Exercise 1: Mocking and Stubbing

Step 1: Create a mock object for the external API :

* ExternalApi.java:
* package org.example;  
    
  public interface ExternalApi {  
   String getData();  
  }
* 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();  
   }  
  }

step 2 : Write a test case that uses the mock object.

package org.example;  
  
import org.junit.jupiter.api.Test;  
import org.mockito.Mockito;  
  
import static org.mockito.Mockito.\*;  
import static org.junit.jupiter.api.Assertions.\*;  
  
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);  
 }  
}

step 3: Output :

