Exercise 1: Mocking and Stubbing

Step1:

Added dependency inside dependencies section.

Step2: created java class in main "ExternalApi"

```java
package org.example;

 public interface ExternalApi {

    String getData();

}
```

Step3: added another java class in main "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();

    }

}
```

Step4: added another java class in test/java "MyServiceTest"

```java
package org.example;

import org.junit.Test;
import static org.junit.Assert.assertEquals;
import static org.mockito.Mockito.*;

public class MyServiceTest {

    @Test
    public void testExternalApi() {
        // Arrange: create a mock of ExternalApi
        ExternalApi mockApi = mock(ExternalApi.class);

        // Act: stub the getData() method
        when(mockApi.getData()).thenReturn("Mock Data");

        // Use the mock in the service
        MyService service = new MyService(mockApi);
```

```
    // Assert: verify the result

    String result = service.fetchData();

    assertEquals("Mock Data", result);

  }

}
```

OUTPUT: