

Name: Ayush Goyal

Branch & Year: CSE(A.I.ML),

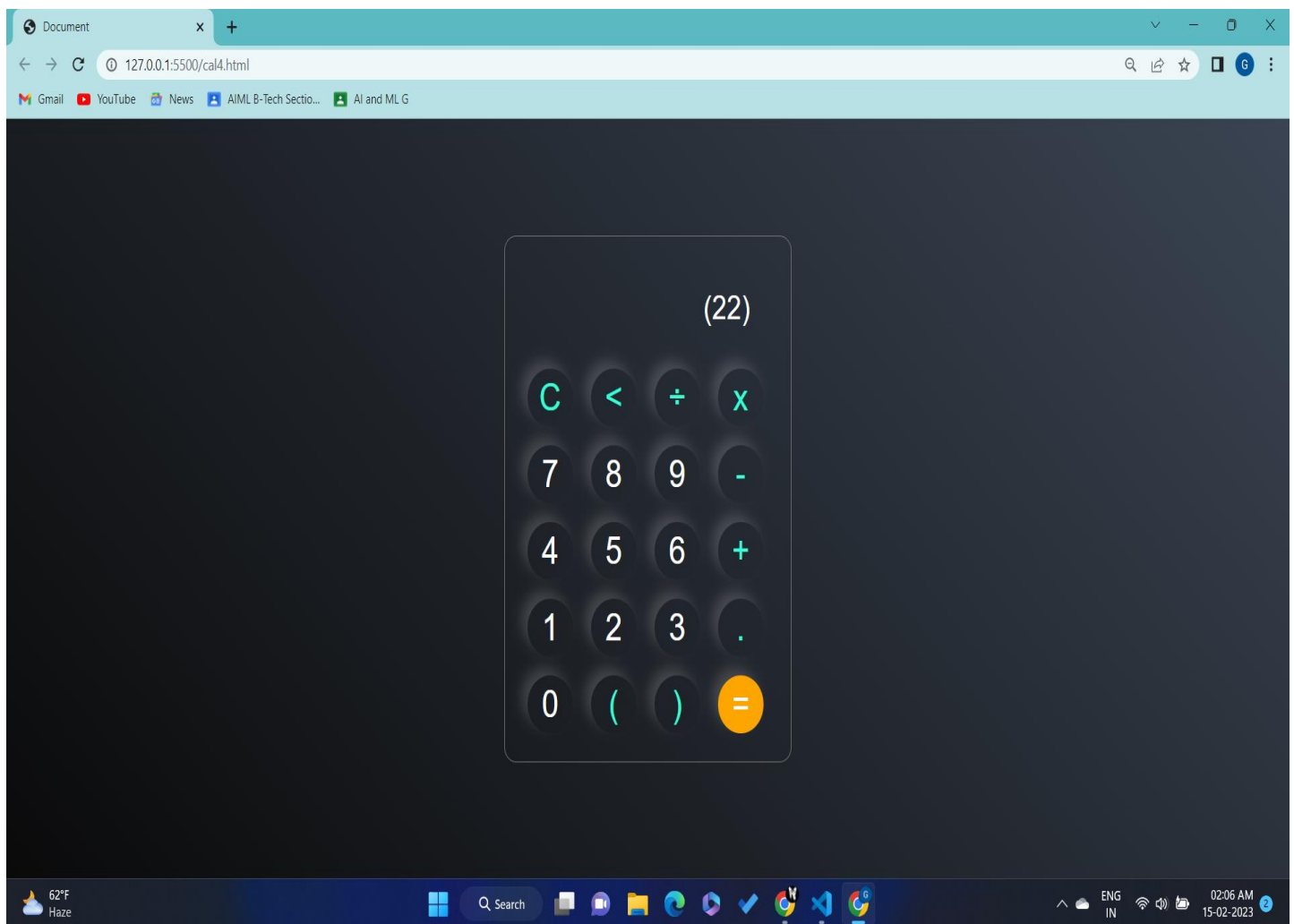
First Yr.

Section: G

Practical 4

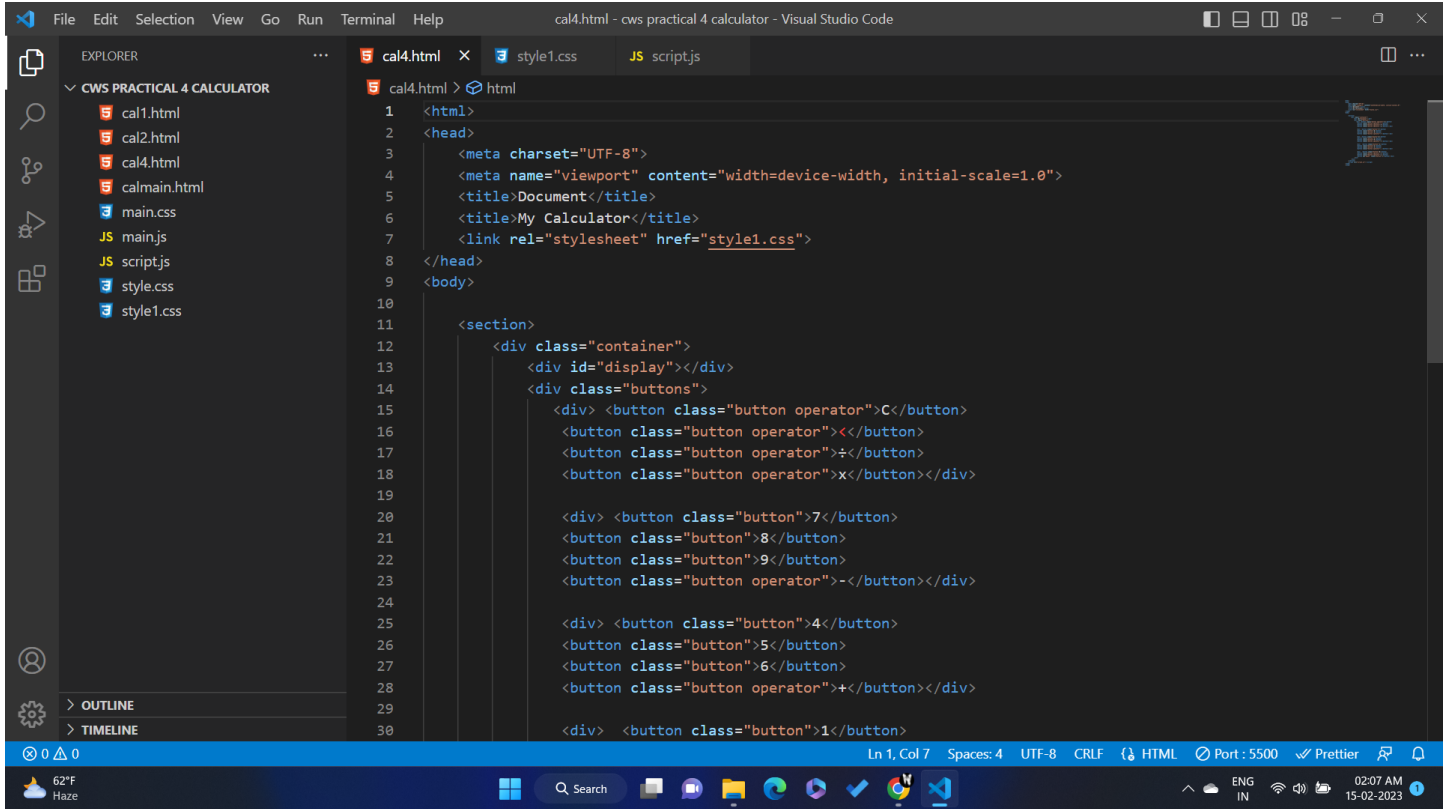
Aim: Design a calculator to perform basic mathematical operations using JavaScript. Add two buttons: Clear, +/- (to represent positive and negative numbers).

