

WEB-TECH LAB-4

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1)

```
<!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;
     transition: background-color 0.5s ease;
   }
✓   h1 {
     margin-top: 50px;
   }
✓   button {
     padding: 10px 20px;
     font-size: 16px;
     cursor: pointer;
     transition: background-color 0.3s ease, color 0.3s ease;
   }
  </style>
</head>
✓ <body>

  <h1 id="heading">Welcome to My Page</h1>
  <button id="changeBtn">Change Color and Text</button>

✓ <script>
✓   document.getElementById('changeBtn').addEventListener('click', function() {
     var body = document.body;
     var heading = document.getElementById('heading');
```

```

33
34 // Generate random color
35 var randomColor = '#' + Math.floor(Math.random()*16777215).toString(16);
36
37 // Change background color
38 body.style.backgroundColor = randomColor;
39
40 // Change text
41 if (heading.textContent === 'Welcome to My Page') {
42 | heading.textContent = 'New Background Color!';
43 } else {
44 | heading.textContent = 'Welcome to My Page';
45 }
46
47 // Ensure contrast between text color and background color
48 var textColor = getTextColor(randomColor);
49 heading.style.color = textColor;
50 this.style.backgroundColor = textColor;
51 this.style.color = randomColor;
52 });
53
54 // Function to determine text color based on background color
55 function getTextColor(bgColor) {
56 | var hex = bgColor.replace('#', '');
57 | var r = parseInt(hex.substring(0,2),16);
58 | var g = parseInt(hex.substring(2,4),16);
59 | var b = parseInt(hex.substring(4,6),16);
60 | var brightness = ((r * 299) + (g * 587) + (b * 114)) / 1000;
61 | return (brightness > 125) ? '#000' : '#fff';
62 }
63 </script>

```

```

48     var textColor = getTextColor(randomColor);
49     heading.style.color = textColor;
50     this.style.backgroundColor = textColor;
51     this.style.color = randomColor;
52 });
53
54 // Function to determine text color based on background color
55 function getTextColor(bgColor) {
56     var hex = bgColor.replace('#', '');
57     var r = parseInt(hex.substring(0,2),16);
58     var g = parseInt(hex.substring(2,4),16);
59     var b = parseInt(hex.substring(4,6),16);
60     var brightness = ((r * 299) + (g * 587) + (b * 114)) / 1000;
61     return (brightness > 125) ? '#000' : '#fff';
62 }
63 </script>
64
65 </body>
66 </html>
67

```

Welcome to My Page

Change Color and Text

New Background Color!

Change Color and Text

2)

New Heading Text!

Change Color and Text

Click Me

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4 <meta charset="UTF-8">
5 <meta name="viewport" content="width=device-width, initial-scale=1.0">
6 <title>Change Background Color and Text</title>
7 <style>
8   body {
9     font-family: Arial, sans-serif;
10    text-align: center;
11    transition: background-color 0.5s ease;
12    background-color: lightgreen; /* a. Make the background light green */
13  }
14  h1 {
15    margin-top: 50px;
16    color: red; /* b. Add a line that makes the text red */
17    font-size: 48pt; /* c. Change the fontSize to 48pt */
18  }
19  button {
20    padding: 10px 20px;
21    font-size: 16px;
22    cursor: pointer;
23    transition: background-color 0.3s ease, color 0.3s ease;
24  }
25 </style>
26 </head>
27 <body>
28
29 <h1 id="heading">Welcome to My Page</h1>
30 <button id="changeBtn">Change Color and Text</button>
31
32 <script>
```

```

33 document.getElementById('changeBtn').addEventListener('click', function() {
34     var body = document.body;
35     var heading = document.getElementById('heading');
36
37     // Generate random color
38     var randomColor = '#' + Math.floor(Math.random()*16777215).toString(16);
39
40     // Change background color
41     body.style.backgroundColor = randomColor;
42
43     // Change text
44     if (heading.textContent === 'Welcome to My Page') {
45         heading.textContent = 'New Heading Text!'; // d. Change the wording inside the <h1> tag
46     } else {
47         heading.textContent = 'Welcome to My Page';
48     }
49
50     // Ensure contrast between text color and background color
51     var textColor = getTextColor(randomColor);
52     heading.style.color = textColor;
53     this.style.backgroundColor = textColor;
54     this.style.color = randomColor;
55 });
56
57 // Function to determine text color based on background color
58 function getTextColor(bgColor) {
59     var hex = bgColor.replace('#', '');
60     var r = parseInt(hex.substring(0,2),16);
61     var g = parseInt(hex.substring(2,4),16);
62     var b = parseInt(hex.substring(4,6),16);
63     var brightness = ((r * 299) + (g * 587) + (b * 114)) / 1000;

