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```
Q1. <!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;
    transition: background-color 0.5s;
  }
  h1 {
    color: white;
  }
  .container {
    margin-top: 50px;
  }
  button {
    padding: 10px 20px;
    font-size: 16px;
    cursor: pointer;
    border: none;
    background-color: #007bff;
    color: white;
    border-radius: 5px;
    transition: background-color 0.3s;
  }
  button:hover {
    background-color: #0056b3;
  }
</style>
</head>
<body>

<h1 id="heading">Click the button to change background color</h1>

<div class="container">

  <button id="colorButton">Change Color</button>
</div>
```

```

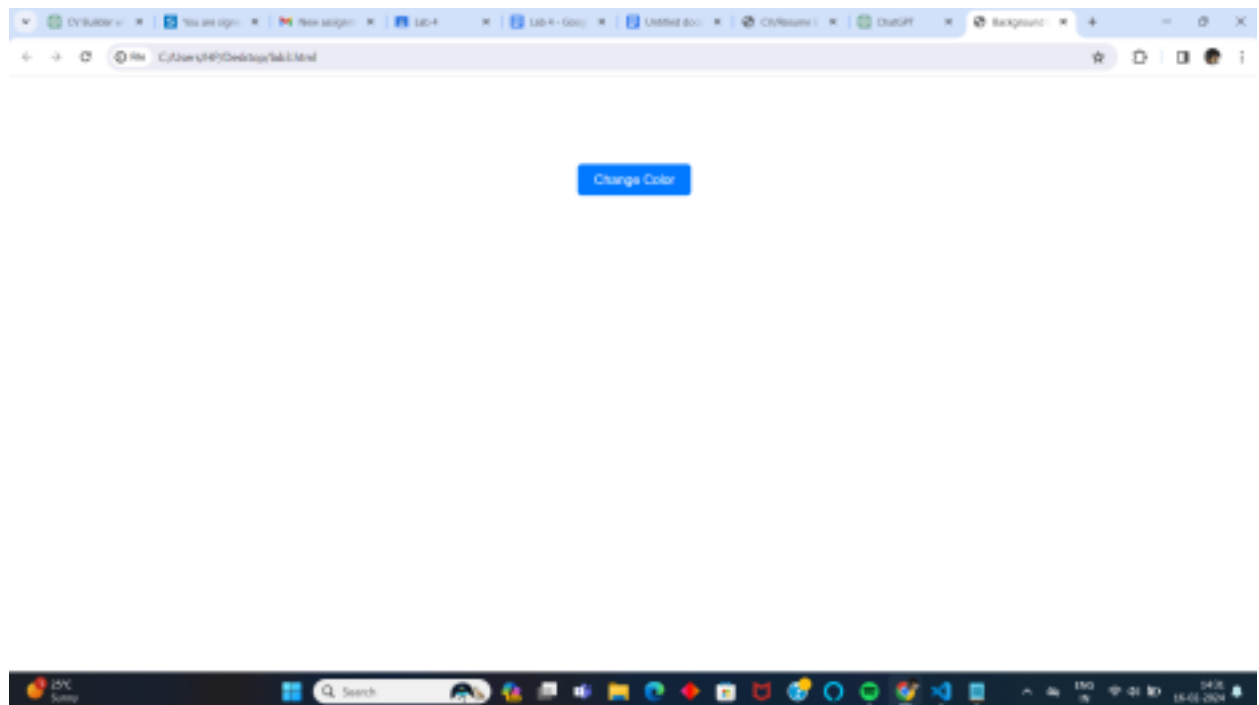
<script>
  // Function to generate a random hex color
  function getRandomColor() {
    const letters = '0123456789ABCDEF';
    let color = '#';
    for (let i = 0; i < 6; i++) {
      color += letters[Math.floor(Math.random() * 16)];
    }
    return color;
  }

