#### **MOCKITO EXERCISE**

```
MyServiceTest1.java
package org.example;
import org.junit.jupiter.api.Test;
import static org.junit.jupiter.api.Assertions.assertEquals;
import static org.mockito.Mockito.*;
public class MyServiceTest1 {
  @Test
  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);
  }
ExternalApi.java
package org.example;
public class ExternalApi {
  public String getData() {
    // This would normally call an external system
    return "Real Data";
  }
}
MyService.java
package org.example;
public class MyService {
  private final ExternalApi api;
  public MyService(ExternalApi api) {
    this.api = api;
  }
 public String fetchData() {
```

```
return api.getData();
}
```

#### **OUTPUT:**

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                    onsTest.java
                                  FixtureTest.java
                                                     © Calculator.java
                                                                       ① ExternalApi.java
                                                                                          MyService.java
   cts C:\Users\ADMIN
                           package org.example;
idea
                           import org.junit.jupiter.api.Test;
                           import static org.junit.jupiter.api.Assertions.assertEquals;
     mvn.
                     4 import static org.mockito.Mockito.*;

→ src

     main
                     6 
    public class MyServiceTest1 {
       java
                     7
                             @Test
          ∨   org.exar 8   ⊳
                               void testExternalApi() {
              © Арре 9
                                 ExternalApi mockApi = mock(ExternalApi.class);
              © Calci 10
                                  when(mockApi.getData()).thenReturn( to "Mock Data");
              © Even 11
              © Exce 12
                                   MyService service = new MyService(mockApi);
              ① Exter 13
                                   String result = service.fetchData();
              ⊘ Logg <sup>14</sup>
                                   assertEquals( expected: "Mock Data", result);
              Main
                               }
              © MyS€
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                            }
              Parai 18
              © Perfc
          resources
     Run
           ♦ AllTests ×
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```

# MyServiceTest2.java

```
package org.example;
import org.example.ExternalApi;
import org.example.MyService;
import org.junit.jupiter.api.Test;
import static org.mockito.Mockito.*;
public class MyServiceTest2 {
    @Test
    void testVerifyInteraction() {
        ExternalApi mockApi = mock(ExternalApi.class);
    }
}
```

```
MyService service = new MyService(mockApi);
service.fetchData();
verify(mockApi).getData(); // Verifies that getData() was called once
}
```

### **OUTPUT:**

```
Project ~
                                                          Calculator.java
                      onsTest.java
                                     FixtureTest.java
                                                                             ① ExternalApi.java
                                                                                                 © MyS
                              package org.example;
   cts C:\Users\ADMIN
                             import org.example.ExternalApi;
   > 🗀 .idea
                       3
                              import org.example.MyService;
     mvn.
                              import org.junit.jupiter.api.Test;
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                       5
                              import static org.mockito.Mockito.*;

∨ □ main

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                       7 D public class MyServiceTest2 {

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                                  @Test
               ⊕ App€ 9 >
                               void testVerifyInteraction() {
               © Calci 10
                                      ExternalApi mockApi = mock(ExternalApi.class);
               © Even 11
                                      MyService service = new MyService(mockApi);
               © Exce 12
               ① Exter 13
                                      service.fetchData();
               @ Logg
                                      verify(mockApi).getData();
               Main
               © MyS€
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                              }
               @ Parai
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          resources
     Run

    AllTests ×

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# ArgumentMatchingTest.java:

```
import org.junit.jupiter.api.Test;
import static org.mockito.Mockito.*;
import static org.mockito.ArgumentMatchers.anyString;
public class ArgumentMatchingTest {
  interface UserApi {
    void login(String username);
}
```

```
}
  @Test
  void testArgumentMatching() {
    UserApi api = mock(UserApi.class);
    api.login("admin");
    verify(api).login(anyString()); // Verifies login() was called with any string
  }
}
OUTPUT:
     Project ~
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                                                          1 ExternalApi.java
                        est.java
    cts C:\Users\ADMII
                          3
                                 import org.junit.jupiter.api.Test;
```

```
MyService.java
   > 🗀 .idea
                              import static org.mockito.Mockito.*;
     mvn.
                             import static org.mockito.ArgumentMatchers.anyString;

∨ □ src

→ main

                       70>
                             public class ArgumentMatchingTest {
        java
                       8 Q
                                 interface UserApi { 2 usages
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                                     void login(String username); 2 usages
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                                 }
               C Calci
                                 @Test
               © Even
                      13 >
                                 void testArgumentMatching() {
               © Exce
                                     UserApi api = mock(UserApi.class);
               ① Exter
                                     api.login( username: "admin");
               @ Logg
               Main
                                     verify(api).login(anyString());
               © MyS€
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          resources
            ♠ AllTests ×
    Run
     G G B - V O F E O 0 9 :
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          C:\Users\ADMIN\.jdks\openjdk-24.0.1\bin\java.exe ...
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         Process finished with exit code 0
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