

Mocking and Subbing:

Code:

1. mockup\src\main\java\com\example\ExternalApi.java:

```
package com.example;

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

2. mockup\src\main\java\com\example\MyService.java:

```
package com.example;

public class MyService {
    private final ExternalApi externalApi;

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

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

3. mockup\test\main\java\com\example\MyServiceTest.java:

```
package com.example;

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

import org.junit.jupiter.api.Test;
import org.mockito.Mockito;

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);

    verify(mockApi).getData();
}
}

```

Output:

```

[INFO] -----
[INFO] T E S T S
[INFO] -----
[INFO] Running com.example.MyServiceTest
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 1.152 s - in com.example.MyServiceTest
[INFO] Results:
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 9.106 s

```