**Exercise 4: Exception Testing**

**Scenario:** You want to test that a method throws the expected exception.

**ExceptionThrower.java :-**

package org.example1;  
  
public class ExceptionThrower {  
  
 public void throwException() throws IllegalArgumentException {  
 throw new IllegalArgumentException("Invalid argument provided");  
 }  
}

**ExceptionThrowerTest.java :-**

package org.example1;  
  
import org.junit.jupiter.api.Test;  
import static org.junit.jupiter.api.Assertions.\*;  
  
class ExceptionThrowerTest {  
  
 @Test  
 void testThrowException\_ShouldThrowIllegalArgumentException() {  
 ExceptionThrower thrower = new ExceptionThrower();  
  
 IllegalArgumentException thrown = *assertThrows*(  
 IllegalArgumentException.class,  
 thrower::throwException, // method reference  
 "Expected throwException() to throw IllegalArgumentException"  
 );  
  
 *assertEquals*("Invalid argument provided", thrown.getMessage());  
 }  
}

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>exception-testing</artifactId>  
 <version>1.0-SNAPSHOT</version>  
  
 <dependencies>  
 <!-- JUnit 5 API and Engine -->  
 <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>  
 <!-- Maven Surefire Plugin for running tests -->  
 <plugin>  
 <groupId>org.apache.maven.plugins</groupId>  
 <artifactId>maven-surefire-plugin</artifactId>  
 <version>3.1.2</version>  
 </plugin>  
 </plugins>  
 </build>  
</project>

**Output :-**

