**WEEK – 2**

**JUnit Testing Exercises**

**Exercise 3: Assertions in JUnit**

**CODE:**

**pom.xml:**

<dependencies>

<dependency>

<groupId>junit</groupId>

<artifactId>junit</artifactId>

<version>4.13.2</version>

<scope>test</scope>

</dependency>

</dependencies>

**Calculator.java:**

package com.junitdemo;  
  
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.junitdemo;  
  
import org.junit.Before;  
import org.junit.After;  
import org.junit.Test;  
import static org.junit.Assert.\*;  
  
public class CalculatorTest {  
  
 private Calculator calculator;  
  
 @Before  
 public void setUp() {  
 // Setup: Create a fresh Calculator before each test  
 calculator = new Calculator();  
 System.*out*.println("Setup done!");  
 }  
  
 @After  
 public void tearDown() {  
 // Teardown: Called after each test (optional here)  
 System.*out*.println("Test completed!");  
 }  
  
 @Test  
 public void testAddition() {  
 // Arrange  
 int a = 5;  
 int b = 3;  
  
 // Act  
 int result = calculator.add(a, b);  
  
 // Assert  
 *assertEquals*(8, result);  
 }  
  
 @Test  
 public void testSubtraction() {  
 // Arrange  
 int a = 10;  
 int b = 4;  
  
 // Act  
 int result = calculator.subtract(a, b);  
  
 // Assert  
 *assertEquals*(6, result);  
 }  
}

**OUTPUT:** 

