



# 오라클 데이터베이스

설치 및 연동 테스트



## 오라클 11g Windows 다운로드 주소

<http://www.oracle.com/technetwork/database/database-technologies/express-edition/downloads/index.html>

Oracle Database Express Edition x +

oracle.com/database/technologies/xe-downloads.html



Ask "What is Oracle Autonomous Database?"

Oracle Cloud Free Tier

Database / Technical Details / Oracle Database Express Edition (XE) Downloads

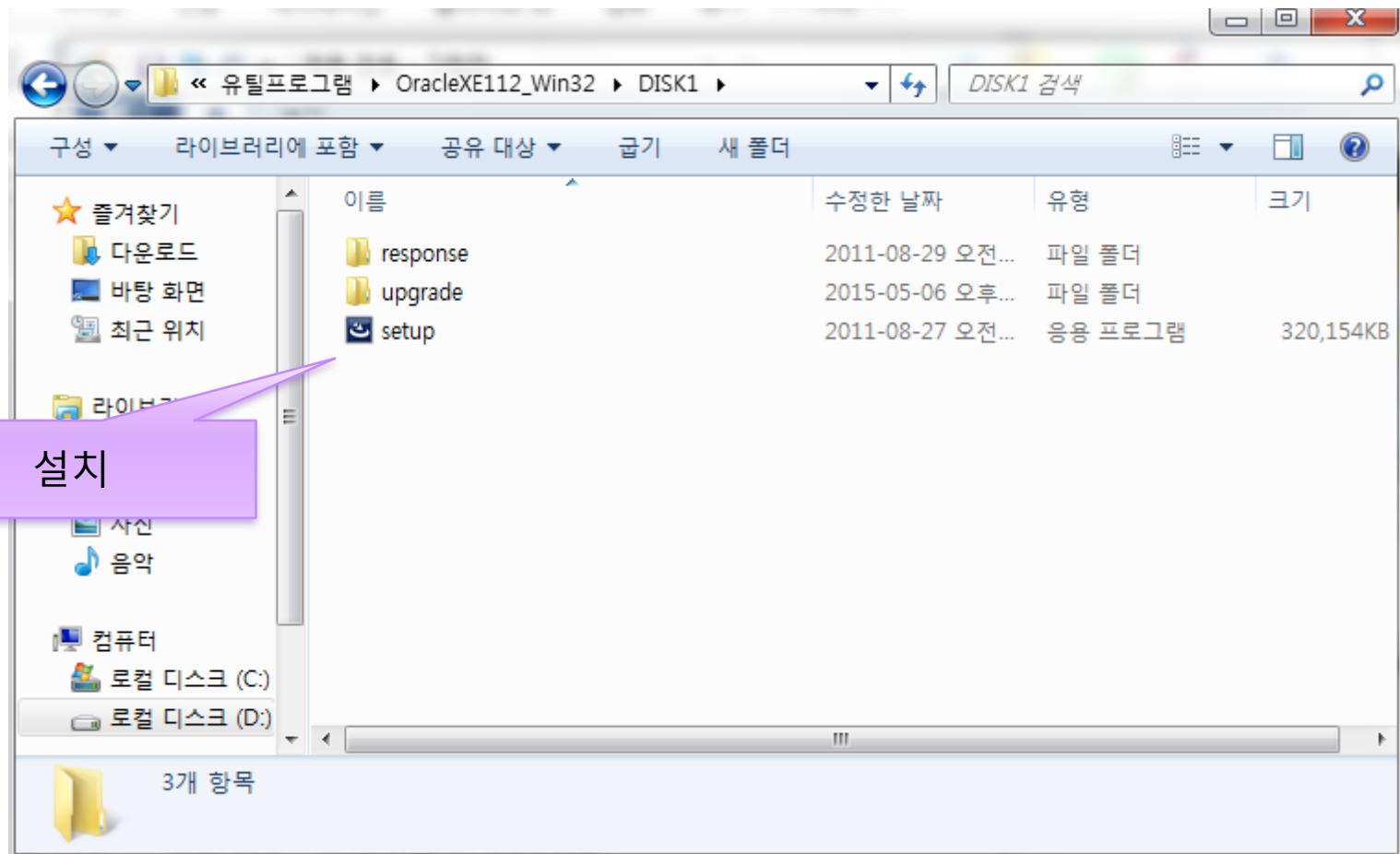
### Oracle Database XE Downloads

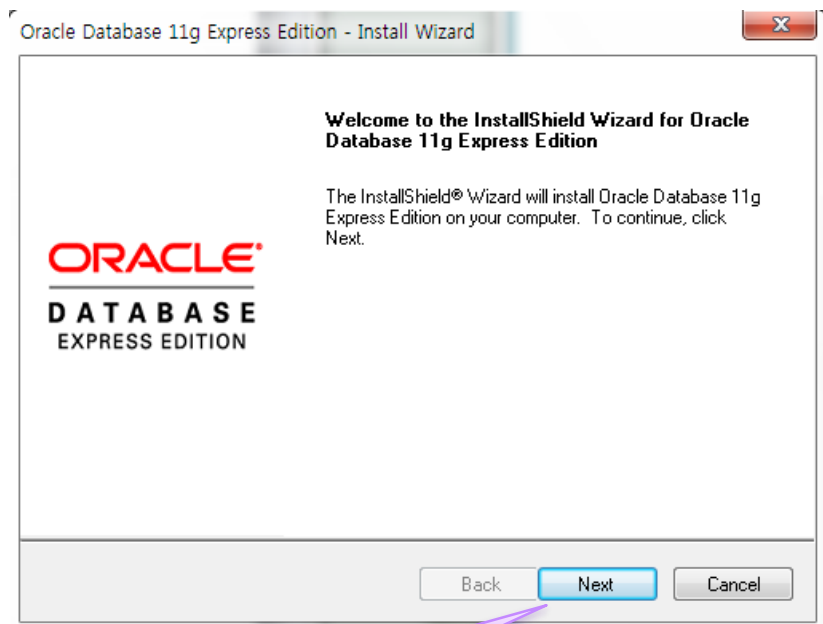
Oracle Database Express Edition (XE) Release 18.4.0.0.0 (18c)

Download	Description
 Oracle Database 18c Express Edition for Linux x64	(2,574,155,124 bytes - October 19, 2018) [Sha256sum: 308c044444342b9a3a8d33
 Oracle Database 18c Express Edition for Windows x64	(2,054,100,000 bytes - February 20, 2019) [Sha256sum: 7C1A85D05F6FC

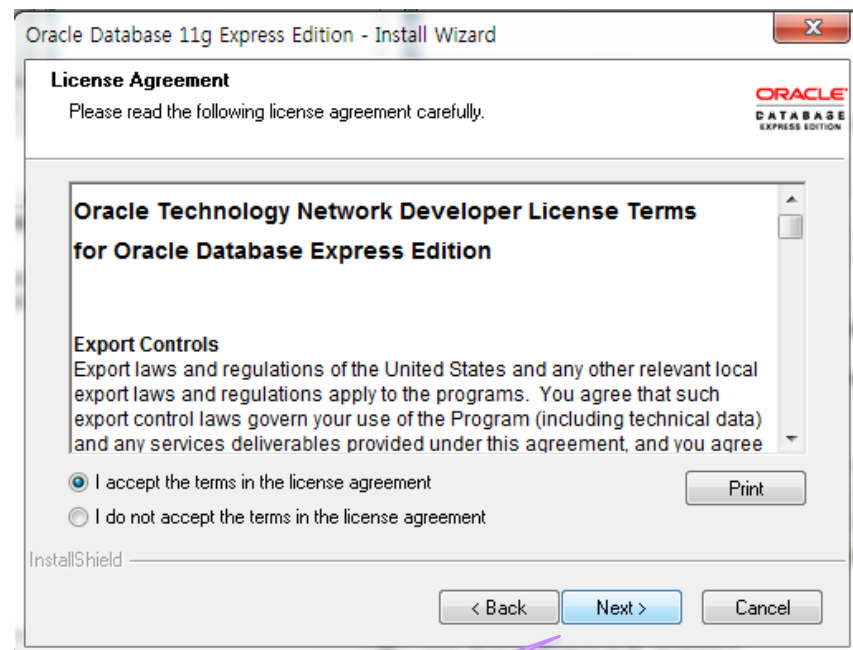
클릭하여 다운

Start chat Contact or call





클릭



클릭

## Oracle Database 11g Express Edition - Install Wizard

## Choose Destination Location

Select folder where setup will install files.

ORACLE  
DATABASE  
EXPRESS EDITION

Setup will install Oracle Database 11g Express Edition in the following folder.

To install to this folder, click Next. To install to a different folder, click Browse and select another folder.

☒ Oracle Database 11g Express Edition 563556 K

Destination Folder

C:\oraclexe\

Browse...

Space Required on C: 563556 K

Space Available on C: 66080704 K

InstallShield

Back

Next

Cancel

클릭

## Oracle Database 11g Express Edition - Install Wizard

## Specify Database Ports

ORACLE  
DATABASE  
EXPRESS EDITION

Enter the ports for Database services that are not currently in use.

INS Port

1521

MTS Port

2030

HTTP Port

8081

InstallShield

Back

Next

Cancel

클릭

Oracle Database 11g Express Edition - Install Wizard

**Specify Database Passwords**

ORACLE  
DATABASE  
EXPRESS EDITION

Enter and confirm passwords for the database. This password will be used for both the SYS and the SYSTEM database accounts.

