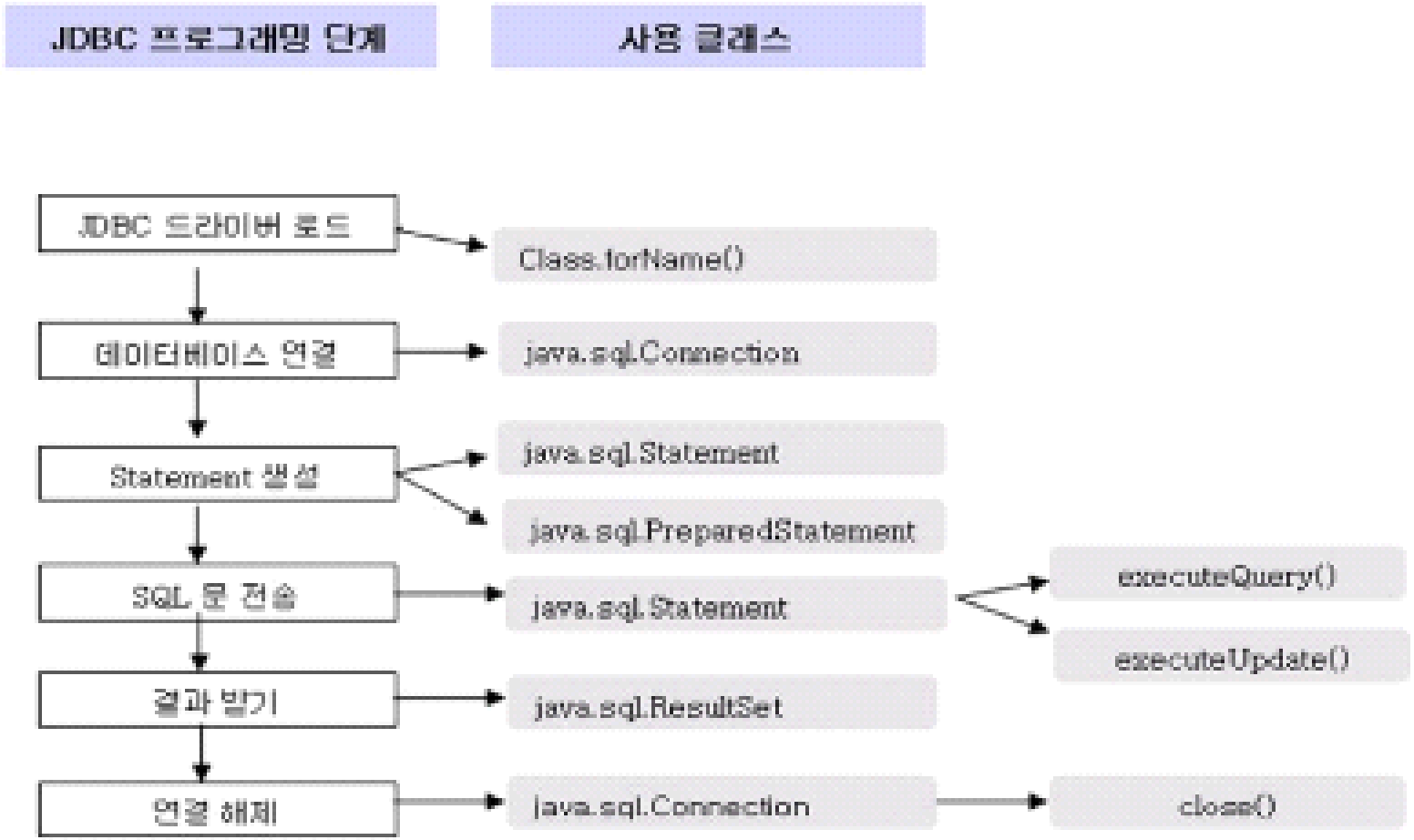
Part 1.

JDBC

02. JDBC 프로그래밍 과정

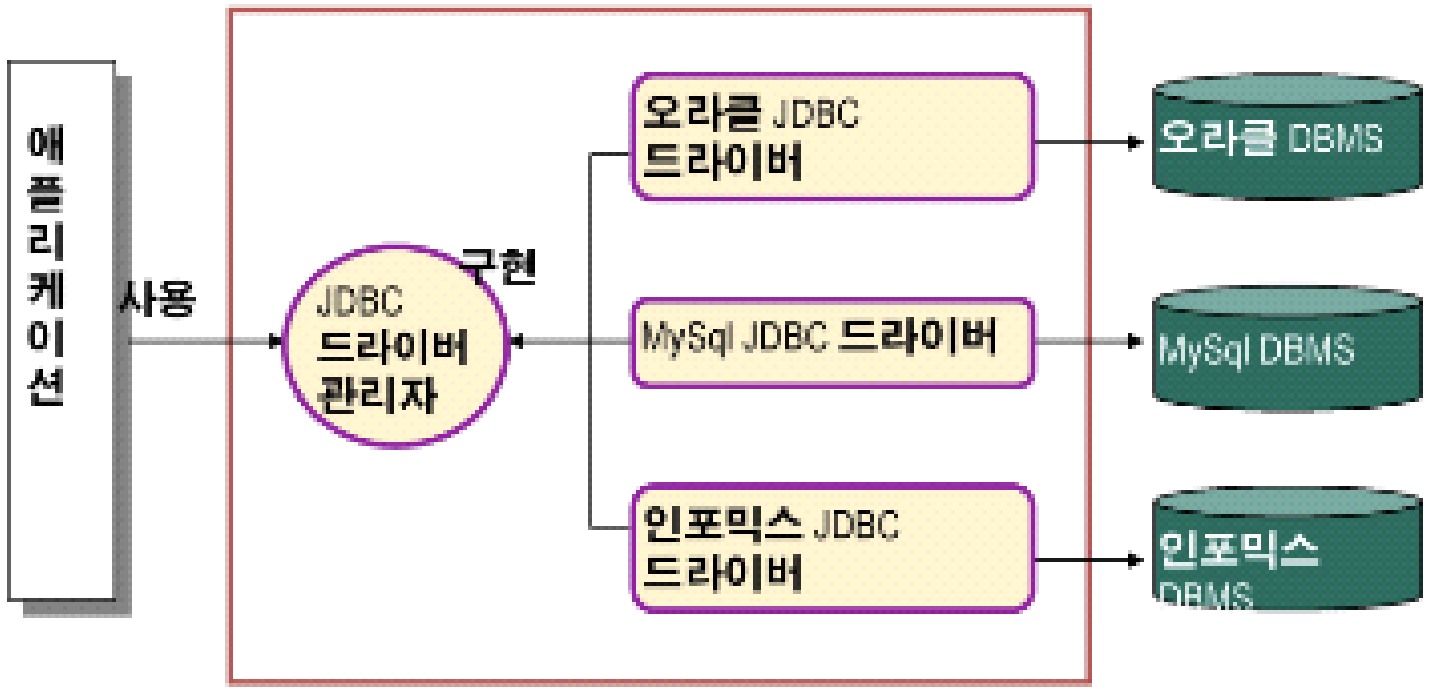
JDBC 프로그래밍 단계



01. JDBC 개요

JDBC 개념과 역할

- JDBC 구조
  - JDBC(Java Database Connectivity)
  - 자바에서 데이터베이스를 표준화 된 방법으로 접속할 수 있도록 만든 API 규격
  - 데이터베이스 벤더와 상관없이 동일한 개발이 가능함

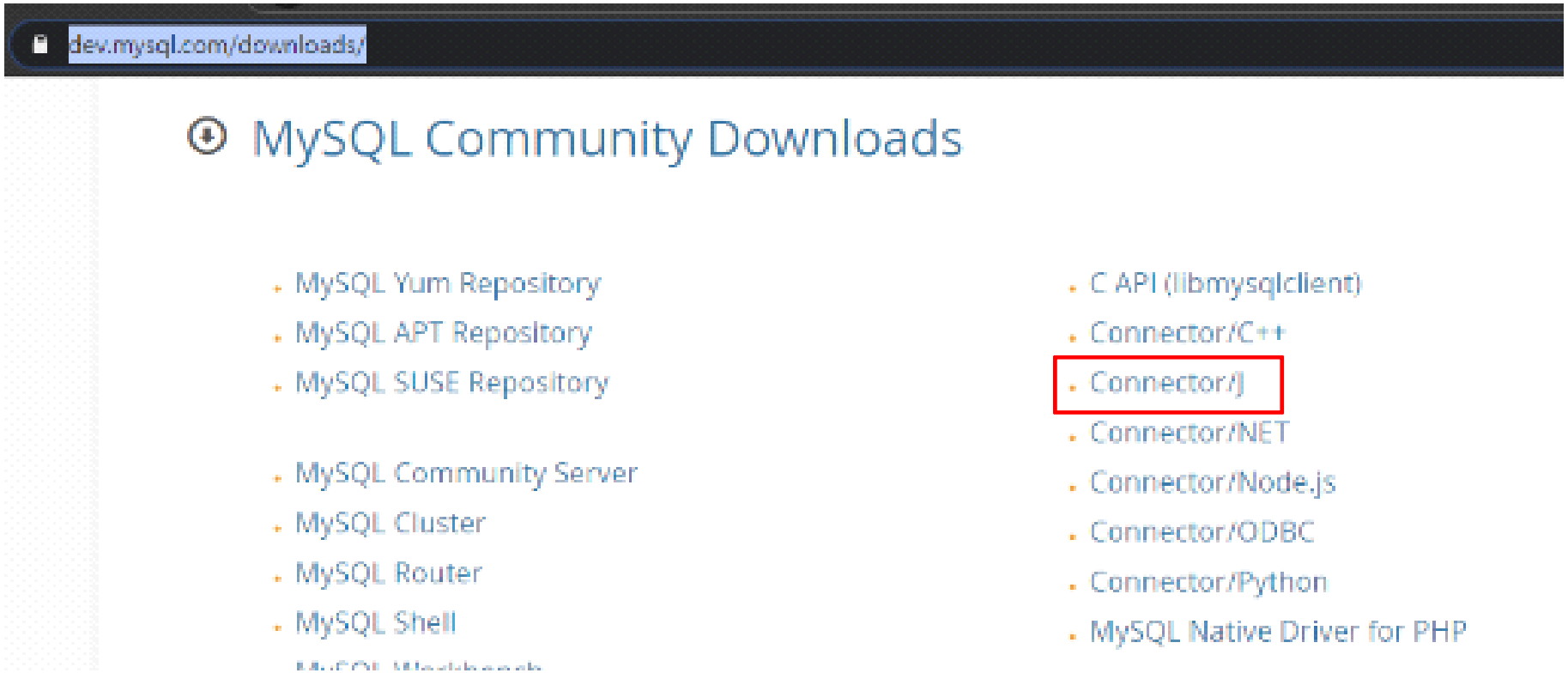


Part 2.