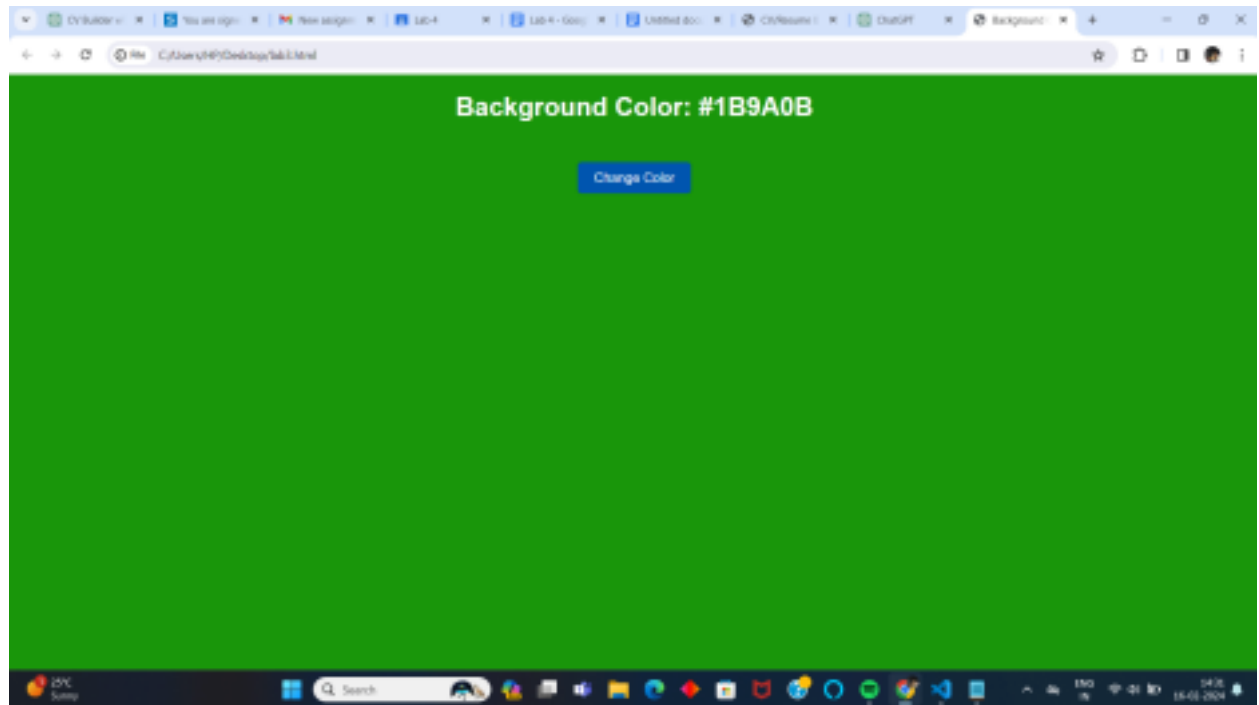
  // Function to change background color and text
  function changeColor() {
    const newColor = getRandomColor();
    document.body.style.backgroundColor = newColor;
    document.getElementById('heading').innerText = `Background Color: ${newColor}`;
  }

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

</body>
</html>

```





```
Q2. <!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;
    transition: background-color 0.5s;
    background-color: lightgreen; /* a. Make the background light green */
  }
  h1 {
    color: red; /* b. Add a line that makes the text red */
    font-size: 48pt; /* c. Change the fontSize to 48pt */
  }
  .container {
    margin-top: 50px;
  }
  button {
    padding: 10px 20px;
    font-size: 16px;
    cursor: pointer;
    border: none;
    background-color: #007bff;
    color: white;
    border-radius: 5px;
    transition: background-color 0.3s;
```

