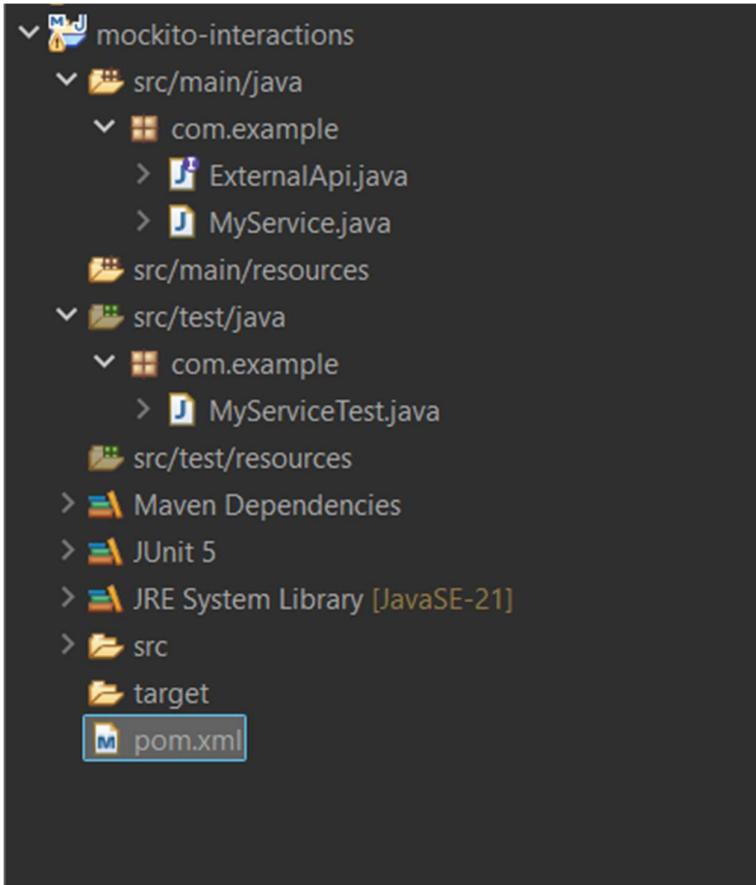


Exercise 2: Verifying Interactions Using Mockito

Project Structure



ExternalApi.java

```
package com.example;

public interface ExternalApi {
    void getData();
}
```

MyService.java

```
package com.example;

public class MyService {
    private final ExternalApi api;

    public MyService(ExternalApi api) {
```

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```
        this.api = api;
    }

    public void fetchData() {
        api.getData();
    }
}
```

MyServiceTest.java

```
package com.example;

import static org.mockito.Mockito.*;
import org.junit.jupiter.api.Test;

public class MyServiceTest {

    @Test
    public void testVerifyInteraction() {
        // Step 1: Create a mock
        ExternalApi mockApi = mock(ExternalApi.class);

        // Step 2: Inject the mock into the service
        MyService service = new MyService(mockApi);

        // Step 3: Invoke the method under test
        service.fetchData();

        // Step 4: Verify interaction with the mock
        verify(mockApi).getData();
    }
}
```

pom.xml (Maven Configuration with Java 21 support)

```
<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
                             https://maven.apache.org/xsd/maven-4.0.0.xsd">

    <modelVersion>4.0.0</modelVersion>

    <groupId>com.example</groupId>
    <artifactId>mockito-interaction-test</artifactId>
    <version>1.0-SNAPSHOT</version>

    <properties>
        <maven.compiler.source>21</maven.compiler.source>
        <maven.compiler.target>21</maven.compiler.target>
    </properties>

    <dependencies>
        <!-- JUnit 5 -->
        <dependency>
```

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```
<groupId>org.junit.jupiter</groupId>
<artifactId>junit-jupiter</artifactId>
<version>5.10.0</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>
        <!-- Run tests using Surefire -->
        <plugin>
            <groupId>org.apache.maven.plugins</groupId>
            <artifactId>maven-surefire-plugin</artifactId>
            <version>3.2.5</version>
        </plugin>
    </plugins>
</build>
</project>
```

Output :