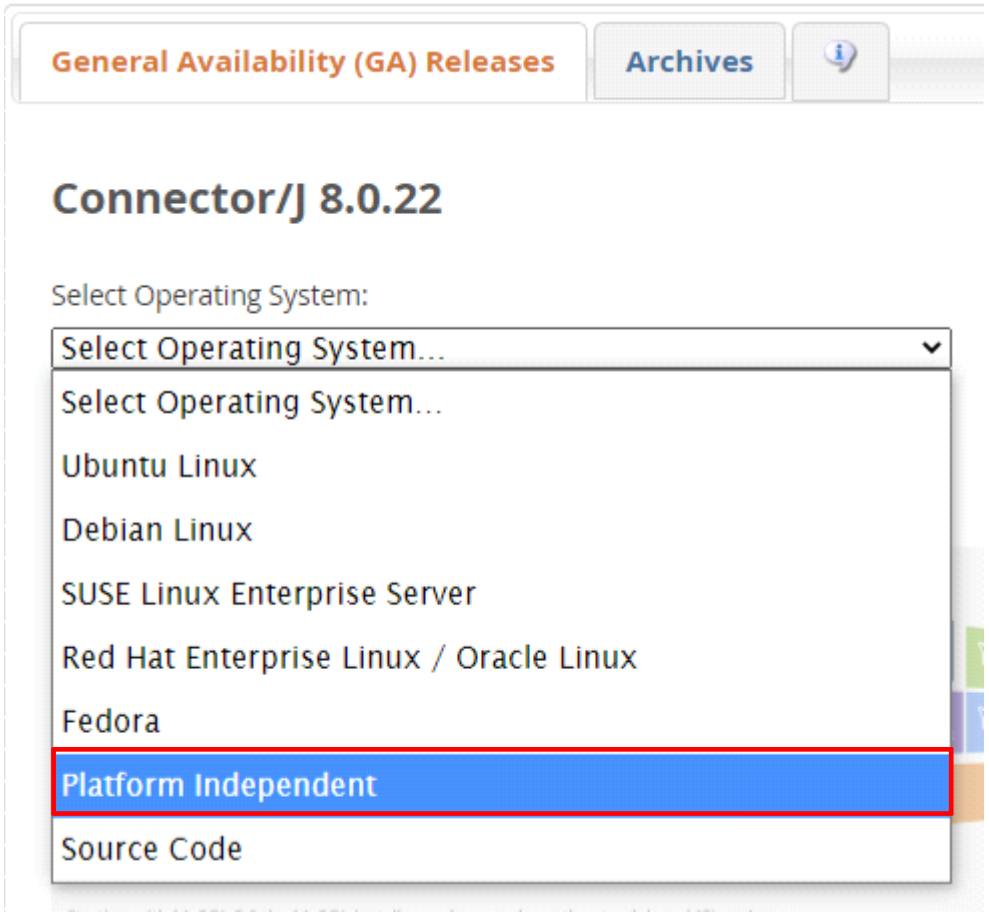
Connector/J 다운로드/설정

01 Connector/J 다운로드/설정

https://www.mysql.com/downloads/

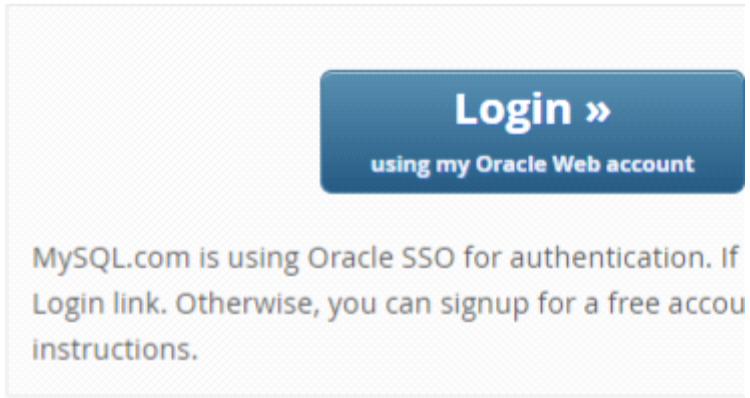


01 Connector/J 다운로드/설정

