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

**CODE:**

**Calculator.java:**

package com.example;

public class Calculator {

public int add(int a, int b) {

return a + b;

}

}

**CalculatorTest.java :**

package com.example.test;

import com.example.Calculator;

import org.junit.After;

import org.junit.Before;

import org.junit.Test;

import static org.junit.Assert.\*;

public class CalculatorTest {

private Calculator calculator;

@Before

public void setUp() {

calculator = new Calculator();

System.out.println("Setup: Creating Calculator instance");

}

@After

public void tearDown() {

calculator = null;

System.out.println("Teardown: Cleaning up");

}

@Test

public void testAddition() {

int a = 5;

int b = 3;

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

assertEquals(8, result);

}

}

**OUTPUT:**

