

## Exercise 2: Verifying Interactions

### Code:

#### 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>com.example</groupId>
    <artifactId>mockito-demoo</artifactId>
    <version>0.0.1-SNAPSHOT</version>
    <name>mockito-demoo</name>
    <url>http://www.example.com</url>

    <properties>
        <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</groupId>
            <artifactId>junit-jupiter-api</artifactId>
            <version>5.9.3</version>
            <scope>test</scope>
        </dependency>

        <!-- JUnit 5 Engine -->
        <dependency>
            <groupId>org.junit.jupiter</groupId>
            <artifactId>junit-jupiter-engine</artifactId>
            <version>5.9.3</version>
            <scope>test</scope>
```

```
</dependency>
```

```
<!-- Mockito -->
```

```
<dependency>
```

```
  <groupId>org.mockito</groupId>
```

```
  <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</groupId>
```

```
      <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_demo;

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:

