

Web Technology

Lab Assignment - 4

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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>
```

```

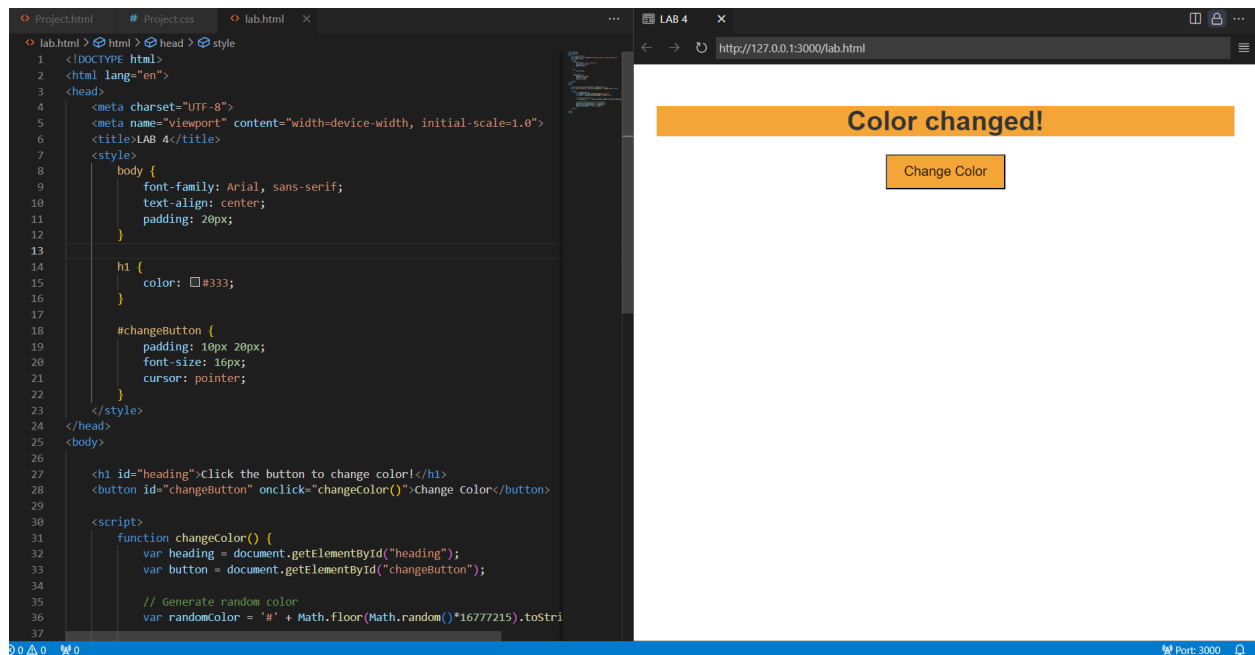
<script>
    function changeColor() {
        var heading = document.getElementById("heading");
        var button = document.getElementById("changeButton");

        // 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';

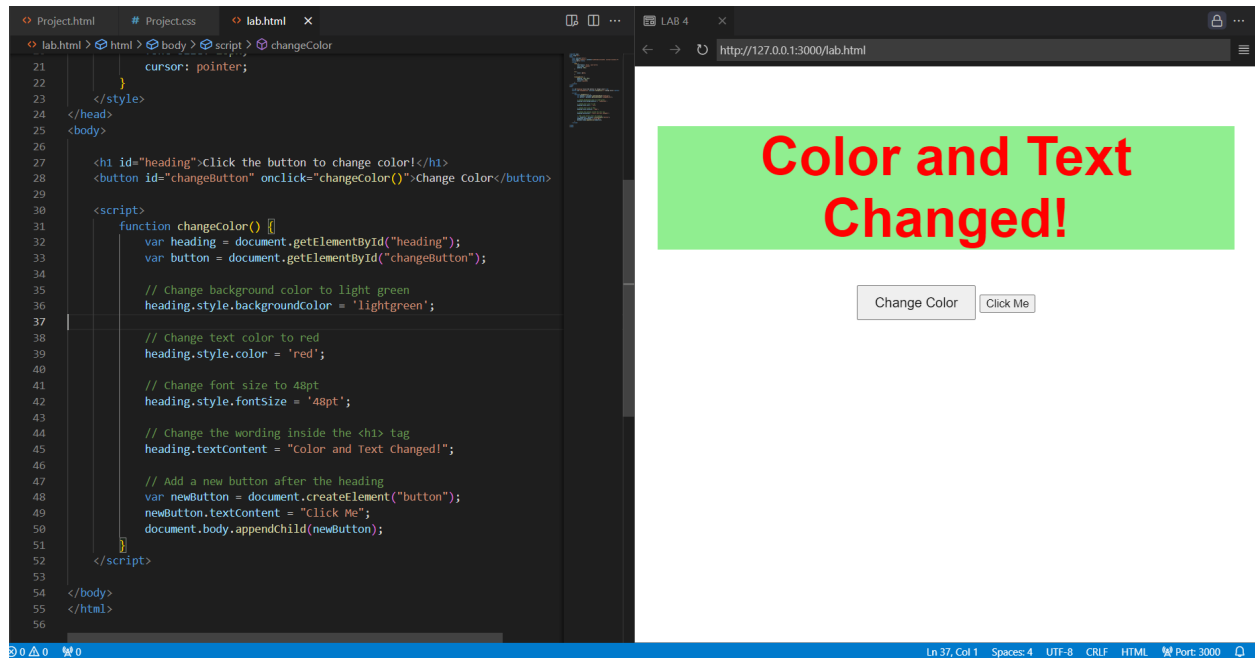
        // Change font size to 48pt
        heading.style.fontSize = '48pt';

        // 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");

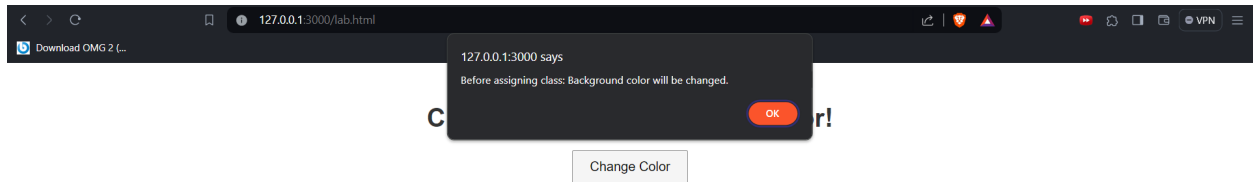
// Alert before assigning the class
alert("Before assigning class: Background color will be
changed.");

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

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

}
</script>

</body>
</html>
```




```

    #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");

```

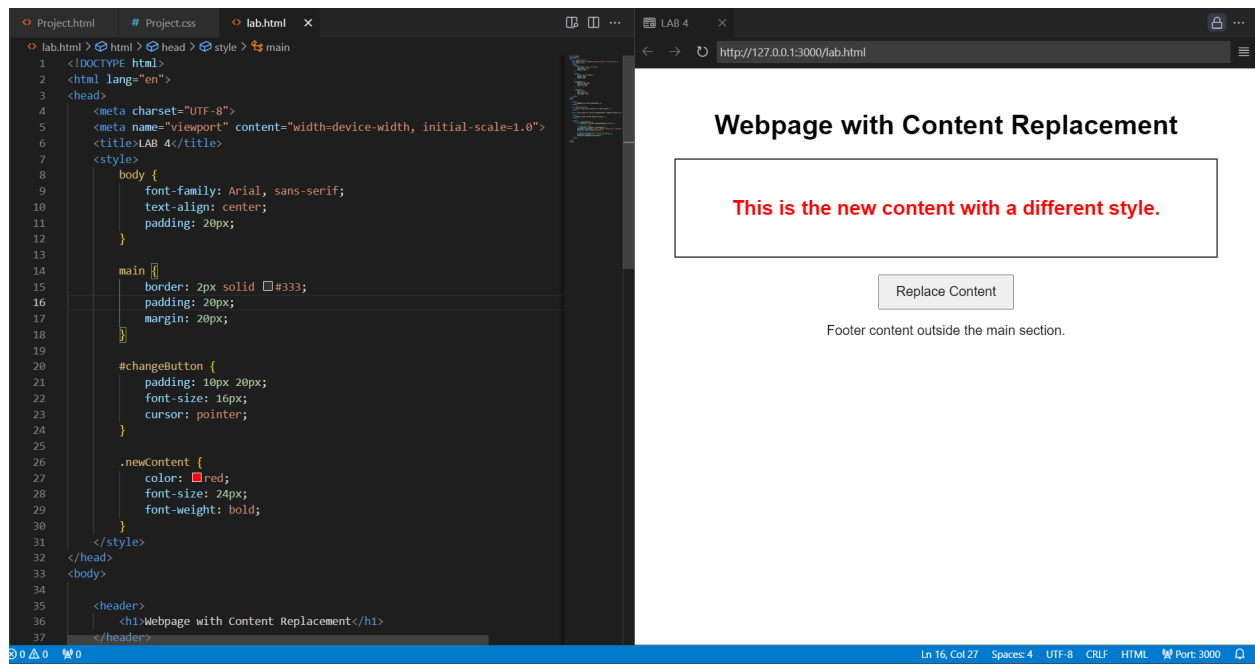


