**TDD using Junit5 and Mockito**

**EXERCISE 1: Setting Up Junit**

**CODE**

<!-- pom.xml -->

<project xmlns="http://maven.apache.org/POM/4.0.0"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xsi:schemaLocation="http://maven.apache.org/POM/4.0.0

http://maven.apache.org/xsd/maven-4.0.0.xsd">

<modelVersion>4.0.0</modelVersion>

<groupId>com.example</groupId>

<artifactId>JUnitExample</artifactId>

<version>1.0-SNAPSHOT</version>

<dependencies>

<!-- JUnit dependency -->

<dependency>

<groupId>junit</groupId>

<artifactId>junit</artifactId>

<version>4.13.2</version>

<scope>test</scope>

</dependency>

</dependencies>

</project>

// Calculator.java

package com.example;

public class Calculator {

public int add(int a, int b) {

return a + b;

}

public int multiply(int a, int b) {

return a \* b;

}

}

// CalculatorTest.java

package com.example;

import org.junit.Test;

import static org.junit.Assert.\*;

public class CalculatorTest {

@Test

public void testAddition() {

Calculator calc = new Calculator();

int result = calc.add(5, 3);

assertEquals(8, result);

}

@Test

public void testMultiplication() {

Calculator calc = new Calculator();

int result = calc.multiply(4, 2);

assertEquals(8, result);

}

}

**Output**

