Exercise 1: Mocking and Stubbing

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);  
 }  
}

Exercise 2: Verifying Interactions

import static org.mockito.Mockito.\*;  
import org.junit.jupiter.api.Test;  
import org.mockito.Mockito;  
  
public class MyServiceTest {  
 @Test  
 public void testVerifyInteraction() {  
 ExternalApi mockApi = Mockito.mock(ExternalApi.class);  
 MyService service = new MyService(mockApi);  
 service.fetchData();  
 verify(mockApi).getData();  
 }  
}

Exercise 3: Argument Matching

import static org.mockito.Mockito.\*;  
import static org.mockito.ArgumentMatchers.\*;  
import org.junit.jupiter.api.Test;  
import org.mockito.Mockito;  
  
public class MyServiceTest {  
 @Test  
 public void testArgumentMatching() {  
 ExternalApi mockApi = Mockito.mock(ExternalApi.class);  
 when(mockApi.getDataById(anyInt())).thenReturn("Matched Data");  
 MyService service = new MyService(mockApi);  
 service.fetchDataById(42);  
 verify(mockApi).getDataById(eq(42));  
 }  
}