**Mockito Hands-On Exercises**

Exercise 3: Argument Matching

Scenario: You need to verify that a method is called with specific arguments.

Steps:

1. Create a mock object.

2. Call the method with specific arguments.

3. Use argument matchers to verify the interaction.

**CODE:**

ExternalApi.java

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

UserService.java

package org.example;  
  
public class UserService {  
 private ExternalApi api;  
  
 public UserService(ExternalApi api) {  
 this.api = api;  
 }  
  
 public String getUserName(String id) {  
 return api.getUser(id);  
 }  
}

UserServiceTest.java

package org.example;  
package org.example;  
  
import org.junit.Test;  
  
import static org.mockito.ArgumentMatchers.*anyString*;  
import static org.mockito.Mockito.\*;  
  
import static org.junit.Assert.*assertEquals*;  
  
public class UserServiceTest {  
  
 @Test  
 public void testArgumentMatching() {  
 ExternalApi mockApi = *mock*(ExternalApi.class);  
 *when*(mockApi.getUser(*anyString*())).thenReturn("MockedUser");  
 UserService service = new UserService(mockApi);  
 String result = service.getUserName("123");  
 *verify*(mockApi).getUser(*eq*("123"));  
 System.*out*.println("Returned: " + result);  
 *assertEquals*("MockedUser", result);  
 }  
}

pom.xml

<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>org.example</groupId>  
 <artifactId>ArgumentMatching</artifactId>  
 <version>1.0-SNAPSHOT</version>  
 <properties>  
 <maven.compiler.source>17</maven.compiler.source>  
 <maven.compiler.target>17</maven.compiler.target>  
 </properties>  
 <dependencies>  
 <dependency>  
 <groupId>junit</groupId>  
 <artifactId>junit</artifactId>  
 <version>4.13.2</version>  
 <scope>test</scope>  
 </dependency>  
 <dependency>  
 <groupId>org.mockito</groupId>  
 <artifactId>mockito-core</artifactId>  
 <version>5.11.0</version>  
 <scope>test</scope>  
 </dependency>  
 </dependencies>  
</project>

**OUTPUT:**