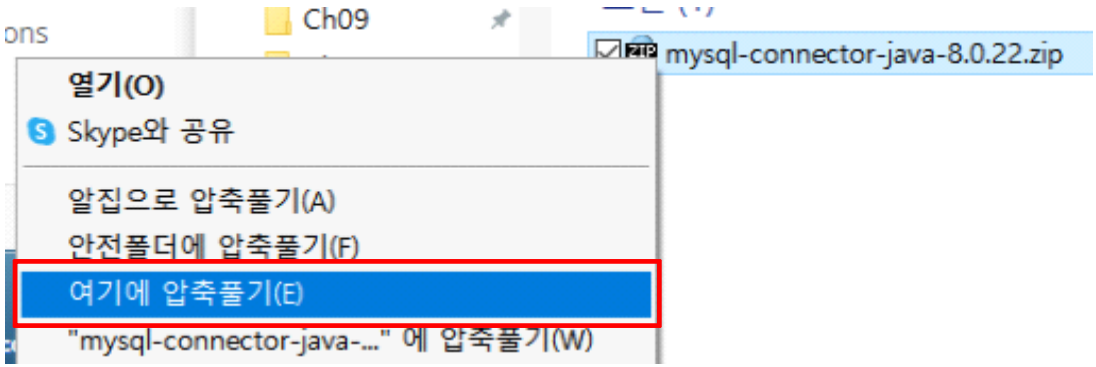


02 Connector/J 다운로드/설정

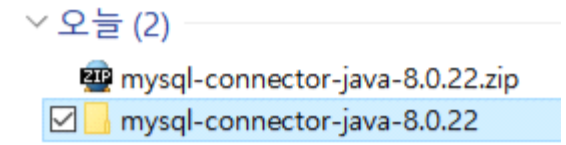
01 Connector/J 다운로드/설정

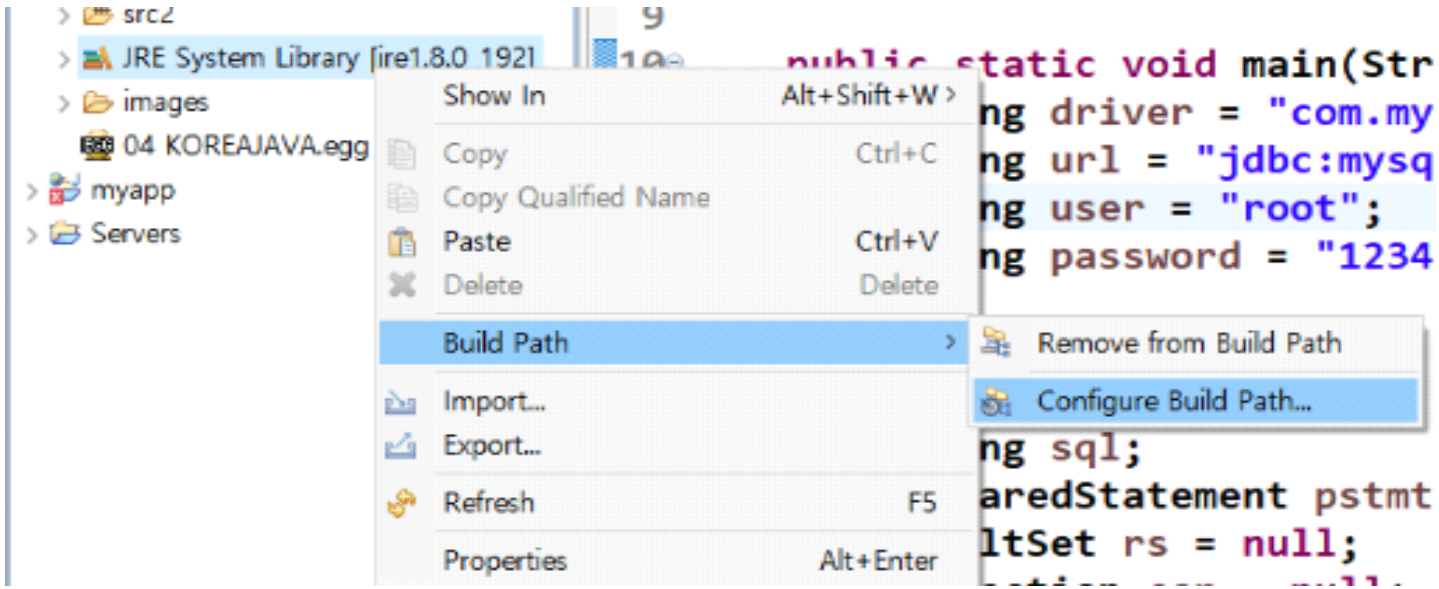


No thanks, just start my download.



