**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.   
**Code:**MyService.java

**package com.MockitoDemo;**

**public class MyService {**

**private ExternalApi api;**

**public MyService(ExternalApi api)**

**{**

**this.api=api;**

**}**

**public String fetchData()**

**{**

**return api.getData();**

**}**

**}**

MyServiceTest.java  
  
package com.MockitoDemo;

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

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

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

import org.junit.jupiter.api.Test;

public class MyServiceTest {

*@Test*

public void testExternalApi()

{

//step1:Mock-creating fake classes

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

//step 2-stub-telling mock object what to return when a method is called

*when*(mockApi.getData()).thenReturn("mockdata");

//step 3-inject mock

MyService service=new MyService(mockApi);

String result=service.fetchData();

//assert

*assertEquals*("mockdata",result);

}

}

ExternalApi.java

package com.MockitoDemo;

public interface ExternalApi {

String getData();

}

**Output:**