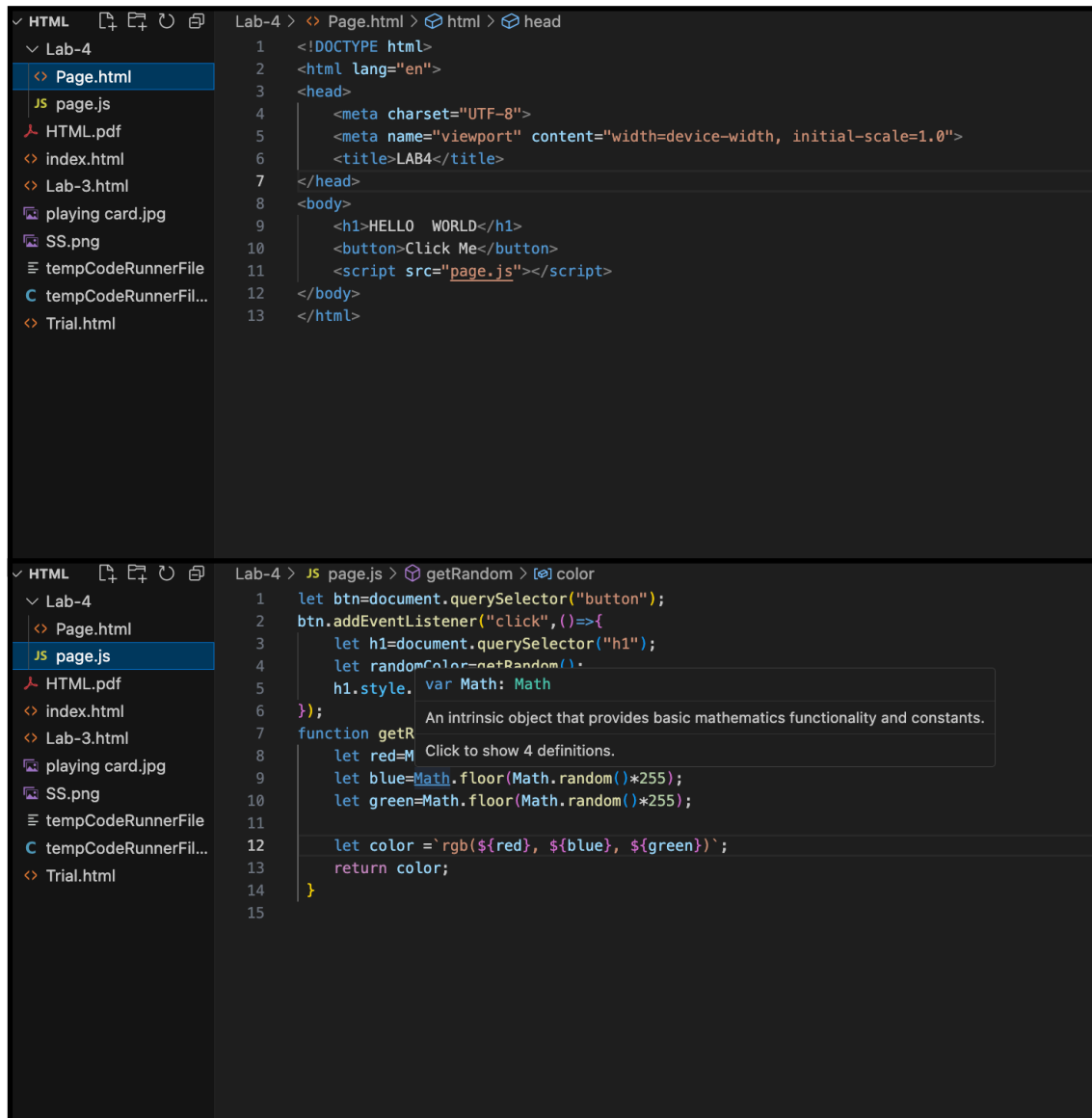


22CS3002
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06 Feb 2024
Web Tech Lab - 4

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.

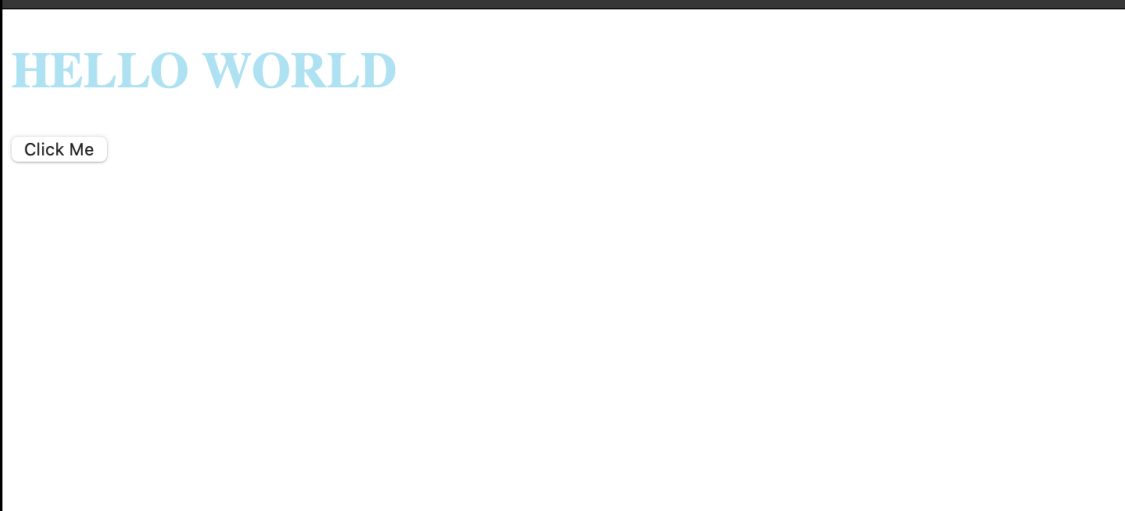


The image shows a VS Code editor with two files open: `Page.html` and `page.js`. The `Page.html` file contains the following code:

```
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>LAB4</title>
7 </head>
8 <body>
9   <h1>HELLO WORLD</h1>
10  <button>Click Me</button>
11  <script src="page.js"></script>
12 </body>
13 </html>
```