```
}
button:hover {
  background-color: #0056b3;
}
</style>
</head>
<body>
```

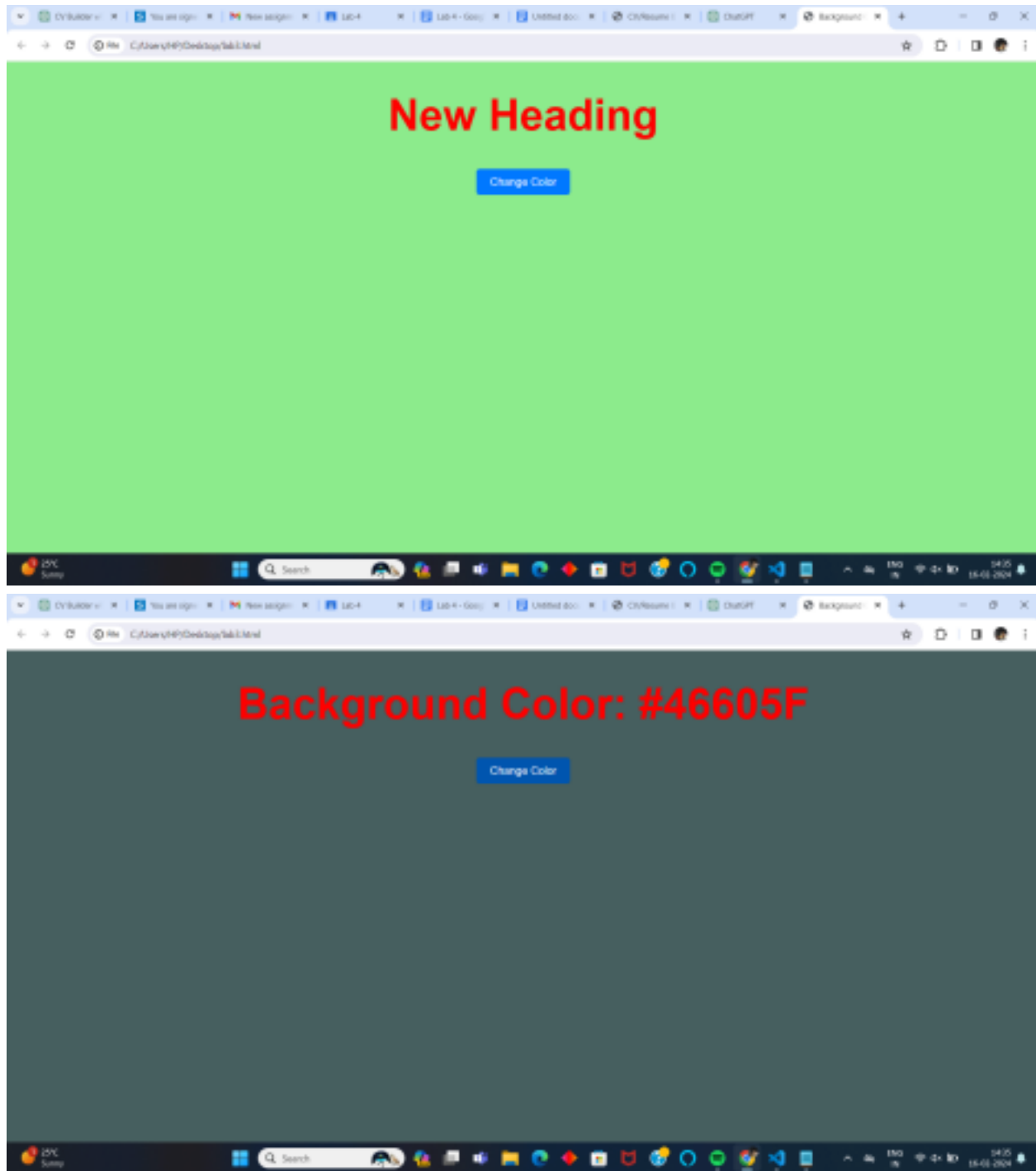
<h1 id="heading">New Heading</h1> <!-- d. Change the wording inside the <h1> tag in the Javascript. -->  
<button id="colorButton">Change Color</button> <!-- e. Add <button>Click Me</button> after the closing </h1>. -->

```
<script>
  // Function to generate a random hex color
  function getRandomColor() {
    const letters = '0123456789ABCDEF';
    let color = '#';
    for (let i = 0; i < 6; i++) {
      color += letters[Math.floor(Math.random() * 16)];
    }
    return color;
  }