Enter Password

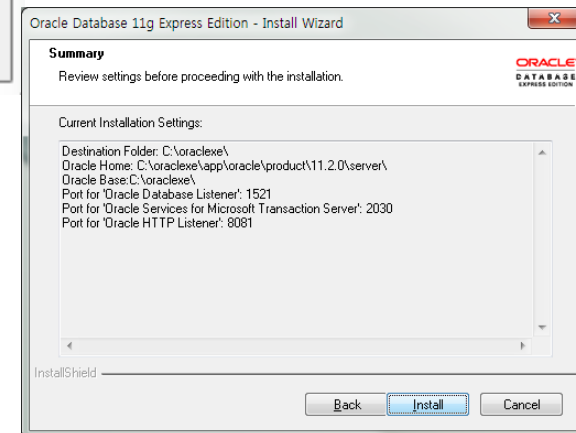
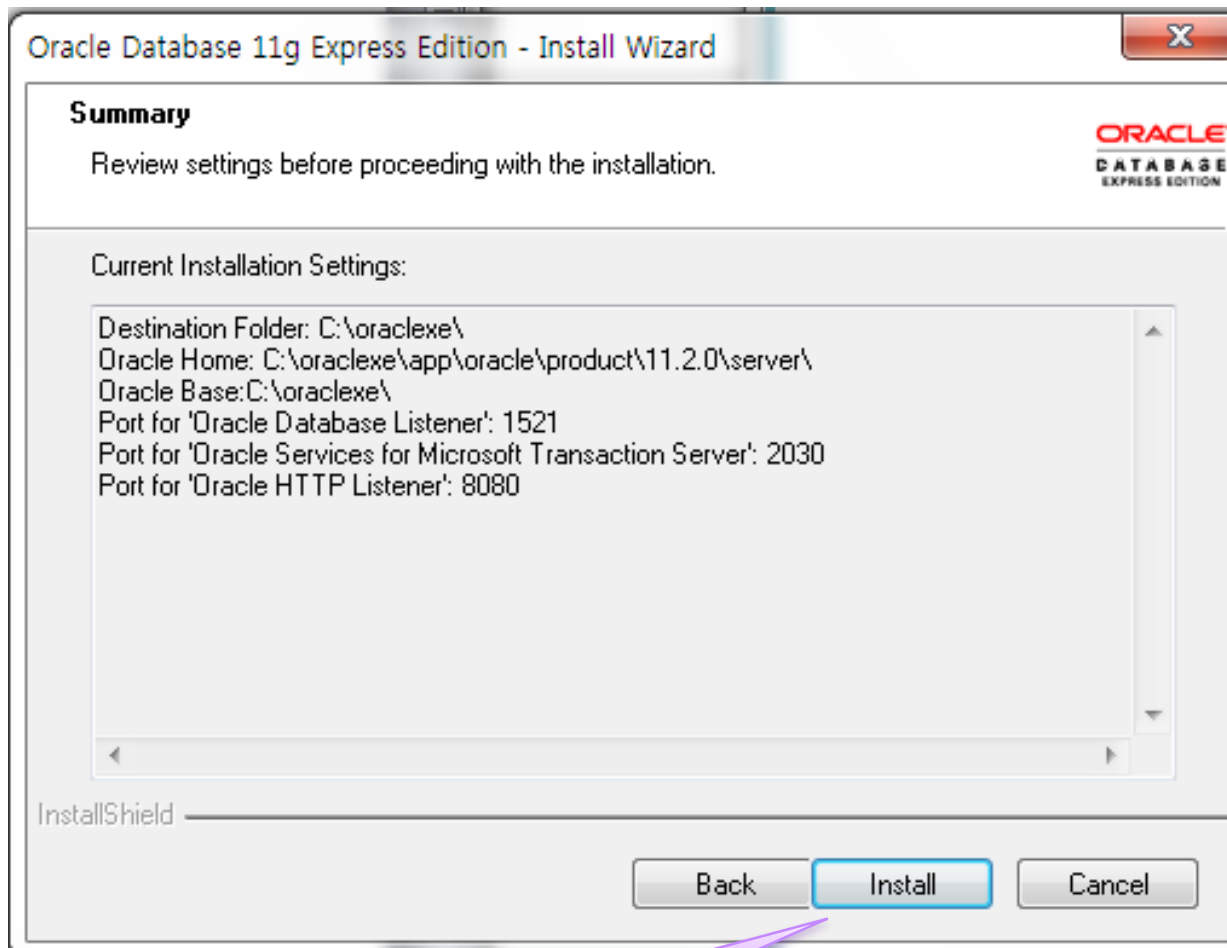
Confirm Password

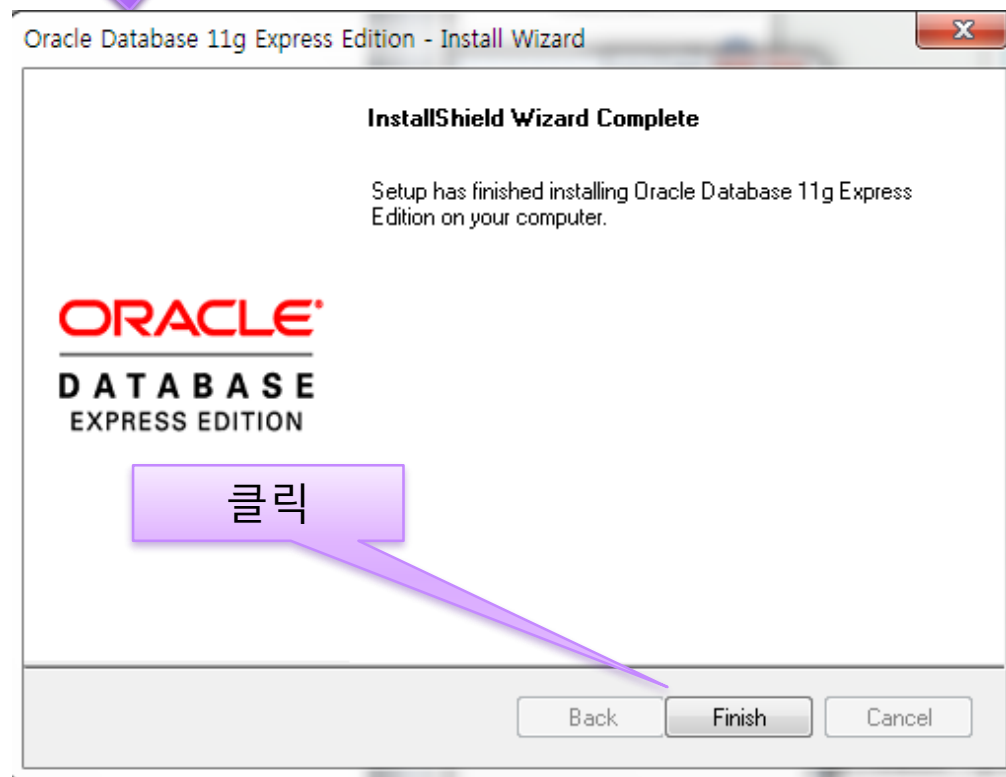
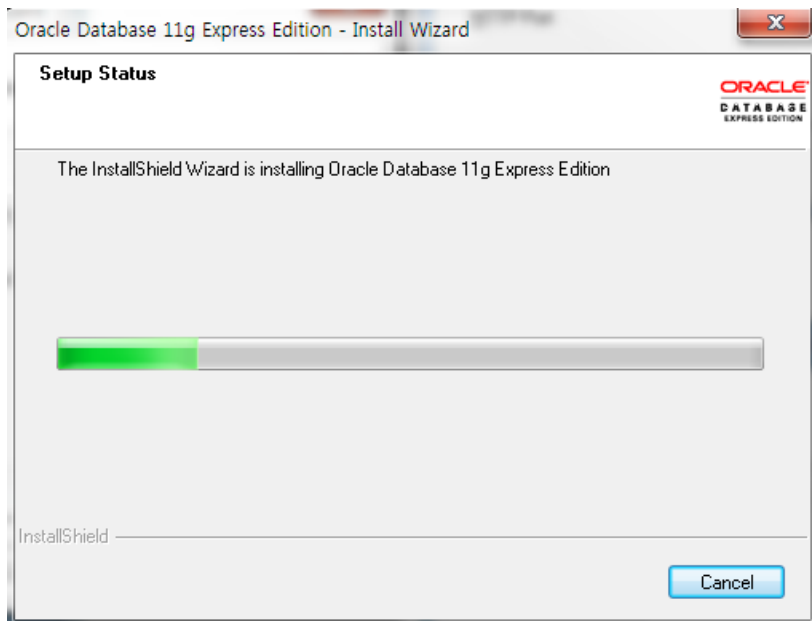
InstallShield

Back Next Cancel

SYS/SYSTEM 계정 비밀번호 설정

클릭







# Oracle SQL developer

<http://www.oracle.com/technetwork/developer-tools/sql-developer/downloads/index.html>

Oracle SQL Developer Downloads

oracle.com/tools/downloads/sqldev-v192-downloads.html

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See this page for different country ▼

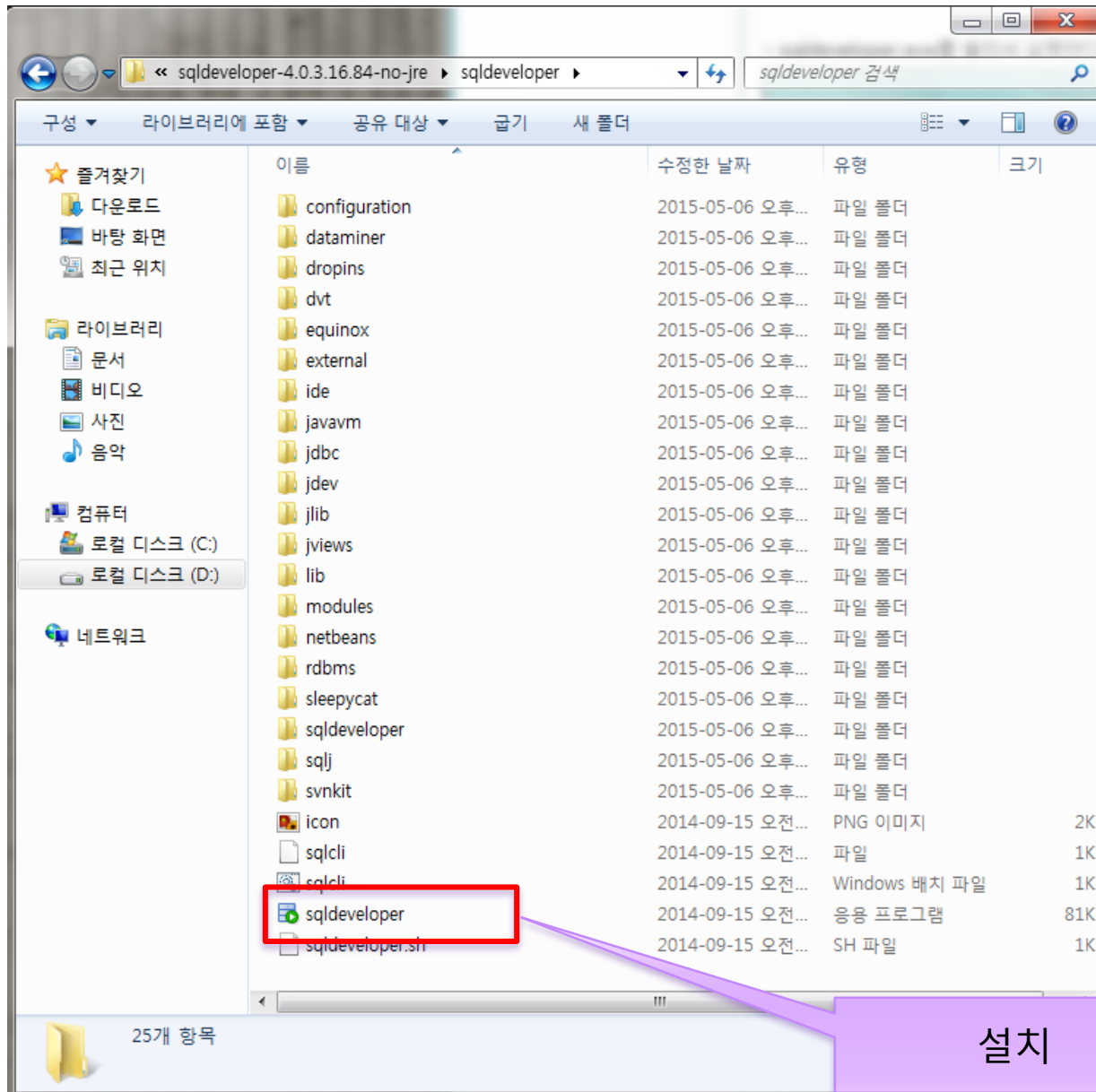
Tools / Downloads / SQL Developer Downloads

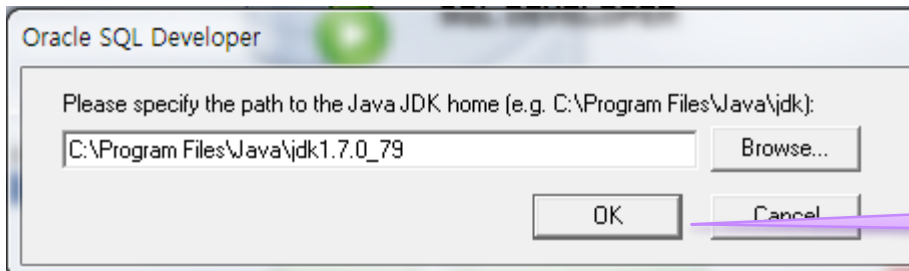
## SQL Developer 19.2.1 Downloads

Version 19.2.1.247.2212 - September 12, 2019

- Release Notes
- Bugs Fixed
- Documentation

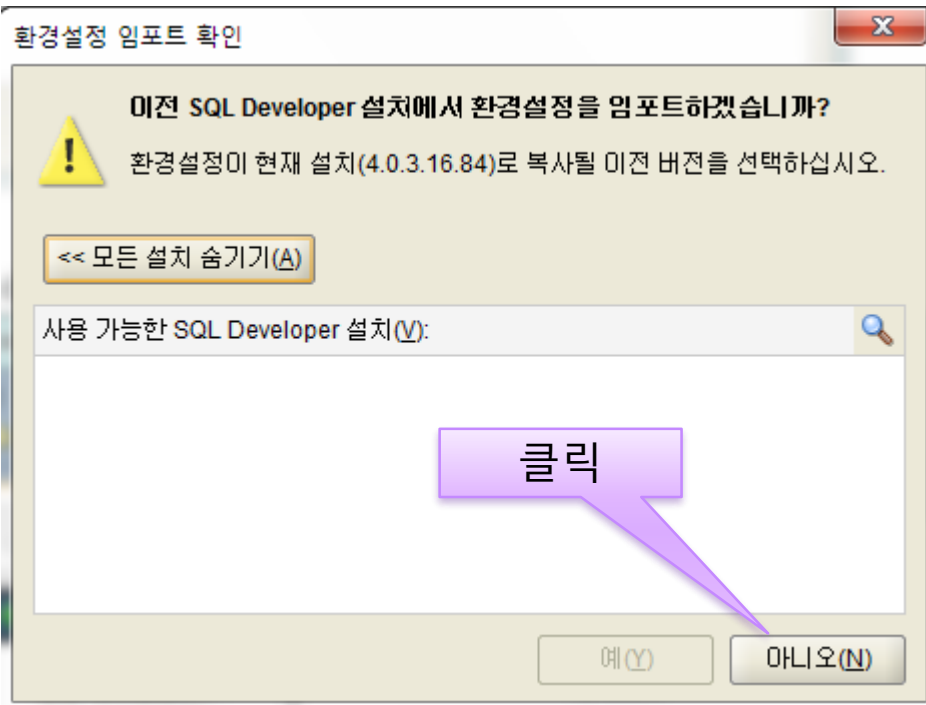
Platform	Download	Notes
Windows 64-bit with JDK 8 included	<a href="#">Download (490 MB)</a>	<ul style="list-style-type: none"><li>MD5:</li><li>SHA1:</li><li>Installation Notes</li></ul>

