

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.

```
<!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>

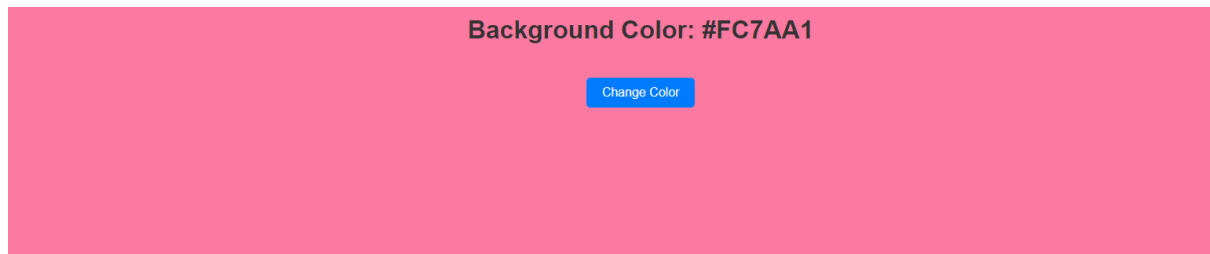
<script>
  function getRandomColor() {
    var letters = '0123456789ABCDEF';
    var color = '#';
    for (var i = 0; i < 6; i++) {
```

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```
        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:-



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

- Make the background light green.
- Add a line that makes the text red.
- Change the fontSize to 48pt
- Change the wording inside the tag in the Javascript.
- Add <button>Click Me</button> after the closing

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

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```
<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;
  }
}
```

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```
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;
```

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```
}
.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');
```

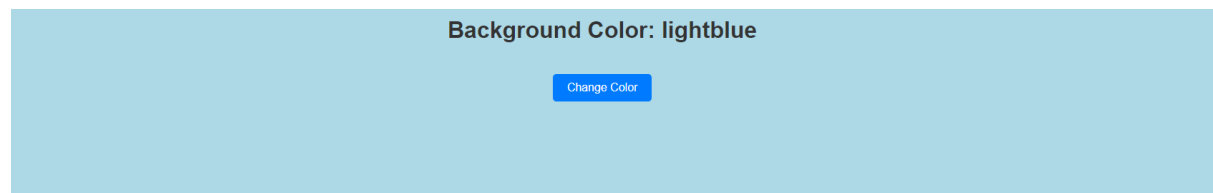
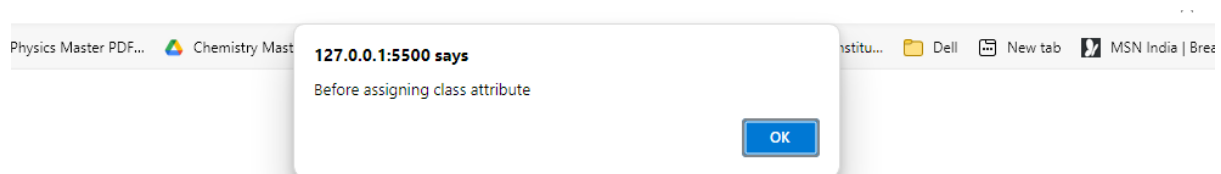
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```
document.getElementById('heading').innerText = 'Background
Color: lightblue';
}

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

alert("After assigning class attribute");
</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>Content Replacer</title>
<style>
```

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```
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>
```

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```
</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

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Welcome to the Content Replacer Page!

This is the replaced content with a different style.

Replace Content

© 2024 Content Replacer Page

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>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>
```

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```
<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>
```

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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 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;
```

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```
    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"></div>
        <div class="browser-icon"></div>
        <div class="browser-icon"></div>
        <div class="browser-icon"></div>
```

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```
<div class="browser-icon"></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