  // Function to change background color and text
  function changeColor() {
    const newColor = getRandomColor();
    document.body.style.backgroundColor = newColor;
    document.getElementById('heading').innerText = `Background Color: ${newColor}`;
  }

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

</body>
</html>
```



Q3. <!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>  
    .light-green-background {  
        background-color: lightgreen;  
    }  
</style>

```
</head>
<body>

<h1 id="heading">Click the button to change background color</h1>

<div class="container">
  <button id="colorButton">Change Color</button>
</div>

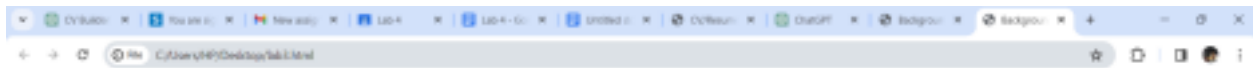
<script>
  // Function to generate a random hex color
  function getRandomColor() {
    const letters = '0123456789ABCDEF';
    let color = '#';
    for (let i = 0; i < 6; i++) {
      color += letters[Math.floor(Math.random() * 16)];
    }
    return color;
  }

  // Function to change background color and text
  function changeColor() {
    alert("Before assigning class attribute to document object");
    document.body.classList.add('light-green-background');
    alert("After assigning class attribute to document object");

    const newColor = getRandomColor();
    document.getElementById('heading').innerText = `Background Color: ${newColor}`;
  }

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

</body>
</html>
```



Click the button to change background color

Change Color



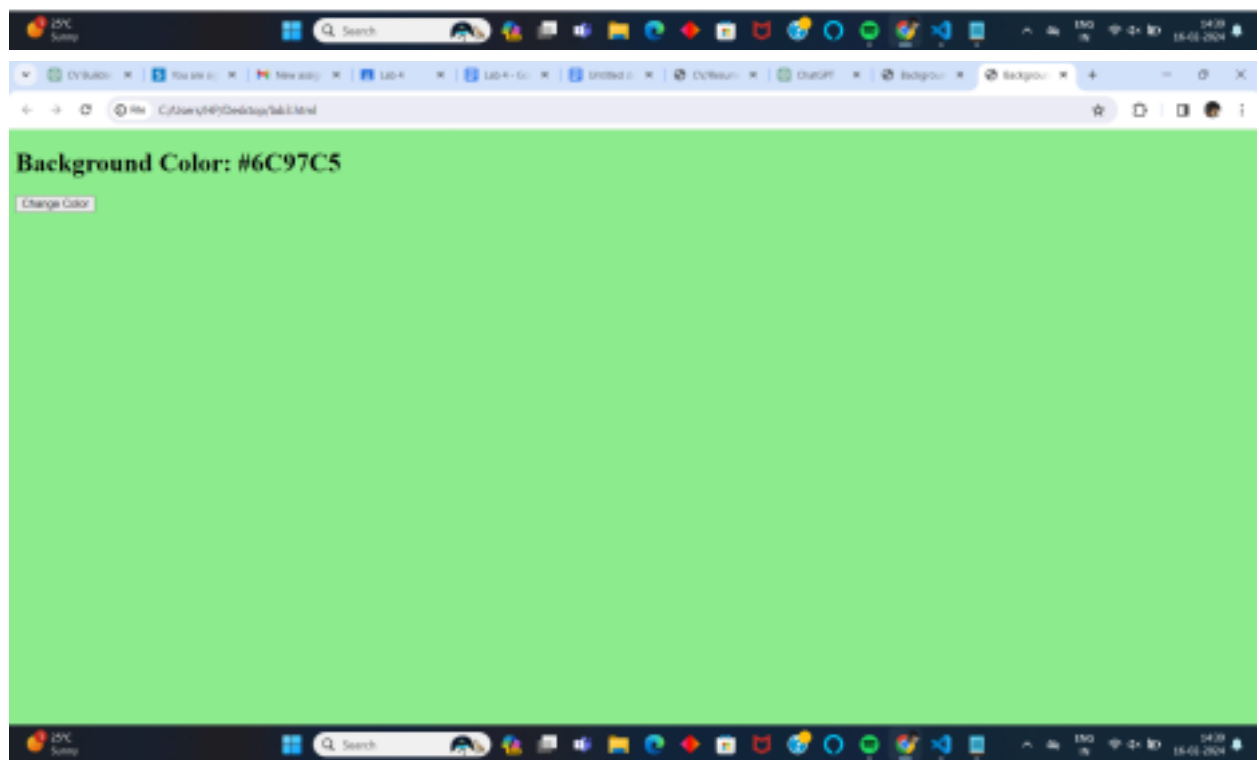
Click the button to change background

Change Color

This page says  
Before assigning class attribute to document object

OK





