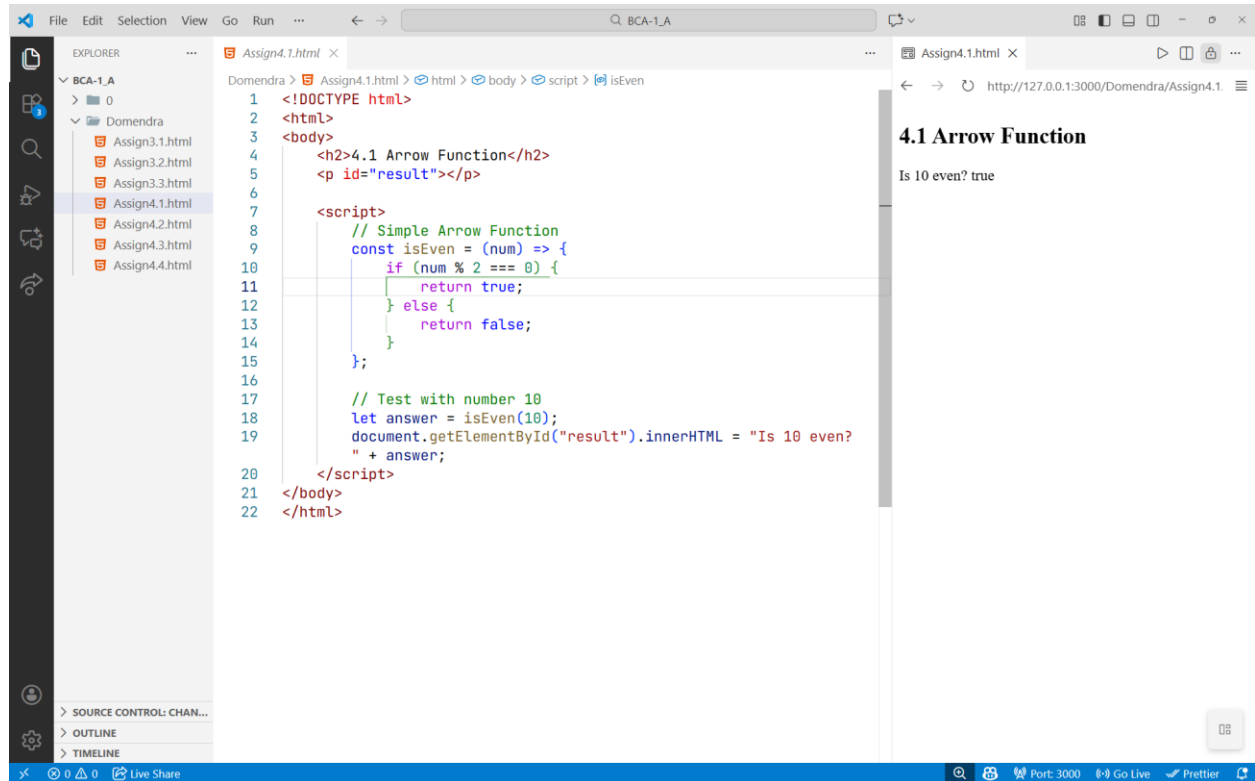


4.1. Write an arrow function isEven(num) that returns true if a number is even.

Code/Output:



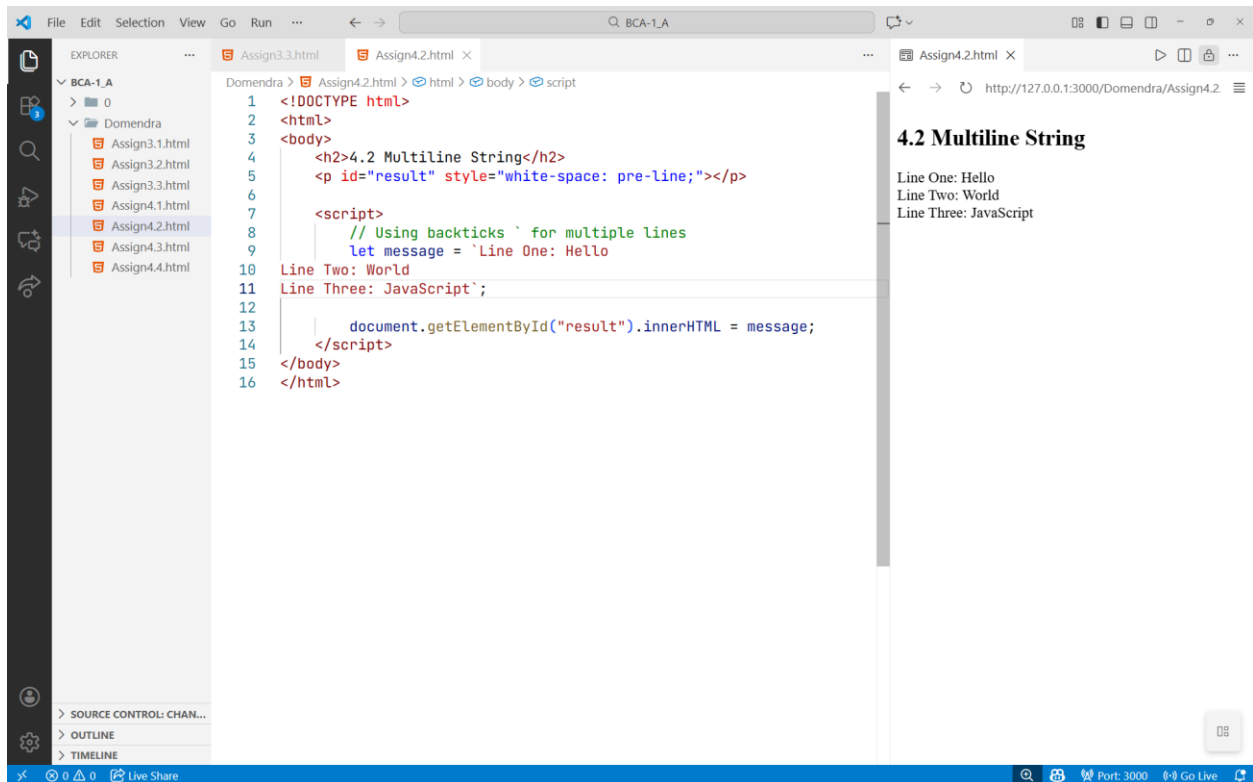
The screenshot shows a VS Code editor with a file explorer on the left, a code editor in the center, and a browser preview on the right. The file explorer shows a project named 'BCA-1_A' with a subdirectory 'Domendra' containing several HTML files. The code editor is open to 'Assign4.1.html' and shows the following code:

```
1 <!DOCTYPE html>
2 <html>
3 <body>
4   <h2>4.1 Arrow Function</h2>
5   <p id="result"></p>
6
7   <script>
8     // Simple Arrow Function
9     const isEven = (num) => {
10      if (num % 2 === 0) {
11        return true;
12      } else {
13        return false;
14      }
15    };
16
17    // Test with number 10
18    let answer = isEven(10);
19    document.getElementById("result").innerHTML = "Is 10 even?
20    " + answer;
21  </script>
22 </body>
23 </html>
```

The browser preview on the right shows the rendered output of the HTML file. It displays the heading '4.1 Arrow Function' and the text 'Is 10 even? true'.

