



Computer Science with
Foundation Year.

Principal Of Coding

Test Plan Documentation.

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1. Introduction

The purpose of this document is to outline the testing approach for the Calculator program. The Calculator program is designed to perform basic arithmetic operations such as addition, subtraction, multiplication, and division. This test plan will ensure the correctness and reliability of the program's functionalities.

2. Scope

The testing will cover all functionalities of the Calculator program, including addition, subtraction, multiplication, division, and handling of invalid inputs.

3. Test Environment

Operating System: Any platform supporting Python

Software: Python interpreter

Hardware: Any hardware supporting the selected operating system

4. Test Cases

4.1 Addition

Test Case 1: Addition of two positive numbers

Inputs: 2, 3

Expected Output: 5

Test Case 2: Addition of a positive and a negative number

Inputs: 5, -3

Expected Output: 2

Test Case 3: Addition of two negative numbers

Inputs: -7, -4

Expected Output: -11

4.2 Subtraction

Test Case 4: Subtraction of two positive numbers

Inputs: 8, 3

Expected Output: 5

Test Case 5: Subtraction of a positive and a negative number

Inputs: 5, -3

Expected Output: 8

Test Case 6: Subtraction of two negative numbers

Inputs: -7, -4

Expected Output: -3

4.3 Multiplication

Test Case 7: Multiplication of two positive numbers

Inputs: 2, 3

Expected Output: 6

Test Case 8: Multiplication of a positive and a negative number

Inputs: 5, -3

Expected Output: -15

Test Case 9: Multiplication of two negative numbers

Inputs: -7, -4

Expected Output: 28

4.4 Division

Test Case 10: Division of two positive numbers

Inputs: 8, 4

Expected Output: 2.0

Test Case 11: Division by zero

Inputs: 5, 0

Expected Output: "Cannot divide by zero"

4.5 Invalid Inputs

Test Case 12: Invalid choice entered.

Inputs: 'a' (invalid choice)

Expected Output: "Invalid choice. Please enter a valid option."

5. Conclusion

The test plan outlined above covers various scenarios to ensure the Calculator program functions correctly under different conditions. By executing these test cases, we can verify the accuracy and robustness of the program's functionalities.