**TDD using JUnit5 & Mockito**

# **Exercise 1: Mocking and Stubbing**

## **Scenario:** I need to test a service that depends on an external API by using Mockito to mock the external API and stub its methods.

### ***ExternalApi.java:***

| public interface ExternalApi {  String getData(); } |
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### ***MyService.java:***

| public class MyService {  private final ExternalApi api;   public MyService(ExternalApi api) {  this.api = api;  }   public String fetchData() {  return api.getData();  } } |
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### ***MyServiceTest.java:***

| 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() {  *// 1. Created a mock object for the external Api*  ExternalApi mockApi = Mockito.mock(ExternalApi.class);   *//2. Stubbed the method to return a predefined value.*  when(mockApi.getData()).thenReturn("Mock Data");   *// 3. Used the mock in your service and test.*  MyService service = new MyService(mockApi);  String result = service.fetchData();   *//Assert that the result is as expected*  assertEquals("Mock Data", result);  } } |
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