

Lab – 4
Web-tech

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Task1] 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.

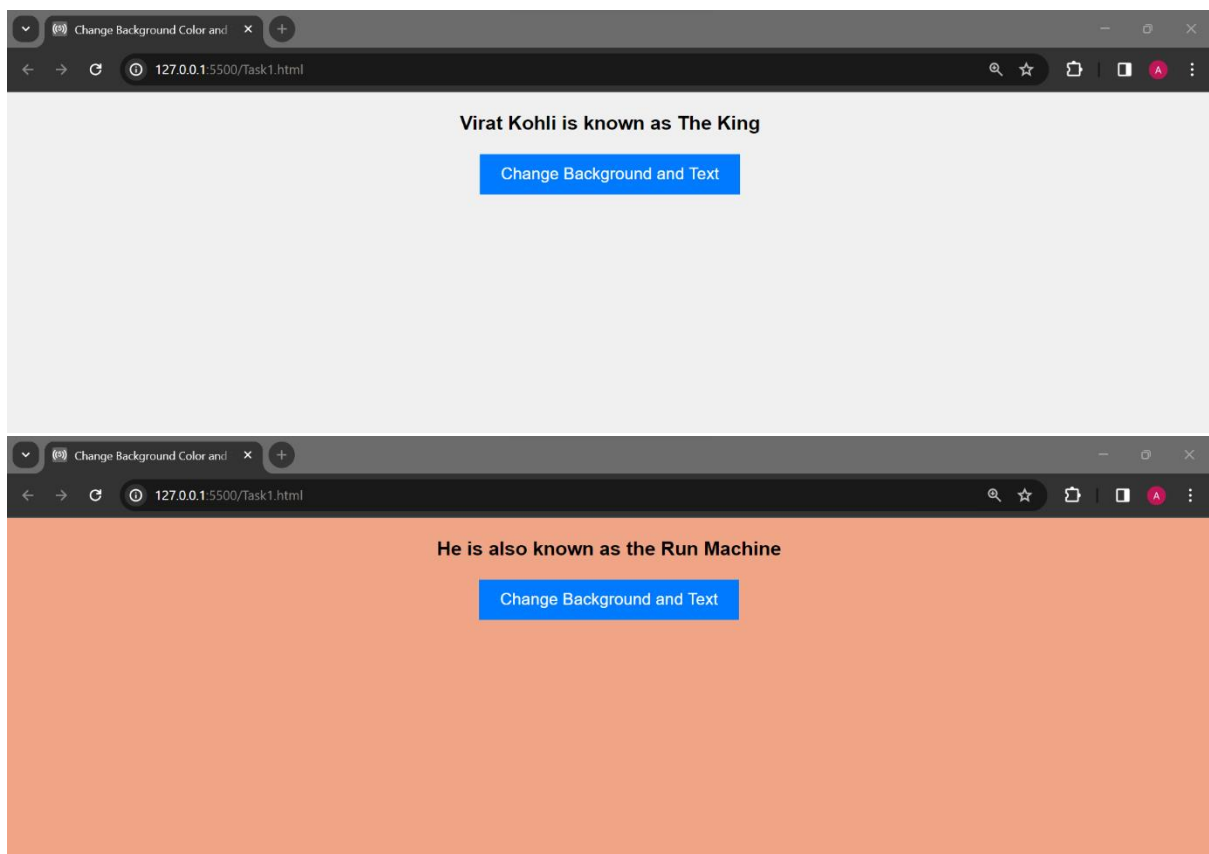
Code]

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Change Background Color and Text</title>
<style>
  body {
    font-family: Arial, sans-serif;
    text-align: center;
    background-color: #f0f0f0;
    transition: background-color 0.5s ease;
  }
  h1 {
    color: #333;
  }
  button {
    padding: 10px 20px;
    font-size: 16px;
    background-color: #007bff;
    color: #fff;
    border: none;
    cursor: pointer;
    transition: background-color 0.3s ease;
  }
  button:hover {
    background-color: #0056b3;
  }
</style>
```

```
</head>
<body>
<h3 id="heading">Virat Kohli is known as The King</h3>
<button id="changeButton">Change Background and Text</button>

<script>
  document.getElementById('changeButton').addEventListener('click',
function() {
    var randomColor = '#' +
Math.floor(Math.random()*16777215).toString(16);
    document.body.style.backgroundColor = randomColor;
    document.getElementById('heading').textContent = 'He is also known
as the Run Machine';
  });
</script>
</body>
</html>
```

Output]



Task2] For T1, experiment with the Javascript code by trying the following things:

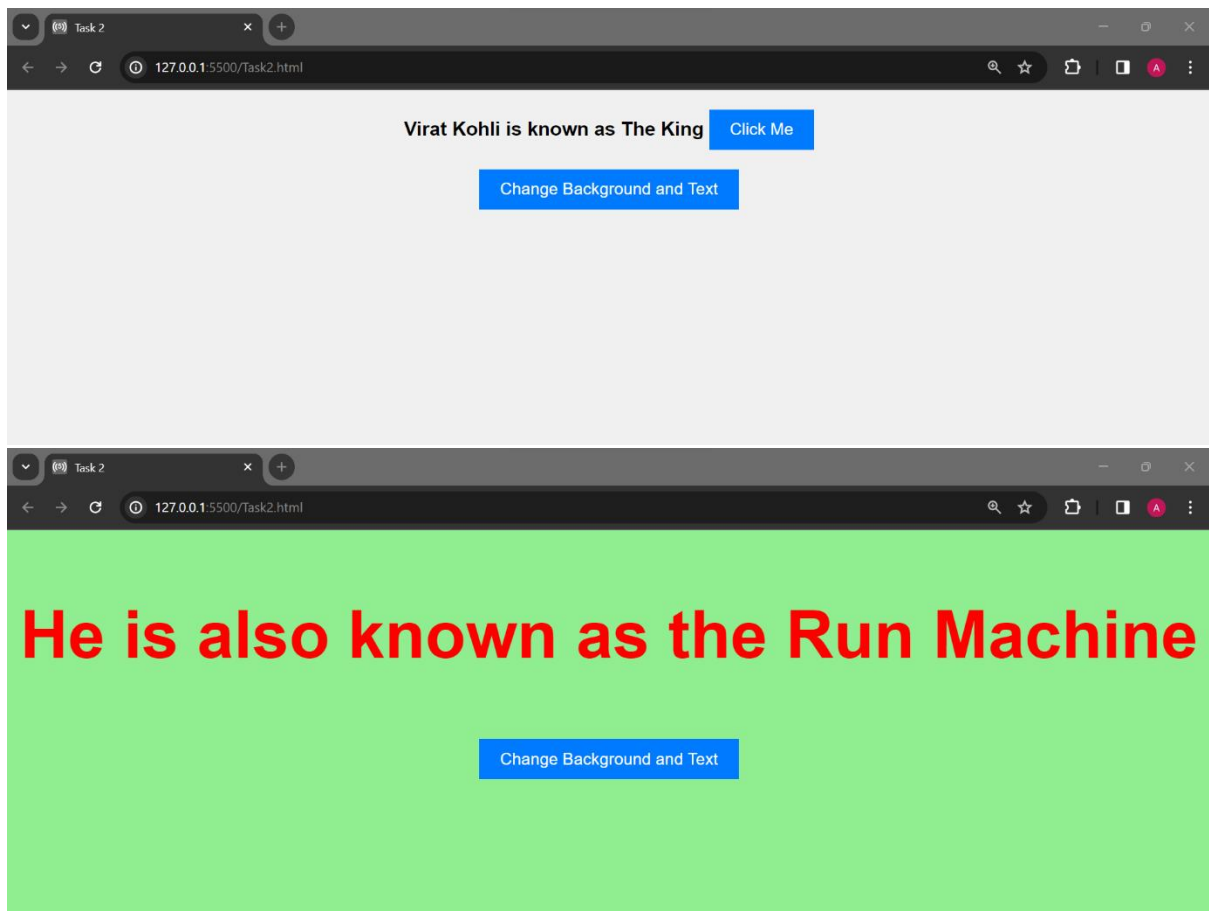
- a. Make the background light green.
- b. Add a line that makes the text red.
- c. Change the fontSize to 48pt.
- d. Change the wording inside the <h1> tag in the Javascript.
- e. Add <button>Click Me</button> after the closing </h1>.

Code]

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Task 2</title>
<style>
  body {
    font-family: Arial, sans-serif;
    text-align: center;
    background-color: #f0f0f0;
    transition: background-color 0.5s ease;
  }
  h1 {
    color: #333;
  }
  button {
    padding: 10px 20px;
    font-size: 16px;
    background-color: #007bff;
    color: #fff;
    border: none;
    cursor: pointer;
    transition: background-color 0.3s ease;
  }
  button:hover {
    background-color: #0056b3;
  }
</style>
</head>
<body>
```

```
<h3 id="heading">Virat Kohli is known as The King <button  
id="clickMe">Click Me</button></h3>  
<button id="changeButton">Change Background and Text</button>  
  
<script>  
  document.getElementById('changeButton').addEventListener('click',  
function() {  
  document.body.style.backgroundColor = 'lightgreen';  
  document.getElementById('heading').style.color = 'red';  
  document.getElementById('heading').style.fontSize = '48pt';  
  document.getElementById('heading').textContent = 'He is also known  
as the Run Machine';  
});  
</script>  
</body>  
</html>
```