OUTPUT SS-



CODE SS-

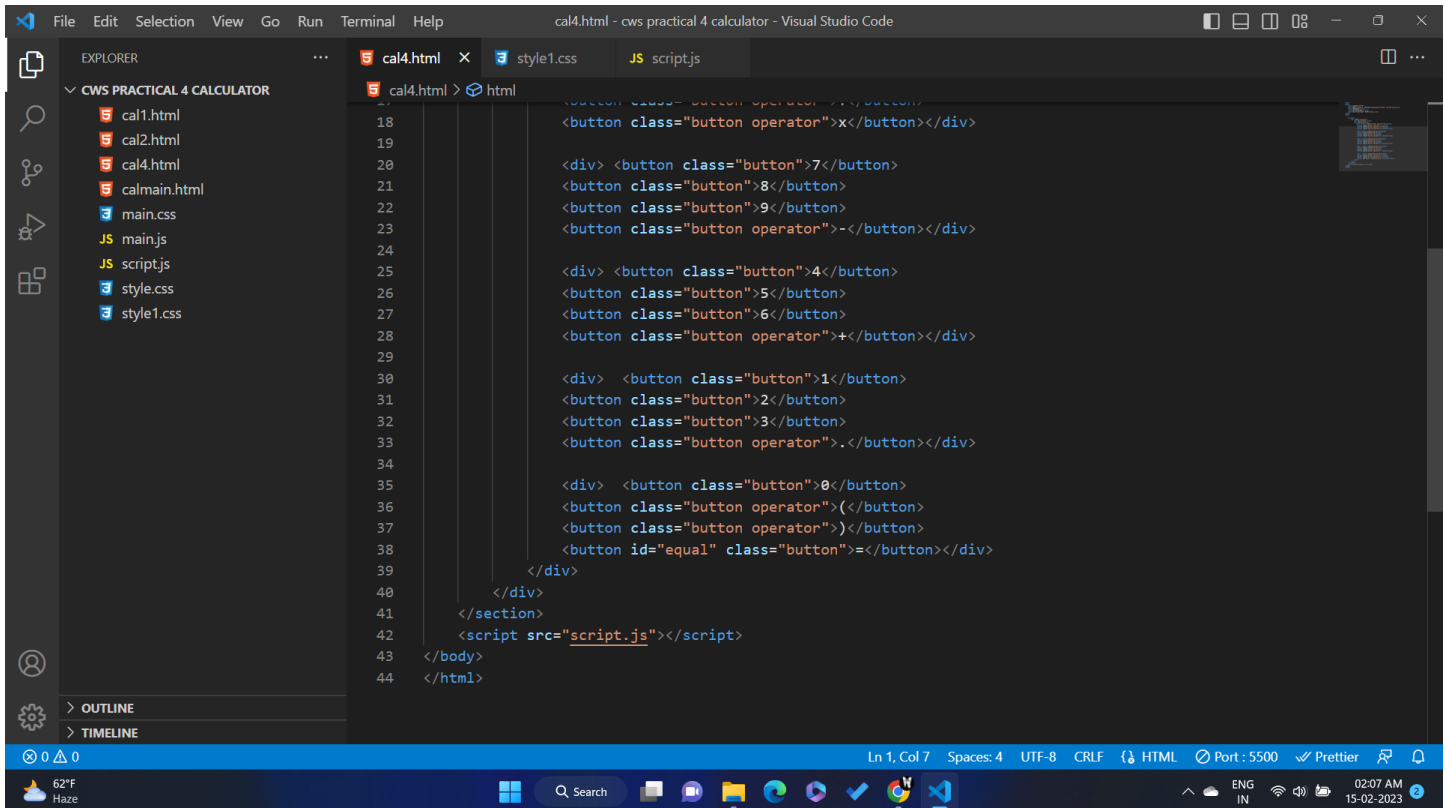
1.



