

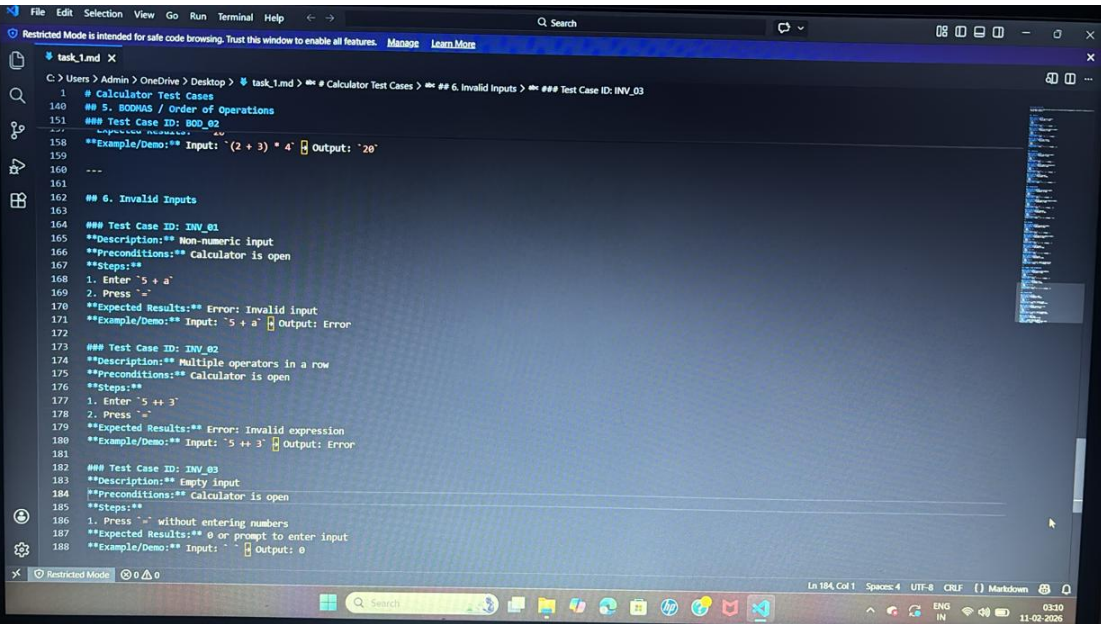
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C:\Users> Admin > OneDrive > Desktop > task_1.md > ## Calculator Test Cases > ## 5. BODMAS / Order of Operations > ## Test Case ID: BOD_02

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## Calculator Test Cases
## 4. Division
### Test Case ID: DIV_03
---
**Example/Demo:** Input: `7.5 / 2.5` Output: `3`
---
### Test Case ID: DIV_04
**Description:** Divide by zero
**Preconditions:** Calculator is open
**Steps:**
1. Enter `10 / 0`
2. Press `=`
**Expected Results:** Error: Cannot divide by zero
**Example/Demo:** Input: `10 / 0` Output: Error
---
## 5. BODMAS / Order of Operations
### Test Case ID: BOD_01
**Description:** Multiplication before addition
**Preconditions:** Calculator is open
**Steps:**
1. Enter `2 + 3 * 4`
2. Press `=`
**Expected Results:** `14`
**Example/Demo:** Input: `2 + 3 * 4` Output: `14`
---
### Test Case ID: BOD_02
**Description:** Parentheses first
**Preconditions:** Calculator is open
**Steps:**
1. Enter `(2 + 3) * 4`
2. Press `=`
**Expected Results:** `20`
**Example/Demo:** Input: `(2 + 3) * 4` Output: `20`

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Calculator Test Cases

This document contains detailed test cases for a calculator performing addition, subtraction, multiplication, and division. It includes valid inputs, BODMAS, and invalid input scenarios.