Output]



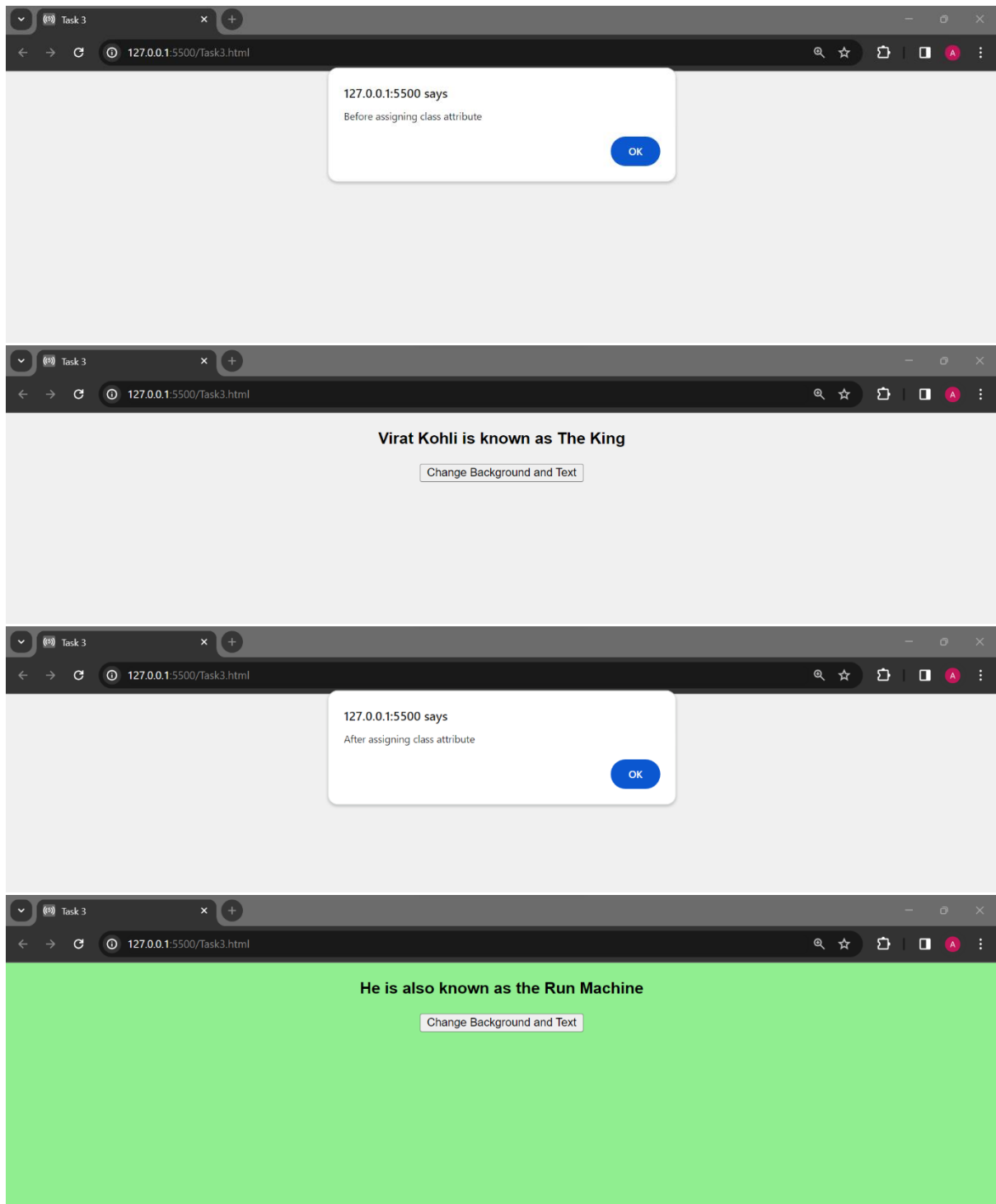
Task3] For T1, set the color of the background directly with the class attribute. Generate alerts before and after assigning the class attribute to document object.

