Exercise 2: Verifying Interactions

Code:

```
pom.xml:
project xmIns="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
 <artifactId>mockito-demoo</artifactId>
 <version>0.0.1-SNAPSHOT</version>
 <name>mockito-demoo</name>
 <url>http://www.example.com</url>
 cproperties>
  project.build.sourceEncoding>UTF-8/project.build.sourceEncoding>
  <maven.compiler.release>17</maven.compiler.release>
 </properties>
 <dependencies>
  <!-- JUnit 5 API -->
  <dependency>
   <groupId>org.junit.jupiter
   <artifactId>junit-jupiter-api</artifactId>
   <version>5.9.3</version>
   <scope>test</scope>
  </dependency>
  <!-- JUnit 5 Engine -->
  <dependency>
   <groupId>org.junit.jupiter
   <artifactId>junit-jupiter-engine</artifactId>
   <version>5.9.3</version>
   <scope>test</scope>
```

```
</dependency>
  <!-- Mockito -->
  <dependency>
   <groupId>org.mockito
   <artifactId>mockito-core</artifactId>
   <version>4.11.0</version>
   <scope>test</scope>
  </dependency>
 </dependencies>
 <build>
  <plugins>
   <!-- Compiler plugin -->
   <plugin>
    <artifactId>maven-compiler-plugin</artifactId>
    <version>3.13.0</version>
   </plugin>
   <!-- Surefire plugin to run JUnit 5 tests -->
   <plugin>
    <groupId>org.apache.maven.plugins
    <artifactId>maven-surefire-plugin</artifactId>
    <version>3.0.0-M7</version>
   </plugin>
  </plugins>
 </build>
</project>
MyService.java:
package com.example.mockito_demoo;
public class MyService {
  private ExternalApi api;
  public MyService(ExternalApi api) {
```

```
this.api = api;
  }
  public String fetchData() {
    return api.getData(); // Relies on external API
  }
}
MyServiceTest.java:
package com.example.mockito_demoo;
import static org.mockito.Mockito.*;
import org.junit.jupiter.api.Test;
import org.mockito.Mockito;
public class MyServiceTest {
  @Test
  public void testVerifyInteraction() {
    ExternalApi mockApi = Mockito.mock(ExternalApi.class);
    MyService service = new MyService(mockApi);
    service.fetchData();
    verify(mockApi).getData();
  }
}
```

Output:

```
_ _

☑ MyService.java
 ☑ MyServiceTe... 

✓ ☑ AppTest.java
Package Explorer  

☐ JUnit ×
                                                  mockito-dem...
                                                                      ExternalApi...
                   package com.example.mockito_demoo;
                                                     3⊖ import static org.mockito.Mockito.*;
Runs: 1/1 ☐ Errors: 0 ☐ Failures: 0
                                                       import org.junit.jupiter.api.Test;
import org.mockito.Mockito;
> MyServiceTest [Runner: JUnit 5] (0.430 s)
                                                       public class MyServiceTest {
                                                    10
11
12
13
14
15
16
17
                                                            public void testVerifyInteraction() {
                                                                ExternalApi mockApi = Mockito.mock(ExternalApi.class);
                                                                MyService service = new MyService(mockApi);
                                                                service.fetchData();
                                                                verify(mockApi).getData();
                                         国泽曾
Failure Trace
```