DWA_03.4 Knowledge Check_DWA3.1

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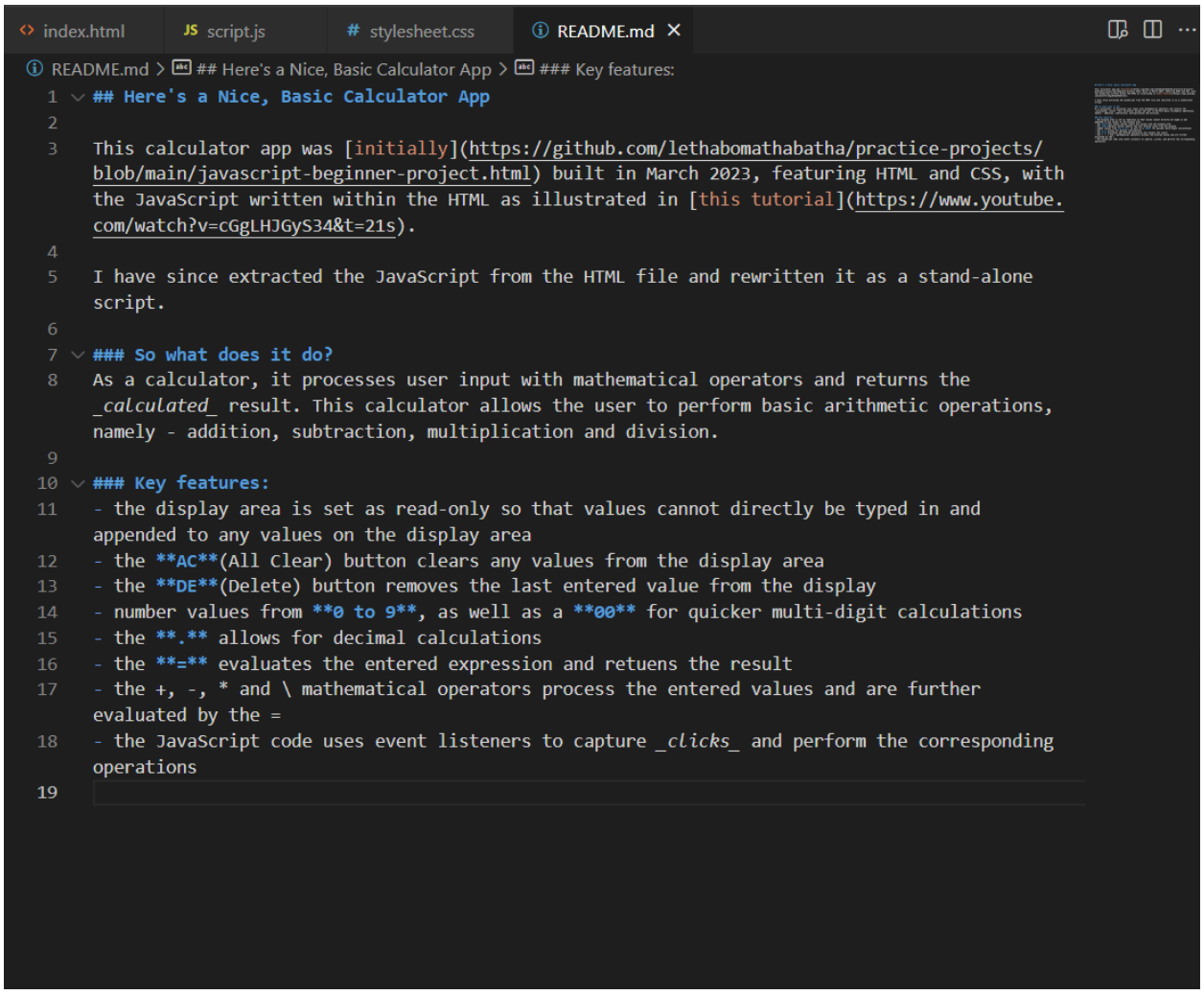
1. Please show how you applied a Markdown File to a piece of your code.



README.md

Here's a Nice, Basic Calculator App

This calculator app was initially built in March 2023, featuring HTML and CSS, with the JavaScript written within the HTML as illustrated in this tutorial.

I have since extracted the JavaScript from the HTML file and rewritten it as a stand-alone script.

So what does it do?

As a calculator, it processes user input with mathematical operators and returns the *calculated* result. This calculator allows the user to perform basic arithmetic operations, namely - addition, subtraction, multiplication and division.

