**Exercise 2: Verifying Interactions**

**MyService.java :-**

package org.example1;  
  
public class MyService {  
 private final ExternalApi externalApi;  
  
 public MyService(ExternalApi externalApi) {  
 this.externalApi = externalApi;  
 }  
  
 public String fetchData() {  
 return externalApi.getData(); // Should be called during test  
 }  
}

**ExternalApi.java :-**

package org.example1;  
  
public interface ExternalApi {  
 String getData();  
}

**MyService.java :-**

package org.example1;  
  
import org.junit.Test;  
  
import static org.mockito.Mockito.\*;  
  
*/\*\*  
 \* Unit test for verifying interaction with ExternalApi.  
 \*/*public class MyServiceTest {  
  
 @Test  
 public void testVerifyInteraction() {  
 // Step 1: Create mock object  
 ExternalApi mockApi = *mock*(ExternalApi.class);  
  
 // Step 2: Pass mock to service  
 MyService service = new MyService(mockApi);  
  
 // Step 3: Call the method  
 service.fetchData();  
  
 // Step 4: Verify that getData() was called once  
 *verify*(mockApi).getData();  
 }  
}

**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>Mocking</artifactId>  
 <version>1.0-SNAPSHOT</version>  
  
 <properties>  
 <maven.compiler.source>1.8</maven.compiler.source>  
 <maven.compiler.target>1.8</maven.compiler.target>  
 </properties>  
  
 <dependencies>  
 <!-- JUnit 4 -->  
 <dependency>  
 <groupId>junit</groupId>  
 <artifactId>junit</artifactId>  
 <version>4.13.2</version>  
 <scope>test</scope>  
 </dependency>  
  
 <!-- Mockito -->  
 <dependency>  
 <groupId>org.mockito</groupId>  
 <artifactId>mockito-core</artifactId>  
 <version>5.12.0</version>  
 <scope>test</scope>  
 </dependency>  
 </dependencies>  
  
 <build>  
 <plugins>  
 <plugin>  
 <groupId>org.apache.maven.plugins</groupId>  
 <artifactId>maven-surefire-plugin</artifactId>  
 <version>3.1.2</version>  
 </plugin>  
 </plugins>  
 </build>  
</project>

**Output :-**