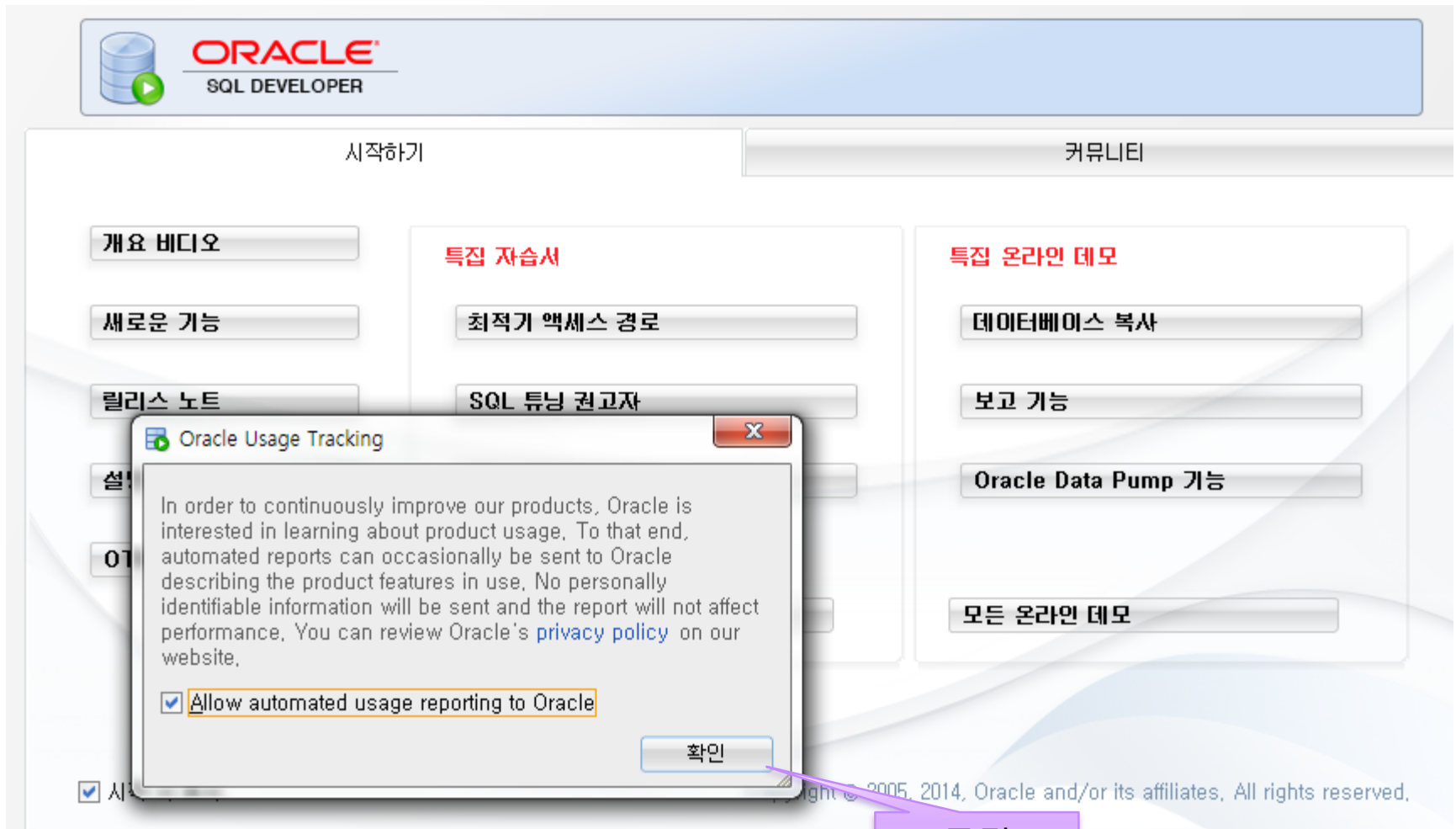


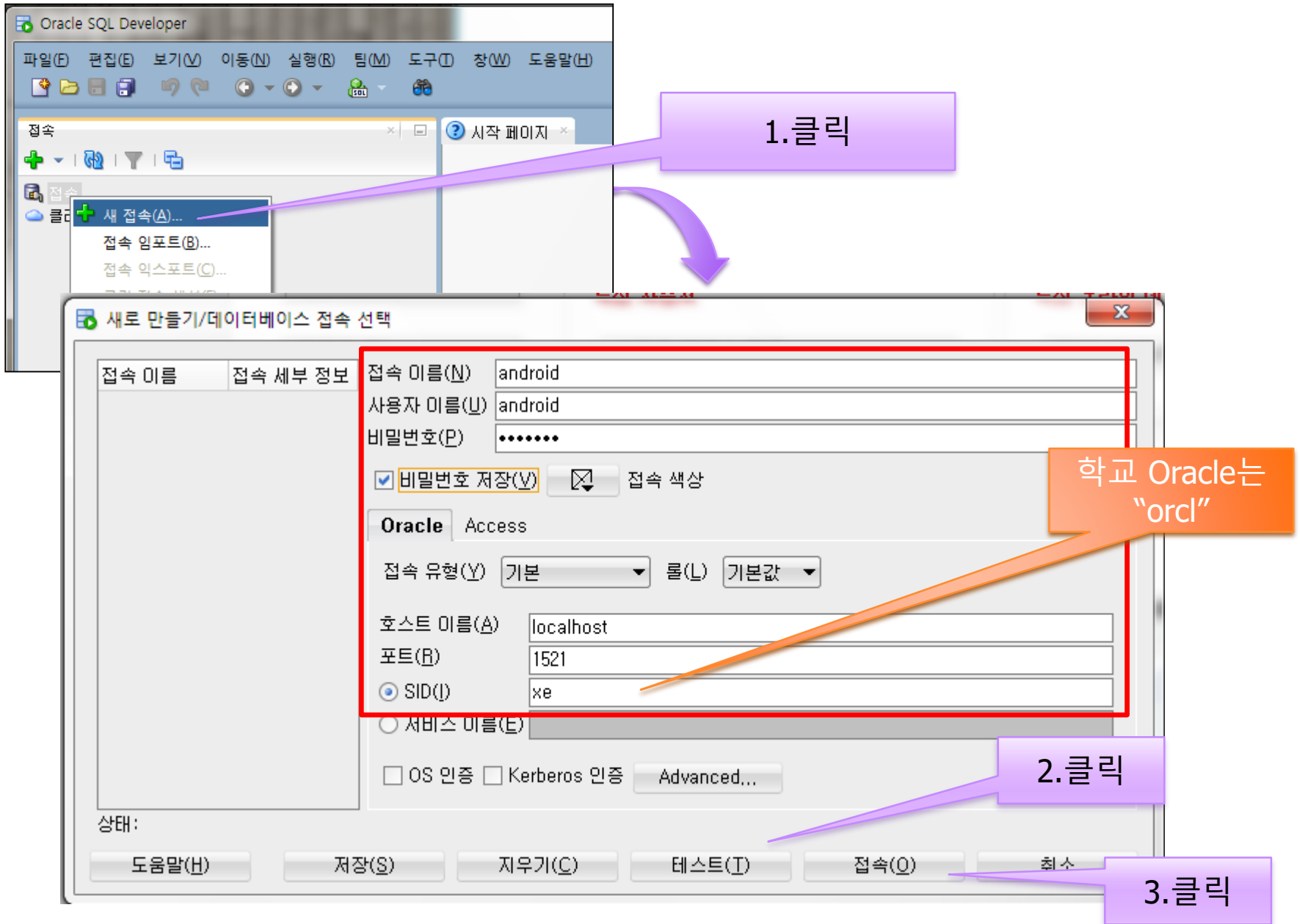


클릭



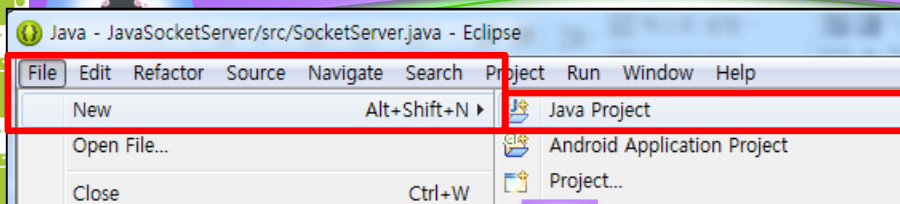




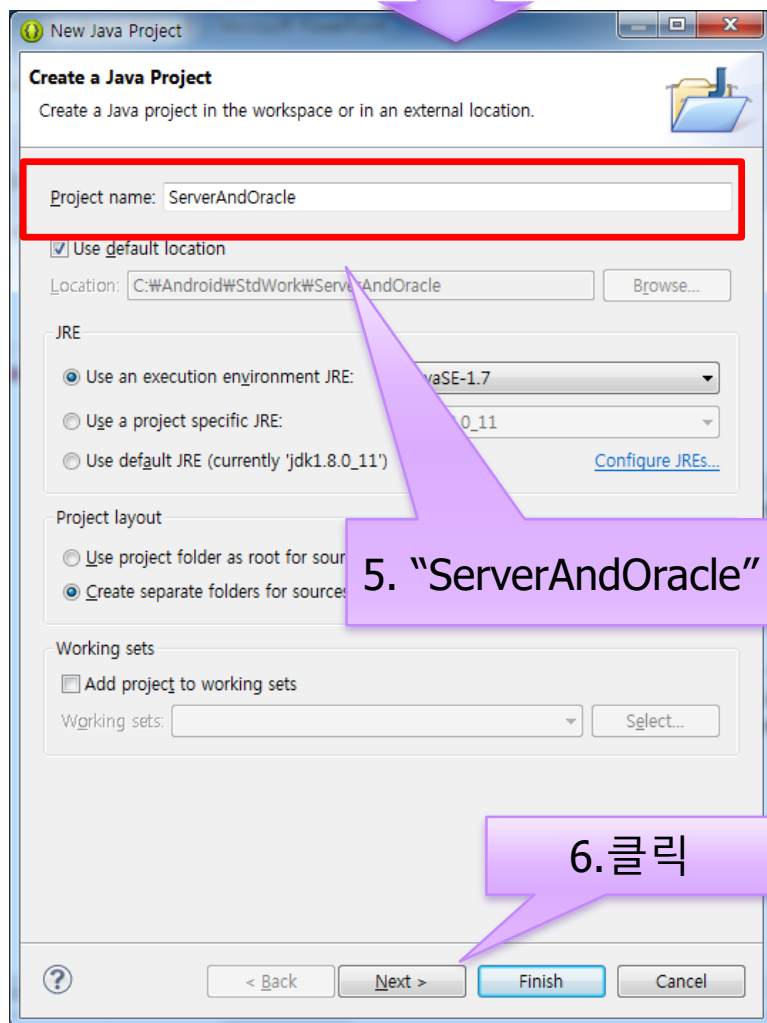


# 프로젝트 생성

15

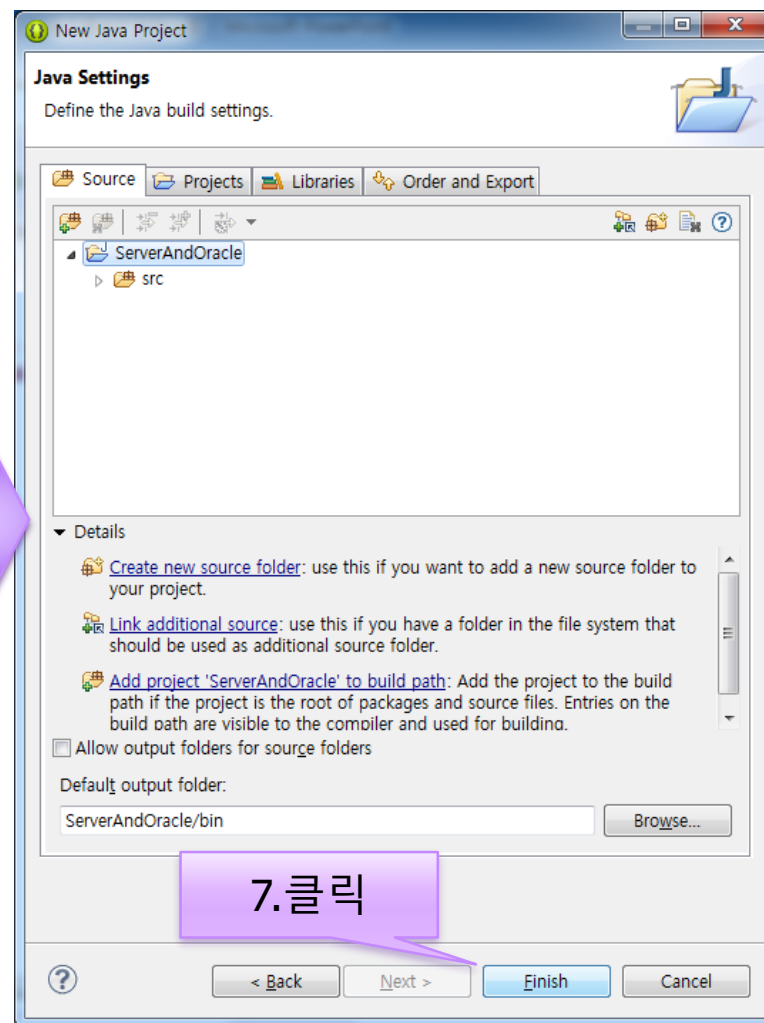


4. 클릭

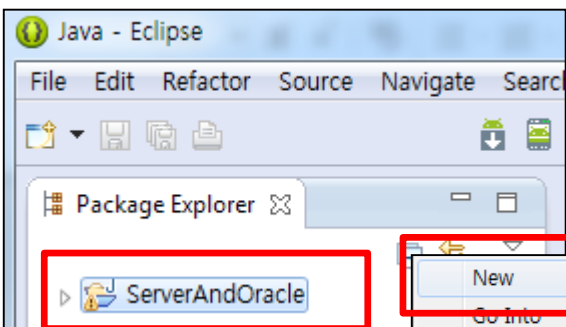


5. "ServerAndOracle"

6. 클릭



7. 클릭

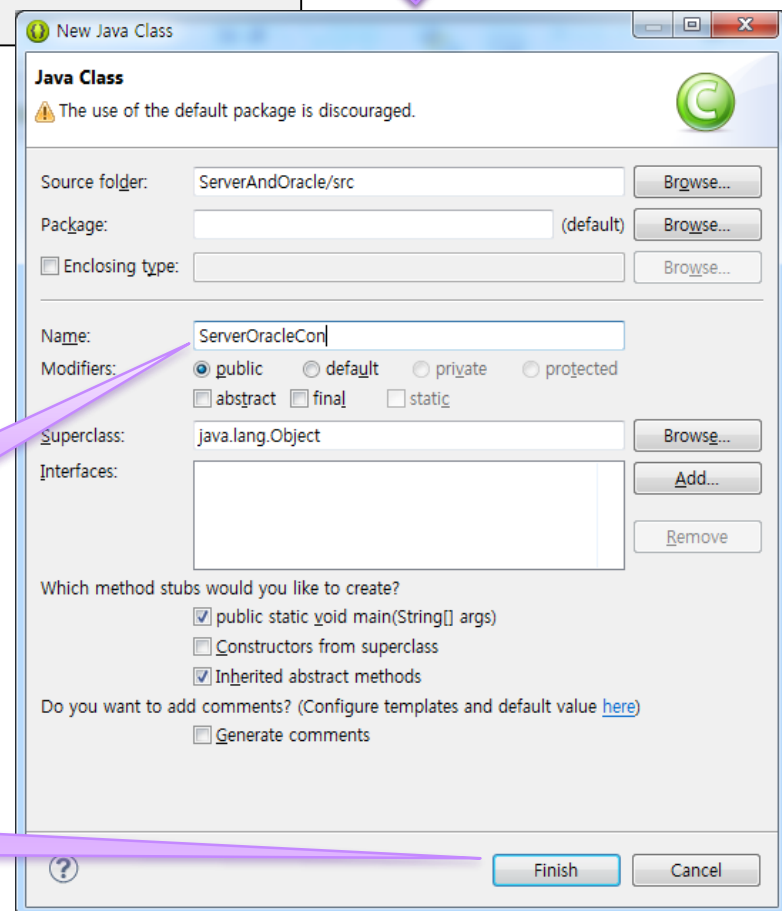


8.오른쪽 마우스  
클릭

9. 클릭

10.  
"ServerOracleCon"

11. 클릭





ServerOracleCon.java

```
1 import java.sql.Connection;  
2 import java.sql.DriverManager;  
3 import java.sql.ResultSet;  
4 import java.sql.SQLException;  
5 import java.sql.Statement;
```

12. 추후 확인

13. 코딩

```
6  
7 public class ServerOracleCon {  
8  
9     public static void main(String[] args) {  
10         Statement stmt = null;  
11         String sql = null;  
12         ResultSet rs = null;  
13  
14         try{  
15             Class.forName("oracle.jdbc.driver.OracleDriver");  
16             System.out.println("드라이버 로딩 성공!!");  
17             String url = "jdbc:oracle:thin:@192.168.21.19:1521:xe";  
18  
19             String user = "android", pwd = "dmsrua");  
20             System.out.println("DB와의 연결을 시도합니다.");  
21
```

```
18  
19 String user = "android", pwd = "dmsruea");  
20 System.out.println("DB와의 연결을 시도합니다.");
```

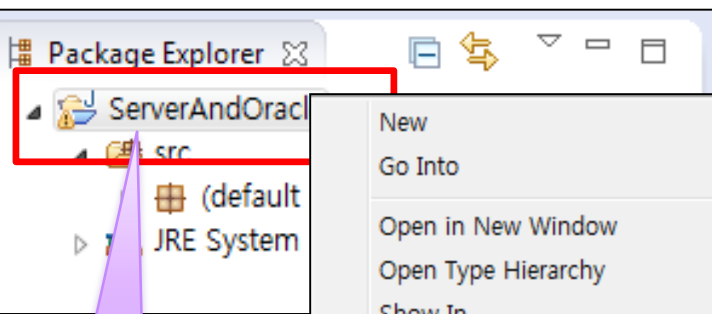
사용자 ID/Password

```
21  
22 try{  
23     Connection con = DriverManager.getConnection(url, user, pwd);  
24  
25     System.out.println("DB와의 연결을 성공하였습니다.");  
26     sql = "SELECT * FROM DBTEST";  
27     stmt = con.createStatement();  
28     rs = stmt.executeQuery(sql);  
29     while(rs.next()){  
30         System.out.println("ID: " + rs.getString(1) + " NAME : "  
31             + rs.getString(2) + "\n");  
32     }  
33     rs.close();  
34     stmt.close();  
35 }catch(SQLException e){  
36     e.printStackTrace();  
37 }  
38  
39 }catch(ClassNotFoundException e){  
40     e.printStackTrace();  
41 }  
42 }  
43 }  
44 }
```