```

        // 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 */
}

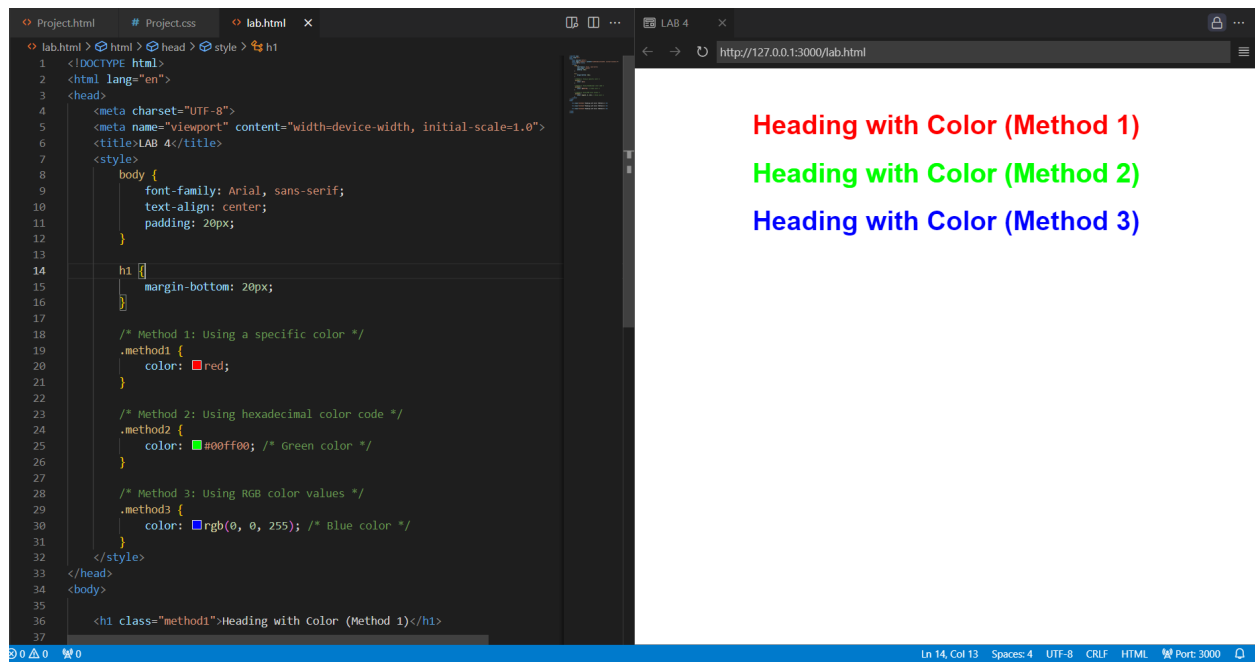
/* Method 3: Using RGB color values */
.method3 {
    color: rgb(0, 0, 255); /* Blue color */
}
</style>
</head>
<body>

    <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>
```

