**Exercise 2**: Verifying Interactions

Scenario:

You need to ensure that a method is called with specific arguments.

Steps:

1. Create a mock object.

2. Call the method with specific arguments.

3. Verify the interaction.

Solution Code:

import static org.mockito.Mockito.\*;

import org.junit.jupiter.api.Test;

import org.mockito.Mockito;

public class MyServiceTest {

@Test

public void testVerifyInteraction() {

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

MyService service = new MyService(mockApi);

service.fetchData();

verify(mockApi).getData();

}

}

**Solution:**

First create a java project in IntelliJ and install all the dependencies for Junit5 annd Mockito in the pom.xml file.

Next create an interface and a file,ExternalAPI.java and MyService.java respectively.

**ExternalAPI.java:**

package org.example;  
  
public interface ExternalApi {  
 String getData();  
}

**MyService.java:**

package org.example;  
  
public class MyService {  
 private ExternalApi api;  
  
 public MyService(ExternalApi api) {  
 this.api = api;  
 }  
  
 public String fetchData() {  
 return api.getData();  
 }  
}

Now in the test class,create a file MyServiceTest.java

**MyServiceTest.java:**

package org.example;  
  
import static org.mockito.Mockito.\*;  
import org.junit.jupiter.api.Test;  
import static org.junit.jupiter.api.Assertions.\*;  
import org.mockito.Mockito;  
  
  
public class MyServiceTest {  
  
 @Test  
 public void testVerifyInteraction() {  
   
 ExternalApi mockApi = Mockito.*mock*(ExternalApi.class);  
  
   
 *when*(mockApi.getData()).thenReturn("Mock Data");  
  
   
 MyService service = new MyService(mockApi);  
 String result = service.fetchData();  
  
   
 *verify*(mockApi).getData();  
  
   
 *assertEquals*("Mock Data", result);  
 }  
}

Output:

When getData() is called successfully,

A screenshot of a computer

AI-generated content may be incorrect.

When we remove the service.fetchData(); line we get the following output,

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