**Exercise 1: Mocking and Stubbing**

**Code:**

package com.example;

public interface ExternalApi {

String getData();

}

public class MyService {

    private ExternalApi api;

    public MyService(ExternalApi api) {

        this.api = api;

    }

    public String fetchData() {

        return api.getData();

    }

}

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

import org.mockito.Mockito;

import static org.mockito.Mockito.when;

public class MyServiceTest {

  public void testExternalApi() {

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

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

        MyService service = new MyService(mockApi);

        String result = service.fetchData();

        assertEquals("Mock Data", result);

    }

}

**Output:**

A screen shot of a computer

AI-generated content may be incorrect.

**Exercise 2: Verifying Interactions**

**Code:**

public interface ExternalApi {

    void getData();

}

public class MyService {

    private ExternalApi api;

    public MyService(ExternalApi api) {

        this.api = api;

    }

    public void fetchData() {

        api.getData();

    }

}

import static org.mockito.Mockito.\*;

import org.junit.jupiter.api.Test;

import org.mockito.Mockito;

public class MyServiceTest {

    public void testVerifyInteraction() {

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

        MyService service = new MyService(mockApi);

        service.fetchData();

        verify(mockApi).getData();

    }

}

**Output:**

A screenshot of a computer program

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