**#Mocking and Stubbing**

**#adding dependencies in 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\_EXERCISESjavaexefiles</artifactId>  
 <version>1.0-SNAPSHOT</version>  
 <packaging>jar</packaging>  
  
 <name>MOCKITO\_EXERCISES</name>  
 <url>http://maven.apache.org</url>  
  
 <properties>  
 <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>  
 </properties>  
  
 <dependencies>  
  
 <!-- JUnit -->  
 <dependency>  
 <groupId>org.junit.jupiter</groupId>  
 <artifactId>junit-jupiter</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>  
  
  
 <dependency>  
 <groupId>junit</groupId>  
 <artifactId>junit</artifactId>  
 <version>3.8.1</version>  
 <scope>test</scope>  
 </dependency>  
 <dependency>  
 <groupId>junit</groupId>  
 <artifactId>junit</artifactId>  
 <version>4.13.2</version>  
 <scope>test</scope>  
 </dependency>  
 <dependency>  
 <groupId>org.junit.jupiter</groupId>  
 <artifactId>junit-jupiter</artifactId>  
 <version>RELEASE</version>  
 <scope>test</scope>  
 </dependency>  
 </dependencies>  
</project>

**#ExternalApi.java**

package com.example;  
  
public interface ExternalApi {  
 String getData();  
}

**#MyService.java**

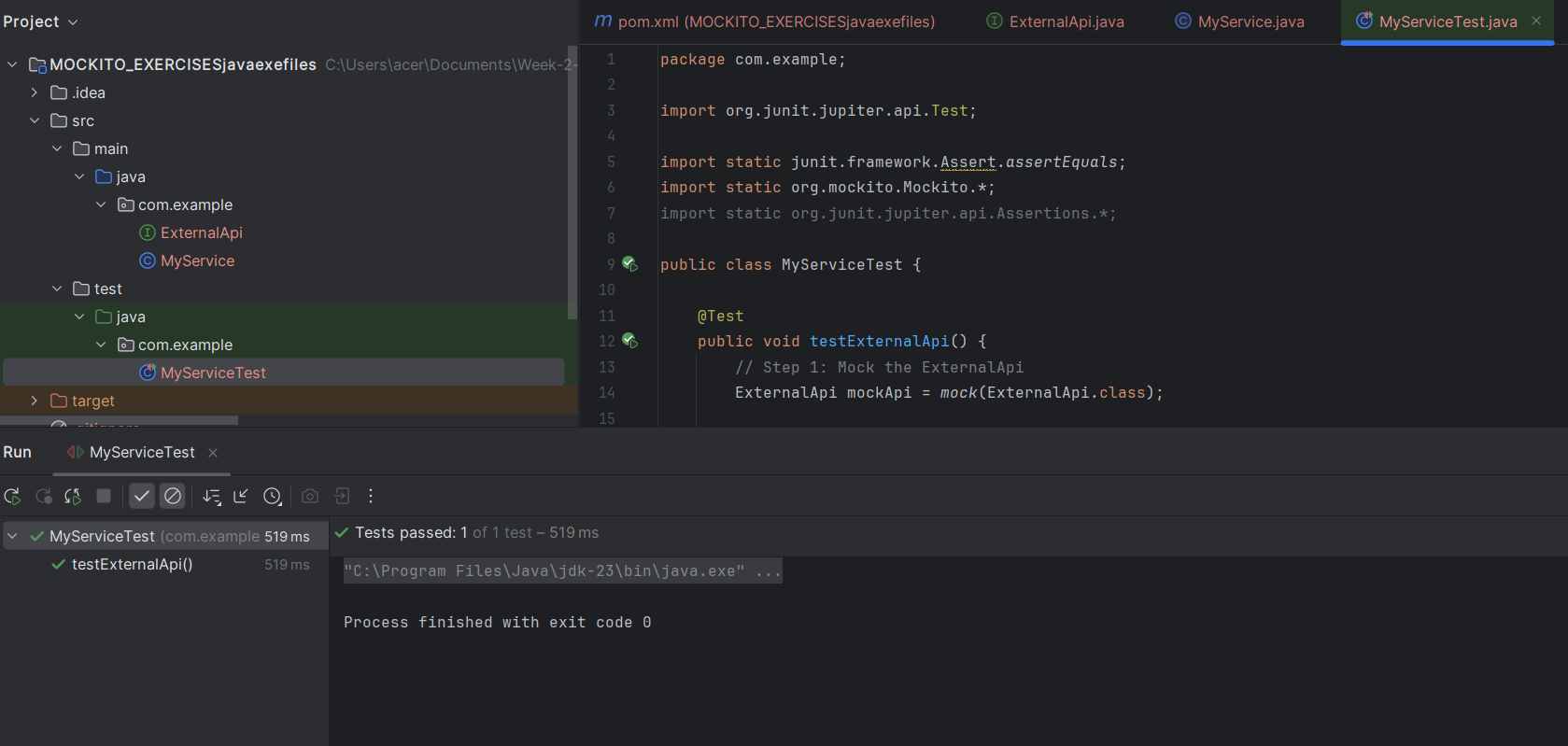
package com.example;  
  
public class MyService {  
 private ExternalApi externalApi;  
  
 public MyService(ExternalApi externalApi) {  
 this.externalApi = externalApi;  
 }  
  
 public String fetchData() {  
 return externalApi.getData();  
 }  
}

**#MyServiceTest.java**

package com.example;  
  
import org.junit.jupiter.api.Test;  
  
import static junit.framework.Assert.assertEquals;  
import static org.mockito.Mockito.\*;  
import static org.junit.jupiter.api.Assertions.\*;  
  
public class MyServiceTest {  
  
 @Test  
 public void testExternalApi() {  
 // Step 1: Mock the ExternalApi  
 ExternalApi mockApi = mock(ExternalApi.class);  
  
 // Step 2: Stub getData()  
 when(mockApi.getData()).thenReturn("Mock Data");  
  
 // Step 3: Inject mock into MyService  
 MyService service = new MyService(mockApi);  
  
 // Step 4: Call and Assert  
 String result = service.fetchData();  
 assertEquals("Mock Data", result);  
 }  
}

**#OUTPUT**

**AFTER EXECUTING THE SERVICE TEST FILE**

****