

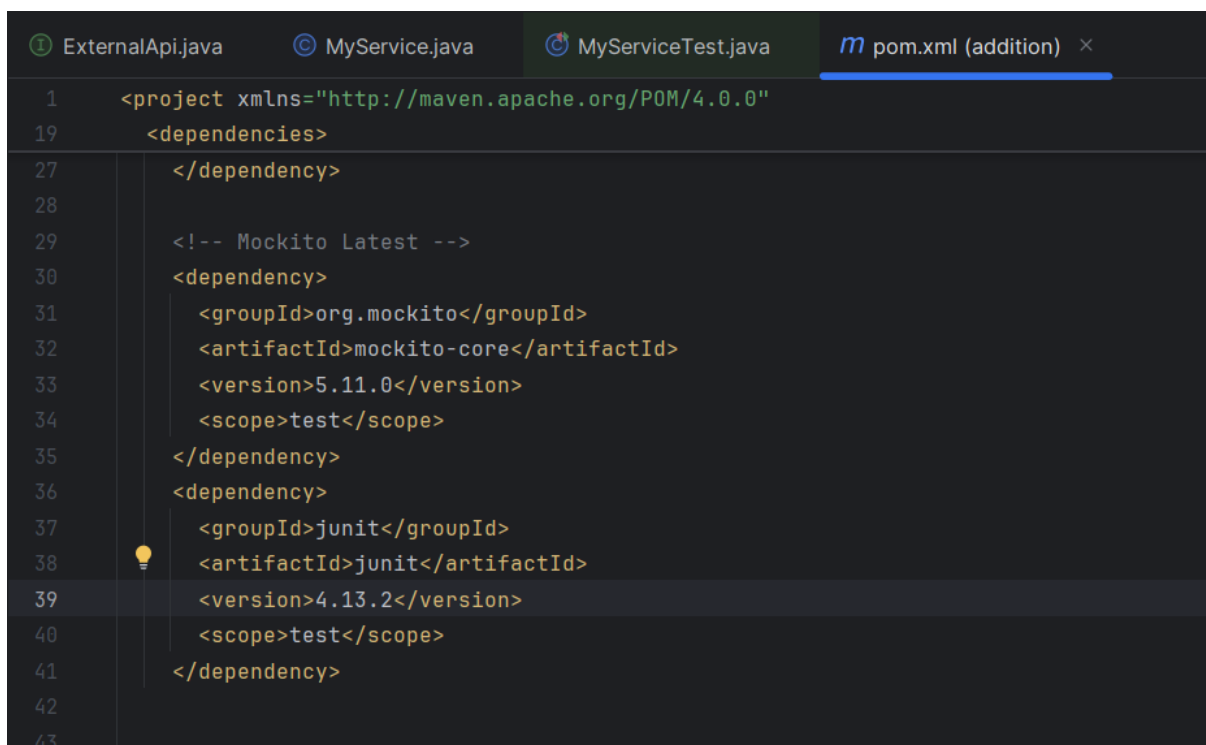
Exercise 1: Mocking and Stubbing

FROM FILE Mockito Exercises

Pom.xml:

Dependency:

```
<dependency>
  <groupId>org.mockito</groupId>
  <artifactId>mockito-core</artifactId>
  <version>5.11.0</version>
  <scope>test</scope>
</dependency>
```