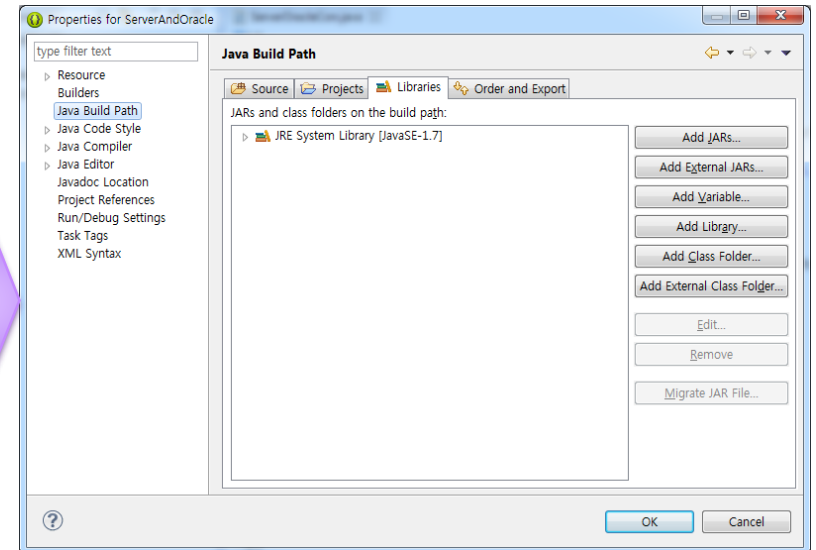
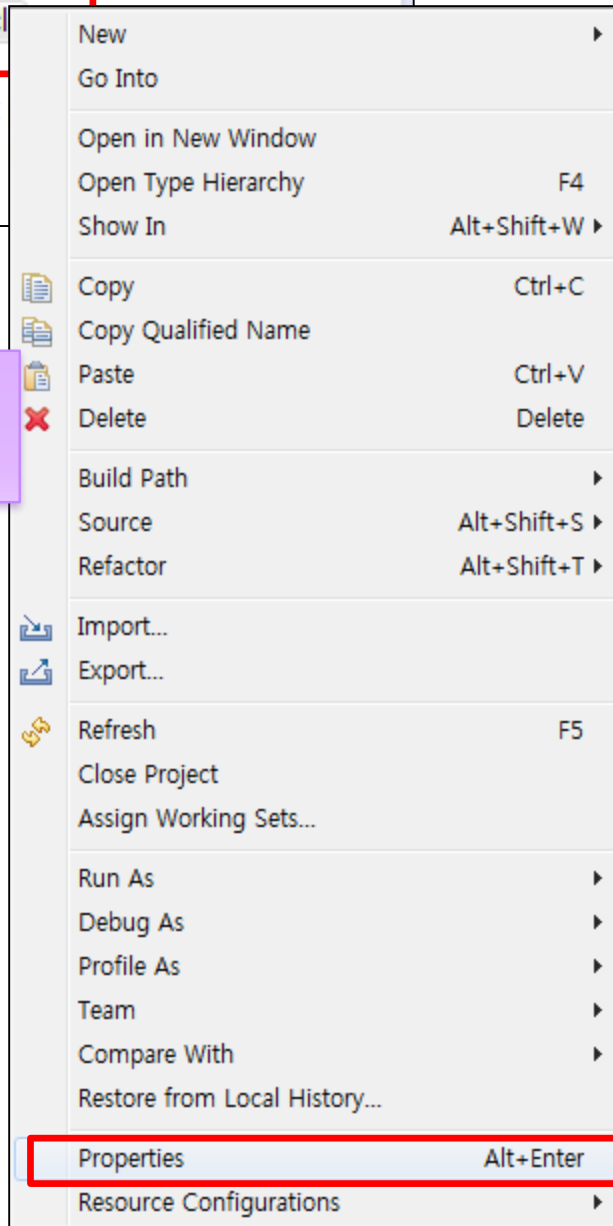
DB 연결

Query

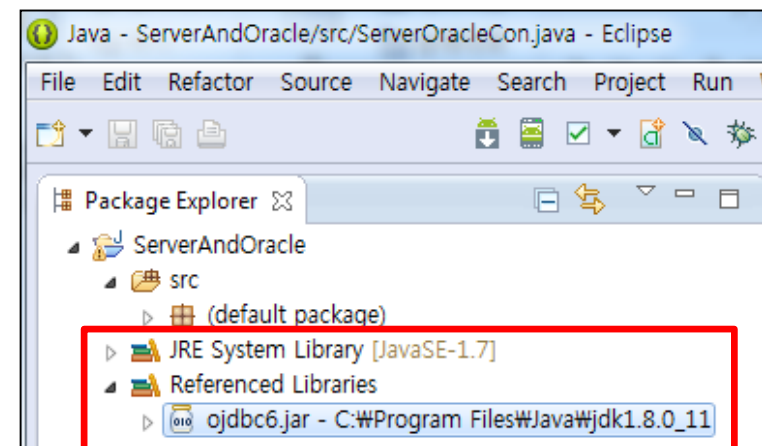
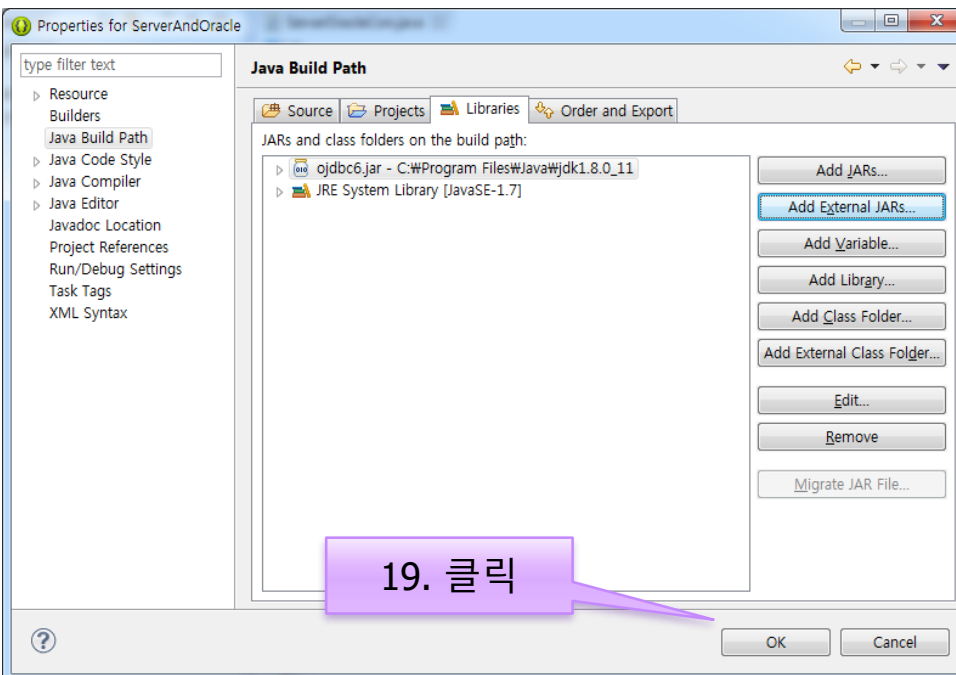
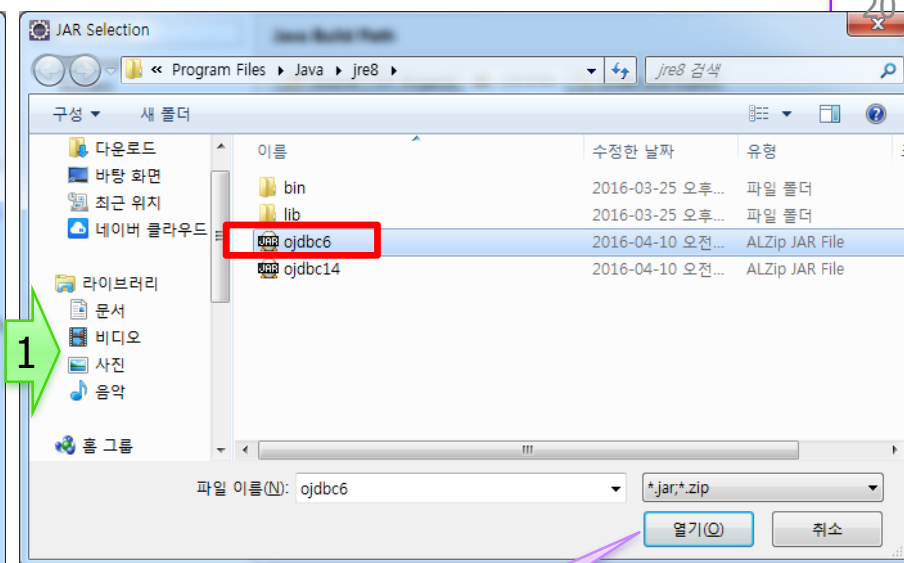
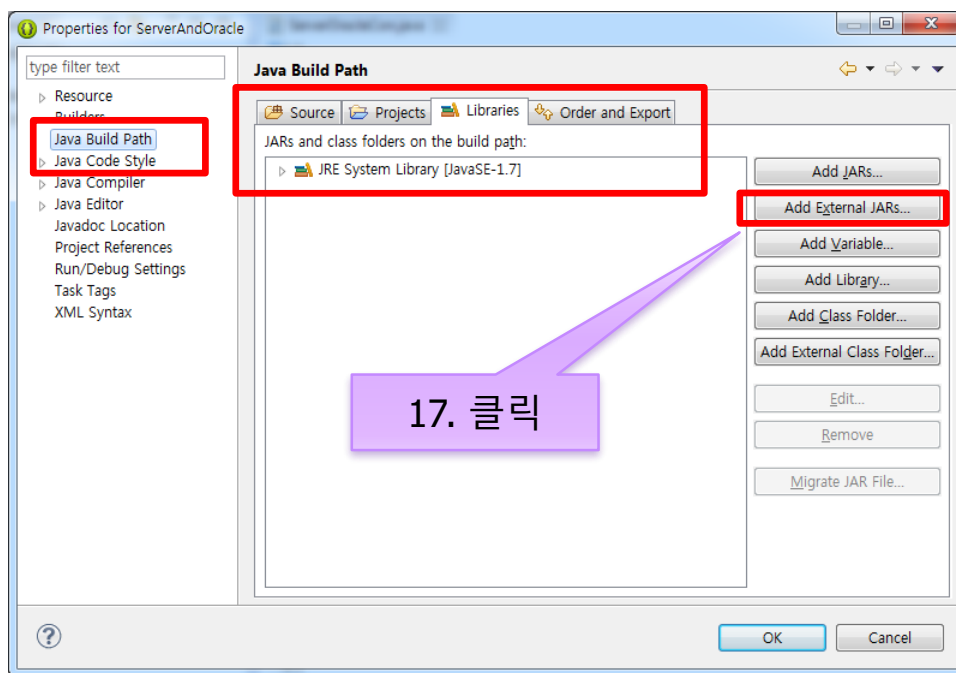
14. 코딩



