LAB-4

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Q1.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.

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <style>
    body{
      background: #0fa730;
      text-align: center;
      font-size: 25px;
    }
    button{
      padding:5px;
      font-size: 20px;
      color:aliceblue;
      background: #0f0e09;
    }
  </style>
</head>
<body>
  <h1>I m Heading of the web page</h1>
  <button onclick="changeColor()">Click Me</button>
  <script>
    function changeColor(){
      document.body.style.backgroundColor="blue";
    }
  </script>
</body>
</html>
```

I m Heading of the web page

Click Me

I m Heading of the web page

Click Me

Q2.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>.

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <style>
    body{
      background: #075e74;
      text-align: center;
      font-size: 20px;
    }
    button{
      padding:5px;
      font-size: 20px;
      color:aliceblue;
```

```
        background: #0f0e09;
    }
  </style>
</head>
<body>
  <h1>I m Heading of the web page</h1>
  <button>Click me</button>
  <button onclick="changeColor()">Change color</button>
  <script>
    function changeColor(){
      document.body.style.backgroundColor="green";
      document.querySelector('h1').style.color='red';
      document.querySelector('h1').style.fontSize='48px';
      document.querySelector('h1').innerHTML='Here I Came';
    }
  </script>
```

I m Heading of the web page

Click me   Change color

Here I Came

Click me   Change color

Q3.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">
```

```html
<title>Background Color Changer</title>
<style>
  body {
    font-family: Arial, sans-serif;
    text-align: center;
  }
  .light-blue-background {
    background-color: lightblue;
  }
  h1 {
    color: #333;
  }
  button {
    padding: 10px 20px;
    font-size: 16px;
    background-color: #007bff;
    color: #fff;
    border: none;
    cursor: pointer;
    margin-top: 20px;
    border-radius: 5px;
  }
</style>
</head>
<body>

<h1 id="heading">Change Background Color</h1>
<button id="colorButton">Change Color</button>

<script>
  alert("Before assigning class attribute");
  function getRandomColor() {
    var letters = '0123456789ABCDEF';
    var color = '#';
    for (var i = 0; i < 6; i++) {
      color += letters[Math.floor(Math.random() * 16)];
    }
    return color;
  }
  function changeColor() {
```

```
    var newColor = getRandomColor();
    document.body.className = "";
    document.body.style.backgroundColor = "";
    document.body.classList.add('light-blue-background');
    document.getElementById('heading').innerText = 'Background Color:
lightblue';
  }
  document.getElementById('colorButton').addEventListener('click',
changeColor);
  alert("After assigning class attribute");
</script>

</body>
</html>
```

127.0.0.1:5500 says

Before assigning class attribute

OK

Change Background Color

Change Color

Background Color: lightblue

Change Color

**Q4.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.**

```html
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Content Replacer</title>
<style>
  body {
    font-family: Arial, sans-serif;
    text-align: center;
  }
  main {
    padding: 20px;
    margin: 20px auto;
    border: 2px solid #333;
    border-radius: 10px;
    background-color: #f0f0f0;
  }
  #content1 {
    font-size: 20px;
    color: #007bff;
```

```css
      }
      #content2 {
        font-size: 24px;
        color: #ff5722;
      }
      button {
        padding: 10px 20px;
        font-size: 16px;
        background-color: #007bff;
        color: #fff;
        border: none;
        cursor: pointer;
        border-radius: 5px;
      }
    </style>
  </head>
  <body>

    <header>
      <h1>Welcome to the Content Replacer Page!</h1>
    </header>

    <main id="mainSection">
      <div id="content1">
        <p>This is the initial content of the main section.</p>
        <p>Click the button below to replace it with another content.</p>
      </div>
    </main>

    <button id="replaceButton">Replace Content</button>

    <footer>
      <p>&copy; 2024 Content Replacer Page</p>
    </footer>

    <script>
      function replaceContent() {
        var mainSection = document.getElementById('mainSection');
        var newContent = '<div id="content2"><p>This is the replaced content
with a different style.</p></div>';
```

