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

**Scenario:**

You need to organize your tests using the Arrange-Act-Assert (AAA) pattern and use setup and teardown methods.

Steps:

1. Write tests using the AAA pattern.

2. Use @Before and @After annotations for setup and teardown methods.

**SOLUTION:**

***Calculator.java:***

package hands\_on;

public class Calculator {

public int add(int a, int b) {

return a + b;

}

}

***CalculatorTest.java:***

package hands\_on;

import org.junit.Before;

import org.junit.After;

import org.junit.Test;

import static org.junit.Assert.\*;

public class CalculatorTest {

Calculator calc;

@Before

public void setUp() {

calc = new Calculator();

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

}

@After

public void tearDown() {

calc = null;

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

}

@Test

public void testAdd() {

// Arrange

int a = 2;

int b = 3;

// Act

int result = calc.add(a, b);

// Assert

*assertEquals*(5, result);

}

}

