**Exercise 1: Mocking and Stubbing**

**CODE :**

**ExternalApi.java:**

package app;

// Simple external API contract

public interface ExternalApi {

String getData();

}

**MyService.java:**

package app;

// Service under test

public class MyService {

private final ExternalApi api;

public MyService(ExternalApi api) {

this.api = api;

}

public String fetchData() {

// Delegates to external API

return api.getData();

}

}

**MyServiceTest.java:**

package app;

import static org.mockito.Mockito.\*;

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

import org.junit.jupiter.api.Test;

public class MyServiceTest {

@Test

void testExternalApi() {

// Arrange – mock and stub

ExternalApi mockApi = mock(ExternalApi.class);

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

// Act

MyService service = new MyService(mockApi);

String result = service.fetchData();

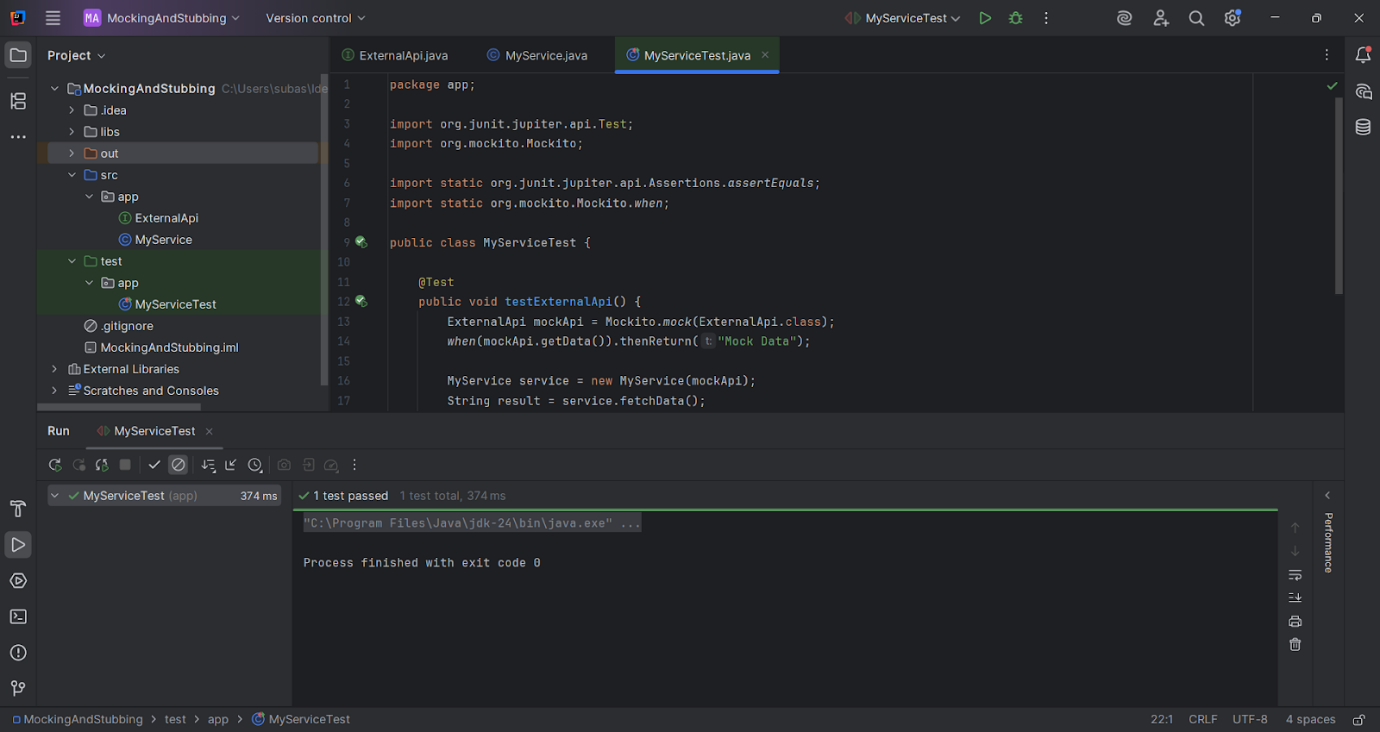
// Assert

assertEquals("Mock Data", result);

}

}

**OUTPUT :**

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