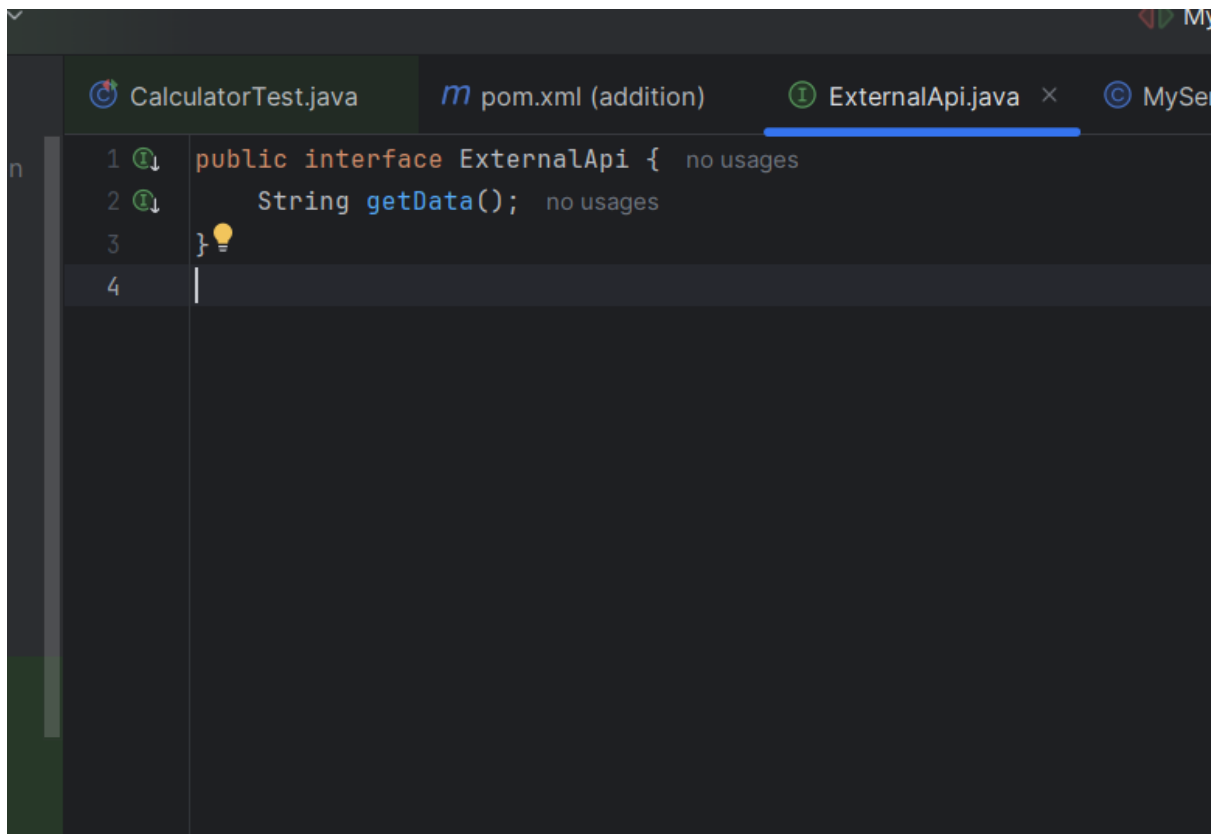
A screenshot of an IDE window showing the 'pom.xml' file. The window has tabs for 'ExternalApi.java', 'MyService.java', 'MyServiceTest.java', and 'pom.xml (addition)'. The 'pom.xml' tab is active, showing XML code. Line 1: <project xmlns="http://maven.apache.org/POM/4.0.0" Line 19: <dependencies> Line 27: </dependency> Line 29: <!-- Mockito Latest --> Line 30: <dependency> Line 31: <groupId>org.mockito</groupId> Line 32: <artifactId>mockito-core</artifactId> Line 33: <version>5.11.0</version> Line 34: <scope>test</scope> Line 35: </dependency> Line 36: <dependency> Line 37: <groupId>junit</groupId> Line 38: <artifactId>junit</artifactId> Line 39: <version>4.13.2</version> Line 40: <scope>test</scope> Line 41: </dependency> Line 42: Line 43: A lightbulb icon is visible next to line 38, indicating a suggestion or warning.

ExternalApi.java class:

Code:

```
public interface ExternalApi {
    String getData();}
```

Practice Screen from intellij:



MyService.java class:

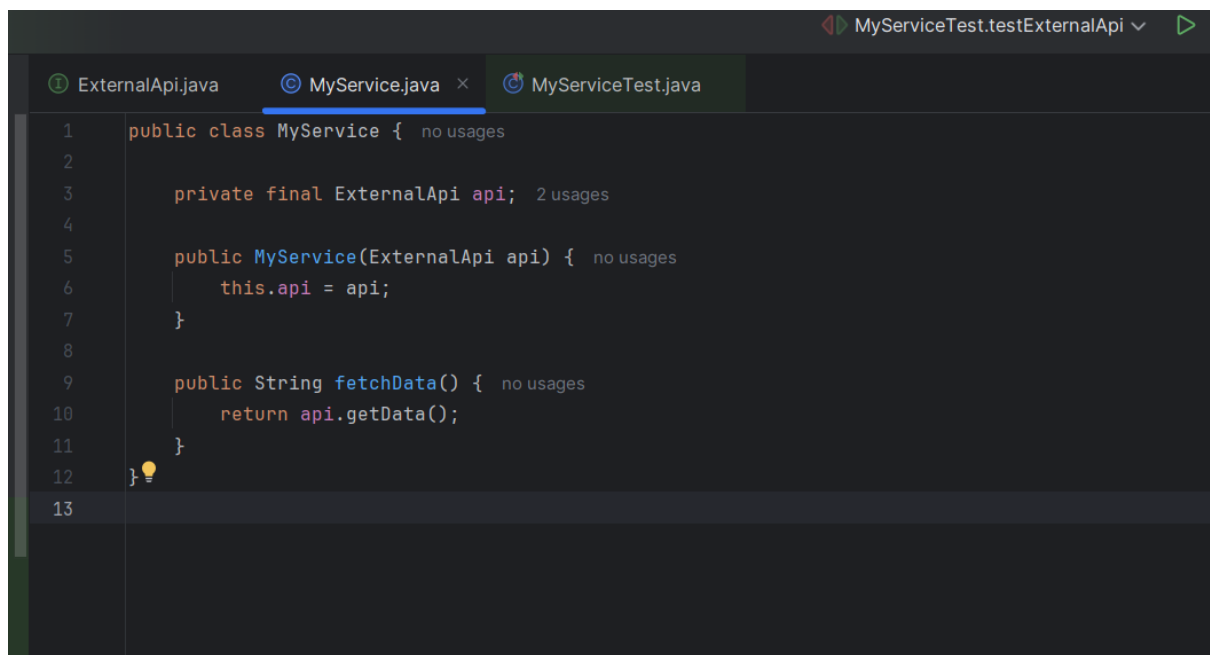
Code:

```
public class MyService {
    private final ExternalApi api;

    public MyService(ExternalApi api) {
        this.api = api;
    }

    public String fetchData() {
        return api.getData();
    }
}
```

Practice Screen from IntelliJ:



MyServiceTest.java class:

Code:

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

```
public class MyServiceTest {
```

```
    @Test
```

```
    public void testExternalApi() {
```

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

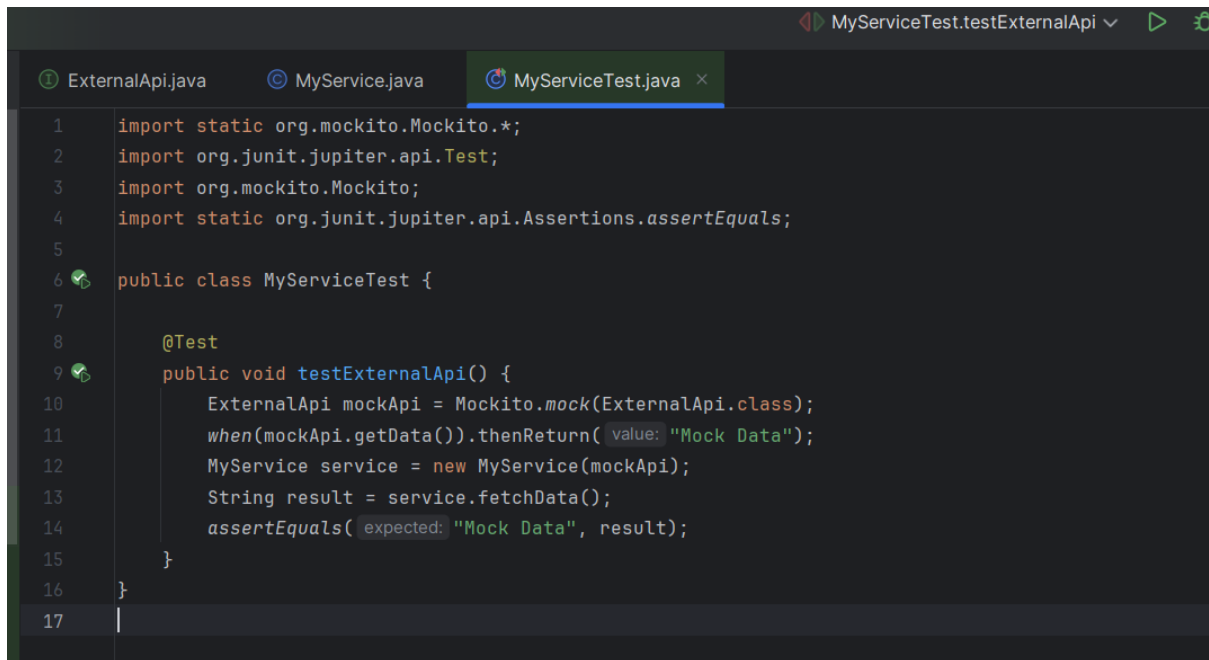
```
        when(mockApi.getData()).thenReturn("Mock Data");
```

```
        MyService service = new MyService(mockApi);
```

```
        String result = service.fetchData();
```

