**Task 01:**

**Write Test Cases for a Simple Calculator Application**

Create detailed test cases in Markdown format fora calculator that performs add, subtract, multiply, and divide operations. Focus on valid inputs (e.g., positive and negative numbers, decimals**,** BODMAS) and invalid inputs (e.g., non-numeric characters, division by zero). Each test case should include the following elements:

* Test Case ID
* Test Description
* Preconditions
* Test Steps
* Expected Results

**Solution:**

Test Case 1 : Adding any positive integers

Test Case ID: TC\_001

The First Test will be some test for Bonus 1.

Prerequisites: Calculator application should be opened successfully.

Test Steps:

Type "5" into the calculator display.

Press the "+" button.

On the calculator display, input "3".

Press the "=" button.

Expected Result: The display on the calculator should read "8".

Test Case 2: Addition of Negative Integers

Test Case ID: TC\_002

Test Description: Perform addition between two negative integers

Condition For underlying Plan : calculator application launches properly.

Test Steps:

Write -5 on the calculator screen.

Press the "+" button.

On the calculator display, input "-3".

Press the "=" button.

RESULTS Expect: Display on the calculator has to show you “- 8”.

Test Case 3: Add Decimal Numbers

Test Case ID: TC\_003

Test Details: Take as input two decimal numbers, compute their sum and print it.

Prerequisites: Calculator Application is opened successfully.

Test Steps:

On the calculator screen, input "2.5".

Press the "+" button.

Enter “1.75” on the calculator screen.

Press the "=" button.

Conclusion: The output of the calculator display should be: 4.25

Test Case 4: Subtracting Positive Integers

Test Case ID: TC\_004

Test Description: Subtract two positive integers

Prerequisites : Calculator application opened.

Test Steps:

On the calculator display, enter "8"

Press the "-" button.

Display a "3" on the calculator.

Press the "=" button.

Expected Result: The calculator display should be "5"

Test Case 4: Subtracting Negative Integers

Test Case ID: TC\_004

Test Description: Subtract two negative integers

Prerequisites : Calculator application opened.

Test Steps:

On the calculator display, enter "8"

Press the "-" button.

Display a "-3" on the calculator.

Press the "=" button.

Expected Result: The calculator display should be "8"

Test Case 6: Multiplying Integers

Test Case ID: TC\_006

Test Description: Multiply two integers.

Preconditions: Calculator application opened.

Test Steps:

On the calculator display, enter “5”

Press the "x" button.

Display a "-3" on the calculator.

Press the "=" button.

Expected Results: The calculator display should be "15".

Test Case 7: Division of Integers

Test Case ID: TC\_007

Test Description: Divide two integers.

Preconditions: Calculator application opened

Test Steps:

On the calculator display, enter “10”

Press the "/" button.

Display a "2" on the calculator.

Press the "=" button.

Expected Results: The calculator display should be "5".

Test Case 8: Division by Zero

Test Case ID: TC\_008

Test Description: Divide a number by zero.

Preconditions: Calculator application opened

Test Steps:

Input "5" on the calculator display.

Press the "/" button.

Input "0" on the calculator display.

Press the "=" button.

Expected Results: The calculator display should show an error message (e.g., "Error", "Division by zero").

Test Case 9: Non-Numeric Input

Test Case ID: TC\_009

Test Description: Enter a non-numeric character as input.

Preconditions: Calculator application opened

Test Steps:

Input "5" on the calculator display.

Press the "+" button.

Input "a" (or any non-numeric character) on the calculator display.

Press the "=" button.

Expected Results: The calculator display should show an error message (e.g., "Error", "Invalid input").

Test Case 10: BODMAS Operation

Test Case ID: TC\_010

Test Description: Test the order of operations (BODMAS).

Preconditions: Calculator application opened

Test Steps:

Input "2" on the calculator display.

Press the "x" button.

Input "3" on the calculator display.

Press the "+" button.

Input "4" on the calculator display.

Press the "=" button.

Expected Results: The calculator display should show "10" (2 \* 3 = 6, 6 + 4 = 10).