4.2. Create a multiline string using template literals showing a 3-line message.

Code/Output:



The screenshot shows the Visual Studio Code editor with a file explorer on the left, a code editor in the center, and a browser preview on the right. The code editor displays the following HTML and JavaScript code:

```
1 <!DOCTYPE html>
2 <html>
3 <body>
4   <h2>4.2 Multiline String</h2>
5   <p id="result" style="white-space: pre-line;"></p>
6
7   <script>
8     // Using backticks ` for multiple lines
9     let message = `Line One: Hello
10    Line Two: World
11    Line Three: JavaScript`;
12
13     document.getElementById("result").innerHTML = message;
14   </script>
15 </body>
16 </html>
```

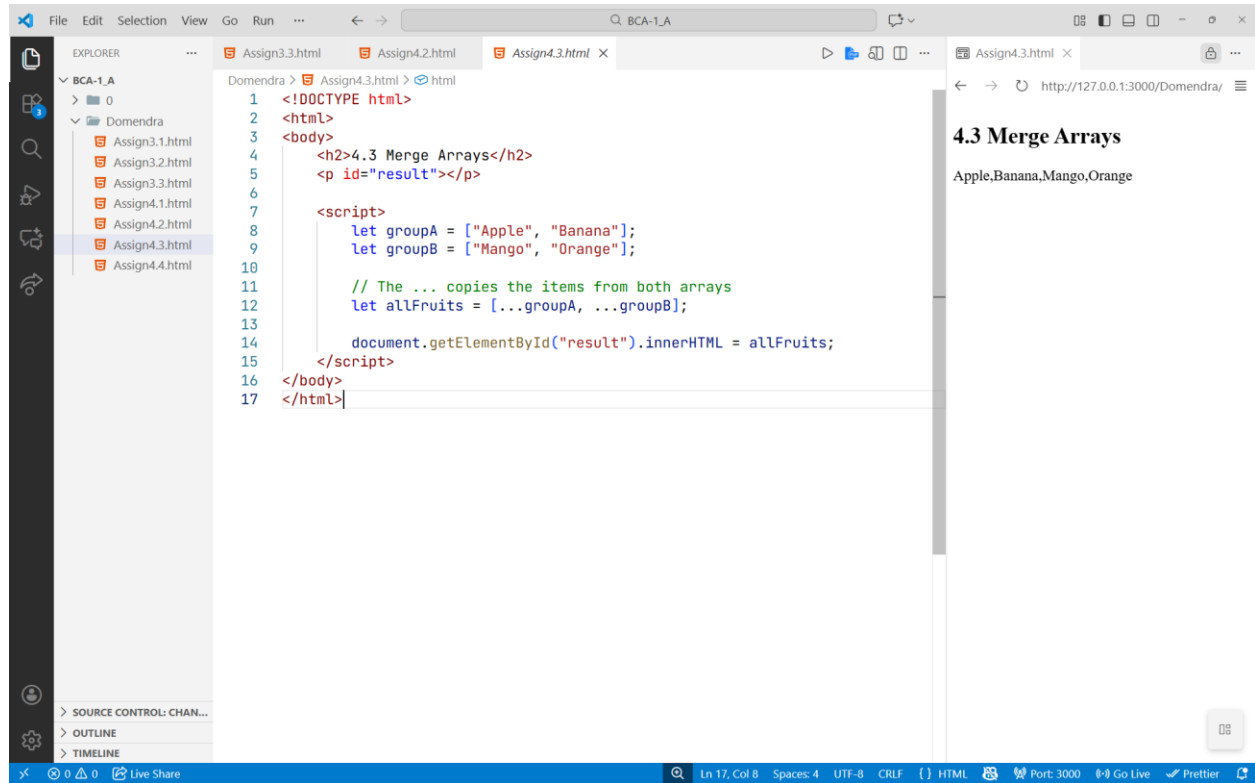
The browser preview on the right shows the rendered output:

4.2 Multiline String

Line One: Hello
Line Two: World
Line Three: JavaScript

4.3. Merge two arrays using the spread operator

Code/Output:



The screenshot shows a VS Code editor with a file explorer on the left, a code editor in the center, and a browser preview on the right. The file explorer shows a project named 'BCA-1_A' with a subdirectory 'Domendra' containing several HTML files. The code editor is open to 'Assign4.3.html' and contains the following code:

```
1 <!DOCTYPE html>
2 <html>
3 <body>
4   <h2>4.3 Merge Arrays</h2>
5   <p id="result"></p>
6
7   <script>
8     let groupA = ["Apple", "Banana"];
9     let groupB = ["Mango", "Orange"];
10
11     // The ... copies the items from both arrays
12     let allFruits = [...groupA, ...groupB];
13
14     document.getElementById("result").innerHTML = allFruits;
15   </script>
16 </body>
17 </html>
```

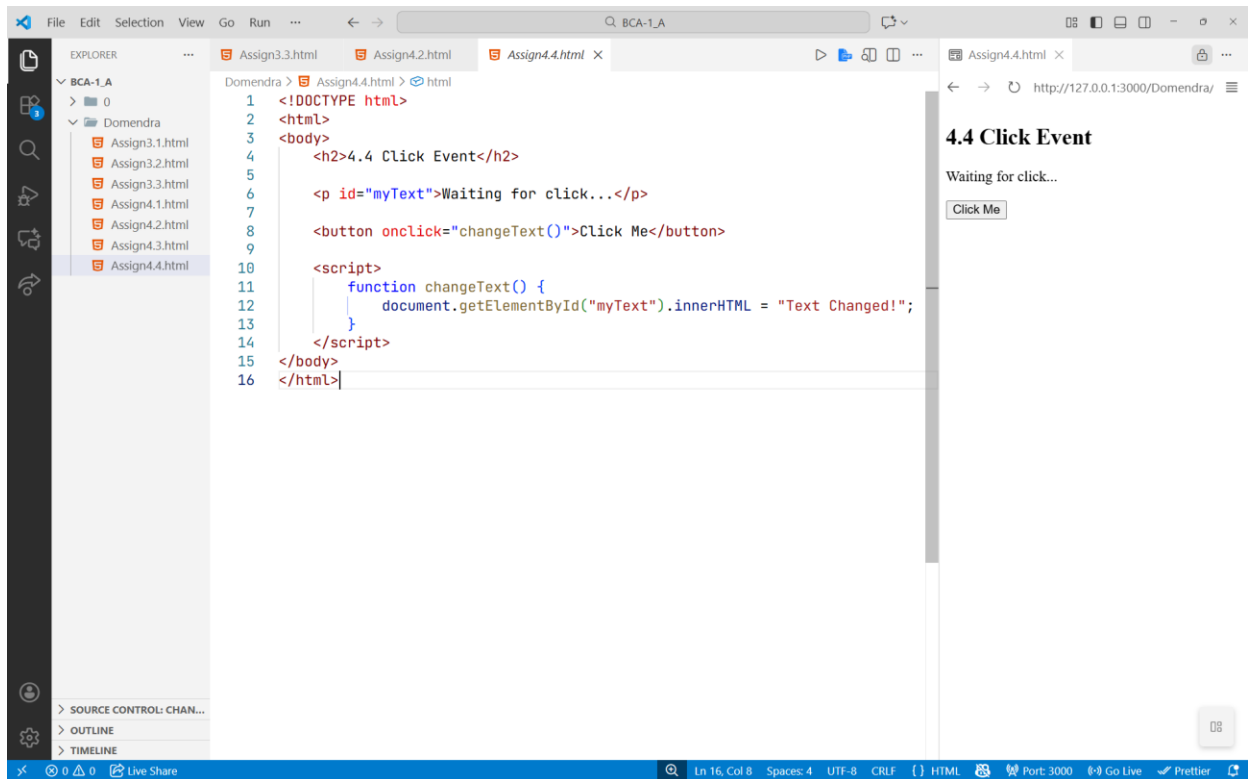
The browser preview on the right shows the rendered output of the HTML file, which is:

4.3 Merge Arrays

Apple,Banana,Mango,Orange

4.4. Add a click event to a button that changes the text of a paragraph.

Code/Output:

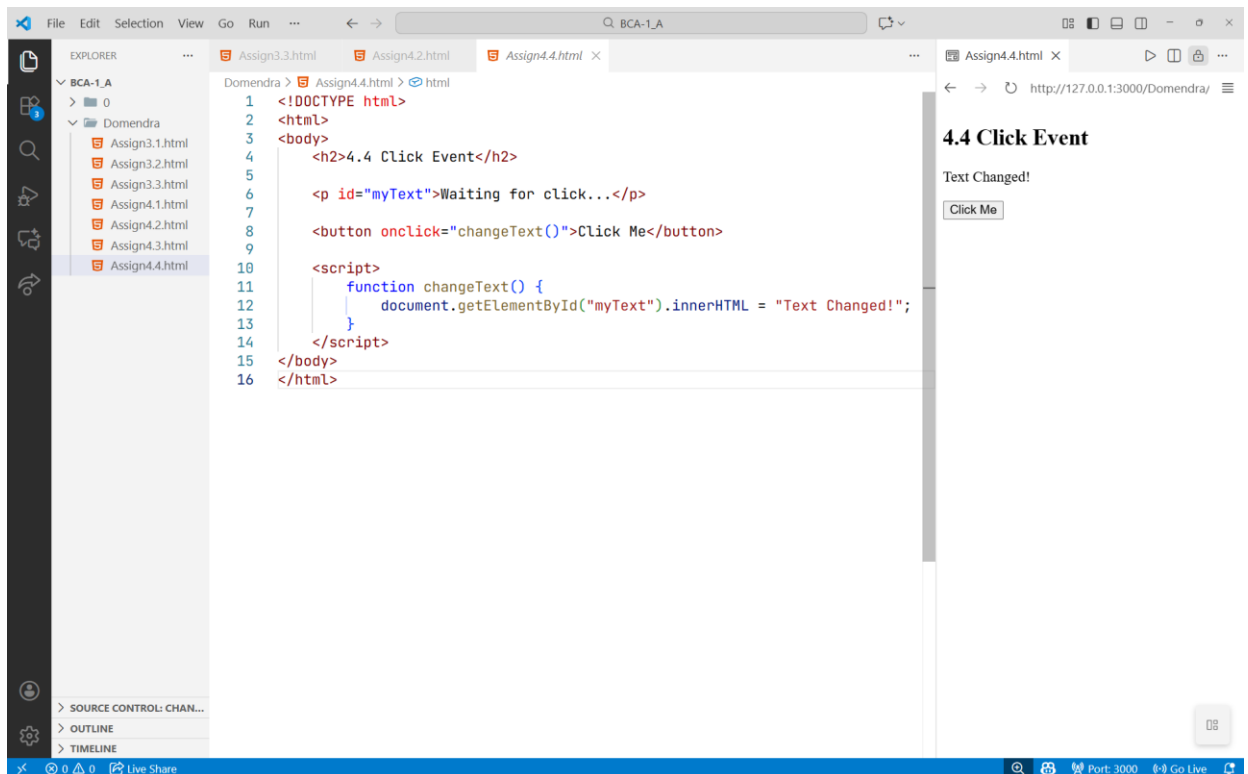


```
1 <!DOCTYPE html>
2 <html>
3 <body>
4   <h2>4.4 Click Event</h2>
5
6   <p id="myText">Waiting for click...</p>
7
8   <button onclick="changeText()">Click Me</button>
9
10  <script>
11    function changeText() {
12      document.getElementById("myText").innerHTML = "Text Changed!";
13    }
14  </script>
15 </body>
16 </html>
```

4.4 Click Event

Waiting for click...

Click Me



```
1 <!DOCTYPE html>
2 <html>
3 <body>
4   <h2>4.4 Click Event</h2>
5
6   <p id="myText">Waiting for click...</p>
7
8   <button onclick="changeText()">Click Me</button>
9
10  <script>
11    function changeText() {
12      document.getElementById("myText").innerHTML = "Text Changed!";
13    }
14  </script>
15 </body>
16 </html>
```

4.4 Click Event

Text Changed!

Click Me