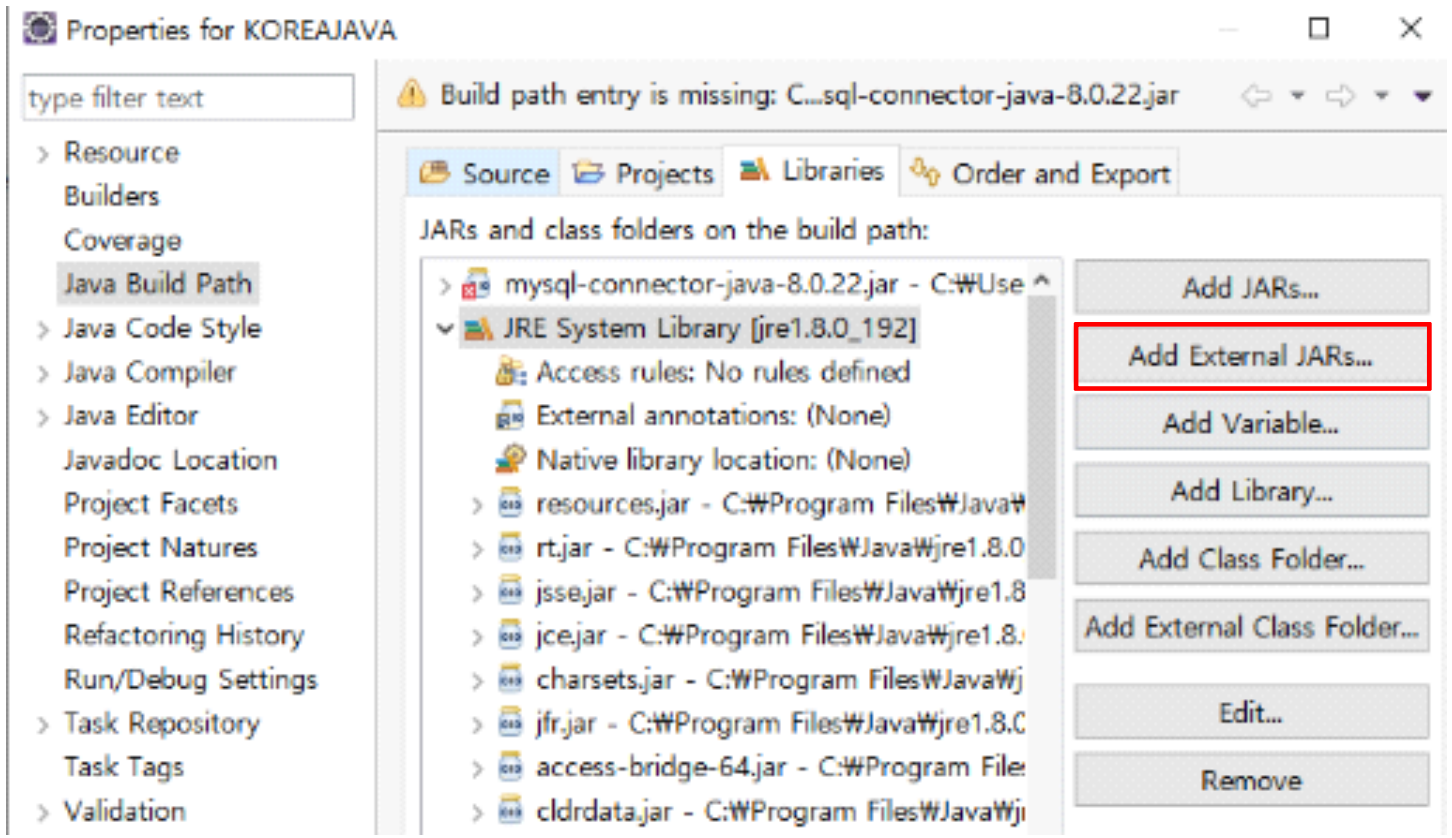
01 Connector/J 다운로드/설정



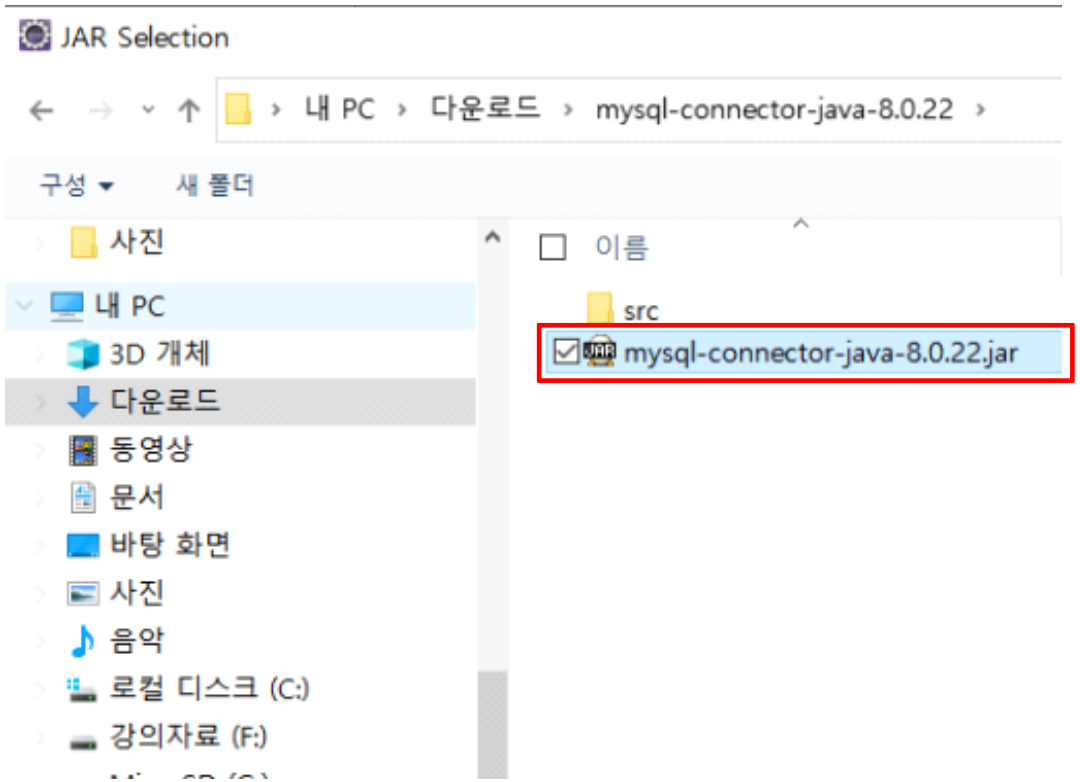


이클립스 왼쪽 Package Explorer ->
JRE System Library 우클릭->
Build Path->
Configure Build Path..

