## **📄 1. pom.xml with Mockito and JUnit 5**

xml

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<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

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

<modelVersion>4.0.0</modelVersion>

<groupId>com.example</groupId>

<artifactId>MockitoDemo</artifactId>

<version>1.0-SNAPSHOT</version>

<dependencies>

<!-- JUnit 5 -->

<dependency>

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

<artifactId>junit-jupiter</artifactId>

<version>5.10.0</version>

<scope>test</scope>

</dependency>

<!-- Mockito -->

<dependency>

<groupId>org.mockito</groupId>

<artifactId>mockito-core</artifactId>

<version>5.12.0</version>

<scope>test</scope>

</dependency>

</dependencies>

<build>

<plugins>

<!-- Maven Surefire Plugin for JUnit 5 -->

<plugin>

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

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

<version>3.0.0-M5</version>

</plugin>

</plugins>

</build>

</project>

## **📄 2. ExternalApi.java (Interface to Mock)**

java

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package com.example;

public interface ExternalApi {

String getData();

}

## **📄 3. MyService.java (Class Under Test)**

java

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package com.example;

public class MyService {

private final ExternalApi api;

public MyService(ExternalApi api) {

this.api = api;

}

public String fetchData() {

return api.getData(); // This is what we’ll mock

}

}

## **📄 4. MyServiceTest.java (Mock and Stub Example)**

java

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package com.example;

import org.junit.jupiter.api.Test;

import static org.mockito.Mockito.\*;

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

public class MyServiceTest {

@Test

public void testExternalApi() {

// Arrange: create mock and stub it

ExternalApi mockApi = mock(ExternalApi.class);

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

MyService service = new MyService(mockApi);

// Act

String result = service.fetchData();

// Assert

assertEquals("Mock Data", result);

// Optional: Verify that the mocked method was called

verify(mockApi).getData();

}

}