The screenshot shows the Visual Studio Code editor with the file 'cal4.html' open. The Explorer panel on the left shows the project structure for 'CWS PRACTICAL 4 CALCULATOR', including files like cal1.html, cal2.html, cal4.html, calmain.html, main.css, main.js, script.js, style.css, and style1.css. The main editor area displays the HTML code for 'cal4.html', which includes a head section with meta tags for charset, viewport, and title, and a body section with a container div. The container div contains a display div and a buttons div. The buttons div has two rows of buttons: the first row contains buttons for 'C', 'x', and 'x', and the second row contains buttons for '7', '8', '9', and '-'. The status bar at the bottom shows 'Ln 1, Col 7', 'Spaces: 4', 'UTF-8', 'CRLF', 'HTML', 'Port: 5500', 'Prettier', and the system clock '02:07 AM 15-02-2023'.

```
1 <html>
2 <head>
3   <meta charset="UTF-8">
4   <meta name="viewport" content="width=device-width, initial-scale=1.0">
5   <title>Document</title>
6   <title>My Calculator</title>
7   <link rel="stylesheet" href="style1.css">
8 </head>
9 <body>
10
11   <section>
12     <div class="container">
13       <div id="display"></div>
14       <div class="buttons">
15         <div> <button class="button operator">C</button>
16           <button class="button operator">x</button>
17           <button class="button operator">x</button>
18         </div>
19
20         <div> <button class="button">7</button>
21           <button class="button">8</button>
22           <button class="button">9</button>
23         </div>
24
25         <div> <button class="button">4</button>
26           <button class="button">5</button>
27           <button class="button">6</button>
28         </div>
29
30       </div> <button class="button operator">+</button></div>
```

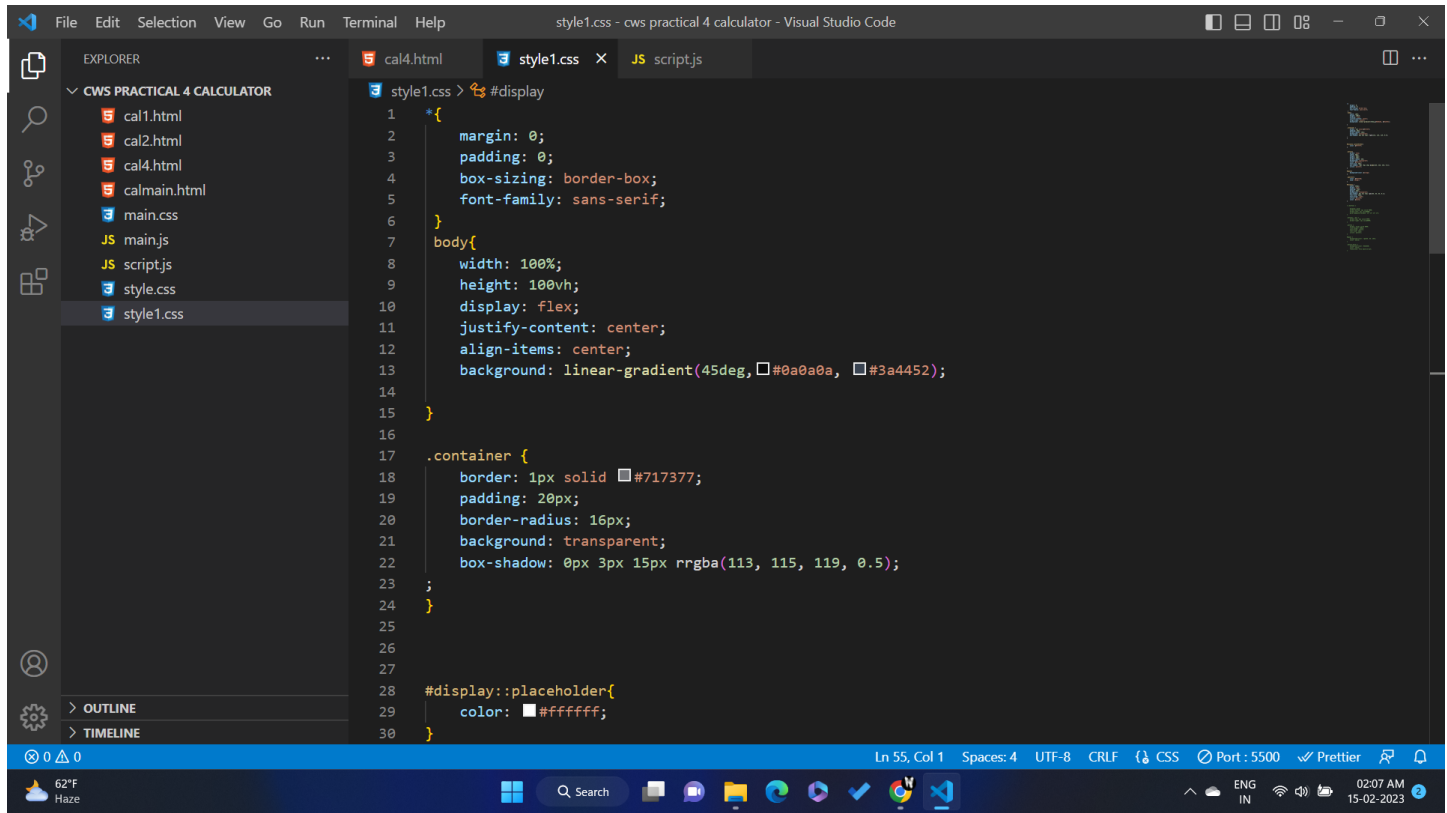
2.



