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

**Code:**

**CalculatorTest.java:**

package com.example.JUnitDemo;

import org.junit.jupiter.api.AfterEach;

import org.junit.jupiter.api.BeforeEach;

import org.junit.jupiter.api.Test;

import static org.junit.jupiter.api.Assertions.\*;

public class CalculatorTest {

Calculator calculator;

*@BeforeEach*

public void setUp() {

calculator = new Calculator();

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

}

*@AfterEach*

public void tearDown() {

calculator = null;

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

}

*@Test*

public void testAddition() {

int a = 2;

int b = 3;

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

*assertEquals*(5, result);

}

}

**Calculator.java**

package com.example.JUnitDemo;

public class Calculator {

public int add(int a, int b) {

return a + b;

}

}

**Output:**