Key features:

- the display area is set as read-only so that values cannot directly be typed in and appended to any values on the display area
- the **AC**(All Clear) button clears any values from the display area
- the **DE**(Delete) button removes the last entered value from the display
- number values from **0 to 9**, as well as a **00** for quicker multi-digit calculations
- the . allows for decimal calculations
- the = evaluates the entered expression and retuens the result
- the +, -, * and \ mathematical operators process the entered values and are further evaluated by the =
- the JavaScript code uses event listeners to capture *clicks* and perform the corresponding operations

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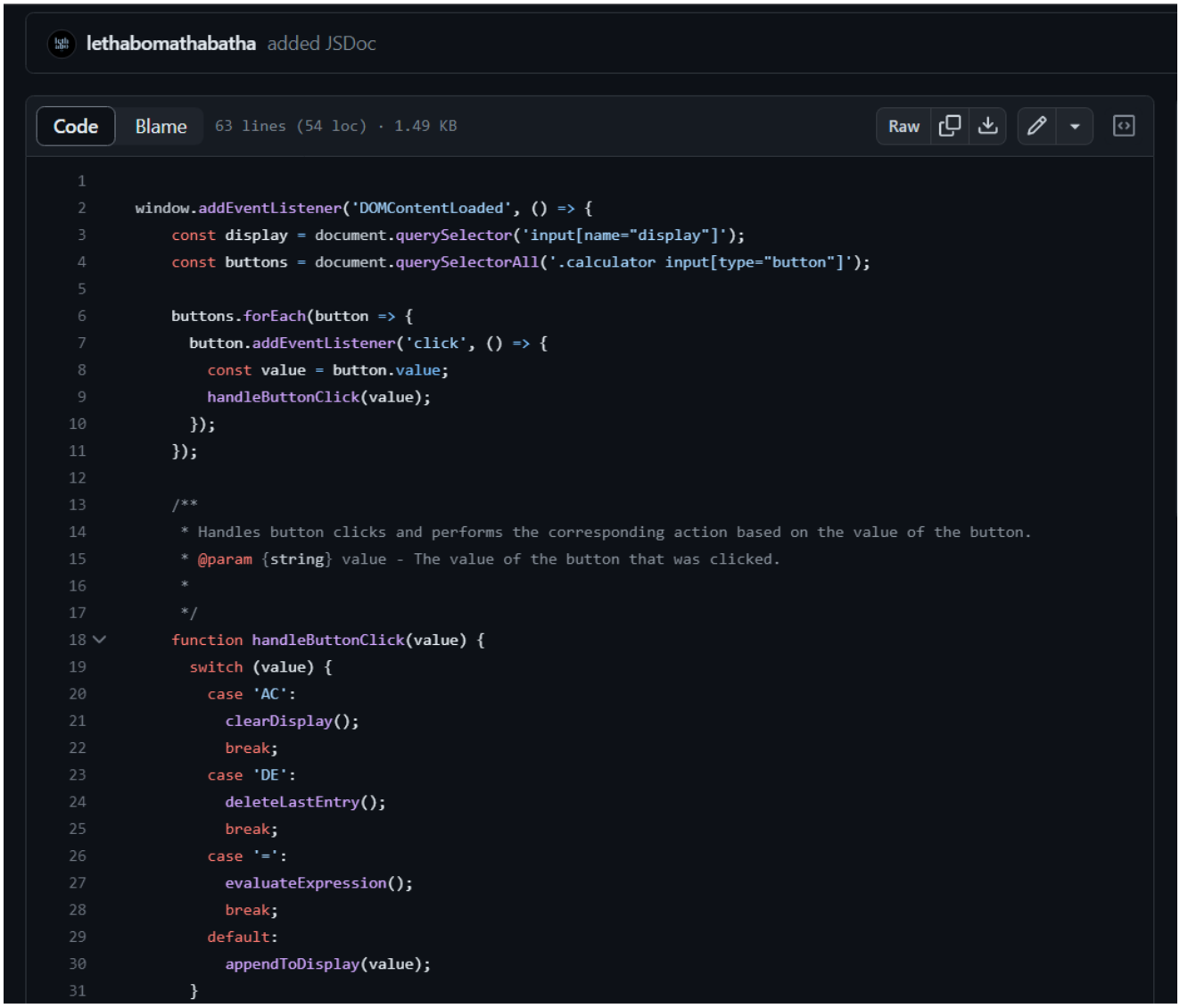
2. Please show how you applied JSDoc Comments to a piece of your code.