The `page.js` file contains the following code:

```
1 let btn=document.querySelector("button");
2 btn.addEventListener("click",()=>{
3   let h1=document.querySelector("h1");
4   let randomColor=getRandom();
5   h1.style. var Math: Math
6 });
7 function getR
8   let red=M Click to show 4 definitions.
9   let blue=Math.floor(Math.random()*255);
10  let green=Math.floor(Math.random()*255);
11
12   let color=`rgb(${red}, ${blue}, ${green})`;
13   return color;
14 }
15
```

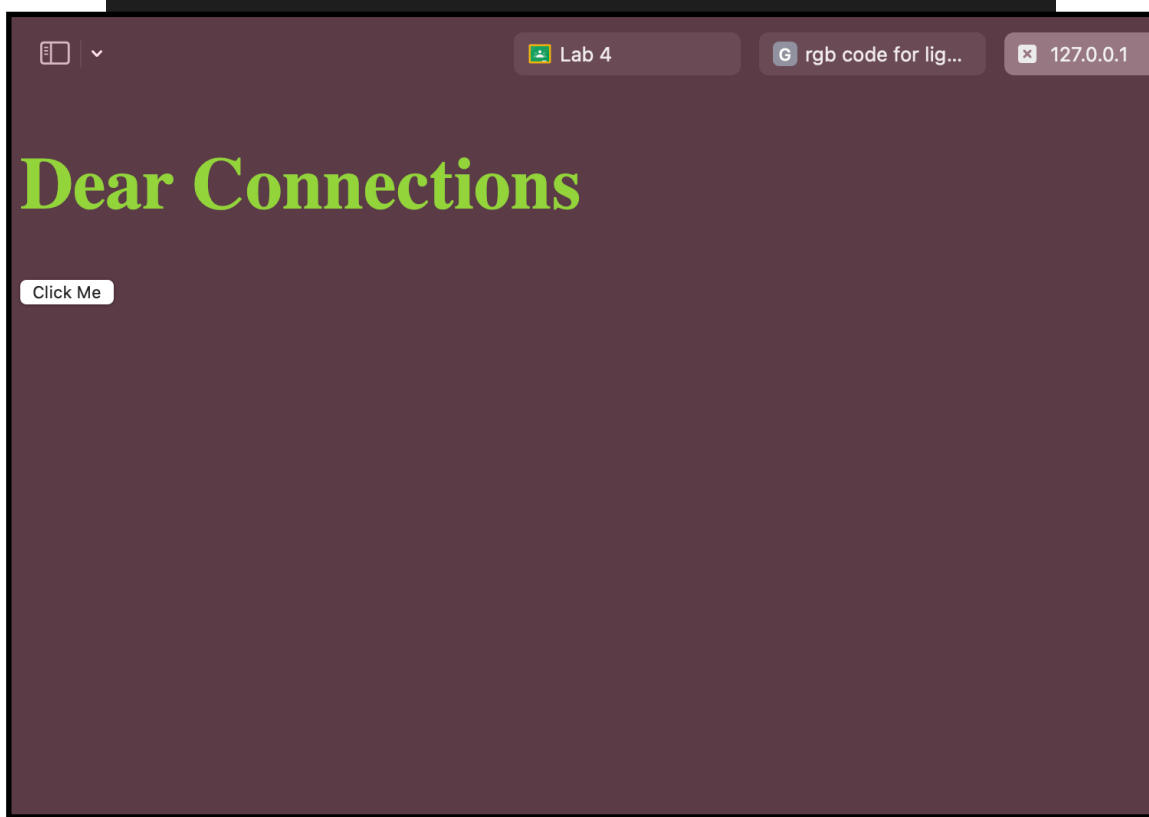


T2. For T1, experiment with the Javascript code by trying the following things:

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

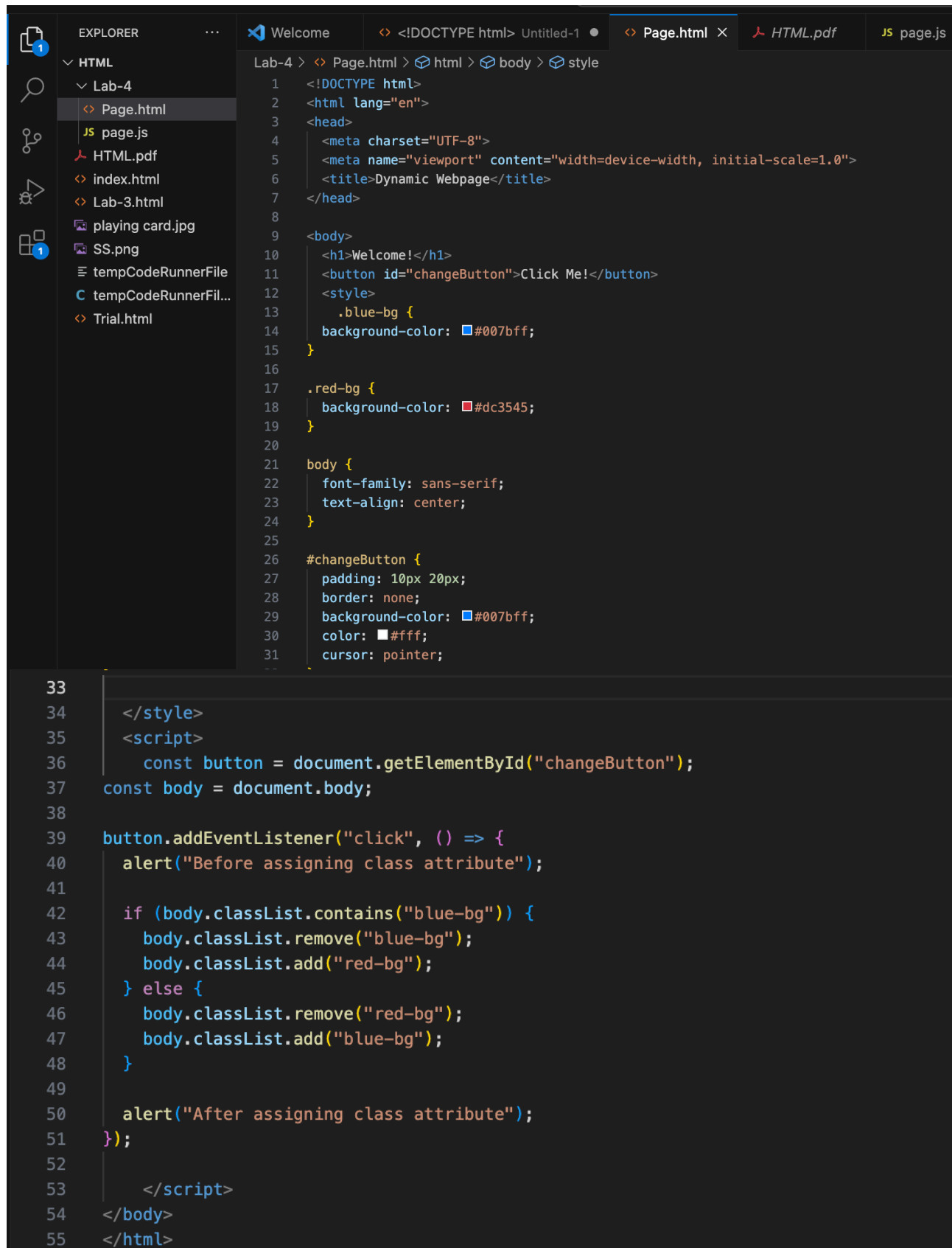
Code:

```
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>LAB4</title>
7  </head>
8  <body class="container">
9    <h1>HELLO WORLD</h1>
10   <button>Click Me</button>
11   <script>
12     let btn=document.querySelector("button");
13     let bdy=document.querySelector(".container");
14     bdy.style.backgroundColor=getRandom();
15
16     btn.addEventListener("click",()=>{
17       let h1=document.querySelector("h1");
18       h1.style.fontSize="48px";
19       let randomColor=getRandom();
20       h1.style.color=randomColor;
21       h1.innerText="Dear Connections";
22     });
23     function getRandom(){
24       let red=Math.floor(Math.random()*255);
25       let blue=Math.floor(Math.random()*255);
26       let green=Math.floor(Math.random()*255);
27
28       let color=`rgb(${red}, ${blue}, ${green})`;
29       return color;
30     }
31   </script>
32 </body>
33 </html>
```