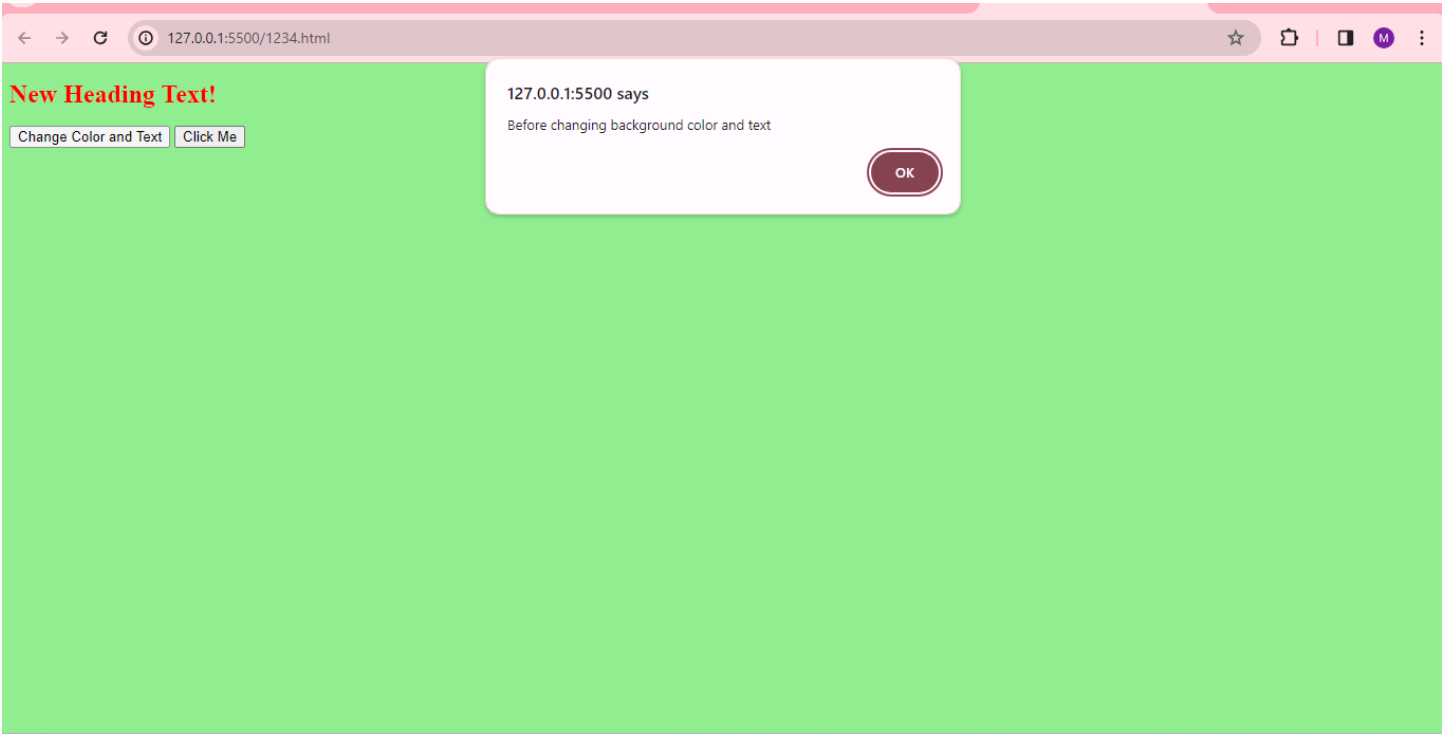
```

```

59     var hex = bgColor.replace('#', '');
60     var r = parseInt(hex.substring(0,2),16);
61     var g = parseInt(hex.substring(2,4),16);
62     var b = parseInt(hex.substring(4,6),16);
63     var brightness = ((r * 299) + (g * 587) + (b * 114)) / 1000;
64     return (brightness > 125) ? '#000' : '#fff';
65 }
66 </script>
67
68 <button>Click Me</button> <!-- e. Add <button>Click Me</button> after the closing </h1>. -->
69
70 </body>
71 </html>

```

3)




```
25 <script>
26     alert("Before assigning class attribute");
27
28     document.getElementById('changeBtn').addEventListener('click', function() {
29         alert("Before changing background color and text");
30
31         var body = document.body;
32         var heading = document.getElementById('heading');
33
34         // Change background color
35         body.classList.add('lightgreen');
36
37         // Change text color
38         heading.classList.add('red-text');
39
40         // Change text
41         heading.textContent = 'New Heading Text!'; // d. Change the wording inside the <h1> tag
42
43         alert("After changing background color and text");
44     });
45
46     alert("After assigning class attribute");
47 </script>
48
49 <button>Click Me</button> <!-- e. Add <button>Click Me</button> after the closing </h1>. -->
50
51 </body>
52 </html>
53
```

4)

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4  <meta charset="UTF-8">
5  <meta name="viewport" content="width=device-width, initial-scale=1.0">
6  <title>Dynamic Content Change</title>
7  <style>
8  body {
9      font-family: Arial, sans-serif;
10     margin: 0;
11     padding: 0;
12     background-color: #f0f0f0;
13 }
14 header {
15     background-color: #333;
16     color: #fff;
17     padding: 10px;
18     text-align: center;
19 }
20 section {
21     padding: 20px;
22     margin: 20px;
23     background-color: #fff;
24     border-radius: 5px;
25     box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
26 }
27 #content1 {
28     font-size: 18px;
29     line-height: 1.5;
30 }
31 #content2 {
32     font-size: 24px;
```

```
30 }
31 #content2 {
32     font-size: 24px;
33     line-height: 1.8;
34     color: #0066cc;
35     text-align: center;
36 }
37 button {
38     padding: 10px 20px;
39     font-size: 16px;
40     cursor: pointer;
41     background-color: #0066cc;
42     color: #fff;
43     border: none;
44     border-radius: 5px;
45     transition: background-color 0.3s ease, color 0.3s ease;
46 }
47 button:hover {
48     background-color: #004080;
49 }
50 </style>
51 </head>
52 <body>
53
54 <header>
55     <h1>Dynamic Content Change</h1>
56 </header>
57
58 <main>
59     <section id="mainContent">
60         <div id="content1">
61             <h2>Main Content Section</h2>
```

```
56 </header>
57
58 <main>
59   <section id="mainContent">
60     <div id="content1">
61       <h2>Main Content Section</h2>
62       <p>This is the initial content of the main section. Click the button below to change it.</p>
63     </div>
64   </section>
65 </main>
66
67 <button id="changeContentBtn">Change Content</button>
68
69 <script>
70   document.getElementById('changeContentBtn').addEventListener('click', function() {
71     var mainContent = document.getElementById('mainContent');
72
73     // Replace content of main section
74     mainContent.innerHTML = `
75       <div id="content2">
76         <h2>New Content Section</h2>
77         <p>This is the new content of the main section with different styles.</p>
78       </div>
79     `;
80   });
81 </script>
82
83 </body>
84 </html>
85
```

Dynamic Content Change

New Content Section

This is the new content of the main section with different styles.

Change Content

5)

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Change h1 Color</title>
7  </head>
8  <body>
9      <h1 id="myHeading">Your Heading</h1>
10
11     <script>
12         var headingElement = document.getElementById("myHeading");
13         headingElement.style.color = "red";
14     </script>
15 </body>
16 </html>
17
18
19
```

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Change h1 Color</title>
7  </head>
8  <body>
9      <h1 class="myClass">Your Heading</h1>
10
11     <script>
12         var headingElement = document.querySelector(".myClass");
13         headingElement.style.color = "green";
14     </script>
15 </body>
16 </html>
```

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Change h1 Color</title>
7  </head>
8  <body>
9      <h1>Your Heading</h1>
10
11  <script>
12      var headingElement = document.getElementsByTagName("h1")[0];
13      headingElement.style.color = "blue";
14  </script>
15 </body>
16 </html>
```

Your Heading



Your Heading

Your Heading

6)

```
1  <!DOCTYPE html>
2  <html lang="en">
3
4  <head>
5      <meta charset="UTF-8">
6      <meta name="viewport" content="width=device-width, initial-scale=1.0">
7      <title>Browser Versions</title>
8  <style>
9      body {
10         font-family: Arial, sans-serif;
11         margin: 0;
12         padding: 0;
13     }
14
15     table {
16         width: 100%;
17         border-collapse: collapse;
18     }
19
20     th,
21     td {
22         padding: 10px;
23         text-align: center;
24         border: 1px solid #ddd;
25     }
26
27     img {
28         width: 50px;
29         height: 50px;
30     }
31
```

```
30     }
31
32     tr:nth-child(2) {
33         background-color: #f2f2f2;
34     }
35 </style>
36 </head>
37
38 <body>
39
40     <table>
41         <tr>
42             <th>
48         <tr>
49             <td>57.0</td>
50             <td>16.0</td>
51             <td>52.0</td>
52             <td>10</td>
53             <td>44</td>
54         </tr>
55     </table>
56
57 </body>
58
59 </html>
```

				
57.0	16.0	52.0	10	44

