**Exercise 4.2: Mocking External Services (RESTful APIs)**

**CODE:**

**RestClient Interface: -**

package org.example;  
  
public interface RestClient{  
 String getResponse();  
}

**ApiService Class: -**

package org.example;  
  
public class ApiService{  
 private RestClient restClient;  
 public ApiService(RestClient restClient) {  
 this.restClient = restClient;  
 }  
 public String fetchData() {  
 String response = restClient.getResponse();  
 System.*out*.println("API responded with: " + response);  
 return "Fetched " + response;  
 }  
}

**ApiServiceTest Class: -**

package org.example;  
  
import org.junit.jupiter.api.Test;  
  
import static org.junit.jupiter.api.Assertions.\*;  
import static org.mockito.Mockito.*mock*;  
import static org.mockito.Mockito.*when*;  
  
class ApiServiceTest {  
 @Test  
 public void testServiceWithMockRestClient() {  
 RestClient mockRestClient=*mock*(RestClient.class);  
 *when*(mockRestClient.getResponse()).thenReturn("Mock Response");  
 ApiService apiService=new ApiService(mockRestClient);  
 String result=apiService.fetchData();  
 System.*out*.println("Final result: "+result);  
 *assertEquals*("Fetched Mock Response",result);  
 }  
}

**OUTPUT:**

