**WEEK -2**

**TDD using JUnit5 and Mockito**

**Mocking and Stubbing**

**\* pom.xml :**

<dependencies>

<!-- JUnit 5 -->

<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>5.10.0</version>

<scope>test</scope>

</dependency>

</dependencies>

**\* ExternalApi.java :**

package com.example;

public interface ExternalApi {

String getData();

}

**\* MyService.java :**

package com.example;

public class MyService {

private ExternalApi api;

public MyService(ExternalApi api) {

this.api = api;

}

public String fetchData() {

return api.getData();

}

}

**\* MyServiceTest.java :**

package com.example;

import org.junit.jupiter.api.Test;

import static org.junit.jupiter.api.Assertions.assertEquals;

import static org.mockito.Mockito. \*;

public class MyServiceTest {

@Test

public void testExternalApi() {

// Step 1: Mock the external API

ExternalApi mockApi = mock(ExternalApi.class);

// Step 2: Stub its method

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

// Step 3: Inject into service and test

MyService service = new MyService(mockApi);

String result = service.fetchData();

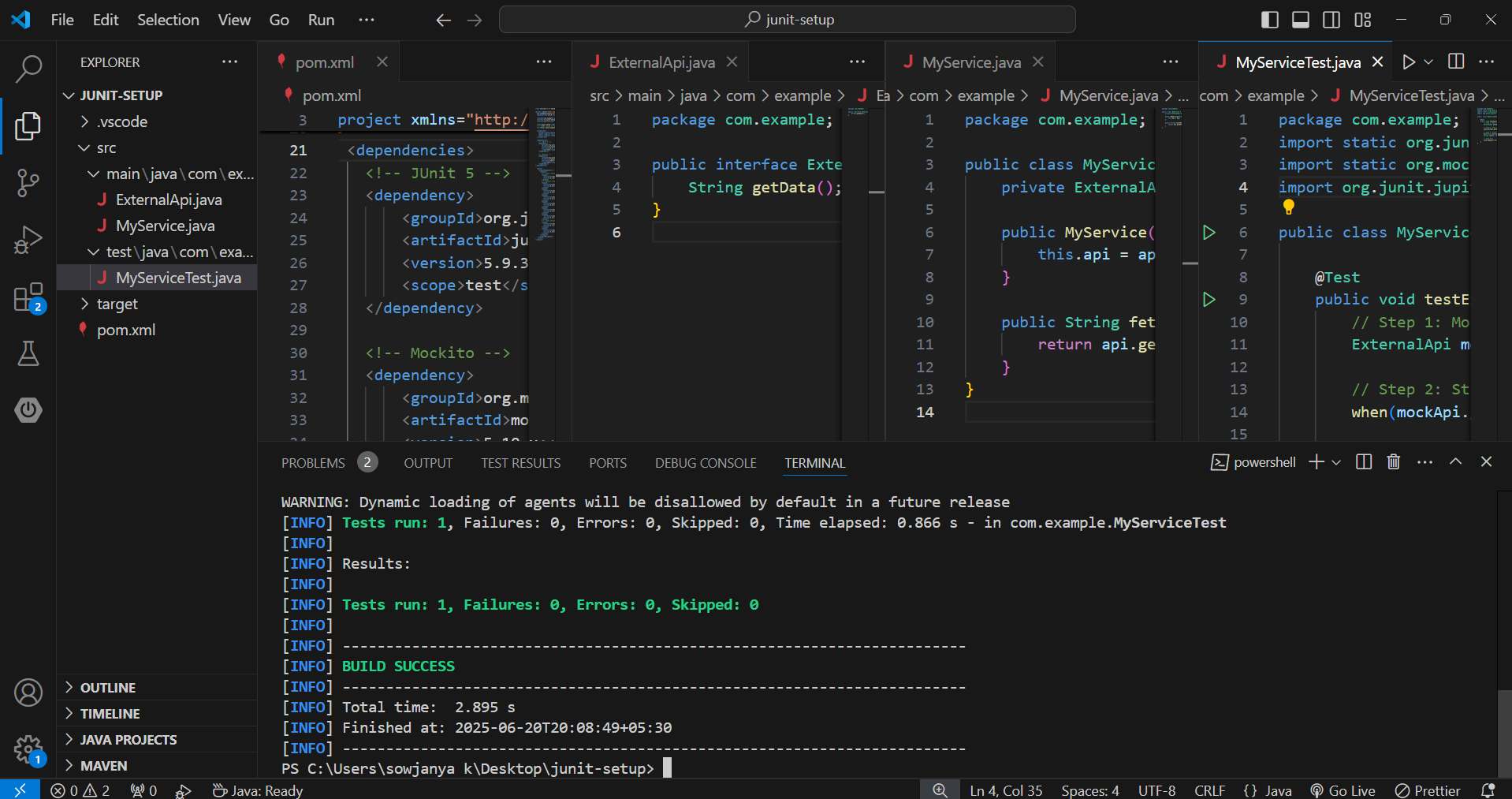
// Assertion

assertEquals("Mock Data", result);

}

}

**Output:**

****