# 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);
  }
```

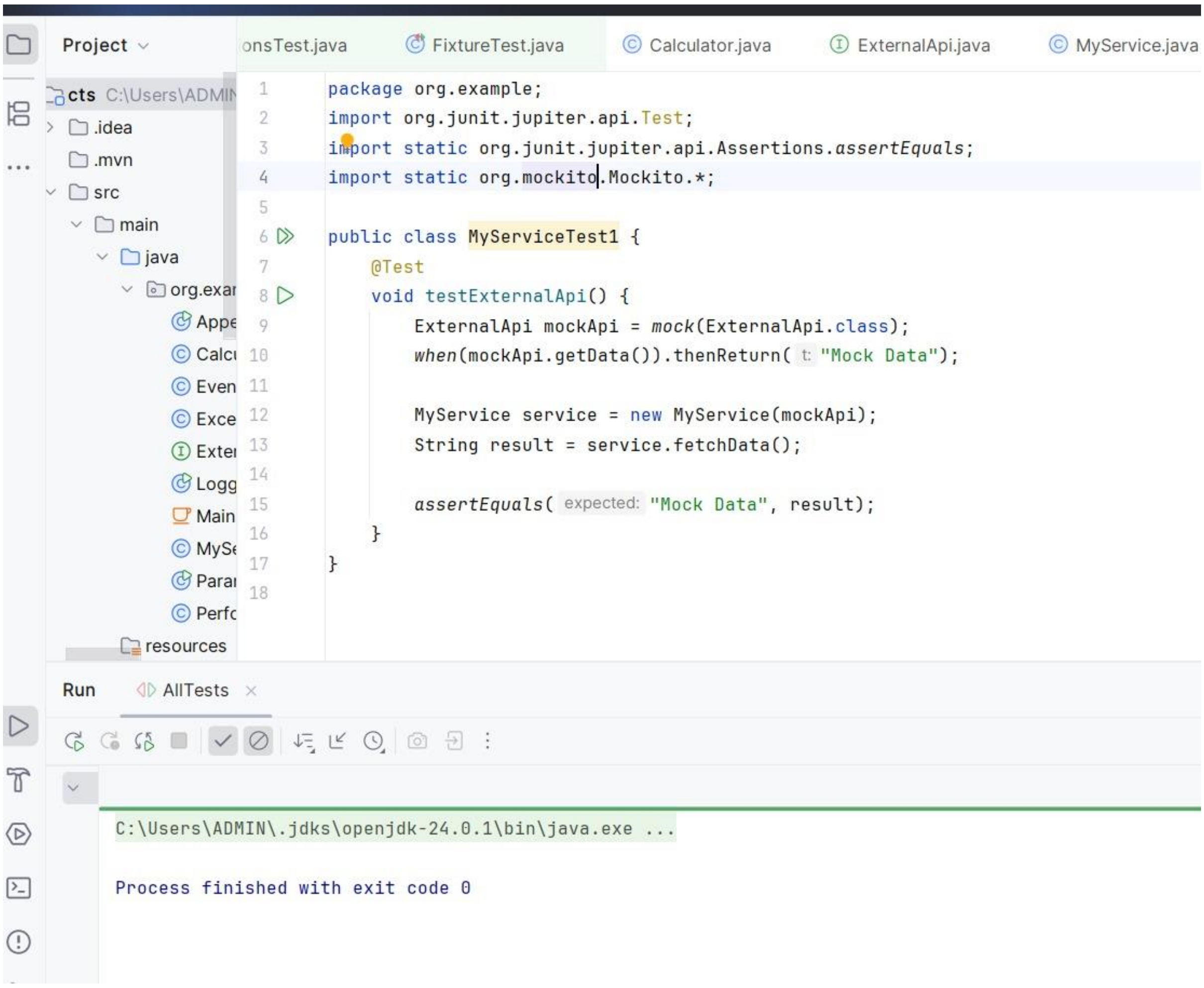
**ExternalApi.java**

