**Exercise 4: Mocking Network Interactions**

**ExternalApi.java**

public interface ExternalApi {

String connect();

}

**MyService.java**

public class MyService {

private final ExternalApi networkClient;

public MyService(ExternalApi networkClient) {

this.networkClient = networkClient;

}

public String connectToServer() {

String connection = networkClient.connect();

return "Connected to " + connection;

}

}

**MyServiceTest.java**

import static org.mockito.Mockito.\*;

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

import org.junit.jupiter.api.Test;

public class MyServiceTest {

@Test

public void testServiceWithMockNetworkClient() {

ExternalApi mockNetworkClient = mock(ExternalApi.class);

when(mockNetworkClient.connect()).thenReturn("Mock Connection");

MyService networkService = new MyService(mockNetworkClient);

String result = networkService.connectToServer();

assertEquals("Connected to Mock Connection", result);

System.out.println("Result: " + result);

}

}

