**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.

Step-1 : An ‘ExternalApi’ Interface is created.

package com.example;

public interface ExternalApi {

String getData();

}

Step-2 : A ‘My Service’ class is created.

package com.example;

public class MyService {

private ExternalApi api;

public MyService(ExternalApi api) {

this.api = api;

}

public String fetchData() {

return api.getData(); }

}

Step-3 : A ‘MyServiceTest’ Test Class is created.

package com.example;

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

import static org.mockito.Mockito.\*;

import org.junit.jupiter.api.Test;

public class MyServiceTest {

@Test

public void testExternalApi() {

// Create mock

ExternalApi mockApi = mock(ExternalApi.class);

// Stub method

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

// Inject mock into service

MyService service = new MyService(mockApi);

// Run & Assert

String result = service.fetchData();

assertEquals("Mock Data", result);

}

}

**Input:**

A screen shot of a computer program

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**A screen shot of a computer program

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**Output:**

A screenshot of a computer program

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