**Exercise 1: Parameterized Tests**

**Scenario**: You want to test a method that checks if a number is even. Instead of writing multiple test cases, you will use parameterized tests to run the same test with different inputs.

EvenChecker.java :-

package org.example1;  
  
public class EvenChecker {  
 public boolean isEven(int number) {  
 return number % 2 == 0;  
 }  
}

EvenCheckerTest.java :-

package org.example1;  
  
import org.junit.jupiter.params.ParameterizedTest;  
import org.junit.jupiter.params.provider.ValueSource;  
import static org.junit.jupiter.api.Assertions.*assertTrue*;  
import static org.junit.jupiter.api.Assertions.*assertFalse*;  
  
public class EvenCheckerTest {  
  
 EvenChecker checker = new EvenChecker();  
  
 @ParameterizedTest  
 @ValueSource(ints = {2, 4, 6, 8, 100})  
 void testEvenNumbers(int input) {  
 *assertTrue*(checker.isEven(input), input + " should be even");  
 }  
  
 @ParameterizedTest  
 @ValueSource(ints = {1, 3, 5, 7, 99})  
 void testOddNumbers(int input) {  
 *assertFalse*(checker.isEven(input), input + " should be odd");  
 }  
}

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>org.example1</groupId>  
 <artifactId>ParameterisedTest</artifactId>  
 <version>1.0-SNAPSHOT</version>  
 <packaging>jar</packaging>  
  
 <name>ParameterisedTest</name>  
 <url>http://maven.apache.org</url>  
  
 <properties>  
 <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>  
 </properties>  
  
 <dependencies>  
 <dependency>  
 <groupId>junit</groupId>  
 <artifactId>junit</artifactId>  
 <version>3.8.1</version>  
 <scope>test</scope>  
 </dependency>  
 <dependency>  
 <groupId>org.junit.jupiter</groupId>  
 <artifactId>junit-jupiter</artifactId>  
 <version>5.10.0</version>  
 <scope>test</scope>  
 </dependency>  
 <dependency>  
 <groupId>junit</groupId>  
 <artifactId>junit</artifactId>  
 <version>4.13.2</version>  
 <scope>test</scope>  
 </dependency>  
 </dependencies>  
  
 <build>  
 <plugins>  
 <plugin>  
 <groupId>org.apache.maven.plugins</groupId>  
 <artifactId>maven-surefire-plugin</artifactId>  
 <version>3.0.0</version>  
 </plugin>  
 </plugins>  
 </build>  
</project>

Output :-