15. 오른쪽 마우스 클릭

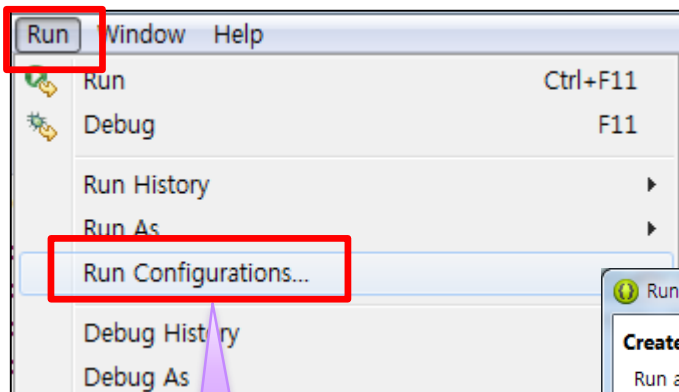


16. 클릭

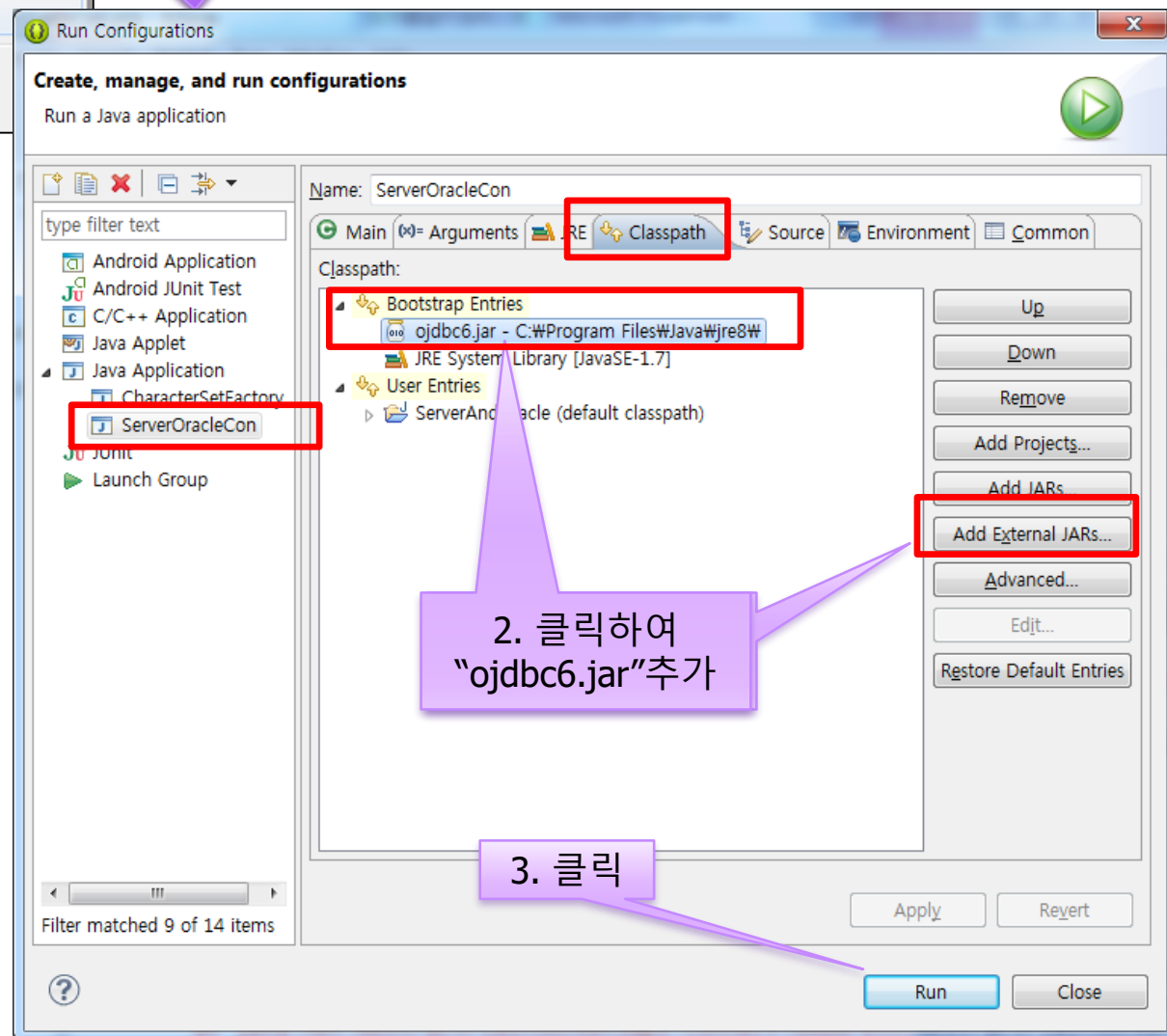


혹? 실행시 다음과 같은 에러가 발생하면?

```
<terminated> CharSetFactory [Java Application] C:\Program Files\Java\jdk1.8.0_11\bin\javaw.exe (2016. 4. 10. 오전 1:05:01)
testing oracle-character-set-1 against <abc>
    PASSED LOSSY
testing oracle-character-set-1 against <ab?c>
    PASSED LOSSY
testing oracle-character-set-1 against <XYZ>
    PASSED LOSSY
testing oracle-character-set-1 against <longlonglonglong...>
    PASSED LOSSY
testing oracle-character-set-31 against <abc>
    PASSED LOSSY
testing oracle-character-set-31 against <ab?c>
    PASSED LOSSY
testing oracle-character-set-31 against <XYZ>
    PASSED LOSSY
testing oracle-character-set-31 against <longlonglonglong...>
    PASSED LOSSY
testing oracle-character-set-870 against <abc>
    PASSED
testing oracle-character-set-870 against <ab?c>
    PASSED
testing oracle-character-set-870 against <XYZ>
    PASSED
```



1. 클릭

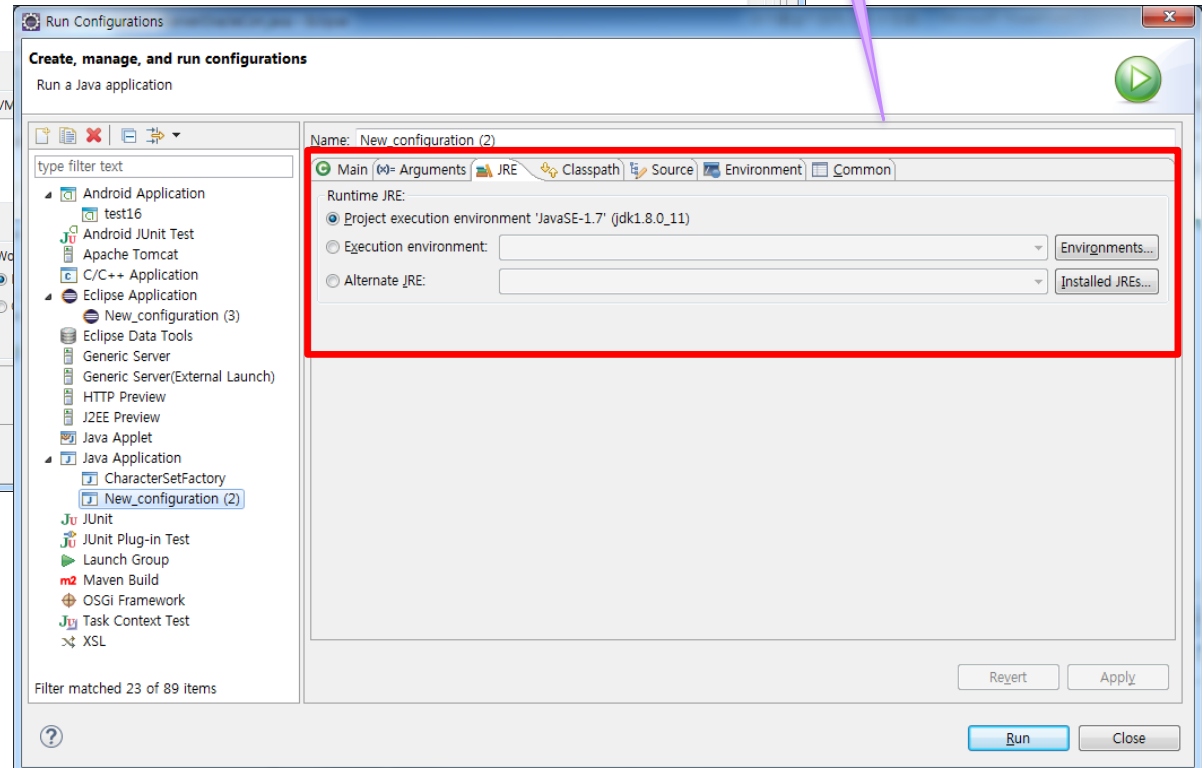
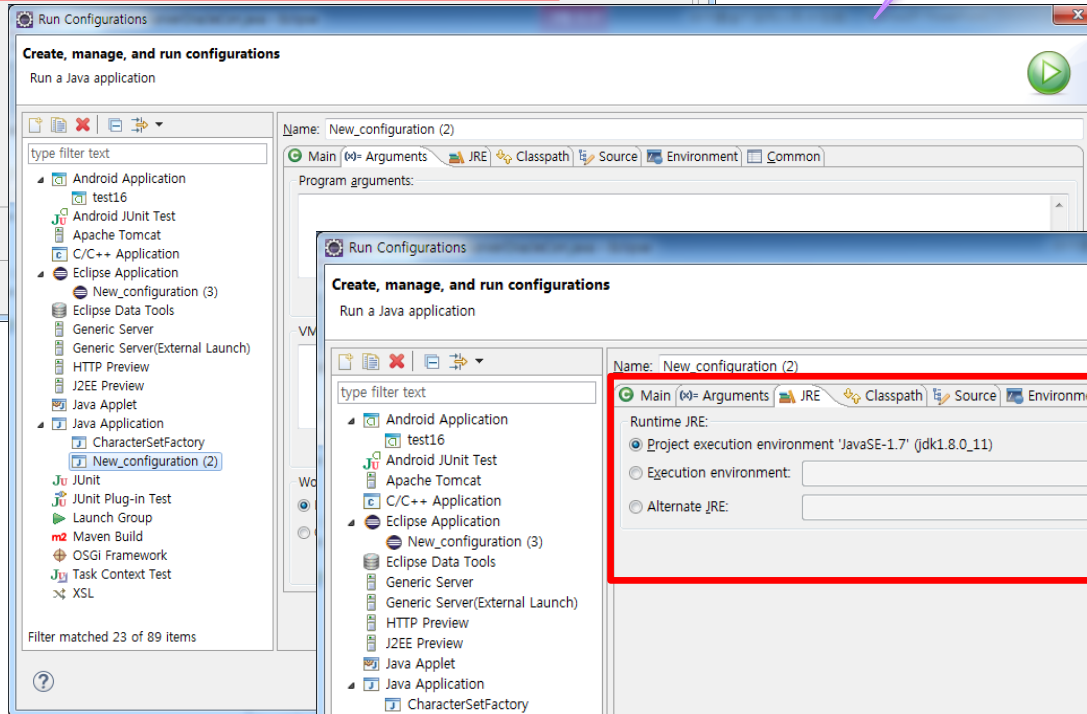
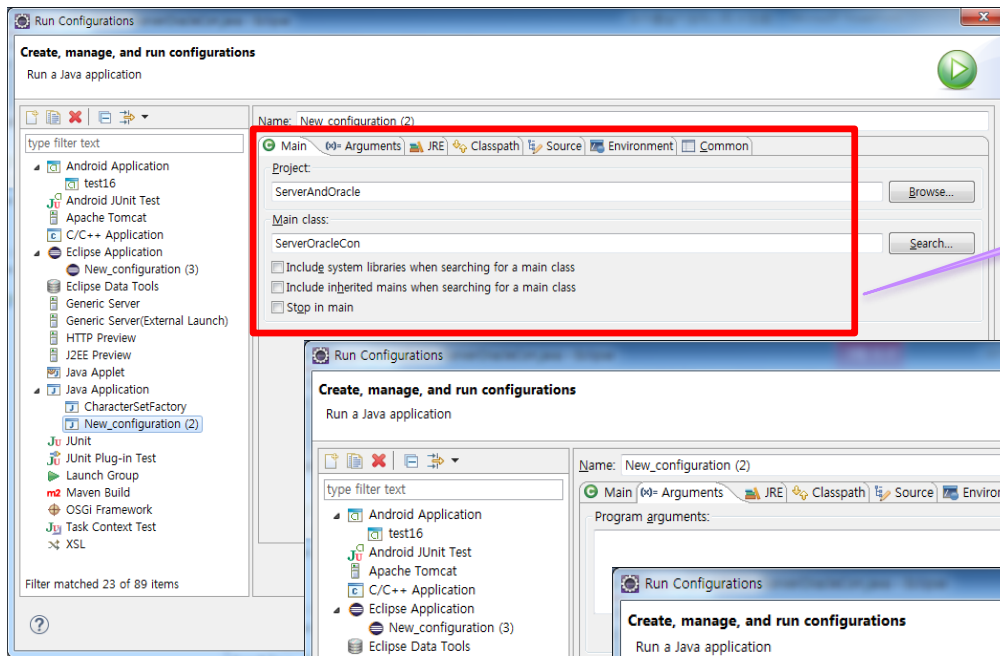


