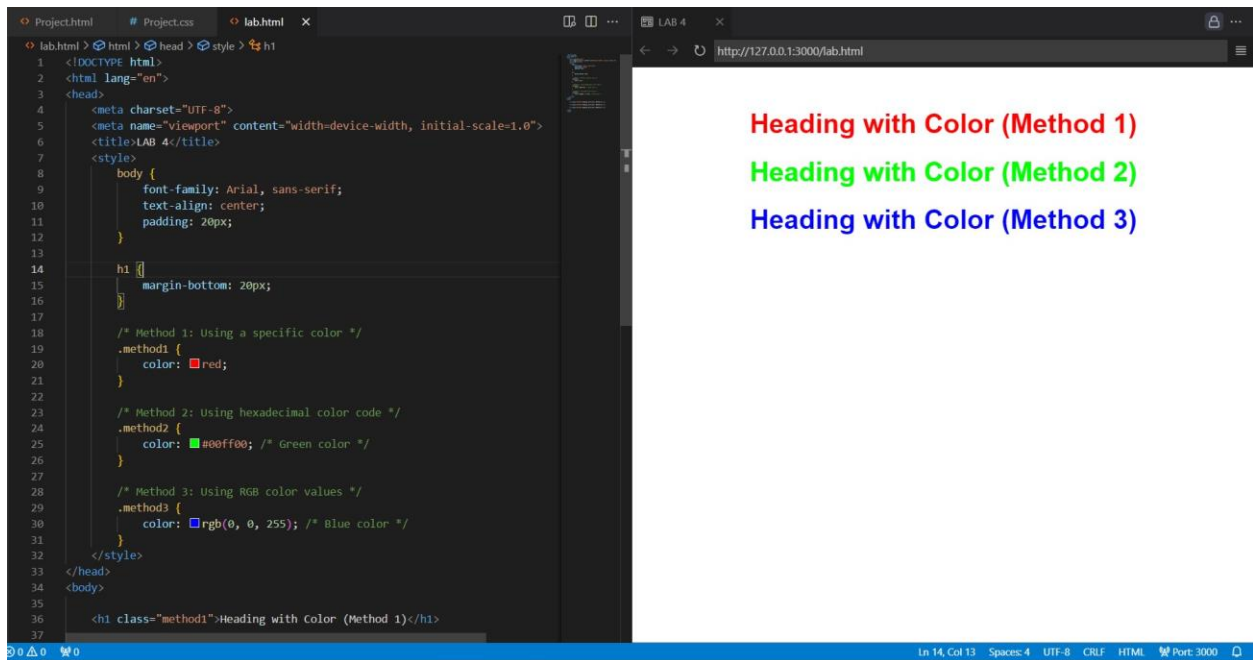
        /* Method 3: Using RGB color values */
.method3 {                  color: rgb(0, 0, 255); /*
Blue color */              }
    </style>
</head>
<body>

    <h1 class="method1">Heading with Color (Method 1)</h1>

    <h1 class="method2">Heading with Color (Method 2)</h1>

<h1 class="method3">Heading with Color (Method 3)</h1>

</body>
</html>
```



T6. Design a webpage using grid layout that displays the following:

				
57.0	16.0	52.0	10	44

The first row shows icons of various web browsers and the second row shows the latest version number.

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>LAB 4</title>
  <style>
    body {
      font-family:
Arial, sans-serif;
      margin: 0;
      padding: 0;
    }
    .grid-container {
      display: grid;
      grid-template-rows:
auto auto; /* Two rows with auto height */
  
```

```

        grid-template-columns: repeat(5, 1fr); /* Five columns with equal
width */      gap: 10px; /* Gap between grid items */      padding:
20px; /* Padding around the grid */      }      .grid-item {      text-
align: center;      }      .grid-item img {      max-width: 100px; /*
Limit maximum width of the icons */      }

</style>
</head>
<body>
    <div class="grid-container">
        <!-- First row: Icons of various web browsers --
>        <div class="grid-item"><p>Chrome</p></div>      <div
class="grid-item"><p>Edge</p></div>      <div class="grid-
item"><p>Firefox</p></div>      <div
class="grid-item"><p>Safari</p></div>      <div
class="grid-item"><p>Opera</p></div>

        <!-- Second row: Latest version numbers -->
        <div class="grid-item">57.0</div>
        <div class="grid-item">16.0</div>
        <div class="grid-item">52.0</div>
        <div class="grid-item">10</div>
        <div class="grid-item">44</div>
    </div>
</body>
</html>

```