lethabomathabatha added JSDoc

Code Blame 63 lines (54 loc) · 1.49 KB Raw

```
1
2   window.addEventListener('DOMContentLoaded', () => {
3       const display = document.querySelector('input[name="display"]');
4       const buttons = document.querySelectorAll('.calculator input[type="button"]');
5
6       buttons.forEach(button => {
7         button.addEventListener('click', () => {
8           const value = button.value;
9           handleButtonClick(value);
10        });
11      });
12
13      /**
14       * Handles button clicks and performs the corresponding action based on the value of the button.
15       * @param {string} value - The value of the button that was clicked.
16       *
17       */
18      function handleButtonClick(value) {
19        switch (value) {
20          case 'AC':
21            clearDisplay();
22            break;
23          case 'DE':
24            deleteLastEntry();
25            break;
26          case '=':
27            evaluateExpression();
28            break;
29          default:
30            appendToDisplay(value);
31        }
```

```
32        }
33
34        /**
35         * Clears the display
36         * @returns {void}
37         */
38        function clearDisplay() {
39          display.value = '';
40        }
41
42        /**
43         * Deletes the last entry
44         * @returns {void}
45         */
46        function deleteLastEntry() {
47          display.value = display.value.toString().slice(0, -1);
48        }
49
50
51        /**
52         * @param {string} value The value of the button that was clicked is appended to the display
53         */
54        function appendToDisplay(value) {
55          display.value += value;
56        }
57
58        // Evaluates the expression
59        function evaluateExpression() {
60          display.value = eval(display.value);
61        }
62      });
```

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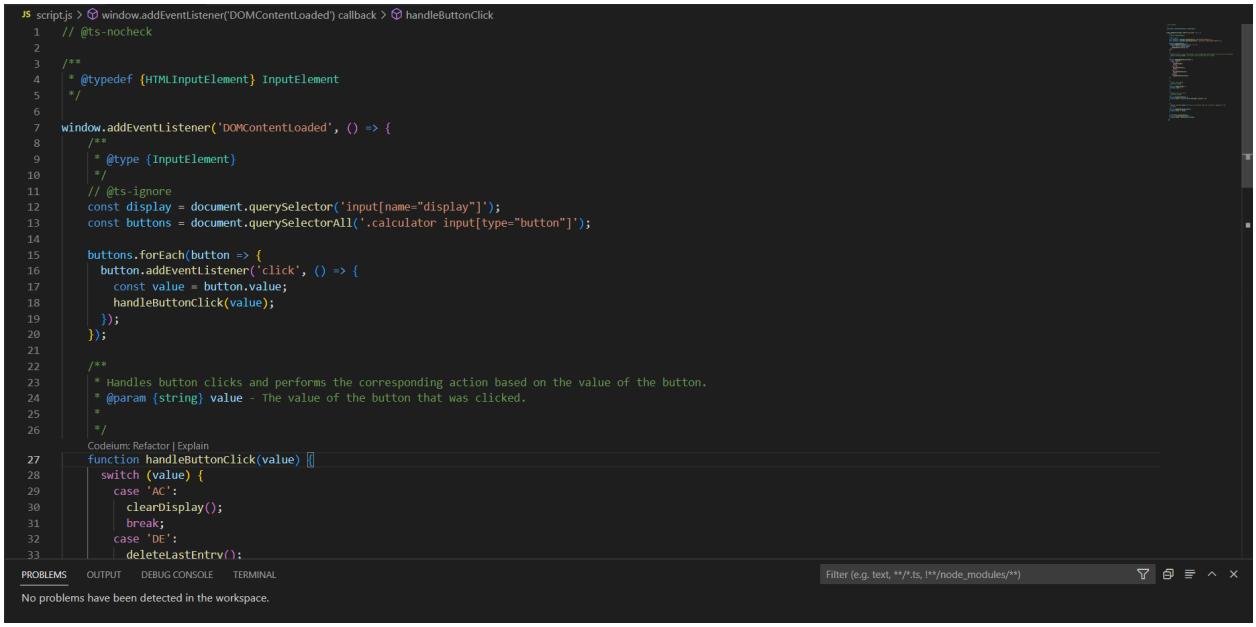
3. Please show how you applied the @ts-check annotation to a piece of your code.



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4. As a BONUS, please show how you applied any other concept covered in the 'Documentation' module.

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