```
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:**



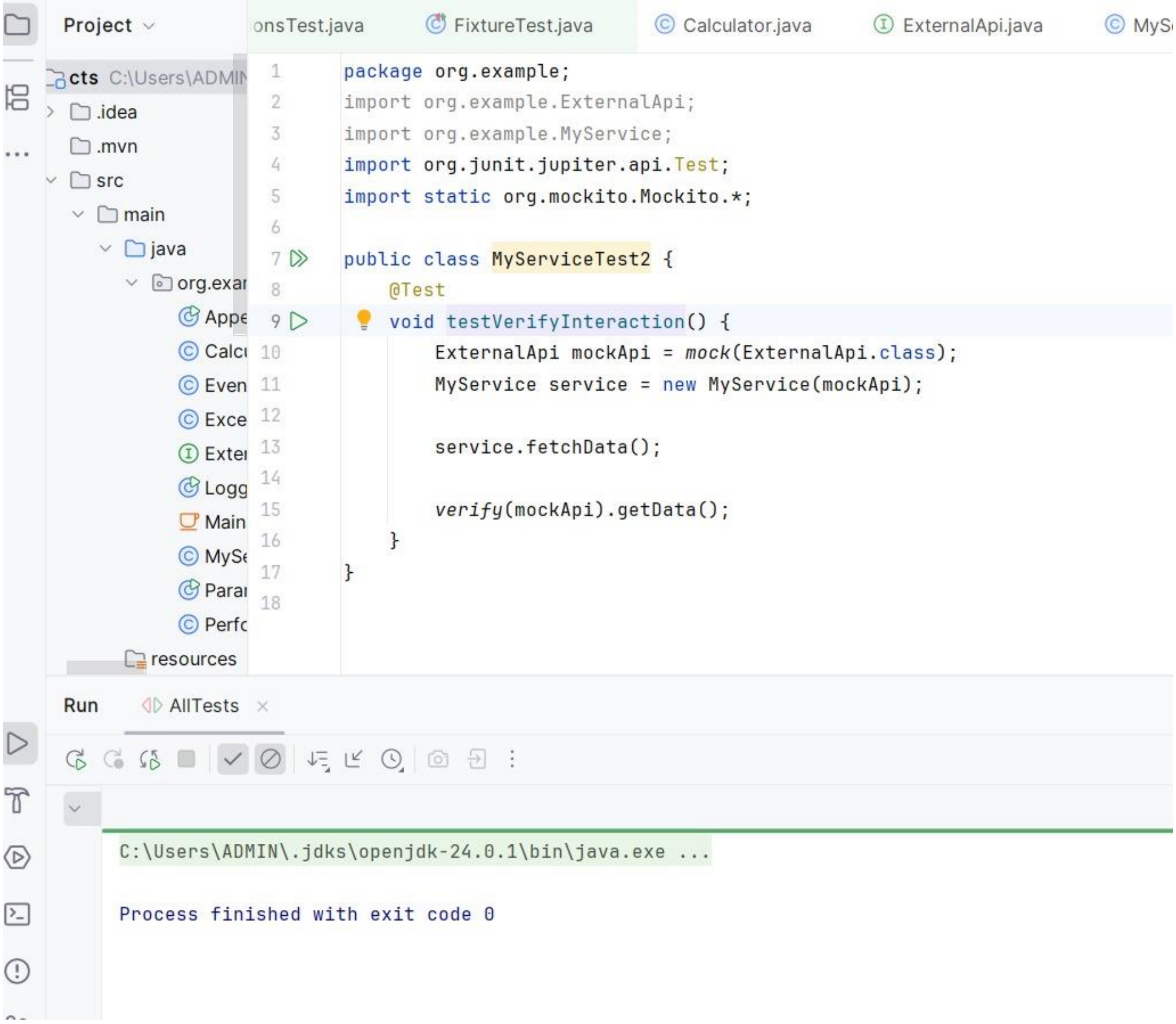
```
package org.example;
import org.junit.jupiter.api.Test;
import static org.junit.jupiter.api.Assertions.assertEquals;
import static org.mockito.Mockito.*;

public class MyServiceTest1 {
    @Test
    void testExternalApi() {
        ExternalApi mockApi = mock(ExternalApi.class);
        when(mockApi.getData()).thenReturn( t: "Mock Data");

        MyService service = new MyService(mockApi);
        String result = service.fetchData();

        assertEquals( expected: "Mock Data", result);
    }
}
```

```
C:\Users\ADMIN\.jdks\openjdk-24.0.1\bin\java.exe ...

Process finished with exit code 0
```