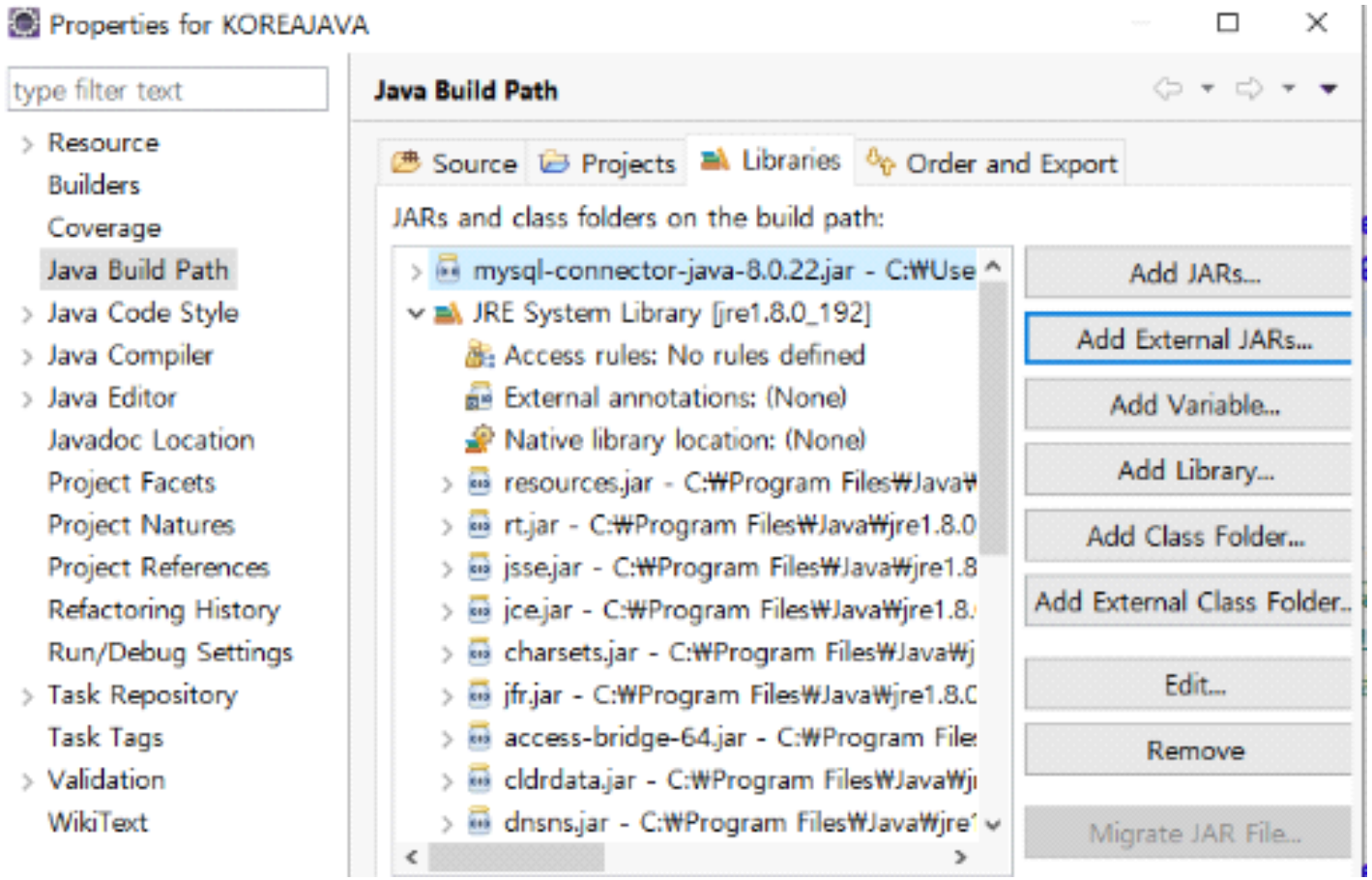
01 Connector/J 다운로드/설정



01 Connector/J 다운로드/설정



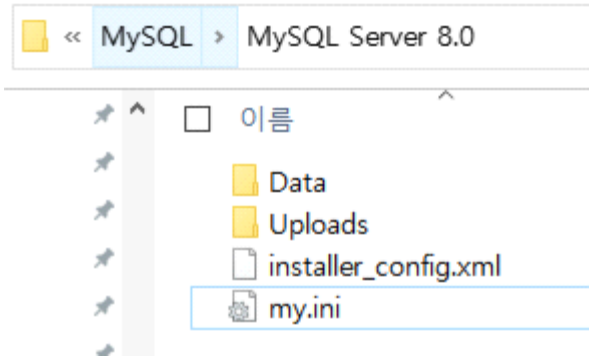
01 Connector/J 다운로드/설정



Apply and Close 버튼 클릭

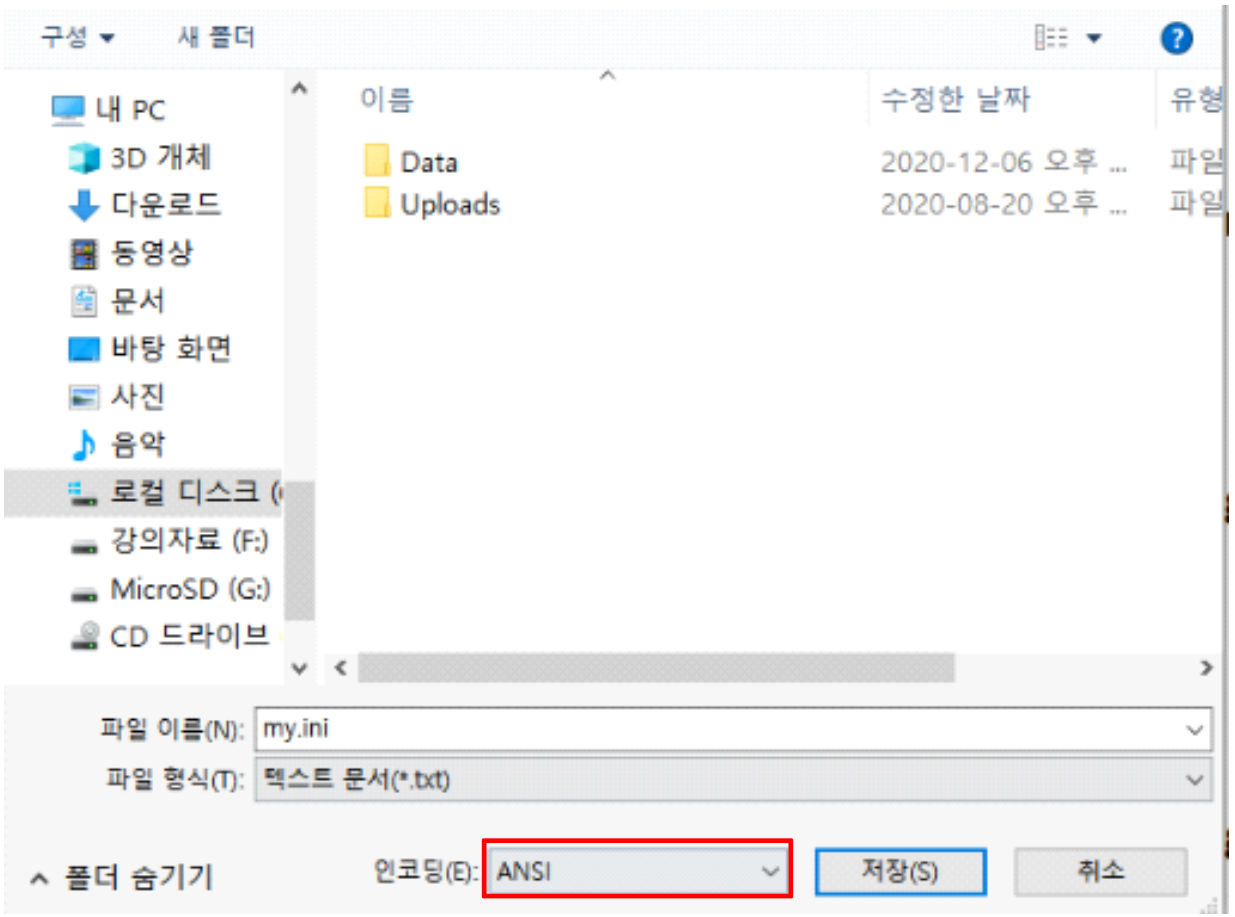
01 Connector/J 다운로드/설정

c:\program data\MySQL\Mysql Server 8.0

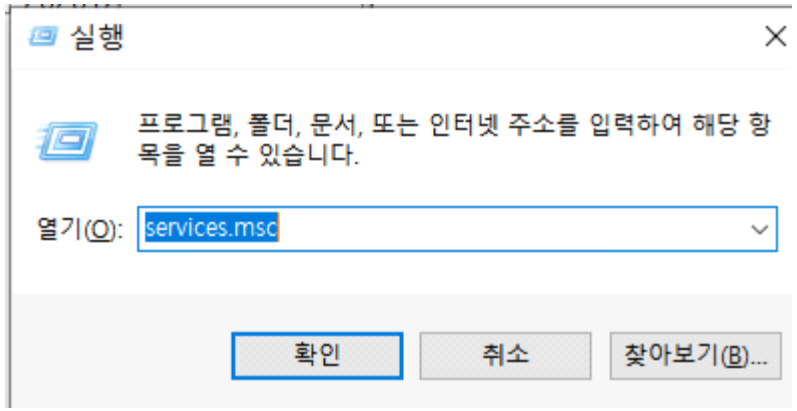


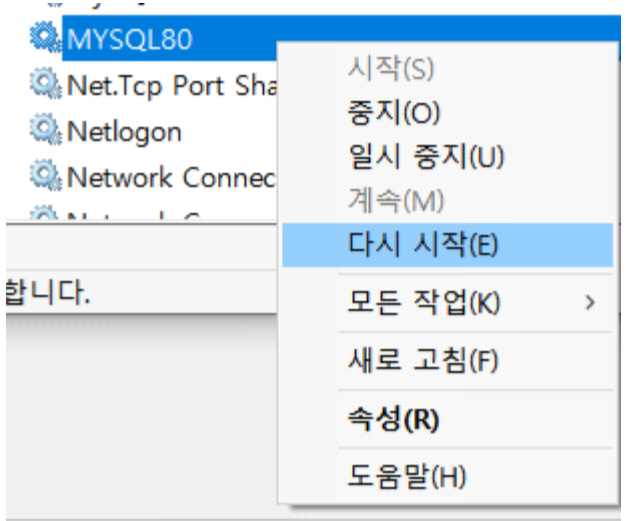
my.ini 파일 마지막에 아래 코드 추가

```
default-time-zone=+00:00
```



01 Connector/J 다운로드/설정





Part 3.

Mysql 연결할 DB/Table 생성

02 DB/Table 만들기

DB/Table 만들기

```
drop database if exists tempdb;
create database tempdb;
use tempdb;
create table membertbl
(
		id char(10) primary key,
    name nvarchar(10) not null,
    age int not null,
    addr nvarchar(50),
    num1 char(6),
    num2 char(7),
    phone varchar(15)
);
desc membertbl;
insert into membertbl values('aaa','에이',20,'대구','888888','8888888','0102223333');
insert into membertbl values('bbb','비이',24,'울산','888883','2222222','0102827383');

select * from membertbl;
```

Part 4.

