USER STORY

As a software user, I want to be able to perform basic arithmetic operations using a calculator application. The calculator should support addition, subtraction, multiplication, division and modulo. Additionally, I want the calculator to handle division by zero gracefully, providing an appropriate error message. As developer, I want to ensure the reliability and correctness of the calculator application by creating a comprehensive set of unit tests covering each operation.

TEST CASE DOCUMENTATION

For Calculator program:

Test method name	Test description	Input	Expected output	Actual output
TestCase1::Adding_positive_values	Giving two positive integers for the adding function	Input1: 5 Input2: 6	Output : 11	Output : 11
TestCase2::Adding_negative_values	Giving two negative integers for the adding function	Input1: -7 Input2: -6	Output : -13	Output : -13
TestCase3::Adding_positive_negetive_values	Giving one negative and one positive integers for the adding function	Input1: -5 Input2: 6	Output : 1	Output : 1
TestCase4::Adding_zero_values	Giving one integers and zero for the adding function	Input1: 5 Input2: 0	Output : 5	Output : 5
TestCase5::Subtract_positive_values	Giving two positive integers for the subtract function	Input1: 5 Input2: 6	Output : -1	Output : -1
TestCase6::Subtract_negative_values	Giving two negative integers for the subtract function	Input1: -5 Input2: -6	Output : 1	Output : 1
TestCase7::Subtract_negative&positive_values	Giving one negative and one positive integers for the subtract function	Input1: 8 Input2: -6	Output : 14	Output : 14
TestCase8::Multiply_positive_values	Giving two positive integers for the multiplication function	Input1: 5 Input2: 5	Output : 25	Output : 25
TestCase9::Multiply_negative_values	Giving two negative integers for the multiplication function	Input1: -5 Input2: -6	Output : 30	Output : 30
TestCase10::Multiply_positive&negative_values	Giving one negative and one positive integers for the	Input1: 5 Input2: -6	Output : -30	Output : -30

	multiplication function			
TestCase11::Multiply_with_zeros	Giving one integers and zero for the multiplication function	Input1: 8 Input2: 0	Output :0	Output : 0
TestCase12::Divide_two_values	Giving two integers for the division function	Input1: 8 Input2: 4	Output : 2	Output : 2
TestCase13::Divide_with_zero_values	Giving zero as a divisor for the division function	Input1: 5 Input2: 0	Output : Not divisible	Output : Not divisible
TestCase14::Divide_with_zero_values	Giving zero as a dividend for the division function	Input1: 0 Input2: 5	Output : 0	Output : 0
TestCase15::Modulo_two_integers	Giving two integers for the modulo function	Input1: 8 Input2: 4	Output : 0	Output : 0
TestCase16::Modulo_with_zero_values	Giving zero as a divisor for the modulo function	Input1: 8 Input2: 0	Output : Not divisible	Output : Not divisible
TestCase17::Modulo_with_zero_values	Giving zero as a dividend for the modulo function	Input1: 0 Input2: 4	Output : 0	Output : 0

- Vaishnav S