**Mockito Hands-On 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.

**ExternalApi.java**

**package** com.example.MockitoDemo;

**public** **interface** ExternalApi {

String getData();

}

**MyService.java**

**package** com.example.MockitoDemo;

**public** **class** MyService {

**private** ExternalApi api;

**public** MyService(ExternalApi api) {

**this**.api = api;

}

**public** String fetchData() {

**return** api.getData();

}

}

**MyServiceTest.java**

package com.example.MockitoDemo;

import static org.mockito.Mockito.\*;

import static org.junit.Assert.\*;

import org.junit.Test;

public class MyServiceTest {

@Test

public void testMockingAndStubbing() {

// Step 1: Create mock

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

// Step 2: Stub getData to return "Mock Data"

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

// Step 3: Inject into service

MyService service = new MyService(mockApi);

// Call method

String result = service.fetchData();

// Assert that returned data matches stubbed data

*assertEquals*("Mock Data", result);

}

}

**Output:**

