WEB TECH LAB-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.

```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;
    background-color: #f0f0f0;
  }
  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>
  function getRandomColor() {
    var letters = '0123456789ABCDEF';
    var color = '#';
    for (var i = 0; i < 6; i++) {
```
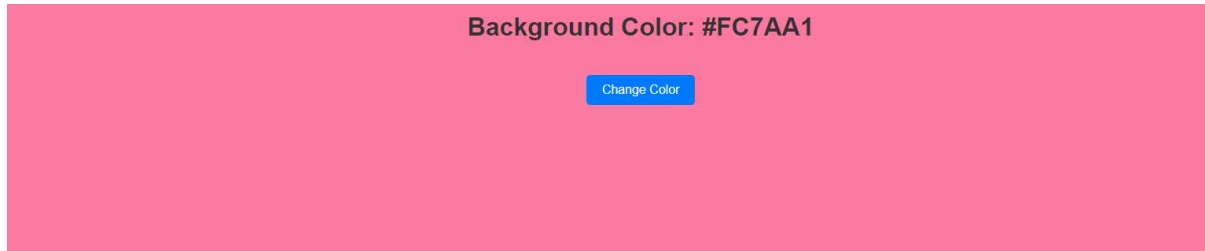
```
      color += letters[Math.floor(Math.random() * 16)];
    }
    return color;
  }
  function changeColor() {
    var newColor = getRandomColor();
    document.body.style.backgroundColor = newColor;
    document.getElementById('heading').innerText = 'Background
Color: ' + newColor;
  }
  document.getElementById('colorButton').addEventListener('click',
changeColor);
</script>

</body>
</html>
```

OUTPUT:-

Background Color: #FC7AA1

Change Color

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 tag in the Javascript.

e. Add <button>Click Me</button> after the closing

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
```

WEB TECH LAB-4

```html
<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;
    background-color: lightgreen;
  }
  h1 {
    color: red;
    font-size: 48pt;
  }
  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">Modified Background Color</h1>
<button id="colorButton">Change Color</button>

<script>

  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.style.backgroundColor = newColor;
    document.getElementById('heading').innerText = 'Modified
Background Color: ' + newColor; // Changed wording inside h1 tag
  }

  document.getElementById('colorButton').addEventListener('click',
changeColor);
</script>

</body>
</html>
```

Modified Background Color

Change Color

Modified Background Color: #ECC1BC

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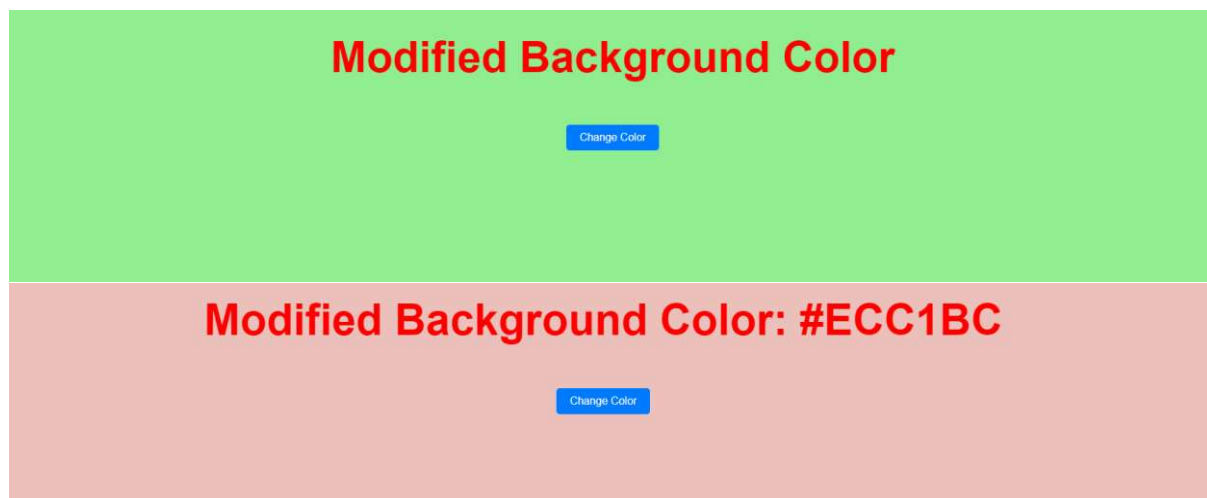
T3. For T1, set the color of the background directly with the class attribute. Generate alerts before and after assigning the class attribute to document object.

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

WEB TECH LAB-4

```html
    }
    .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');
```
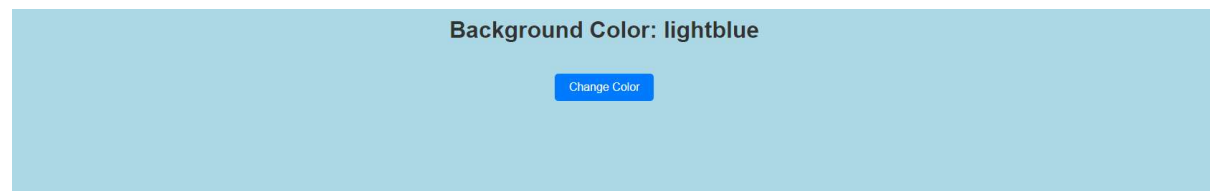
WEB TECH LAB-4

