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. Steps: 1. Create a mock object for the external API. 2. Stub the methods to return predefined values. 3. Write a test case that uses the mock object.

**MyServiceTest.java**

**package** com.example;

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

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

**import** org.junit.jupiter.api.Test;

**public** **class** MyServiceTest {

@Test

**public** **void** testExternalApi() {

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

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

MyService service = **new** MyService(mockApi);

String result = service.fetchData();

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

}

}

**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();

}

}