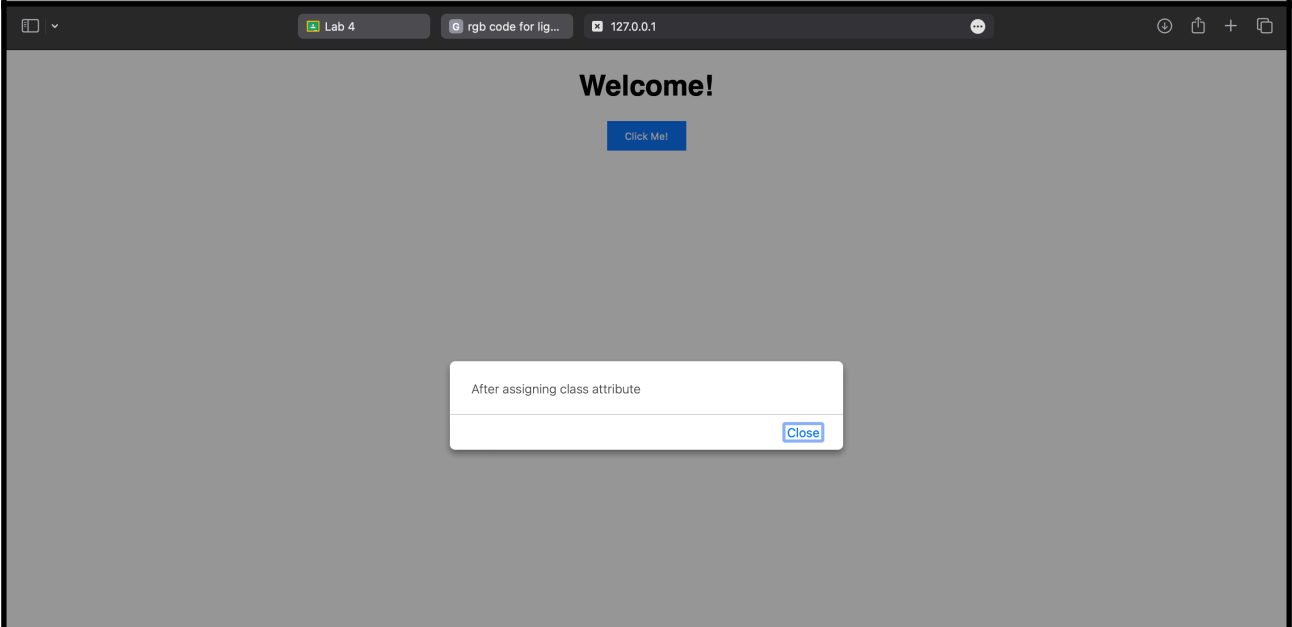
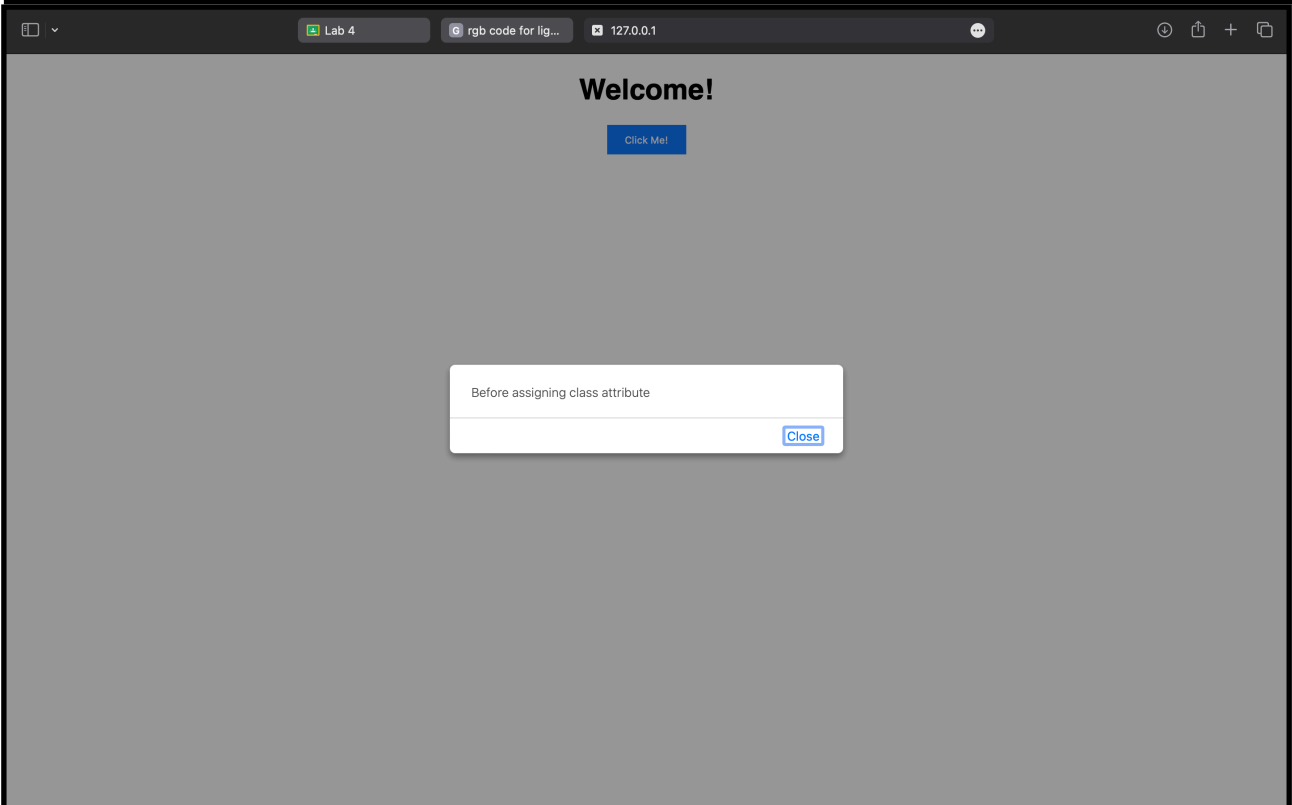
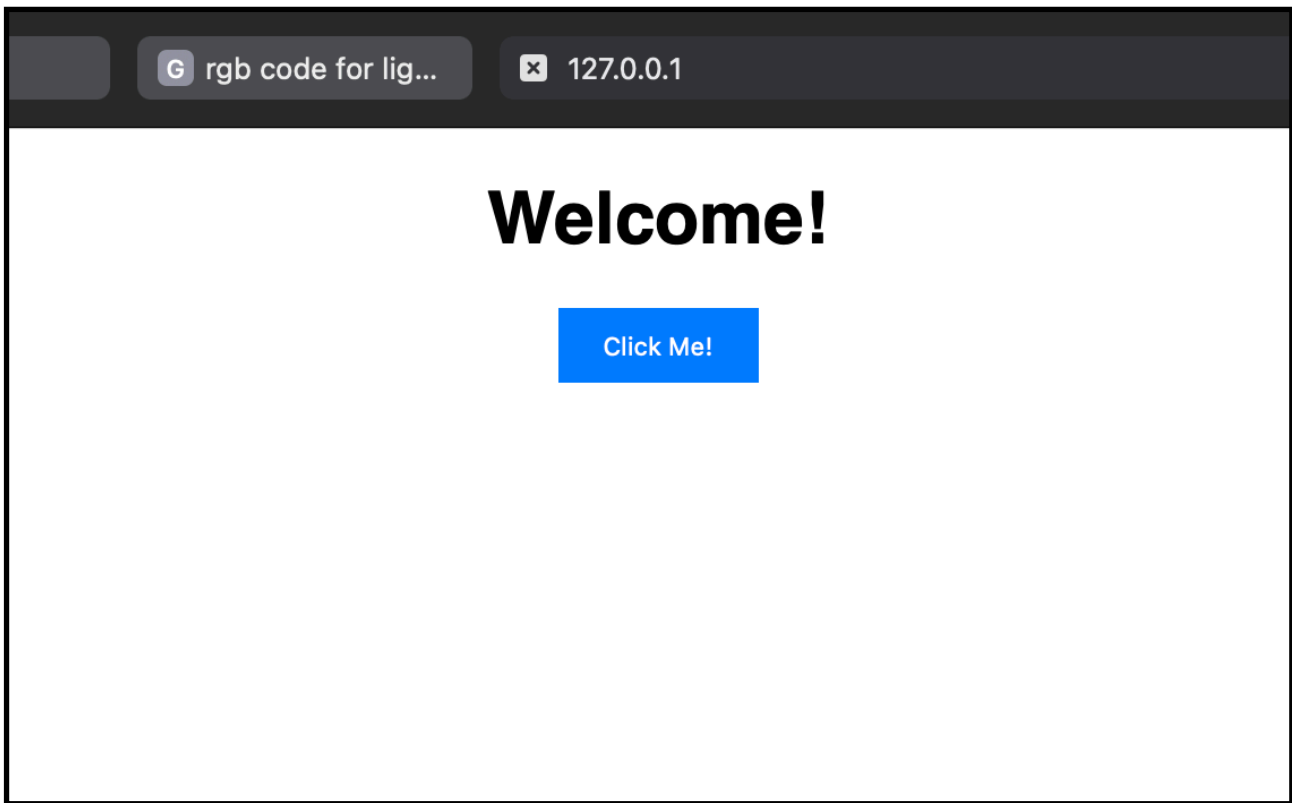
T3. For T1, set the color of the background directly with the class attribute. Generate alerts before and after assigning the class attribute to document object.