Code]

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Task 3</title>
<style>
  body {
    font-family: Arial, sans-serif;
    text-align: center;
    background-color: #f0f0f0;
    transition: background-color 0.5s ease;
  }
  .light-green-background {
    background-color: lightgreen;
  }
</style>
</head>
<body>
<h3 id="heading">Virat Kohli is known as The King</h3>
<button id="changeButton">Change Background and Text</button>

<script>
  alert("Before assigning class attribute");
  document.getElementById('changeButton').addEventListener('click',
function() {
  alert("After assigning class attribute");
  document.body.classList.add('light-green-background');
  document.getElementById('heading').textContent = 'He is also known
as the Run Machine';
  });
</script>
</body>
</html>
```

Output]



Task4] 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.

Code]

```
<!DOCTYPE html>
```

```
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Dynamic Content Change</title>
<style>
  body {
    font-family: Arial, sans-serif;
    margin: 0;
    padding: 0;
  }
  header {
    background-color: #333;
    color: white;
    padding: 10px;
    text-align: center;
  }
  nav {
    background-color: #f0f0f0;
    padding: 10px;
  }
  nav ul {
    list-style-type: none;
    margin: 0;
    padding: 0;
    text-align: center;
  }
  nav ul li {
    display: inline;
    margin-right: 10px;
  }
  main {
    padding: 20px;
  }
  .default-content {
    background-color: #f9f9f9;
    padding: 20px;
    border: 1px solid #ddd;
  }
  .new-content {
    background-color: #007bff;
    color: white;
    padding: 20px;
    border: 1px solid #0056b3;
  }
</style>
```

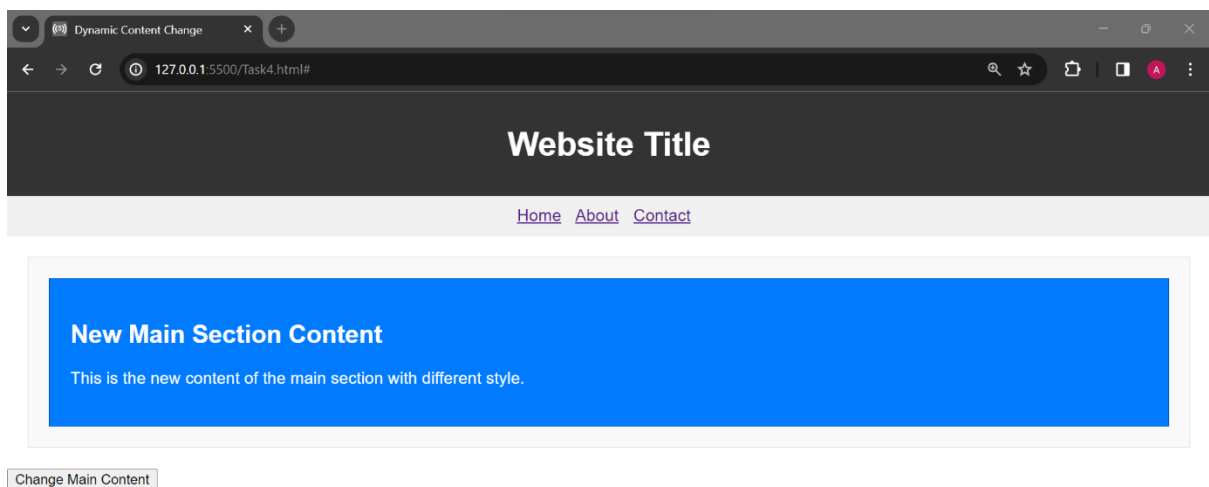
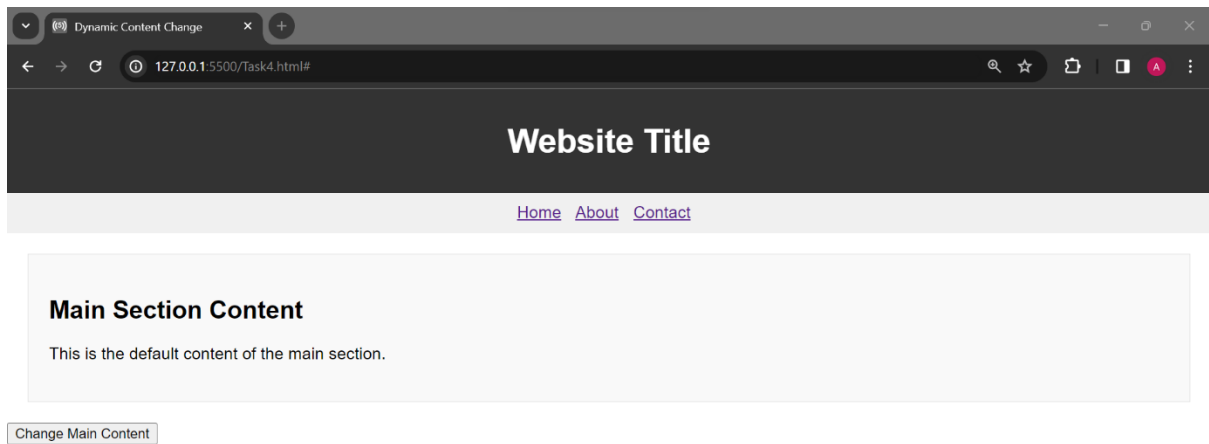
```