1. Addition

Test Case ID: ADD_01

Description: Add two positive numbers

Preconditions: Calculator is open

Steps:

1. Enter $5 + 7$

2. Press $=$

Expected Results: 12

Example/Demo Input: $5 + 7 \rightarrow$ Output: 12

Test Case ID: ADD_02

Description: Add positive and negative numbers

Preconditions: Calculator is open

Steps:

1. Enter $10 + (-3)$

2. Press $=$

Expected Results: 7

Example/Demo Input: $10 + (-3) \rightarrow$ Output: 7

Test Case ID: ADD_03

task_1.md Preview task_1.md X

Test Case ID: ADD_03

Description: Add decimal numbers

Preconditions: Calculator is open

Steps:

1. Enter $2.5 + 3.7$

2. Press $=$

Expected Results: 6.2

Example/Demo: Input: $2.5 + 3.7$ → Output: 6.2

2. Subtraction

Test Case ID: SUB_01

Description: Subtract two positive numbers

Preconditions: Calculator is open

Steps:

1. Enter $15 - 7$

2. Press $=$

Expected Results: 8

Example/Demo: Input: $15 - 7$ → Output: 8

Test Case ID: SUB_02

Description: Subtract negative from positive

Preconditions: Calculator is open

Steps:

1. Enter $16 - (-4)$

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task_1.md Preview task_1.md X

Steps:

1. Enter $10 - (-4)$

2. Press $=$

Expected Results: 14

Example/Demo Input: $10 - (-4)$ → Output: 14

Test Case ID: SUB_03

Description: Subtract decimals

Preconditions: Calculator is open

Steps:

1. Enter $5.5 - 2.2$

2. Press $=$

Expected Results: 3.3

Example/Demo Input: $5.5 - 2.2$ → Output: 3.3

3. Multiplication

Test Case ID: MUL_01

Description: Multiply two positive numbers

Preconditions: Calculator is open

Steps:

1. Enter $6 * 3$

2. Press $=$

Expected Results: 18

Example/Demo Input: $6 * 3$ → Output: 18

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task_1.mdPreview task_1.md

Test Case ID: MUL_02

Description: Multiply positive and negative numbers

Preconditions: Calculator is open

Steps:

1. Enter `7 * (-2)`
2. Press `=`

Expected Results: `-14`

Example/Demo: Input: `7 * (-2)` → Output: `-14`

Test Case ID: MUL_03

Description: Multiply decimals

Preconditions: Calculator is open

Steps:

1. Enter `2.5 * 4.2`
2. Press `=`

Expected Results: `10.5`

Example/Demo: Input: `2.5 * 4.2` → Output: `10.5`

4. Division

Test Case ID: DIV_01

Description: Divide two positive numbers

Preconditions: Calculator is open

Steps:

1. Enter `12 / 3`

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1. Enter 12 / 3
2. Press =
Expected Results: 4
Example/Demos Input: 12 / 3 → Output: 4

Test Case ID: DIV_02

Descriptions: Divide positive by negative numbers
Preconditions: Calculator is open
Steps:

1. Enter 12 / (-4)
2. Press =
Expected Results: -3
Example/Demos Input: 12 / (-4) → Output: -3

Test Case ID: DIV_03

Descriptions: Divide decimals
Preconditions: Calculator is open
Steps:

1. Enter 7.5 / 2.5
2. Press =
Expected Results: 3
Example/Demos Input: 7.5 / 2.5 → Output: 3

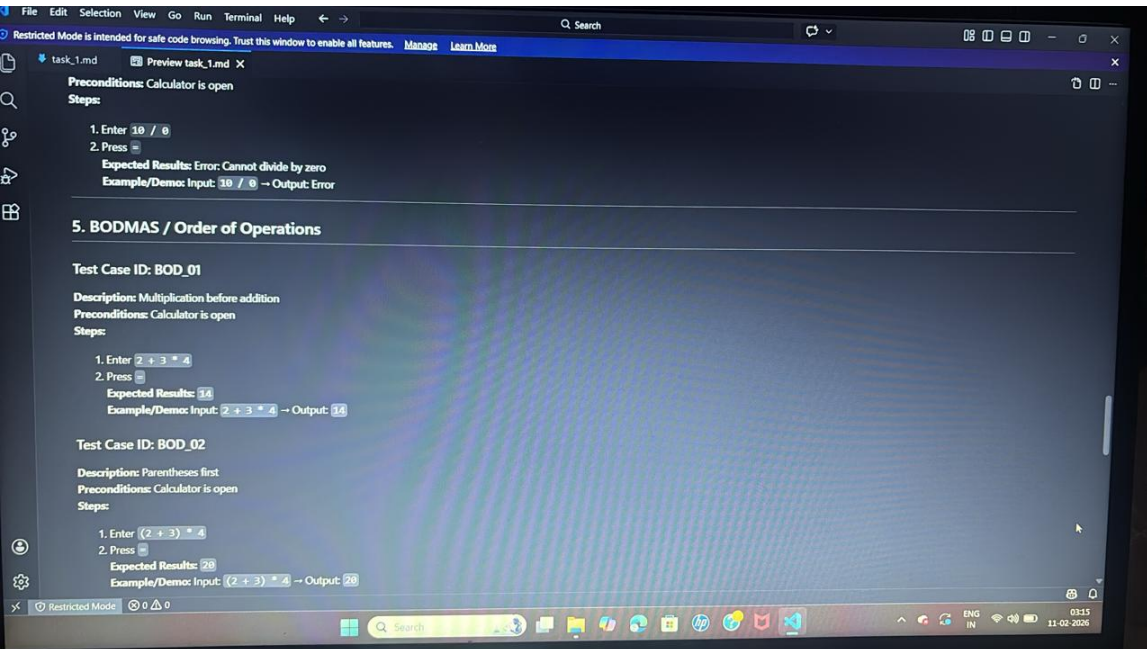
Test Case ID: DIV_04

Descriptions: Divide by zero
Preconditions: Calculator is open
Steps:

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6. Invalid Inputs

Test Case ID: INV_01

Description: Non-numeric input

Preconditions: Calculator is open

Steps:

1. Enter `5 + a`
2. Press `=`

Expected Results: Error: Invalid input

Example/Demo: Input: `5 + a` → Output: Error

Test Case ID: INV_02

Description: Multiple operators in a row

Preconditions: Calculator is open

Steps:

1. Enter `5 ++ 3`
2. Press `=`

Expected Results: Error: Invalid expression

Example/Demo: Input: `5 ++ 3` → Output: Error

Test Case ID: INV_03

Description: Empty input

Preconditions: Calculator is open

Steps:

1. Press `=` without entering numbers

Expected Results: 0 or prompt to enter input

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task_1.mdPreview task_1.mdX

6. Invalid Inputs

Test Case ID: INV_01

Description: Non-numeric input

Preconditions: Calculator is open

Steps:

1. Enter `5 + a`
2. Press `=`

Expected Results: Error: Invalid input

Example/Demo: Input: `5 + a` → Output: Error

Test Case ID: INV_02

Description: Multiple operators in a row

Preconditions: Calculator is open

Steps:

1. Enter `5 ++ 3`
2. Press `=`

Expected Results: Error: Invalid expression

Example/Demo: Input: `5 ++ 3` → Output: Error

Test Case ID: INV_03

Description: Empty input

Preconditions: Calculator is open

Steps:

1. Press `=` without entering numbers

Expected Results: 0 or prompt to enter input

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Preconditions: Calculator is open

Steps:

1. Enter 5 ++ 3
2. Press =

Expected Results: Error: Invalid expression

Example/Demo: Input: 5 ++ 3 → Output: Error

Test Case ID: INV_03

Descriptions: Empty input

Preconditions: Calculator is open

Steps:

1. Press = without entering numbers
- Expected Results:** 0 or prompt to enter input
- Example/Demo:** Input: = → Output: 0