**Exercise 1: Mocking and Stubbing**

**ExternalApi.java :**

package com.example.MockDemo;

public interface ExternalApi {

String getData();

}

**Myservice.java :**

package com.example.MockDemo;

public class MyService {

private final ExternalApi externalApi;

public MyService(ExternalApi externalApi) {

this.externalApi = externalApi;

}

public String fetchData() {

return externalApi.getData();

}

}

**MyServiceTest.java :**

package com.example.MockDemo;

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 testFetchData() {

// Arrange (Mock setup)

ExternalApi mockApi = mock(ExternalApi.class);

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

MyService service = new MyService(mockApi);

String result = service.fetchData();

assertEquals("Mock Data", result);

System.out.println("Test passed. Returned: " + result);

}

}

**OUTPUT:**

