**Exercise – 1 Mocking and Stubbing**

**Scenario:** You need to set up JUnit in your Java project to start writing unit tests.

**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.Test;

import org.mockito.Mockito;

import static org.junit.Assert.assertEquals;

import static org.mockito.Mockito.when;

public class MyServiceTest {

@Test

public void testExternalApi() {

// Arrange: Create mock

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

// Stub method

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

// Act

MyService service = new MyService(mockApi);

String result = service.fetchData();

// Assert

assertEquals("Mock Data", result);

}

}

**Test Result using Mocking and Stubbing**

**A screenshot of a computer program

AI-generated content may be incorrect.**