**WEEK – 2(Hands-on)**

**TDD using Mockito**

**Exercise 1: Mocking and Stubbing**

<projectxmlns="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">

<dependencies>

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<artifactId>junit-jupiter-engine</artifactId>

<version>5.9.3</version>

<scope>test</scope>

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<version>5.9.3</version>

<scope>test</scope>

</dependency>

<dependency>

<groupId>org.mockito</groupId>

<artifactId>mockito-core</artifactId>

<version>4.11.0</version>

<scope>test</scope>

</dependency>

</dependencies>

<modelVersion>4.0.0</modelVersion>

<groupId>com.cognizant.mock</groupId>

<artifactId>MockitoDemo</artifactId>

<version>0.0.1-SNAPSHOT</version>

</project>

package com.cognizant.mock;

import org.junit.jupiter.api.Test;

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

import static org.mockito.Mockito.\*;

public class MyServiceTest {

*@Test*

public void testExternalApi() {

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

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

MyService service = new MyService(mockApi);

String result = service.fetchData();

*assertEquals*("Mock Data", result);

}

}

package com.cognizant.mock;

public interface ExternalApi {

String getData();

}

package com.cognizant.mock;

public class MyService {

private ExternalApi api;

public MyService(ExternalApi api) {

this.api = api;

}

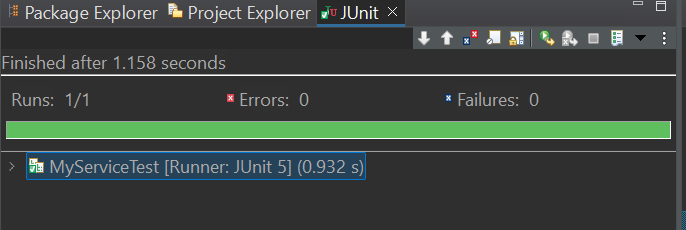
public String fetchData () {

return api.getData();

}

}

**Output:**



**Exercise 2: Verifying Interactions**

<projectxmlns="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">

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<artifactId>mockito-core</artifactId>

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</dependency>

</dependencies>

<modelVersion>4.0.0</modelVersion>

<groupId>com.cognizant.mock</groupId>

<artifactId>MockitoVerifyDemo</artifactId>

<version>0.0.1-SNAPSHOT</version>

</project>

package com.cognizant.mock;

import org.junit.jupiter.api.Test;

import static org.mockito.Mockito.\*;

public class MyServiceTest {

*@Test*

public void testVerifyInteraction() {

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

MyService service = new MyService(mockApi);

service.fetchData();

*verify*(mockApi).getData();

}

}

package com.cognizant.mock;

public interface ExternalApi {

String getData();

}

package com.cognizant.mock;

public class MyService {

private ExternalApi api;

public MyService(ExternalApi api) {

this.api = api;

}

public String fetchData() {

return api.getData();

}

}

**Output:**