```
        mainSection.innerHTML = newContent;
    }
    document.getElementById('replaceButton').addEventListener('click',
replaceContent);
</script>

</body>
</html>
```

Welcome to the Content Replacer Page!

This is the initial content of the main section.

Click the button below to replace it with another content.

Replace Content

© 2024 Content Replacer Page

Welcome to the Content Replacer Page!

This is the replaced content with a different style.

Replace Content

© 2024 Content Replacer Page

Q5.Consider a h1 heading lying outside the main section in the page. Try changing the colorof 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>Change h1 Color</title>
<style>
    body {
```

```
      font-family: Arial, sans-serif;
      text-align: center;
      background-color: #f0f0f0;
    }
    main {
      padding: 20px;
      margin: 20px auto;
      border: 2px solid #333;
      border-radius: 10px;
      background-color: #fff;
    }
    h1 {
      margin-top: 20px;
    }
  </style>
</head>
<body>

<h1 id="h1Heading">Heading Outside Main</h1>

<main>
  <h1 id="mainHeading">Main Heading</h1>
</main>

<button onclick="changeColorInline()">Change Color (Inline Style)</button>
<button onclick="changeColorClass()">Change Color (Class)</button>
<button onclick="changeColorJavaScript()">Change Color
(JavaScript)</button>

<script>
  function changeColorInline() {
    var h1Heading = document.getElementById('h1Heading');
    h1Heading.style.color = 'blue';
  }
  function changeColorClass() {
    var h1Heading = document.getElementById('h1Heading');
    h1Heading.classList.add('redText');
  }
  function changeColorJavaScript() {
    var h1Heading = document.getElementById('h1Heading');
```

```
    h1Heading.setAttribute('style', 'color: green');
  }
</script>


</body>
</html>
```

Heading Outside Main

Main Heading

[Change Color (Inline Style)] [Change Color (Class)] [Change Color (JavaScript)]

Heading Outside Main

Main Heading

[Change Color (Inline Style)] [Change Color (Class)] [Change Color (JavaScript)]

Heading Outside Main

Main Heading

[Change Color (Inline Style)] [Change Color (Class)] [Change Color (JavaScript)]

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
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Web Browser Versions</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      margin: 0;
      padding: 0;
      box-sizing: border-box;
      background: #1b8abd;
    }

    .grid-container {
      display: grid;
      grid-template-rows: auto auto;
      grid-template-columns: repeat(5, 1fr);
      gap: 10px;
      padding: 20px;
      border:1px solid black;
    }

    .browser-icon {
      width: 100%;
      height: auto;
      text-align: center;
      border:1px solid black;
    }

    .browser-icon img {
      width: 100px;

    }

    .version-number {
      text-align: center;
      background-color: #f2f2f2;
      padding: 10px;
      border:1px solid black;
```

```
        }
    </style>
</head>
<body>


    <div class="grid-container">
        <div class="browser-icon"><img src="chrome-icon.png"
alt="Chrome"></div>
        <div class="browser-icon"><img src="firefox-icon.png"
alt="Firefox"></div>
        <div class="browser-icon"><img src="edge-icon.png" alt="Edge"></div>
        <div class="browser-icon"><img src="safari-icon.png"
alt="Safari"></div>
        <div class="browser-icon"><img src="opera-icon.png" alt="Opera"></div>


        <div class="version-number">Chrome<br>Version 100.0</div>
        <div class="version-number">Firefox<br>Version 99.0</div>
        <div class="version-number">Edge<br>Version 20.0</div>
        <div class="version-number">Safari<br>Version 15.0</div>
        <div class="version-number">Opera<br>Version 75.0</div>
    </div>


</body>
</html>
```


| Chrome Version 100.0 | Firefox Version 99.0 | Edge Version 20.0 | Safari Version 15.0 | Opera Version 75.0 |