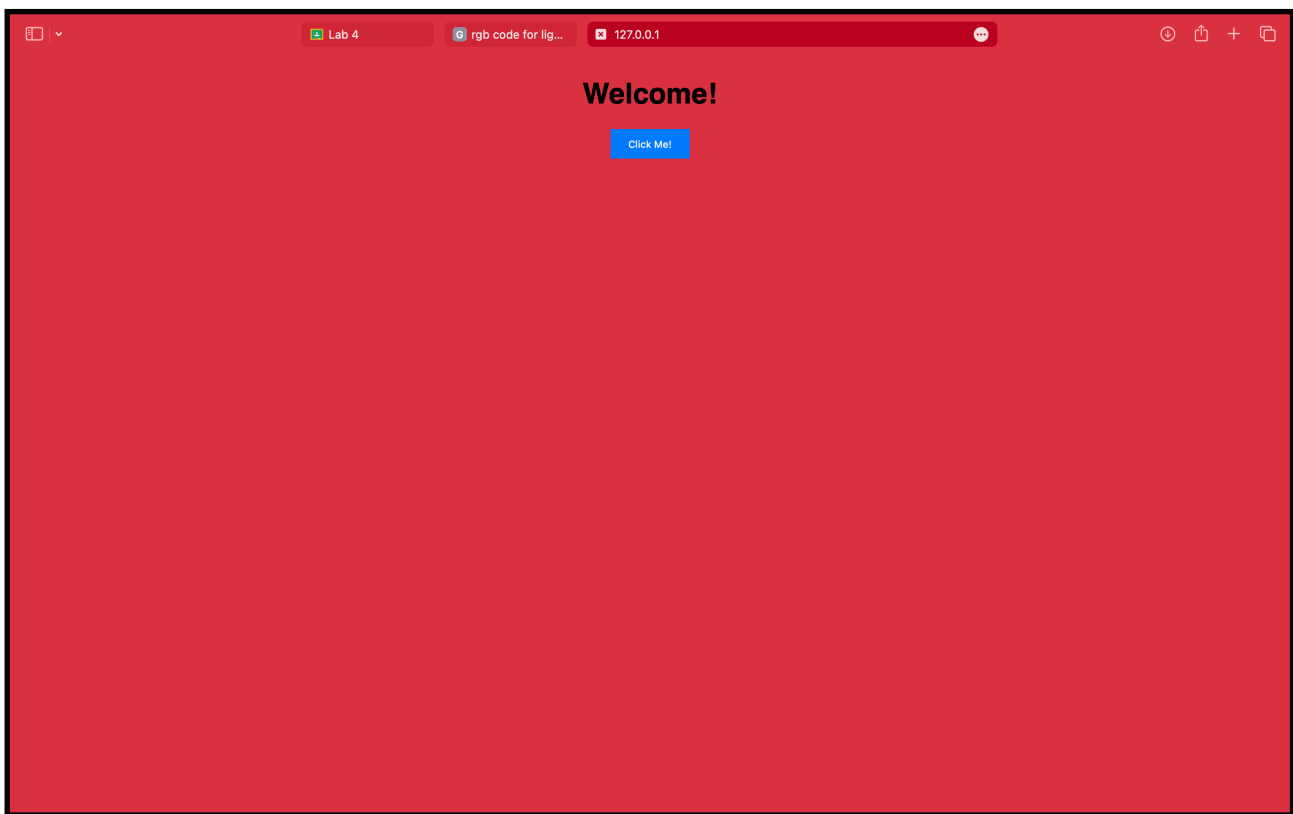
Code:



The image shows a VS Code editor window with a file explorer on the left and a code editor on the right. The file explorer shows a project structure with a 'Lab-4' folder containing 'Page.html', 'page.js', 'HTML.pdf', 'index.html', 'Lab-3.html', 'playing card.jpg', 'SS.png', 'tempCodeRunnerFile', 'tempCodeRunnerFil...', and 'Trial.html'. The code editor displays the content of 'Page.html' and 'page.js'.

```
Lab-4 > <> Page.html > html > body > style
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 Webpage</title>
7  </head>
8
9  <body>
10   <h1>Welcome!</h1>
11   <button id="changeButton">Click Me!</button>
12   <style>
13     .blue-bg {
14       background-color: #007bff;
15     }
16
17     .red-bg {
18       background-color: #dc3545;
19     }
20
21     body {
22       font-family: sans-serif;
23       text-align: center;
24     }
25
26     #changeButton {
27       padding: 10px 20px;
28       border: none;
29       background-color: #007bff;
30       color: #fff;
31       cursor: pointer;
32
33
34   </style>
35   <script>
36     const button = document.getElementById("changeButton");
37     const body = document.body;
38
39     button.addEventListener("click", () => {
40       alert("Before assigning class attribute");
41
42       if (body.classList.contains("blue-bg")) {
43         body.classList.remove("blue-bg");
44         body.classList.add("red-bg");
45       } else {
46         body.classList.remove("red-bg");
47         body.classList.add("blue-bg");
48       }
49
50       alert("After assigning class attribute");
51     });
52
53   </script>
54 </body>
55 </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.

Code:

```

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>Content Replacement</title>
7    <style>
8      body {
9        font-family: Arial, sans-serif;
10       margin: 0;
11       padding: 0;
12     }
13     header {
14       background-color: #f3f3f3;
15       color: #fff;
16       padding: 10px;
17       text-align: center;
18     }
19     main {
20       padding: 20px;
21     }
22     #main-content1 {
23       background-color: #f0f0f0;
24       padding: 20px;
25     }
26     #main-content2 {
27       background-color: #cccc;
28       padding: 20px;
29       display: none;
30     }
31     button {
32       padding: 10px 20px;
33       background-color: #f3f3f3;
34       color: #fff;
35       cursor: pointer;
36       margin: 0 auto;
37     }
38   </style>
39 </head>
40 <body>
41   <header>
42     <h1>Main Header</h1>
43   </header>
44   <main>
45     <section id="main-content1">
46       <h2>Main Content 1</h2>
47       <p>This is the content of the main section.</p>
48     </section>
49     <section id="main-content2">
50       <h2>Main Content 2</h2>
51       <p>This is the replaced content.</p>
52     </section>
53   </main>
54   <button>Click Me!</button>
55 </body>
56 </html>

```

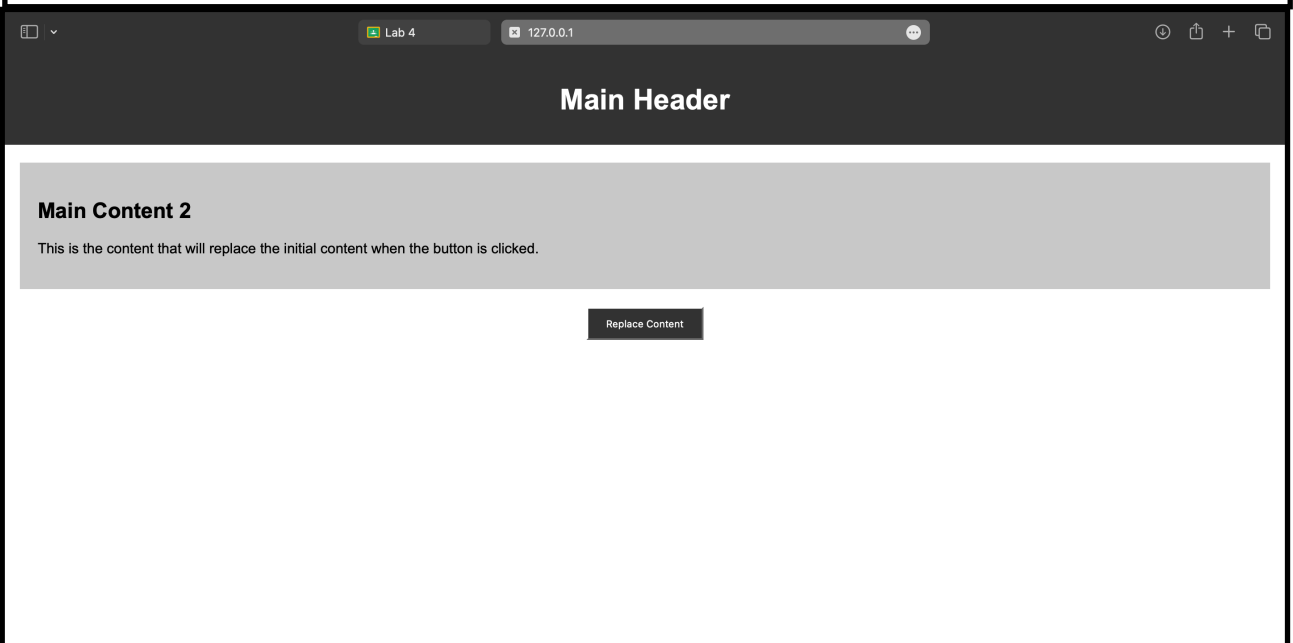
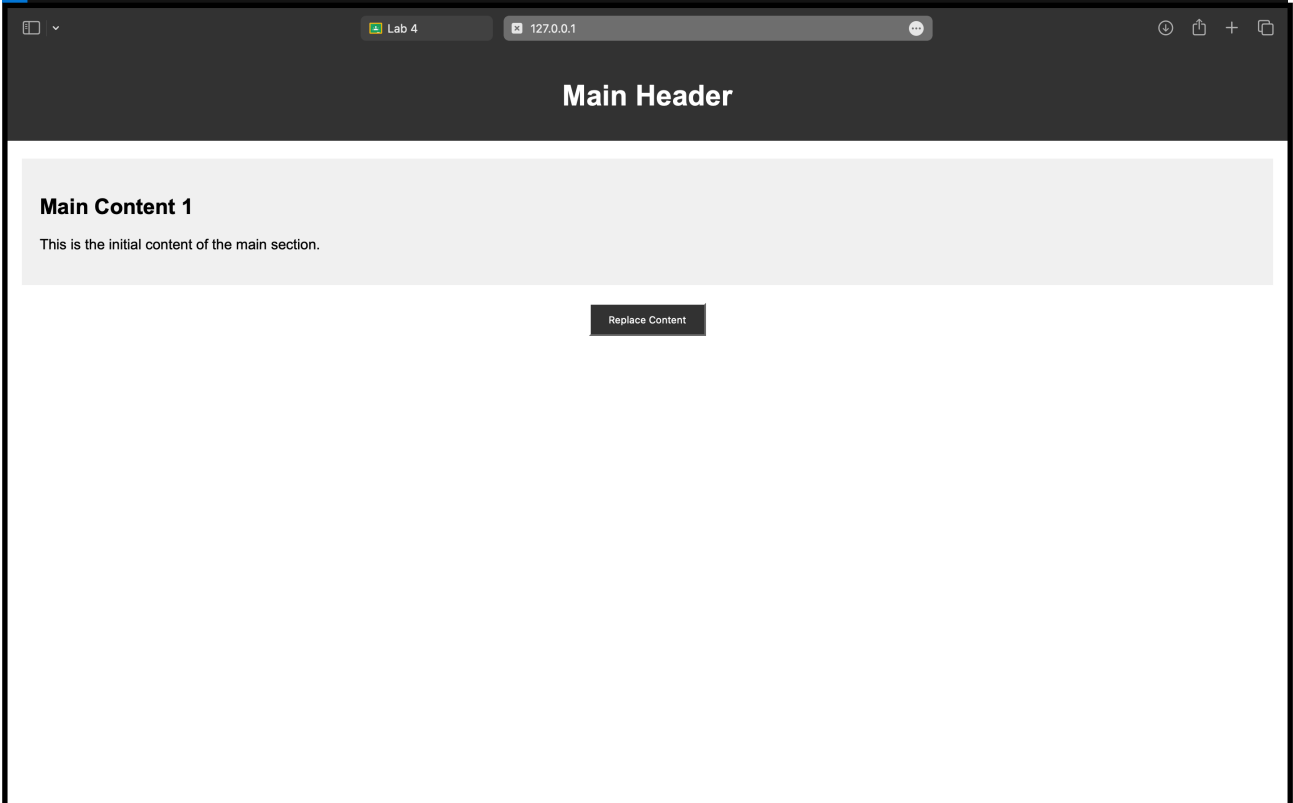
EXPLORER

HTML
Lab-4
Page.html
page.js
HTML.pdf
index.html
Lab-3.html
playing card.jpg
SS.png
tempCodeRunnerFile
tempCodeRunnerFill...
Trial.html

Lab-4 > Page.html > html > head > style > #main-content2
40 </head>
41 <body>
42 <header>
43 <h1>Main Header</h1>
44 </header>
45
46 <main>
47 <section id="main-content1">
48 <h2>Main Content 1</h2>
49 <p>This is the content of the main section.</p>
50 </section>
51 <section id="main-content2">
52 <h2>Main Content 2</h2>
53 <p>This is the replaced content.</p>
54 </section>
55 </main>
56
57 <center><button onClick="toggleContent()"> Replace Content</button></center>
58
59 <script>
60 function toggleContent() {
61 var content1 = document.getElementById('main-content1');
62 var content2 = document.getElementById('main-content2');
63
64 if (content1.style.display === 'none') {
65 content1.style.display = 'block';
66 content2.style.display = 'none';
67 } else {
68 content1.style.display = 'none';
69 content2.style.display = 'block';
70 }
71 }
72 </script>
73 </body>
74 </html>

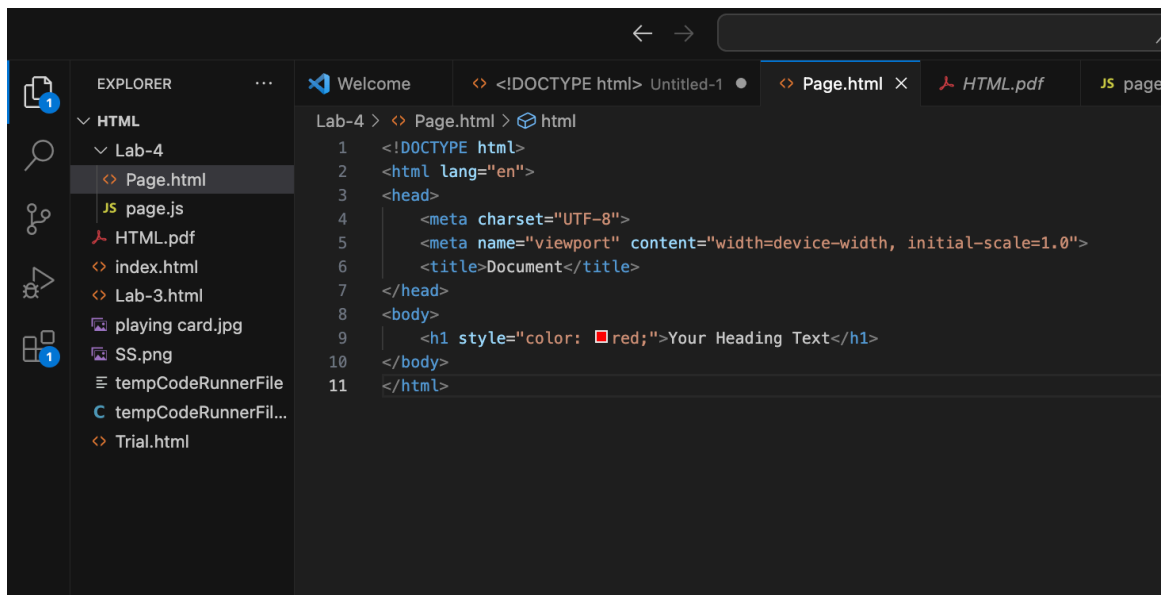
OUTLINE
TIMELINE

Ln 29, Col 27 Spaces: 4 UTF-8 LF HTML Port: 5500



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.

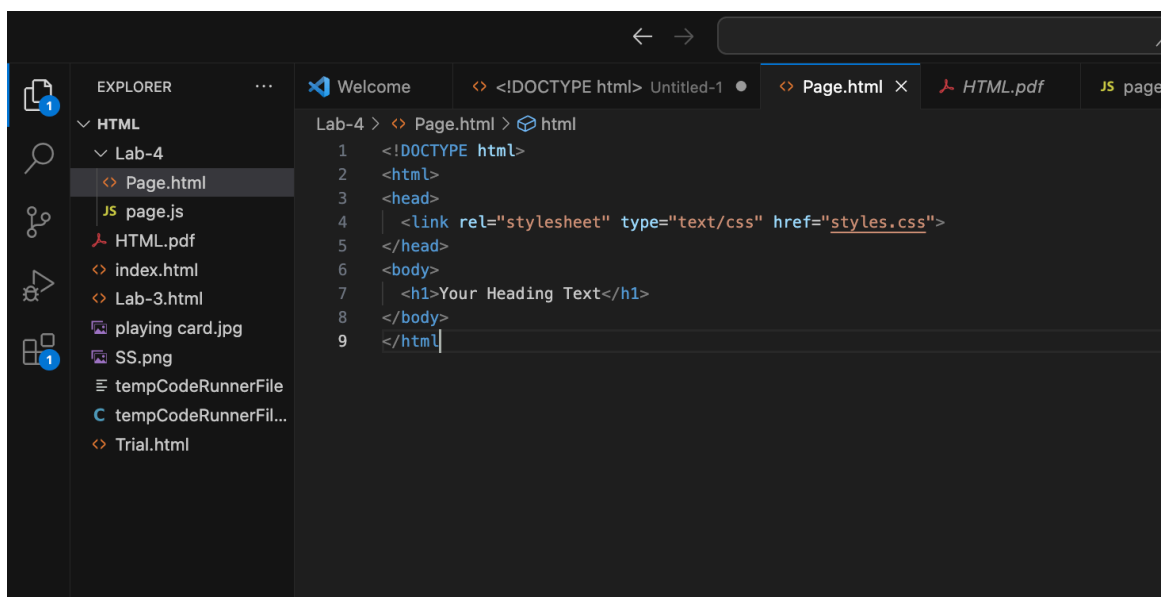
Code1 (Inline CSS)



The screenshot shows the Visual Studio Code editor with a file explorer on the left and a code editor on the right. The file explorer shows a project structure with a folder named 'Lab-4' containing 'Page.html'. The code editor shows the content of 'Page.html' with the following code:

```
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>Document</title>
7 </head>
8 <body>
9   <h1 style="color: red;">Your Heading Text</h1>
10 </body>
11 </html>
```

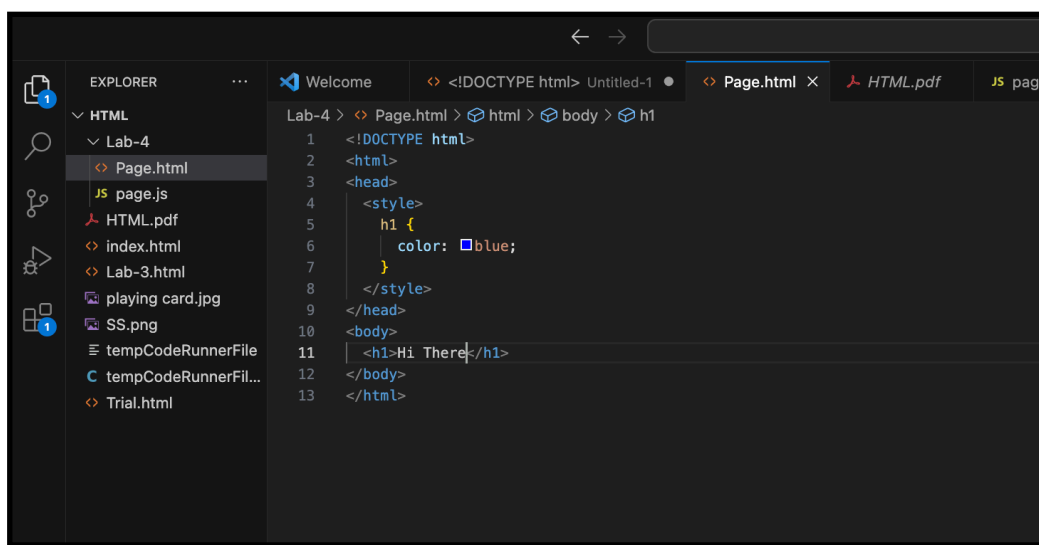
Code2 (Internal CSS)



The screenshot shows the Visual Studio Code editor with a file explorer on the left and a code editor on the right. The file explorer shows a project structure with a folder named 'Lab-4' containing 'Page.html'. The code editor shows the content of 'Page.html' with the following code:

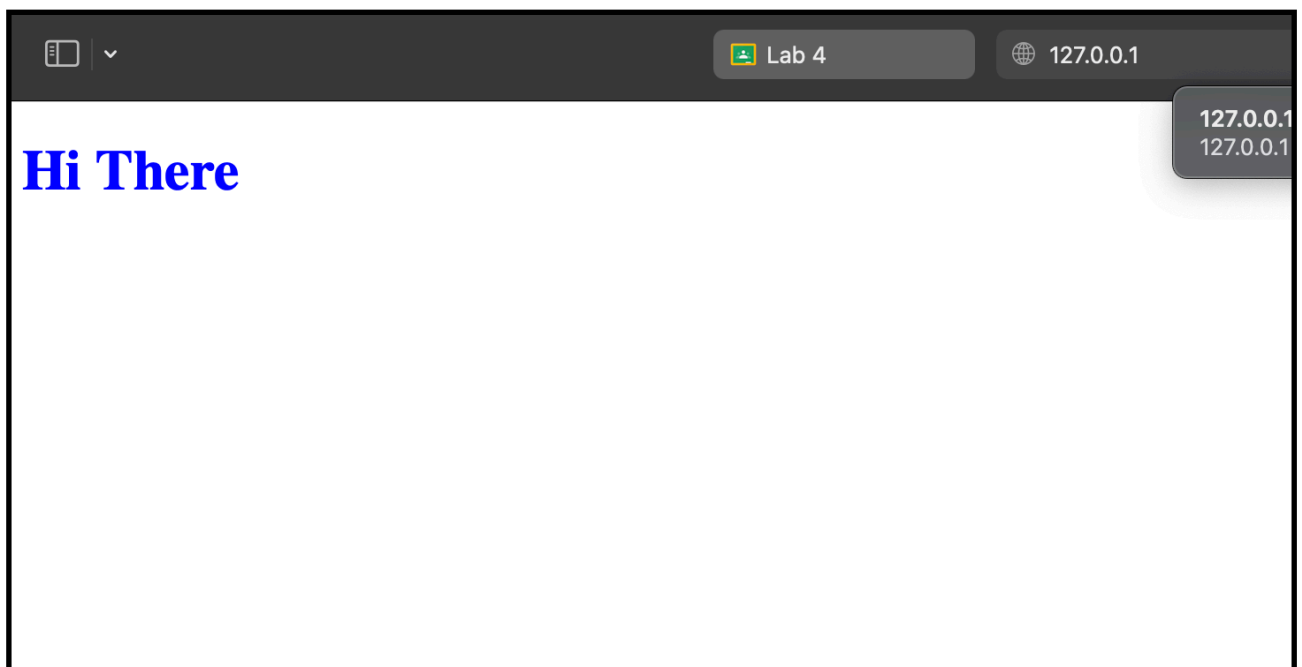
```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <link rel="stylesheet" type="text/css" href="styles.css">
5 </head>
6 <body>
7   <h1>Your Heading Text</h1>
8 </body>
9 </html>
```

Code3 (External CSS)








The screenshot shows the Visual Studio Code editor with a file explorer on the left and a code editor on the right. The file explorer shows a project structure with a folder named 'Lab-4' containing 'Page.html'. The code editor shows the content of 'Page.html' with the following code:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <style>
5     h1 {
6       color: blue;
7     }
8   </style>
9 </head>
10 <body>
11   <h1>Hi There</h1>
12 </body>
13 </html>
```