**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:**



```
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();
    }
}
```

```
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Process finished with exit code 0
```
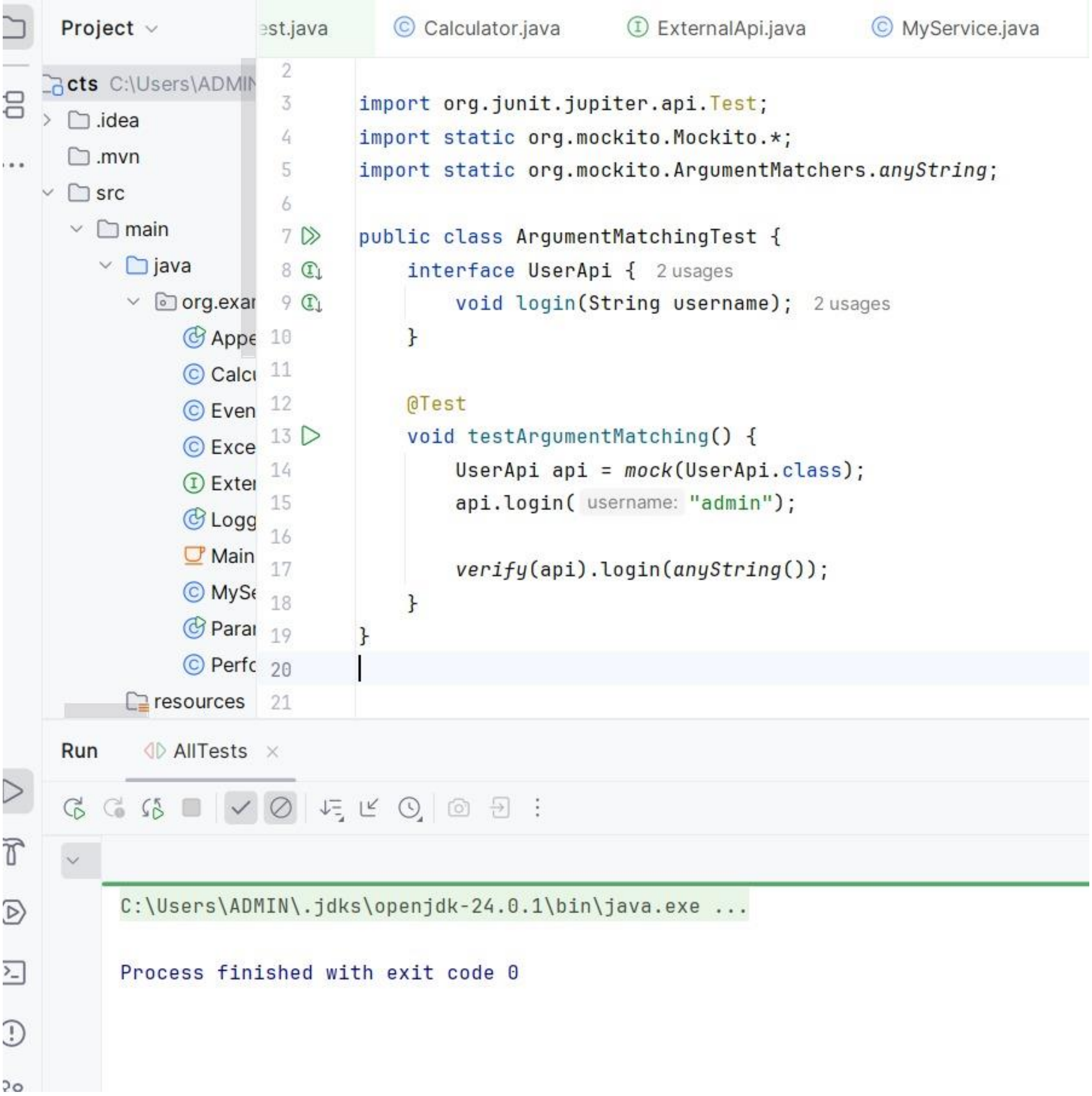

**ArgumentMatchingTest.java:**

```
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:**



```

import org.junit.jupiter.api.Test;
import static org.mockito.Mockito.*;
import static org.mockito.ArgumentMatchers.anyString;

public class ArgumentMatchingTest {
    interface UserApi {  2 usages
        void login(String username);  2 usages
    }

    @Test
    void testArgumentMatching() {
        UserApi api = mock(UserApi.class);
        api.login( username: "admin");

        verify(api).login(anyString());
    }
}

```

```
C:\Users\ADMIN\.jdks\openjdk-24.0.1\bin\java.exe ...

Process finished with exit code 0
```