**Exercise 1: Mocking Databases and Repositories**

**ExternalApi.java**

public interface ExternalApi {

String getData();

}

**MyService.java**

public class MyService {

private final ExternalApi repository;

public MyService(ExternalApi repository) {

this.repository = repository;

}

public String processData() {

String data = repository.getData();

return "Processed " + data;

}

}

**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 testServiceWithMockRepository() {

ExternalApi mockRepository = mock(ExternalApi.class);

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

MyService service = new MyService(mockRepository);

String result = service.processData();

assertEquals("Processed Mock Data", result);

System.out.println(" Repository was mocked successfully. Result: " + result);

}

}