```
Q4. <!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Content Replacement</title>
<style>
  body {
    font-family: Arial, sans-serif;
    margin: 0;
    padding: 0;
```



```

}
header {
    background-color: #333;
    color: white;
    padding: 10px;
    text-align: center;
}
main {
    padding: 20px;
}
#content1 {
    background-color: #f0f0f0;
    padding: 20px;
    border: 1px solid #ccc;
    border-radius: 5px;
    text-align: center;
}
#content2 {
    background-color: #007bff;
    color: white;
    padding: 20px;
    border: 1px solid #0056b3;
    border-radius: 5px;
    text-align: center;
}
button {
    padding: 10px 20px;
    font-size: 16px;
    cursor: pointer;
    border: none;
    background-color: #007bff;
    color: white;
    border-radius: 5px;
    transition: background-color 0.3s;
}
button:hover {
    background-color: #0056b3;
}
</style>
</head>
<body>

<header>
    <h1>Main Header</h1>
</header>

<main>
    <section id="content1">

```

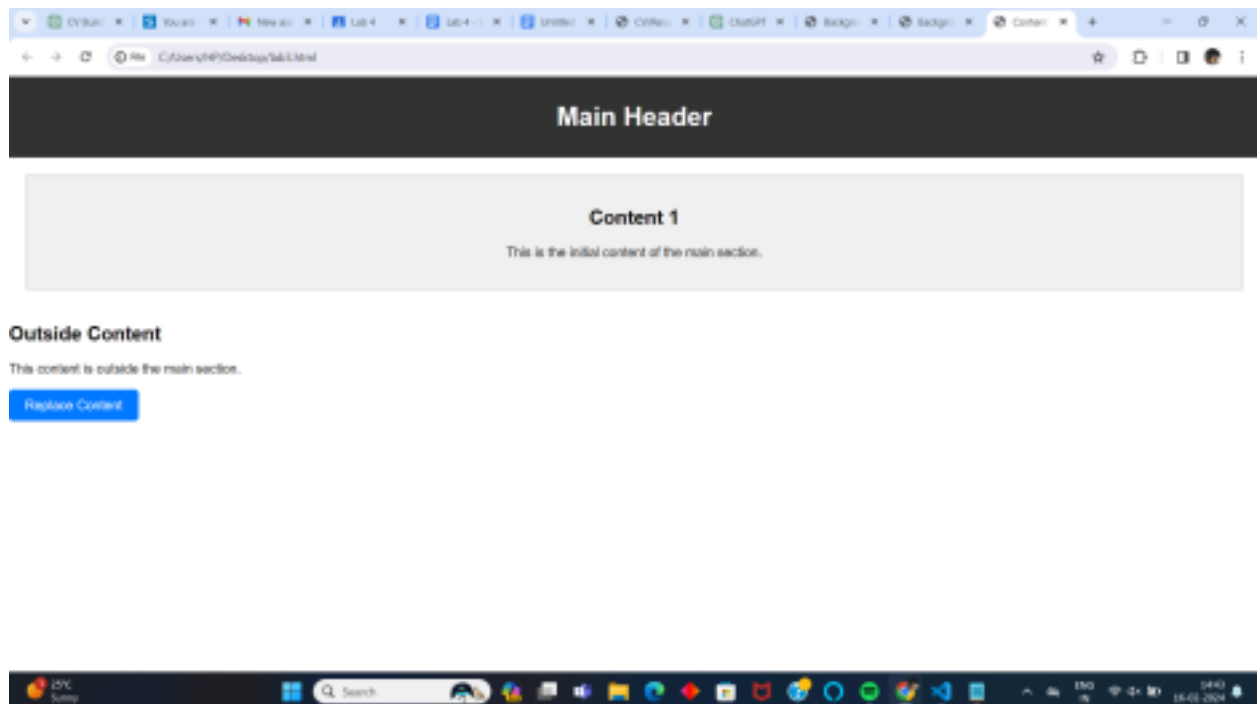
```
<h2>Content 1</h2>
<p>This is the initial content of the main section.</p>
</section>
</main>
```

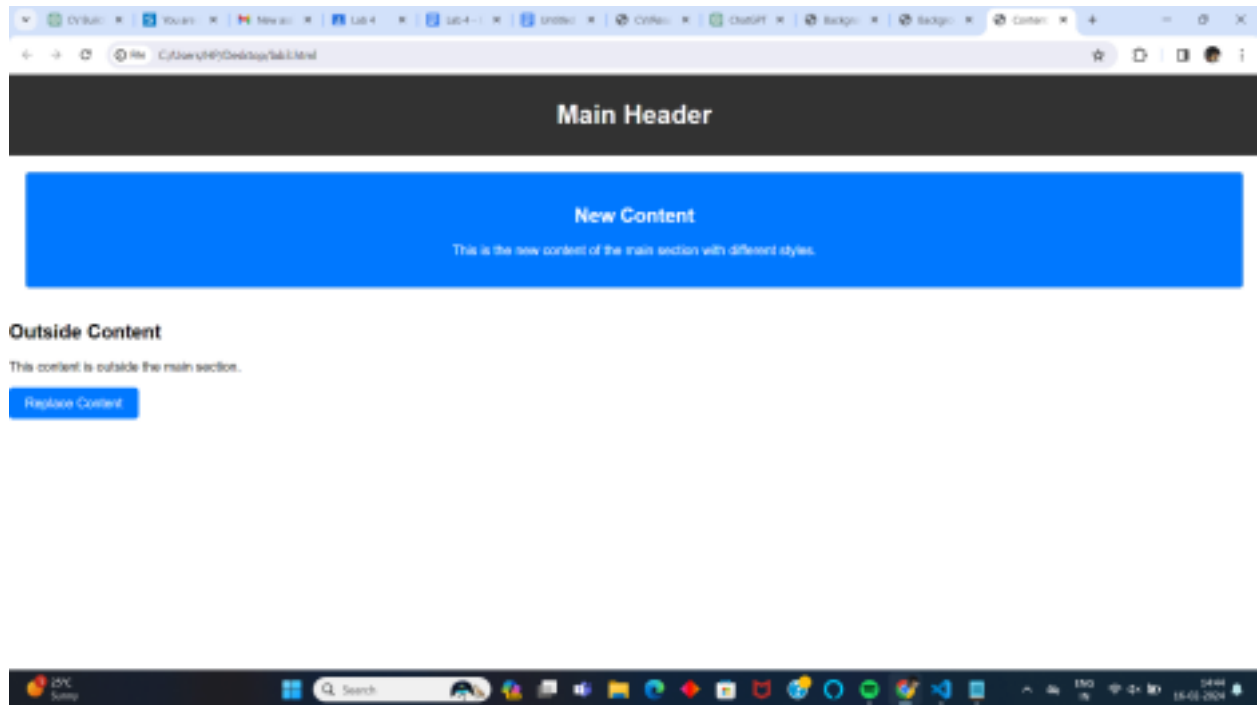
```
<div id="outsideContent">
  <h2>Outside Content</h2>
  <p>This content is outside the main section.</p>
</div>
```

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