2. 클릭하여  
"ojdbc6.jar"추가

3. 클릭

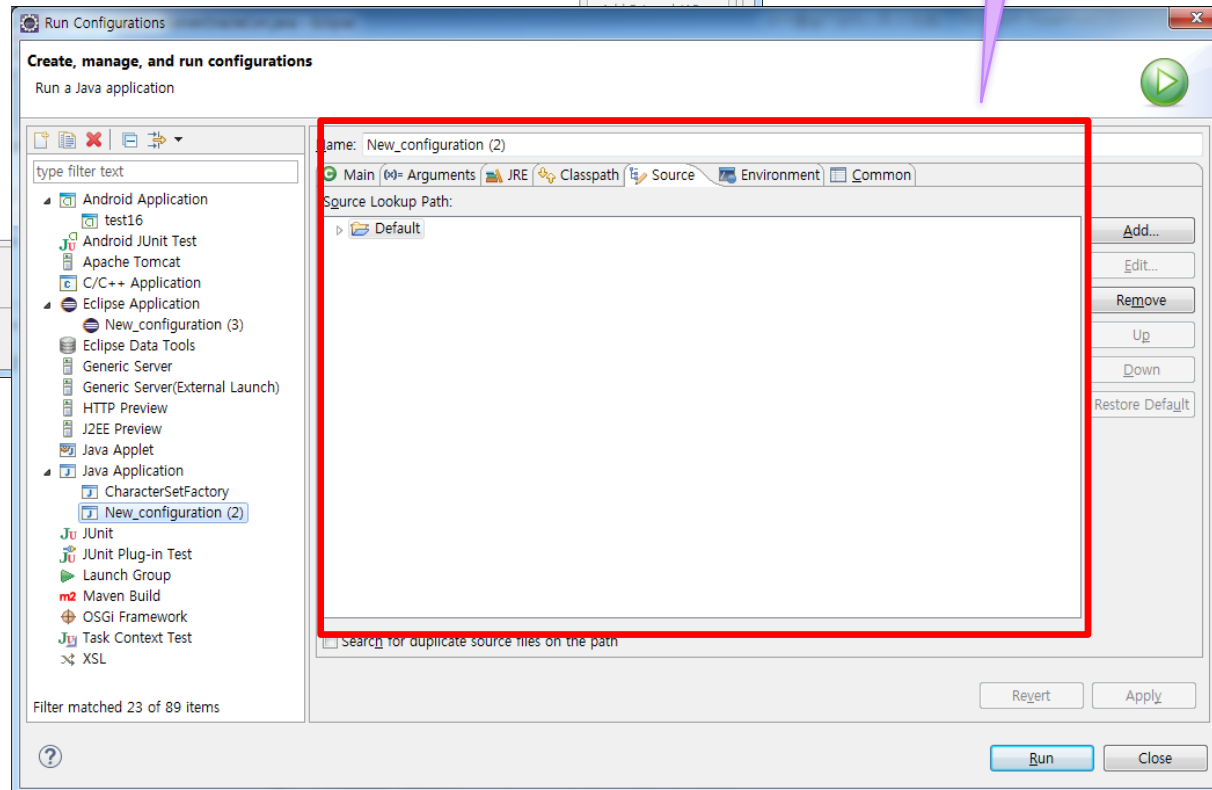
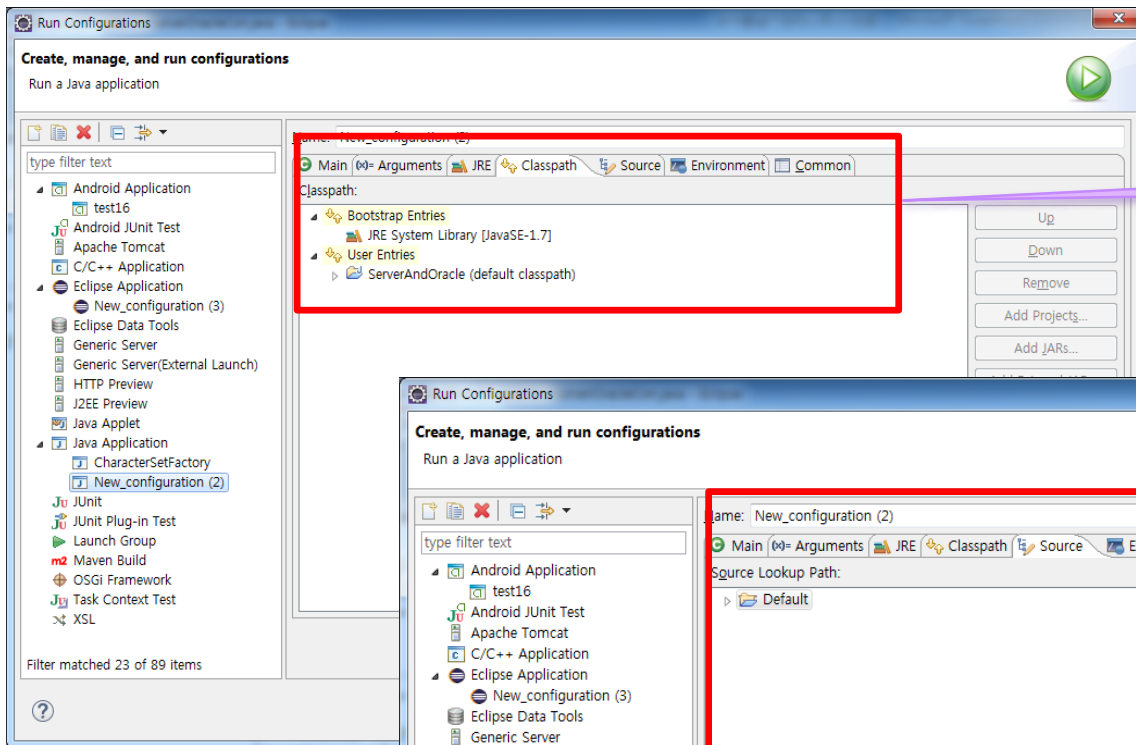
# 참고 화면