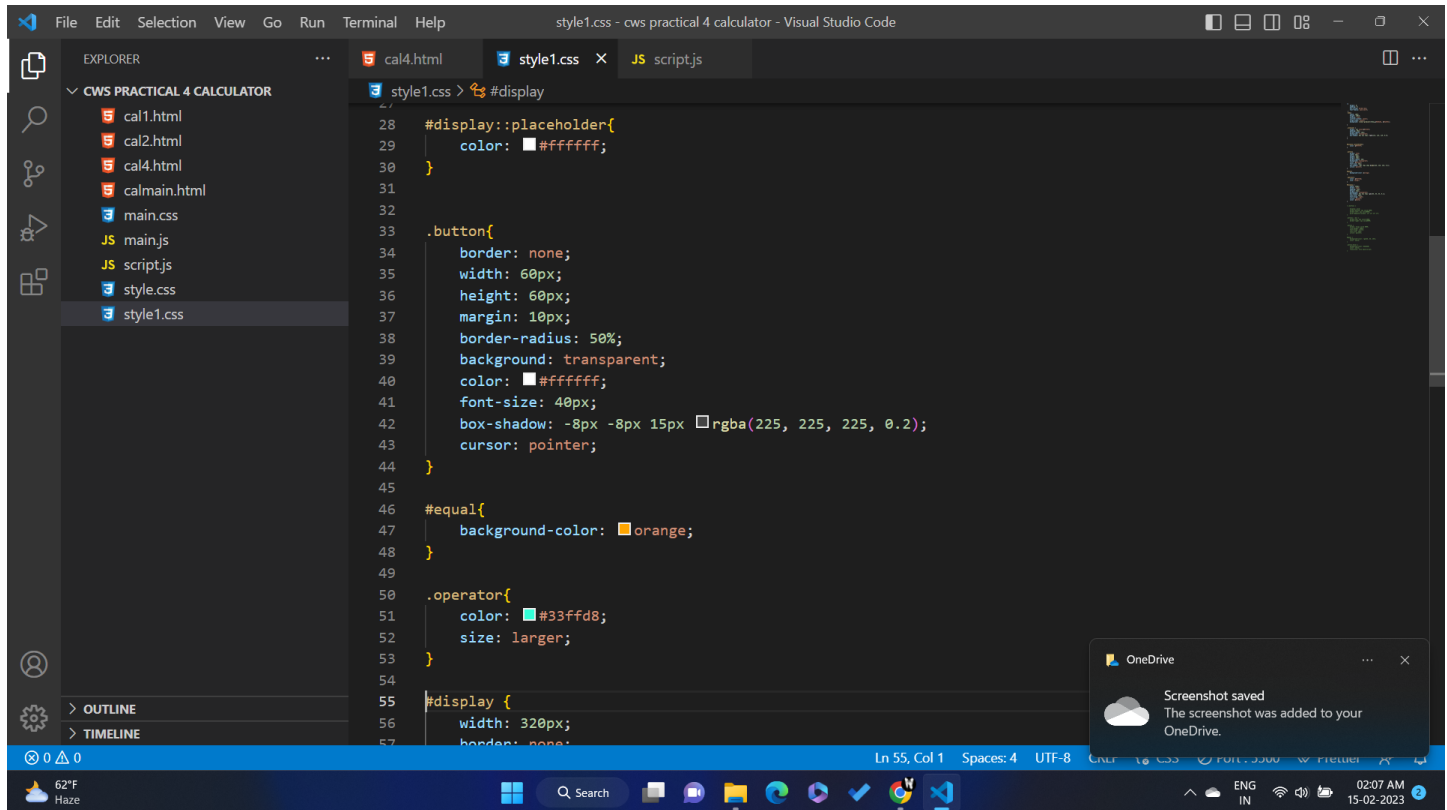
The screenshot shows the Visual Studio Code editor with the file 'cal4.html' open, continuing from the previous screenshot. The Explorer panel on the left shows the project structure for 'CWS PRACTICAL 4 CALCULATOR'. The main editor area displays the HTML code for 'cal4.html', which includes a body section with a container div. The container div contains a display div and a buttons div. The buttons div has two rows of buttons: the first row contains buttons for '7', '8', '9', and '-', and the second row contains buttons for '4', '5', '6', and '+'. The status bar at the bottom shows 'Ln 1, Col 7', 'Spaces: 4', 'UTF-8', 'CRLF', 'HTML', 'Port: 5500', 'Prettier', and the system clock '02:07 AM 15-02-2023'.

```
18 <button class="button operator">x</button></div>
19
20 <div> <button class="button">7</button>
21   <button class="button">8</button>
22   <button class="button">9</button>
23 </div>
24
25 <div> <button class="button">4</button>
26   <button class="button">5</button>
27   <button class="button">6</button>
28 </div>
29
30 <div> <button class="button">1</button>
31   <button class="button">2</button>
32   <button class="button">3</button>
33 </div>
34
35 <div> <button class="button">0</button>
36   <button class="button operator">(</button>
37   <button class="button operator">)</button>
38   <button id="equal" class="button">=</button></div>
39 </div>
40 </div>
41 </section>
42 <script src="script.js"></script>
43 </body>
44 </html>
```

