## **📄 1. pom.xml (Maven Build File)**

<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>JUnitAssertionsDemo</artifactId>

<version>1.0-SNAPSHOT</version>

<dependencies>

<!-- JUnit 4 dependency -->

<dependency>

<groupId>junit</groupId>

<artifactId>junit</artifactId>

<version>4.13.2</version>

<scope>test</scope>

</dependency>

</dependencies>

</project>

## **📄 2. Calculator.java (Optional Utility Class)**

package com.example;

public class Calculator {

public int add(int a, int b) {

return a + b;

}

}

## **📄 3. AssertionsTest.java (Main Test Class)**

package com.example;

import static org.junit.Assert.\*;

import org.junit.Test;

public class AssertionsTest {

@Test

public void testAssertions() {

// Equality check

assertEquals("2 + 3 should equal 5", 5, 2 + 3);

// Boolean conditions

assertTrue("5 > 3 should be true", 5 > 3);

assertFalse("5 < 3 should be false", 5 < 3);

// Null checks

assertNull("Should be null", null);

assertNotNull("Should not be null", new Object());

// Same object check

String str = "hello";

assertSame("Should be the same object", str, str);

// Not same object

assertNotSame("Should not be the same object", new String("hi"), new String("hi"));

}

}