</head>
<body>
<header>
  <h1>Website Title</h1>
</header>
<nav>
  <ul>
    <li><a href="#">Home</a></li>
    <li><a href="#">About</a></li>
    <li><a href="#">Contact</a></li>
  </ul>
</nav>
<main>
  <section class="default-content" id="mainSection">
    <h2>Main Section Content</h2>
    <p>This is the default content of the main section.</p>
  </section>
</main>
<button id="changeContentButton">Change Main Content</button>

<script>
  document.getElementById('changeContentButton').addEventListener('click', function() {
    var mainSection = document.getElementById('mainSection');
    mainSection.innerHTML = `
      <section class="new-content">
        <h2>New Main Section Content</h2>
        <p>This is the new content of the main section with different
style.</p>
      </section>
    `;
  });
</script>
</body>
</html>

```

Output]



Task5] Consider a h1 heading lying outside the main section in the page. Try changing the color of h1 in at least 3 different ways.

Code]

```
<!-- By getElementById -->

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-
scale=1.0">
  <title>Task 5</title>
</head>
<body>
  <h1 id="myHeading">Method 1</h1>

  <script>
```

```
        var headingElement = document.getElementById("myHeading");
        headingElement.style.color = "red";
    </script>
</body>
</html>
```

```
<!-- By document.querySelector -->

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <title>Task 5</title>
</head>
<body>
    <h1 class="myClass">Method 2</h1>

    <script>
        var headingElement = document.querySelector(".myClass");
        headingElement.style.color = "green";
    </script>
</body>
</html>
```

```
<!-- By getElementsByTagName -->

<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <title>Task 5</title>
</head>
<body>
    <h1>Method 3</h1>

    <script>
        var headingElement = document.getElementsByTagName("h1")[0];
        headingElement.style.color = "blue";
    </script>
</body>
</html>
```

Output]



Method 1








Method 2



Method 3

Task6]

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.

Code]

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
```

```

    <meta name="viewport" content="width=device-width, initial-
scale=1.0">
    <title>Task 6</title>
    <style>
        body {
            font-family: Arial, sans-serif;
            margin: 0;
            padding: 0;
        }
        table {
            width: 100%;
            border-collapse: collapse;
        }
        th,
        td {
            padding: 10px;
            text-align: center;
            border: 1px solid #ddd;
        }
        img {
            width: 50px;
            height: 50px;
        }
        tr:nth-child(2) {
            background-color: #f2f2f2;
        }
    </style>
</head>

<body>
    <br>
    <br>
    <table>
        <tr>
            <th></th>
            <th></th>
            <th></th>
            <th></th>
            <th></th>
        </tr>
        <tr>
            <td>57.0</td>
            <td>16.0</td>
            <td>52.0</td>
            <td>10</td>
            <td>44</td>
        </tr>
    </table>

```






```
        </tr>
    </table>

</body>

</html>
```

Output]



				
57.0	16.0	52.0	10	44