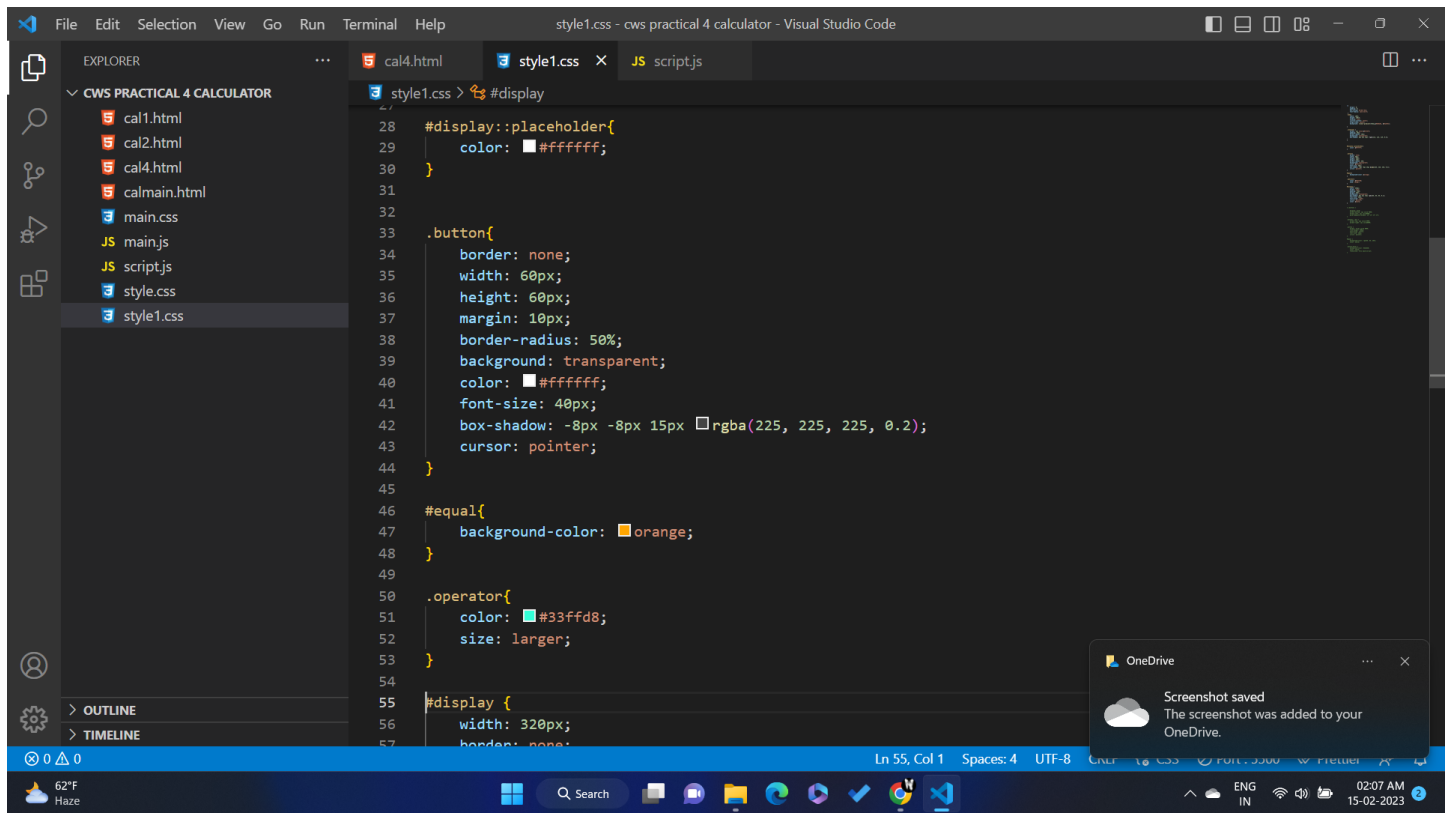
3.



