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**WEEK2:** 3.**MOCKITO EXERCISES**  
  
Exercise 1: Mocking and Stubbing

Scenario:

You need to test a service that depends on an external API. Use Mockito to mock the

external API and stub its methods.

Steps:

1. Create a mock object for the external API.

2. Stub the methods to return predefined values.

3. Write a test case that uses the mock object.

Solution Code:

import static org.mockito.Mockito.\*;

import org.junit.jupiter.api.Test;

import org.mockito.Mockito;

public class MyServiceTest {

@Test

public void testExternalApi() {

ExternalApi mockApi = Mockito.mock(ExternalApi.class);

when(mockApi.getData()).thenReturn("Mock Data");

MyService service = new MyService(mockApi);

String result = service.fetchData();

assertEquals("Mock Data", result);

}

}

**SAMPLE CODE:  
  
// ExternalApi.java (interface to mock)**

**public interface ExternalApi {**

**String getData();**

**}**

**// MyService.java (class under test)**

**public class MyService {**

**private final ExternalApi api;**

**public MyService(ExternalApi api) { this.api = api; }**

**public String fetchData() { return api.getData(); }**

**}  
  
import org.junit.jupiter.api.Test;**

**import static org.junit.jupiter.api.Assertions.\*;**

**import static org.mockito.Mockito.\*;**

**class MyServiceTest {**

**@Test**

**void testFetchData() {**

**// 1. Create mock**

**ExternalApi mockApi = mock(ExternalApi.class);**

**// 2. Stub behavior**

**when(mockApi.getData()).thenReturn("Mock Data");**

**// 3. Inject and test**

**MyService service = new MyService(mockApi);**

**assertEquals("Mock Data", service.fetchData());**

**System.out.print("Mockito test Executed Successfully");**

**}**

**}**

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**<!-- or latest version -->**

**<mockito.version>5.5.0</mockito.version>**

**<!-- or latest version -->**

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**</dependency>**

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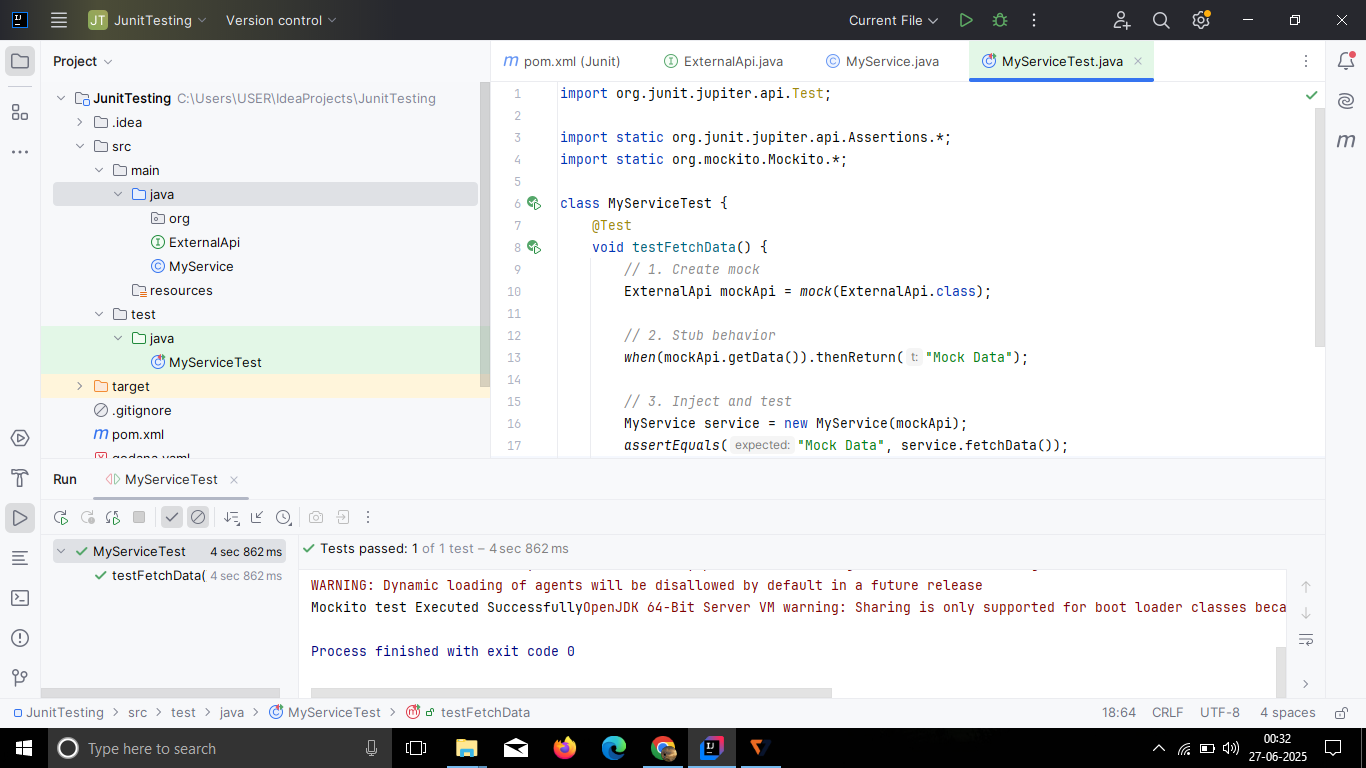
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**OUTPUT:**

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