```
<script>
  document.getElementById('replaceButton').addEventListener('click', function() {
    document.getElementById('content1').innerHTML = `
      <h2>New Content</h2>
      <p>This is the new content of the main section with different styles.</p>
    `;
    document.getElementById('content1').style.backgroundColor = '#007bff';
    document.getElementById('content1').style.color = 'white';
  });
</script>
```

```
</body>
</html>
```





Q5.

1.Using Inline CSS:

```
<!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>
```

```
</head>
```

```
<body>
```

```
<h1 style="color: red;">Heading with Inline CSS</h1>
```

```
<main>
```

```
<section>
```

```
<h2>Main Section</h2>
```

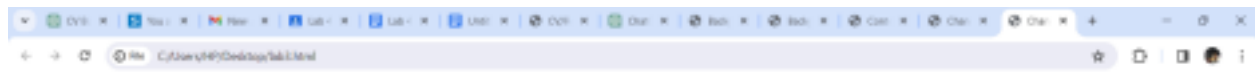
```
<p>This is the main content section.</p>
```

```
</section>
```

```
</main>
```

```
</body>
```

```
</html>
```



## Heading with Inline CSS

### Main Section

This is the main content section.



Using internal css:

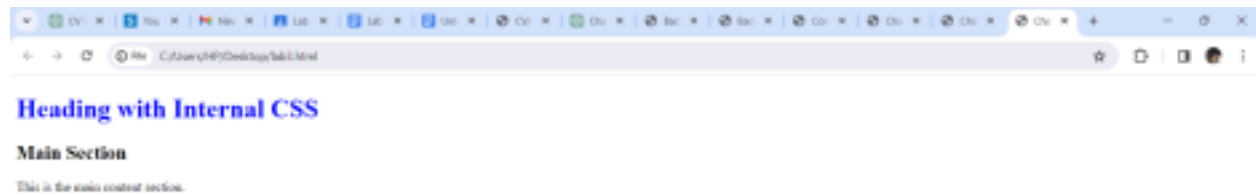
```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Change h1 Color</title>
<style>
  h1 {
    color: blue;
  }
</style>
</head>
<body>

<h1>Heading with Internal CSS</h1>

<main>
  <section>
    <h2>Main Section</h2>
    <p>This is the main content section.</p>
  </section>
</main>

</body>
```

</html>



Using external css:

```
<!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>
```

```
<link rel="stylesheet" type="text/css" href="st.css">
```

```
</head>
```

```
<body>
```

```
<h1>Heading with External CSS</h1>
```

```
<main>
```

```
  <section>
```

```
    <h2>Main Section</h2>
```

```
    <p>This is the main content section.</p>
```

```
  </section>
```

```
</main>
```

```
</body>
```

```
</html>
```

```
h1 {
```

```
  color: green;
```

```
}
```



## Heading with External CSS

### Main Section

This is the main content section.



```
Q6. <!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Browser Versions</title>
<style>
  body {
    font-family: Arial, sans-serif;
    margin: 0;
    padding: 0;
  }
  .grid-container {
    display: grid;
    grid-template-columns: repeat(5, 1fr); /* 5 columns for the 5 browsers */
    gap: 10px;
    justify-content: center;
    align-items: center;
    padding: 20px;
  }
  .browser-icon {
    text-align: center;
  }
  .browser-icon img {
    width: 100px;
  }
```

```
.browser-version {
    text-align: center;
}
</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>
    <div class="browser-icon"></div>
</div>

<div class="grid-container">
    <div class="browser-version">Latest Version: 98.0.4758.102 (64-bit)</div>
    <div class="browser-version">Latest Version: 98.0.1108.62 (64-bit)</div>
    <div class="browser-version">Latest Version: 97.0 (64-bit)</div>
    <div class="browser-version">Latest Version: 15.3.1</div>
    <div class="browser-version">Latest Version: 79.0.3945.130</div>
</div>

</body>
</html>
```

