**Exercise 1\_ Mocking and Stubbing**

**Dependency:**

<project xmlns="http://maven.apache.org/POM/4.0.0"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xsi:schemaLocation="http://maven.apache.org/POM/4.0.0

https://maven.apache.org/xsd/maven-4.0.0.xsd">

<modelVersion>4.0.0</modelVersion>

<groupId>com.example</groupId>

<artifactId>MockitoTestExample</artifactId>

<version>0.0.1-SNAPSHOT</version>

<name>MockitoTestExample</name>

<dependencies>

<!-- JUnit 5 (Jupiter) -->

<dependency>

<groupId>org.junit.jupiter</groupId>

<artifactId>junit-jupiter</artifactId>

<version>5.10.0</version>

<scope>test</scope>

</dependency>

<!-- Mockito Core -->

<dependency>

<groupId>org.mockito</groupId>

<artifactId>mockito-core</artifactId>

<version>5.12.0</version>

<scope>test</scope>

</dependency>

</dependencies>

<build>

<plugins>

<!-- Plugin to use JUnit 5 with Maven -->

<plugin>

<groupId>org.apache.maven.plugins</groupId>

<artifactId>maven-surefire-plugin</artifactId>

<version>3.1.2</version>

<configuration>

<includes>

<include>\*\*/\*Test.java</include>

</includes>

</configuration>

</plugin>

</plugins>

</build>

</project>

**MyServiceTest.java:**

package com.example.api;

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: Mock the ExternalApi

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

// Step 2: Stub the method

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

// Step 3: Inject into service

MyService service = new MyService(mockApi);

// Step 4: Call and assert

String result = service.fetchData();

assertEquals("Mock Data", result);

}

}

**OUTPUT:**