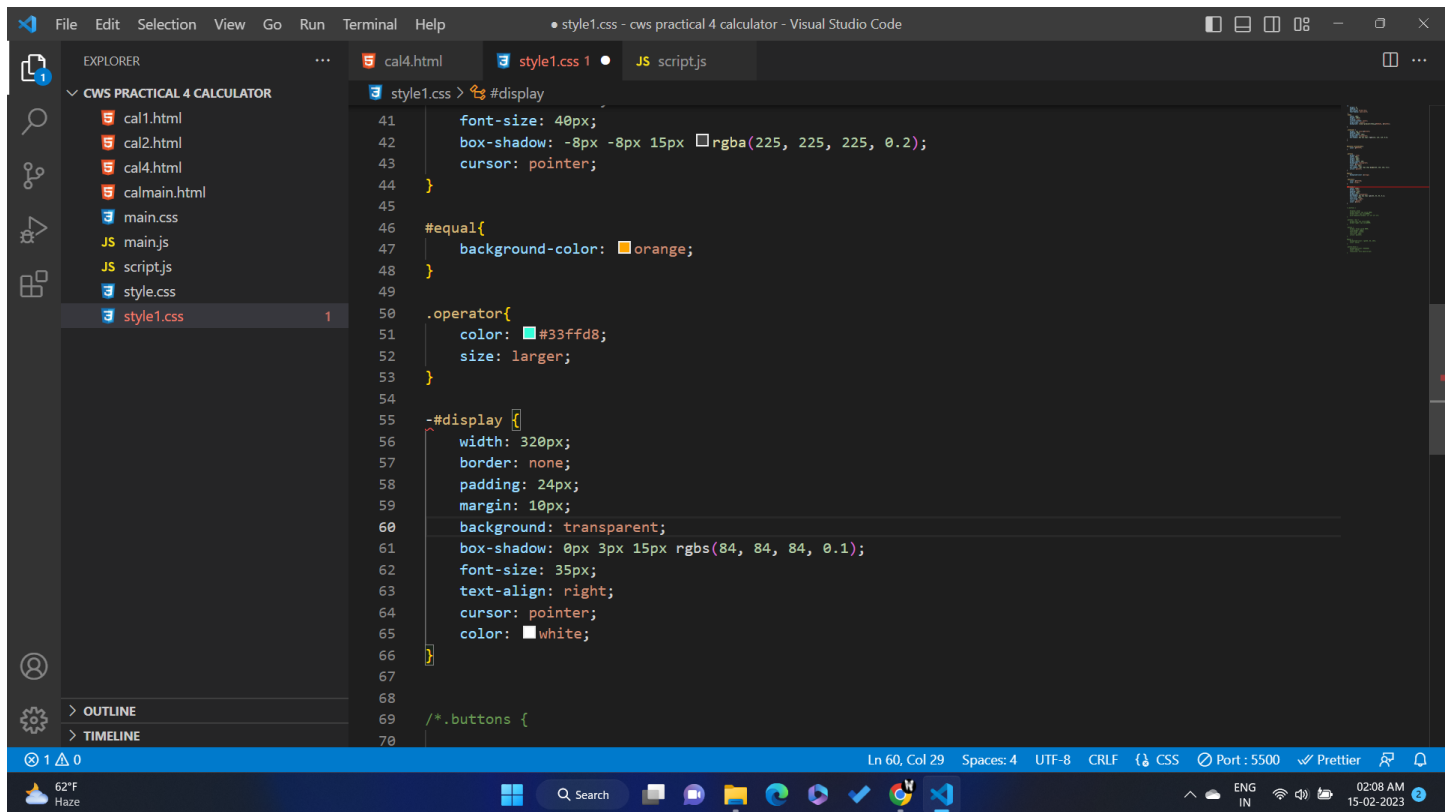
4.



5.



6.



7.

```

1  let display = document.getElementById('display');
2
3  let buttons = Array.from(document.getElementsByClassName('button'));
4
5  buttons.map( button => {
6    button.addEventListener('click', (e) => {
7      switch(e.target.innerText){
8        case 'C':
9          display.innerText = '';
10         break;
11        case '=':
12          try{
13            display.innerText = eval(display.innerText);
14          } catch {
15            display.innerText = "Error"
16          }
17         break;
18        case '+':
19          if (display.innerText){
20            display.innerText = display.innerText.slice(0, -1);
21          }
22         break;
23        default:
24          display.innerText += e.target.innerText;
25      }
26    });
27  });
28
29
30

```

8.

```

31
32
33  /*let screen = document.getElementById('display');
34  buttons = document.querySelectorAll('buttons');
35  screenValue = ''
36  for(item of buttons)
37  {
38    item.addEventListener('click', (e)=>{
39      buttonText = e.target.innerText;
40      console.log('button text is' + buttonText); if(buttonText == 'C')
41      {
42        screenValue = '';
43        screen.value = screenValue;
44      }
45      else if(buttonText == '='){
46        screen.value = eval(screenValue);
47      }
48      else if(buttonText == '<')
49      {
50        screen.value = screen.value.substr(0, screen.value.length - 1);
51      }
52      else {
53        screenValue +=buttonText;
54        screen.value = screenValue;
55      }
56    })
57  }
58  */
59
60

```

CONCLUSION- >Through this practical I learnt about the basics of javascript.

>I used for and switch cases in js.

>I also learnt about elements like GetElementbyId and querySelectorAll, etc.

> I also tried to build my own logic, for the arithmetic of the calculation.

>I improved my skills in css.

THANK YOU 😊