## 4. 확인

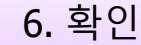


# 참고 화면

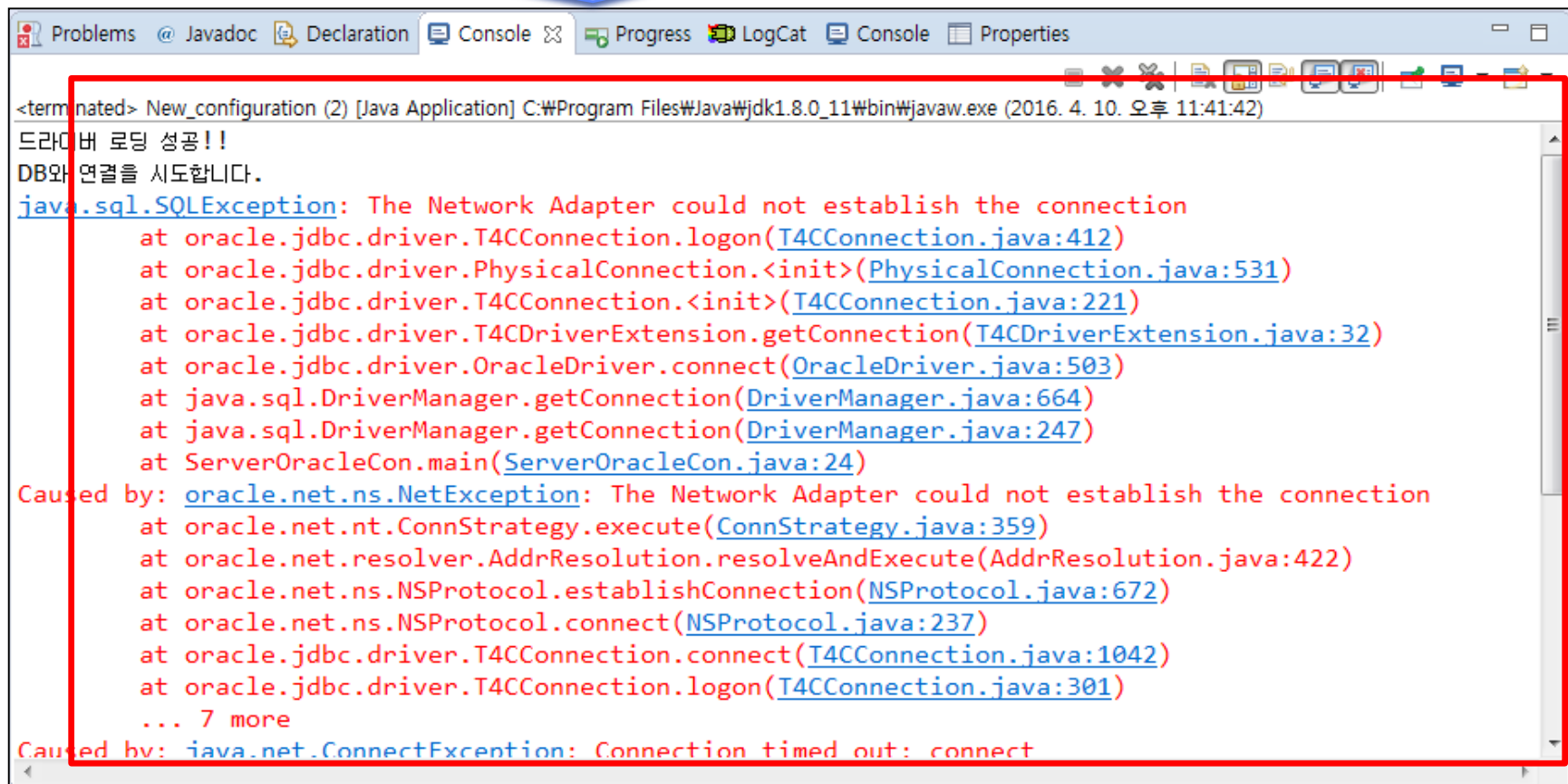
## 5. 확인



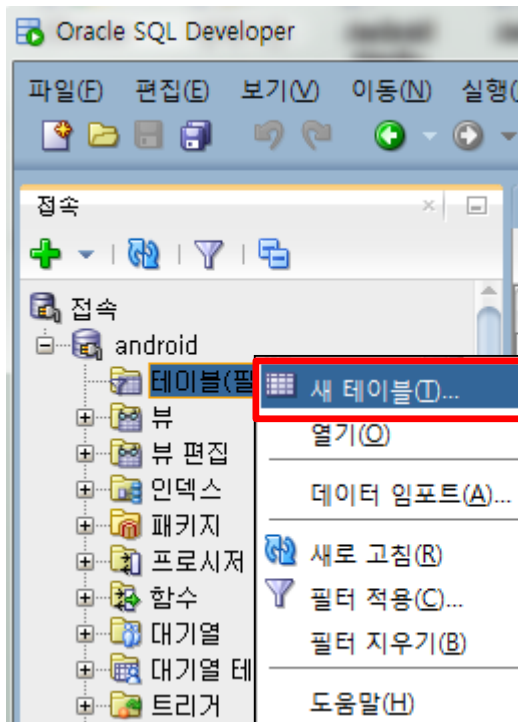




다음과 같은 에러가 발생하면? 서버의 방화벽이 설정되었는지 점검

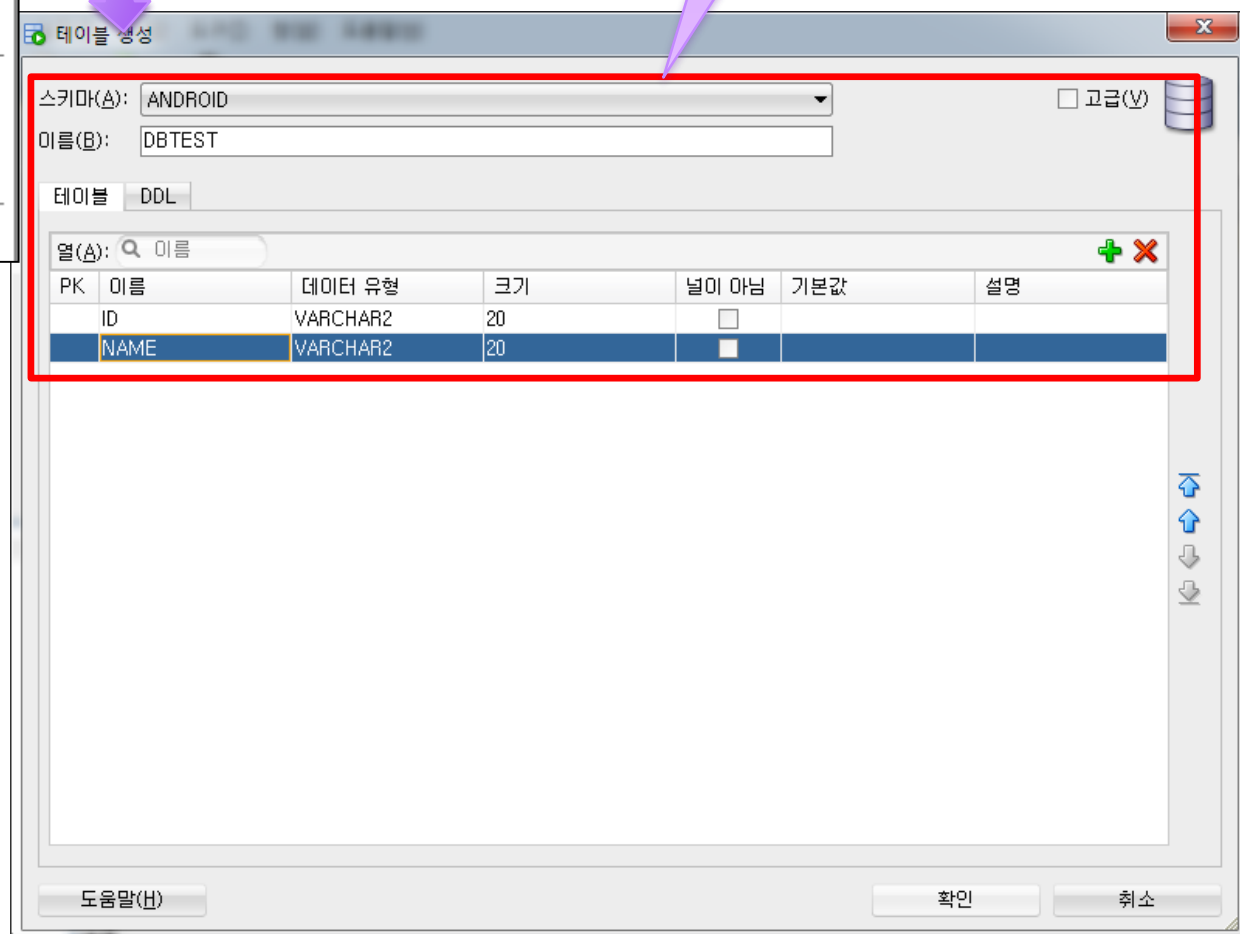


```
<terminated> New_configuration (2) [Java Application] C:\Program Files\Java\jdk1.8.0_11\bin\javaw.exe (2016. 4. 10. 오후 11:41:42)
드라이버 로딩 성공!!
DB와 연결을 시도합니다.
java.sql.SQLException: The Network Adapter could not establish the connection
    at oracle.jdbc.driver.T4CConnection.logon(T4CConnection.java:412)
    at oracle.jdbc.driver.PhysicalConnection.<init>(PhysicalConnection.java:531)
    at oracle.jdbc.driver.T4CConnection.<init>(T4CConnection.java:221)
    at oracle.jdbc.driver.T4CDriverExtension.getConnection(T4CDriverExtension.java:32)
    at oracle.jdbc.driver.OracleDriver.connect(OracleDriver.java:503)
    at java.sql.DriverManager.getConnection(DriverManager.java:664)
    at java.sql.DriverManager.getConnection(DriverManager.java:247)
    at ServerOracleCon.main(ServerOracleCon.java:24)
Caused by: oracle.net.ns.NetException: The Network Adapter could not establish the connection
    at oracle.net.nt.ConnStrategy.execute(ConnStrategy.java:359)
    at oracle.net.resolver.AddrResolution.resolveAndExecute(AddrResolution.java:422)
    at oracle.net.ns.NSProtocol.establishConnection(NSProtocol.java:672)
    at oracle.net.ns.NSProtocol.connect(NSProtocol.java:237)
    at oracle.jdbc.driver.T4CConnection.connect(T4CConnection.java:1042)
    at oracle.jdbc.driver.T4CConnection.logon(T4CConnection.java:301)
    ... 7 more
Caused by: java.net.ConnectException: Connection timed out: connect
```



1. "새 테이블"

2. 테이블 항목 생성



시작 페이지 x android x DBTEST x

열 데이터 제약 조건 권한 부여 통계 트리거 플래시백 종속성 세부 정보 분할 영역 인덱스 SQL

정렬... 필터:

	ID	NAME
1	A001	홍길동
2	A002	성춘향
3	A003	조장혁

메시지 - 로그

```
INSERT INTO "ANDROID"."DBTEST" (ID, NAME) VALUES ('A001', '홍길동')
INSERT INTO "ANDROID"."DBTEST" (ID, NAME) VALUES ('A002', '성춘향')
INSERT INTO "ANDROID"."DBTEST" (ID, NAME) VALUES ('A003', '조장혁')
```

## 오라클 데이터베이스 테이블 (android)

	⚡ COLUMN_NAME	⚡ DATA_TYPE
1	ID	VARCHAR2 (20 BYTE)
2	NAME	VARCHAR2 (20 BYTE)

	⚡ ID	⚡ NAME
1	A001	홍길동
2	A002	성춘향
3	A003	조장혁

## 실행 결과

드라이버 로딩 성공 !!)  
 DB와의 연결을 시도합니다!  
 DB와의 연결이 성공하였습니다.  
 ID: A001 NAME : 홍길동

ID: A002 NAME : 성춘향

ID: A003 NAME : 조장혁

```
package jdbc;

import java.sql.Connection;

public class InsertTest {

    public static void main(String[] args) {

        String url = "jdbc:oracle:thin:@127.0.0.1:1521:xe";
        String user = "scott";
        String password = "tiger";
        StringBuffer sql = new StringBuffer();
        sql.append("insert into member");
        sql.append("values('robin','1123','이낙원',sysdate,'안양',1000)");

        try{
            //1. 드라이버 로딩
            Class.forName("oracle.jdbc.driver.OracleDriver");
            //2. 커넥션 설정
            Connection con = DriverManager.getConnection(url, user, password);
            //3. Statement 객체 생성
            Statement stmt = con.createStatement();
            //4. SQL 문 실행
            int result = stmt.executeUpdate(sql.toString());
            //5. 결과 처리

            System.out.println(result+"개의 행 삽입 완료");

        }catch(ClassNotFoundException e){
            e.printStackTrace();
        }catch(SQLException e){
            e.printStackTrace();
        }
    }
}
```

```
package jdbc;

import java.sql.Connection;

public class UpdateTest {

    public static void main(String[] args) {

        String url = "jdbc:oracle:thin:@127.0.0.1:1521:xe";
        String user = "scott";
        String password = "tiger";
        StringBuffer sql = new StringBuffer();
        sql.append("update member ");
        sql.append("set addr = '인천시' ");
        sql.append("where id = 'kim'");

        try {
            Class.forName("oracle.jdbc.driver.OracleDriver");
            System.out.println("1");
            Connection con = DriverManager.getConnection(url, user, password);
            System.out.println("2");
            Statement stmt = con.createStatement();
            System.out.println("3");
            int result = stmt.executeUpdate(sql.toString());
            System.out.println(result + "개의 행 수정 완료");

        } catch (ClassNotFoundException e) {
            e.printStackTrace();
        } catch (SQLException e) {
            e.printStackTrace();
        }

    }

}
```

```
package jdbc;

import java.sql.Connection;

public class DeleteTest {

    public static void main(String[] args) {

        String url = "jdbc:oracle:thin:@127.0.0.1:1521:xe";
        String user = "scott";
        String password = "tiger";
        StringBuffer sql = new StringBuffer();
        sql.append("delete from member ");
        sql.append("where id = 'jang'");

        try{
            //1. 드라이버 로딩
            Class.forName("oracle.jdbc.driver.OracleDriver");
            //2. 커넥션 설정
            Connection con = DriverManager.getConnection(url, user, password);
            //3. Statement 객체 생성
            Statement stmt = con.createStatement();
            //4. SQL 문 실행
            int result = stmt.executeUpdate(sql.toString());
            //5. 결과처리

            System.out.println(result+"개의 행 삭제 완료");

        }catch(ClassNotFoundException e){
            e.printStackTrace();
        }catch(SQLException e){
            e.printStackTrace();
        }
    }
}
```



```
package jdbc;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;

public class SelectTest {

    public static void main(String[] args) {

        String url = "jdbc:oracle:thin:@127.0.0.1:1521:xe";
        String user = "scott";
        String password = "tiger";
        String sql = "select * from emp";

        try{

            Class.forName("oracle.jdbc.driver.OracleDriver");
            Connection con = DriverManager.getConnection(url, user, password);
            Statement stmt = con.createStatement();
            ResultSet rs = stmt.executeQuery(sql);

            while(rs.next()){
                System.out.print(rs.getString("empno")+"\t");
                System.out.print(rs.getString("ename")+"\t");
                System.out.print(rs.getString(3)+"\t");
                System.out.print(rs.getDate("hiredate")+"\t");
                System.out.print(rs.getInt("sal")+"\t");
                System.out.print(rs.getInt("deptno")+"\t");
                System.out.println();
            }

        }catch (ClassNotFoundException e){

        }catch (SQLException e){

        }

    }

}
```

## 추가

문제 1

ID : A004  
NAME : 본인이름

ID : A005  
NAME : 본인별명

## 삭제

문제 1

ID : A005  
NAME : 본인별명

## 수정

문제 1

ID : A003  
NAME : 본인별명