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:

The screenshot displays a web browser window with a dark theme. The address bar shows the URL `http://localhost:5500/`. The page content includes a table with a single row and two columns, and a browser image below it. The table has a border and a background color of #ccc. The browser image is a placeholder for a browser window. The page is titled "Lab-4" and is part of a project named "Lab-4". The page is loaded from a local file system.

```
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>Browser Versions</title>
7 <style>
8   body {
9     font-family: Arial, sans-serif;
10    margin: 0;
11    padding: 0;
12    text-align: center;
13  }
14  table {
15    width: 100%;
16    border-collapse: collapse;
17  }
18  th, td {
19    padding: 10px;
20    border: 1px solid #ccc;
21  }
22  .browser_img {
23    width: 40px;
24    height: 40px;
25    display: block;
26    margin: 0 auto;
27  }
28 </style>
29 </head>
30 <body>
31
32 <table>
33 <tr>
34 <td>
35   <div class="browser">
36     
37   </div>
38 </td>
39 <td>
40   <div class="browser">
41     
42   </div>
43 </td>
44 </tr>
45 </table>
46
47 <div class="browser">
48   
49 </div>
50
51 </td>
52 <td>
53   <div class="browser">
```


The screenshot shows a web browser window with a table. The table has a light gray background and contains placeholder text and images. The first row has a header with 'background-color: lightgray;'. The second row has a header with 'background-color: lightgray;'. The third row has a header with 'background-color: lightgray;'. The fourth row has a header with 'background-color: lightgray;'. The fifth row has a header with 'background-color: lightgray;'. The table is titled 'Table with 4 columns and 5 rows'.

57.0	16.0	52.0	10	44