**Exercise 1: Mocking and Stubbing**

**ExternalApi.java**

public interface ExternalApi {

String getData();

}

**MyService.java**

public class MyService {

private ExternalApi api;

public MyService(ExternalApi api) {

this.api = api;

}

public String fetchData() {

return api.getData();

}

}

**MyServiceTest.java**

import static org.mockito.Mockito.\*;

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

import org.junit.jupiter.api.Test;

import org.mockito.Mockito;

public class MyServiceTest {

@Test

public void testExternalApi() {

// Step 1: Create mock

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

// Step 2: Stub method

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

// Step 3: Use in test

MyService service = new MyService(mockApi);

String result = service.fetchData();

// Assertion

assertEquals("Mock Data", result);

}

}

**OUTPUT:**

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Running MyServiceTest

Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.01 s

Results :

Tests run: 1, Failures: 0, Errors: 0, Skipped: 0