**Exercise 4: Arrange-Act-Assert (AAA) Pattern, Test Fixtures, Setup and Teardown Methods in Junit**

### Scenario:

### Use the ****AAA pattern**** and set up common pre/post conditions using @Before and @After.

**CODE:**

import static org.junit.Assert.\*;

import org.junit.Before;

import org.junit.After;

import org.junit.Test;

public class CalculatorTest {

private Calculator calc;

@Before

public void setUp() {

calc = new Calculator(); // Setup before each test

System.out.println("Setup complete");

}

@After

public void tearDown() {

System.out.println("Teardown complete");

}

@Test

public void testAddition() {

// Arrange is done in setup

// Act

int result = calc.add(2, 3);

// Assert

assertEquals(5, result);

}

@Test

public void testSubtraction() {

int result = calc.subtract(5, 2);

assertEquals(3, result);

}

}

**EXAMPLE:**

public class Calculator {

public int add(int a, int b) {

return a + b;

}

public int subtract(int a, int b) {

return a - b;

}

}

**OUTPUT:**

Setup complete

Teardown complete

Setup complete

Teardown complete

Tests run: 2, Failures: 0, Errors: 0, Skipped: 0

BUILD SUCCESS