SELECT

02 SELECT Code

DB 조회

```
String driver = "com.mysql.cj.jdbc.Driver";
String url = "jdbc:mysql://localhost:3306/tempDB";
String user = "root";
String password = "1234";

//연결에 사용될 참조변수
String sql;                                          //sql 문저장
PreparedStatement pstmt =null;                       //sql문 명령 전달하는 용도
ResultSet rs = null;                                 //쿼리 결과 저장
Connection con = null;                               //연결 정보 저장

try {
Class.forName(driver);
System.out.println("Driver Loading Success");
con=DriverManager.getConnection(url,user,password);
System.out.println("DB Connected..");
sql="select * from membertbl";
pstmt = con.prepareStatement(sql);
rs=pstmt.executeQuery();
```

02 SELECT Code

DB 조회

```
while(rs.next())
{
        System.out.println(rs.getString("id"));
        System.out.println(rs.getString("name"));
        System.out.println(rs.getInt("age"));
        System.out.println(rs.getString("addr"));
        System.out.println(rs.getString("num1"));
        System.out.println(rs.getString("num2"));
        System.out.println(rs.getString("phone"));
        System.out.println();
}
```

02 SELECT Code

DB 조회

```
}catch(Exception e){
		e.printStackTrace();
}finally {
		try {
			if(rs!=null)
				rs.close();
		}catch(Exception e1) {};

		try {
			if(pstmt!=null)
				pstmt.close();
		}catch(Exception e2) {}

		try {
			if(con !=null)
				con.close();
		}catch(Exception e) {}
}
```

Part 5.

INSERT

02 INSERT Code

DB 삽입

```
String driver = "com.mysql.cj.jdbc.Driver";
String url = "jdbc:mysql://localhost:3306/tempDB";
String user = "root";
String password = "1234";


//연결에 사용될 참조변수
String sql;                                                    //sql 문저장
PreparedStatement pstmt =null;  //sql문 명령 전달하는 용도
ResultSet rs = null;                                  //쿼리 결과 저장
Connection con = null;                                         //연결 정보 저장
```

02 INSERT Code

DB 삽입

```
try {
Class.forName(driver);
System.out.println("Driver Loading Success");
con=DriverManager.getConnection(url,user,password);
System.out.println("DB Connected..");
sql="insert into membertbl values(?,?,?,?,?,?,?)";
pstmt = con.prepareStatement(sql);
pstmt.setString(1, "ccc");
pstmt.setString(2, "씨이");
pstmt.setInt(3, 30);
pstmt.setString(4, "서울");
pstmt.setString(5, "111111");
pstmt.setString(6, "2222222");
pstmt.setString(7, "0102223333");
int num = pstmt.executeUpdate();
if(num==1)
{
		System.out.println("Insert Succeed");
}
```

02 INSERT Code

DB 삽입

```
}catch(Exception e){
		e.printStackTrace();
}finally {

		try {
			if(rs!=null)
				rs.close();
		}catch(Exception e1) {};

		try {
			if(pstmt!=null)
				pstmt.close();
		}catch(Exception e2) {}

		try {
			if(con !=null)
				con.close();
		}catch(Exception e) {}
}
```

Part 6.

UPDATE

02 UPDATE Code

DB 수정

```
String driver = "com.mysql.cj.jdbc.Driver";
String url = "jdbc:mysql://localhost:3306/tempDB";
String user = "root";
String password = "1234";


//연결에 사용될 참조변수
String sql;                                                    //sql 문저장
PreparedStatement pstmt =null;  //sql문 명령 전달하는 용도
ResultSet rs = null;                                  //쿼리 결과 저장
Connection con = null;                                         //연결 정보 저장
```

02 UPDATE Code

DB 수정

```
try {
Class.forName(driver);
System.out.println("Driver Loading Success");
con=DriverManager.getConnection(url,user,password);
System.out.println("DB Connected..");
sql="update membertbl set addr=? where id=?";
pstmt = con.prepareStatement(sql);
pstmt.setString(1, "옥천");
pstmt.setString(2, "aaa");

int num = pstmt.executeUpdate();

if(num==1)
{
		System.out.println("Update Succeed");
}
```

02 UPDATE Code

DB 수정

```
}catch(Exception e){
		e.printStackTrace();
}finally {

		try {
			if(rs!=null)
				rs.close();
		}catch(Exception e1) {};

		try {
			if(pstmt!=null)
				pstmt.close();
		}catch(Exception e2) {}

		try {
			if(con !=null)
				con.close();
		}catch(Exception e) {}
}
```

Part 7.

DELETE

02 DELETE Code

DB 삭제

```
String driver = "com.mysql.cj.jdbc.Driver";
String url = "jdbc:mysql://localhost:3306/tempDB";
String user = "root";
String password = "1234";


//연결에 사용될 참조변수
String sql;                                                    //sql 문저장
PreparedStatement pstmt =null;  //sql문 명령 전달하는 용도
ResultSet rs = null;                                  //쿼리 결과 저장
Connection con = null;                                         //연결 정보 저장
```

02 DELETE Code

DB 삭제

```
try {
Class.forName(driver);
System.out.println("Driver Loading Success");
con=DriverManager.getConnection(url,user,password);
System.out.println("DB Connected..");
sql="delete from membertbl where id=?";
pstmt = con.prepareStatement(sql);
pstmt.setString(1, "aaa");

int num = pstmt.executeUpdate();

if(num==1)
{
		System.out.println("Delete Succeed");
}
```

02 DELETE Code

DB 삭제

```
}catch(Exception e){
		e.printStackTrace();
}finally {

		try {
			if(rs!=null)
				rs.close();
		}catch(Exception e1) {};

		try {
			if(pstmt!=null)
				pstmt.close();
		}catch(Exception e2) {}

		try {
			if(con !=null)
				con.close();
		}catch(Exception e) {}
}
```

E N D.

고생하셨습니다