**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.

**Calculator.java**

package com.example.junit5\_test;

public class Calculator {

public int add(int a, int b) {

return a + b;

}

public int subtract(int a, int b) {

return a - b;

}

}

**CalculatorTest.java**

package com.example.junit5\_test;

import org.junit.\*;

import static org.junit.Assert.\*;

public class CalculatorTest {

private Calculator calculator;

// Setup method: runs before each test

@Before

public void setUp() {

calculator = new Calculator();

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

}

// Teardown method: runs after each test

@After

public void tearDown() {

System.out.println("Test complete.\n");

}

@Test

public void testAddition() {

// Arrange

int a = 5;

int b = 10;

// Act

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

// Assert

assertEquals(15, result);

}

@Test

public void testSubtraction() {

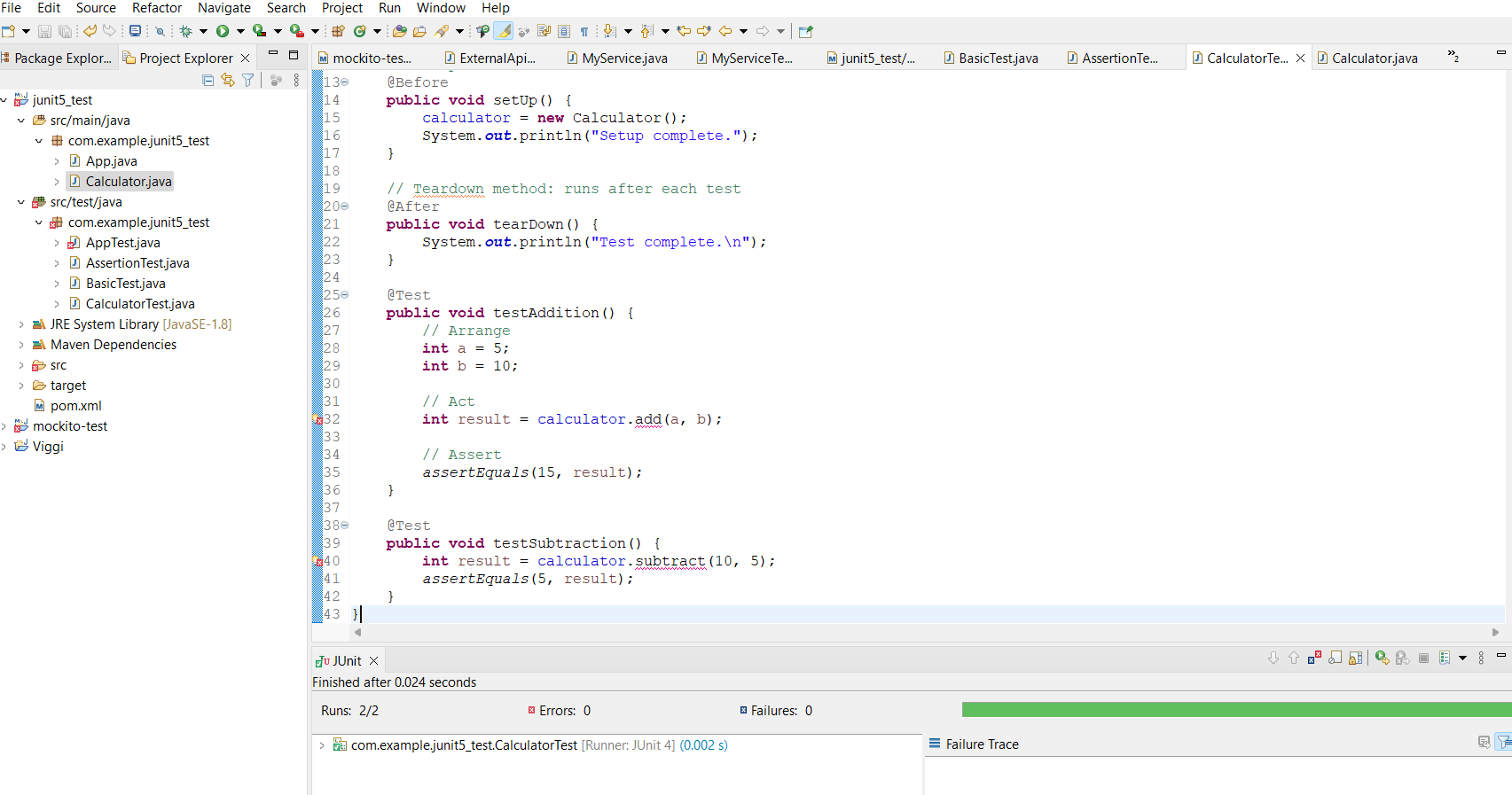
int result = calculator.subtract(10, 5);

assertEquals(5, result);

}

}

**Output:**

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