**Exercise 1: Setting Up Junit**

Set up JUnit in a Java project to begin writing and running unit tests.

**In IntelliJ IDEA:**

* Go to File > New > Project.
* Choose Maven or Java (if you plan to add Maven manually).
* Set project name (e.g., JUnitExampleProject) and finish setup.

**Add JUnit Dependency**

**<dependency>**

**<groupId>junit</groupId>**

**<artifactId>junit</artifactId>**

**<version>4.13.2</version>**

**<scope>test</scope>**

**</dependency>**

**Create a New Test Class**

**// File: src/main/java/com/example/Calculator.java**

**package com.example;**

**public class Calculator {**

**public int add(int a, int b) {**

**return a + b;**

**}**

**}**

**----------------------------------------------------------------------------------------------------------**

**// File: src/test/java/com/example/CalculatorTest.java**

**package com.example;**

**import org.junit.Test;**

**import static org.junit.Assert.assertEquals;**

**public class CalculatorTest {**

**@Test**

**public void testAdd() {**

**Calculator calc = new Calculator();**

**int result = calc.add(3, 4);**

**assertEquals(7, result);**

**}**

**}**