```
    document.getElementById('heading').innerText = 'Background
Color: lightblue';
  }


  document.getElementById('colorButton').addEventListener('click',
changeColor);

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

</body>
</html>
```


Before assigning class attribute

Background Color: lightblue

Change Color

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>Content Replacer</title>
<style>
```

WEB TECH LAB-4

```css
  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;
  }
  #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>
```

WEB TECH LAB-4

```html
</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

WEB TECH LAB-4

Welcome to the Content Replacer Page!

This is the replaced content with a different style.

Replace Content

© 2024 Content Replacer Page

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

```html
<!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>
```

WEB TECH LAB-4

```html
  <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>
```

WEB TECH LAB-4

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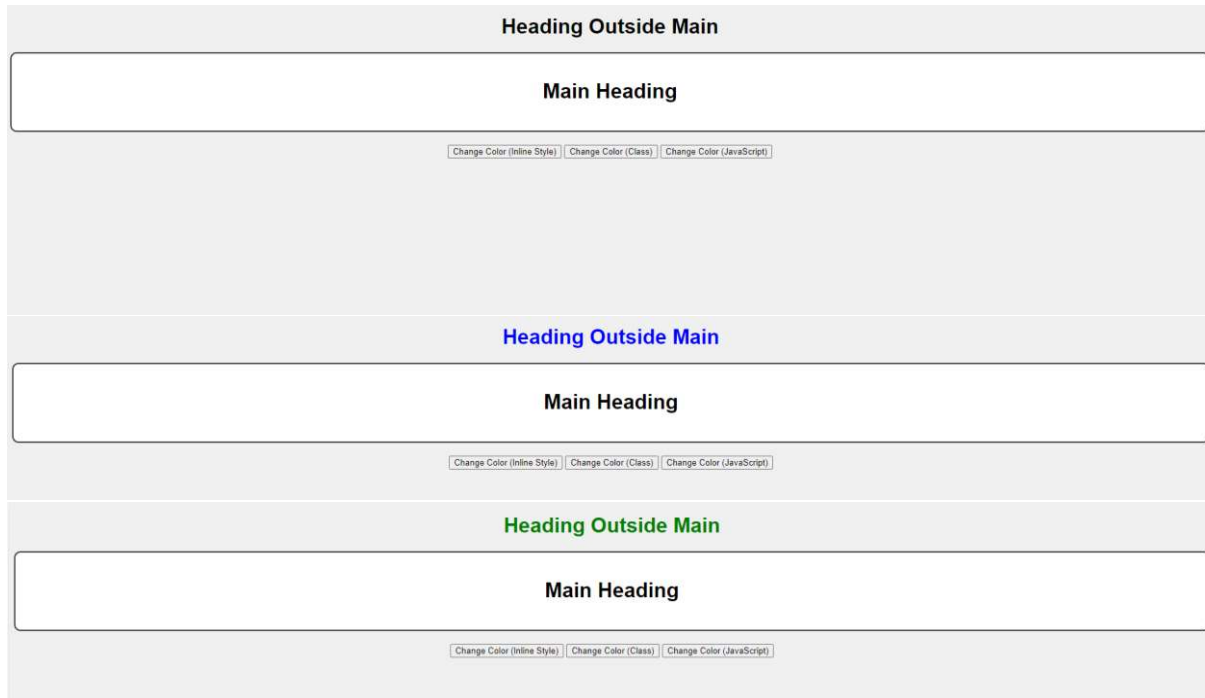
T6. Design a webpage using grid layout that displays the following:

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.

```html
<!DOCTYPE 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;
    }

    .grid-container {
      display: grid;
```

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

    .browser-icon {
      width: 100%;
      height: auto;
      text-align: center;
    }

    .browser-icon img {
      width: 100px;

    }

    .version-number {
      text-align: center;
      background-color: #f2f2f2;
      padding: 10px;
    }
  </style>
</head>
<body>

  <div class="grid-container">
    <div class="browser-icon"><img
src="https://th.bing.com/th?id=OIP.tAAucLbLc7EJPYPiuObHMwHaHa&w=250&
h=250&c=8&rs=1&qlt=90&o=6&pid=3.1&rm=2" alt="Chrome"></div>
    <div class="browser-icon"><img
src="https://th.bing.com/th?id=OIP.itfm-
eq0t7TvYfvxcycjtAHaH1&w=243&h=257&c=8&rs=1&qlt=90&o=6&pid=3.1&rm=2"
alt="Firefox"></div>
    <div class="browser-icon"><img
src="https://th.bing.com/th?id=OIP.FTF_ObNp6_5Wo1eq6khgqwHaHa&w=250&
h=250&c=8&rs=1&qlt=90&o=6&pid=3.1&rm=2" alt="Edge"></div>
    <div class="browser-icon"><img
src="https://th.bing.com/th?id=OIP.TkMnJ3JvgzVrU_M41I-
ucQHaHa&w=250&h=250&c=8&rs=1&qlt=90&o=6&pid=3.1&rm=2"
alt="Safari"></div>
```

WEB TECH LAB-4

```
    <div class="browser-icon"><img
src="https://th.bing.com/th?id=OIP.nMVhqcGd1JHS7U6e8vtTbQHaHZ&w=250&
h=249&c=8&rs=1&qlt=90&o=6&pid=3.1&rm=2" 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 | Firefox | Edge | Safari | Opera |
| Version 100.0 | Version 99.0 | Version 20.0 | Version 15.0 | Version 75.0 |