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

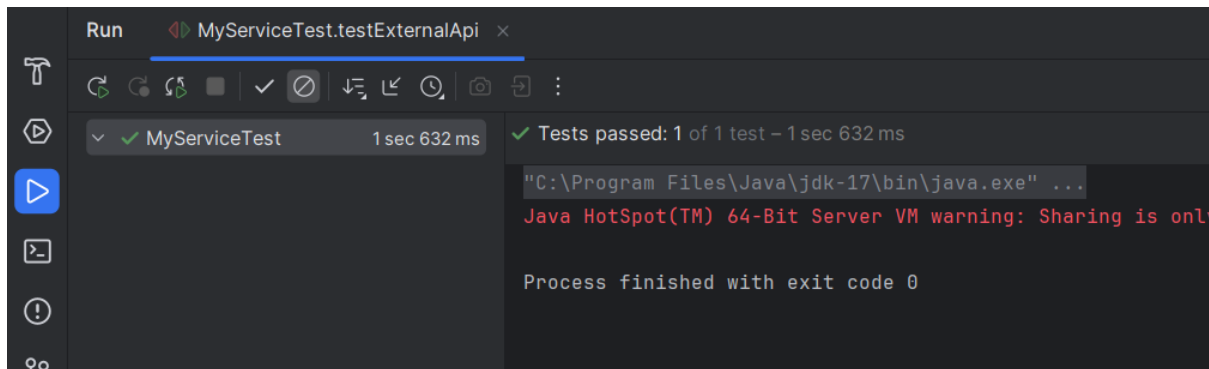
Practice Screen from IntelliJ:



The screenshot shows the IntelliJ IDEA code editor with the file `MyServiceTest.java` open. The code is as follows:

```
1  import static org.mockito.Mockito.*;  
2  import org.junit.jupiter.api.Test;  
3  import org.mockito.Mockito;  
4  import static org.junit.jupiter.api.Assertions.assertEquals;  
5  
6  public class MyServiceTest {  
7  
8      @Test  
9      public void testExternalApi() {  
10         ExternalApi mockApi = Mockito.mock(ExternalApi.class);  
11         when(mockApi.getData()).thenReturn(value: "Mock Data");  
12         MyService service = new MyService(mockApi);  
13         String result = service.fetchData();  
14         assertEquals(expected: "Mock Data", result);  
15     }  
16 }  
17 |
```

Output after Run:



The screenshot shows the IntelliJ IDEA Run window for the test `MyServiceTest.testExternalApi`. The output is as follows:

```
Run  MyServiceTest.testExternalApi x  
✓ MyServiceTest 1 sec 632 ms  
✓ Tests passed: 1 of 1 test – 1 sec 632 ms  
"C:\Program Files\Java\jdk-17\bin\java.exe" ...  
Java HotSpot(TM) 64-Bit Server VM warning: Sharing is only  
Process finished with exit code 0
```

Process finished with exit code 0