

파이썬 플라스크로 배우는 웹프로그래밍 #3

ABCD Foundation



스노우키위, 한 성 일

#3.

데이터 베이스 배우기



0. 프롤로그

반복학습

자바스크립트 if (제어)문

```
var name = "jerry";
```

```
1 if ( name == "tom" ) { // 만약 이름이 "tom" 이라면  
↓ document.write("안녕 탐"); // tom 출력  
2 } else if ( name == "jerry" ) { // 이름이 jerry 라면  
↓ document.write("안녕 제리"); // jerry 출력  
3 } else { // 둘다아니면  
↓ document.write("누구냐 넌?");  
}
```

빠져나온다.

반복학습

파이썬 if (제어) 문

```
if name == "tom" :  
    print "안녕 탐"  
elif name == "jerry":  
    print "안녕 제리"  
else:  
    print "누구냐 넌?"
```

반복학습

비교연산자

좌변과 우변의 값을 비교해서 참일때에는 True를 거짓일때에는 False를 반환

연산자	설명
$X == Y$	X는 Y와 같다
$X != Y$	X와 Y는 값이 같지 않다
$X < Y$	X는 Y보다 작다
$X \leq Y$	X는 Y보다 작거나 같다
$X > Y$	X는 Y보다 크다
$X \geq Y$	X는 Y보다 크거나 같다

반복학습

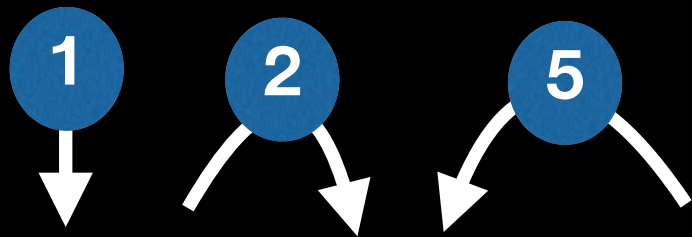
논리연산자

좌변과 우변을 논리연산하고, 참일때에는 true, 거짓일때에는 false 값을 변환

연산자	설명
$X \ \&\& \ Y$	AND (X 이고 Y)
$X \ \ Y$	OR (X 또는 Y)
$X \ !Y$	NOT (X는 Y가 아니다)
$X \ ^Y$	XOR (참참거짓, 거짓거짓거짓)

반복학습

자바스크립트 for (반복) 문



```
for (var i=0; i<3; i++) {  
    3  
    document.write(i + “번째 hello”);  
    // 실행될 문장  
    4  
}
```

1. 변수(i)에 0을 대입해라.
2. i 가 3보다 작으면
3. hello 를 출력해라.
4. i 를 1증가(i++) 시켜라. (i는1)
5. i 가 3보다 작으면
6. hello 를 출력해라.
7. i 를 1증가 시켜라. (i는2)
8. i가 3보다 작으면
..... i 가 3보다 작을동안 계속 돈다.

반복학습 :

파이썬 for (반복)문

```
for i in range(0, 3):  
    print i
```

range() 함수가 i 를 3보다 작을때까지 반복시킨다.
파이썬만 range() 함수를 쓰지만 편하다.

1. 데이터베이스 설정 (MySQL)

웹서비스 구조도



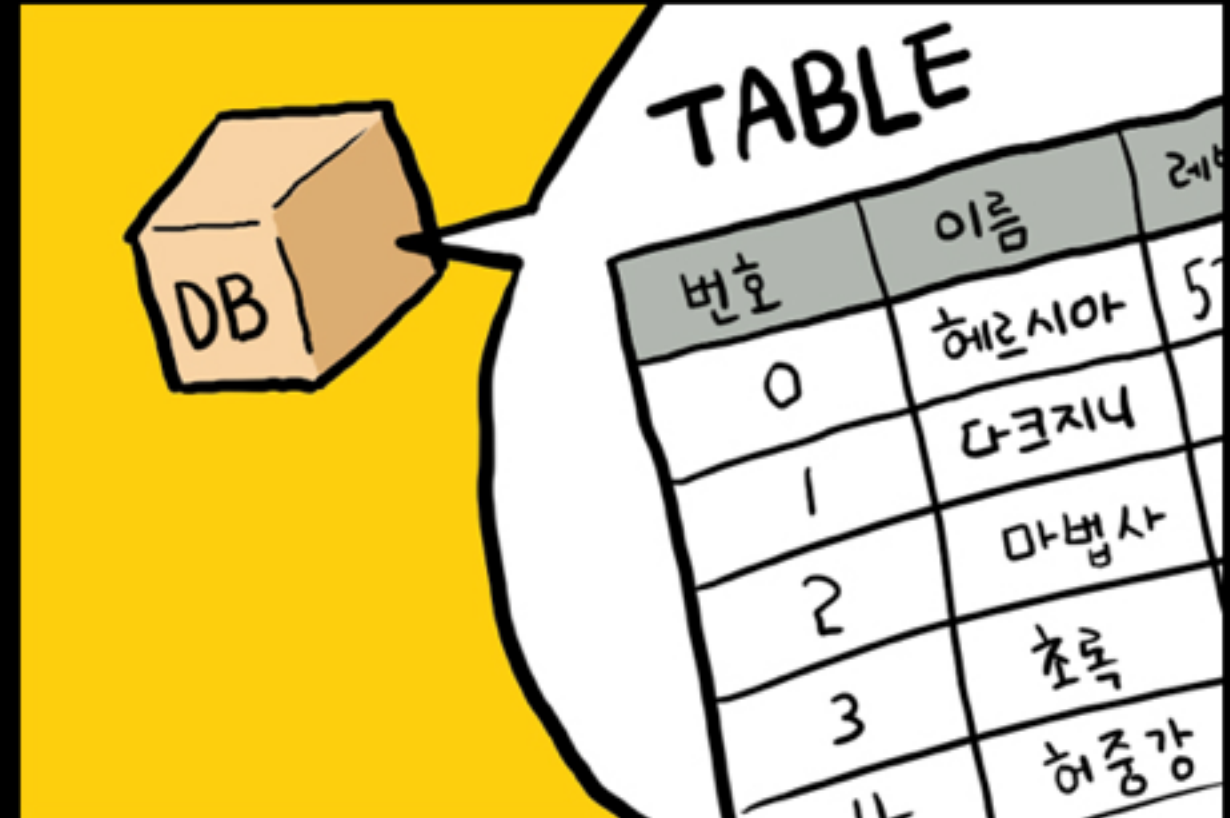
데이터 베이스란?

웹(애플리케이션) 서버



플라스크(웹서버) 에서 받은 정보를 저장
저장된 정보를 불러옴
웹서버에 저장된 정보는 없음

데이터 베이스



엑셀처럼 데이터를 차곡차곡 저장
우리가 엑셀(DB)의품을 만들어 주어야 함

데이터 베이스란?



DBMS (Database Management System)
자료(DATA)를 저장하고 관리

데이터 베이스의 종류?



다양한 데이터 베이스 서버들이 존재



우리가 사용할 데이터 베이스

2. MySQL 설치

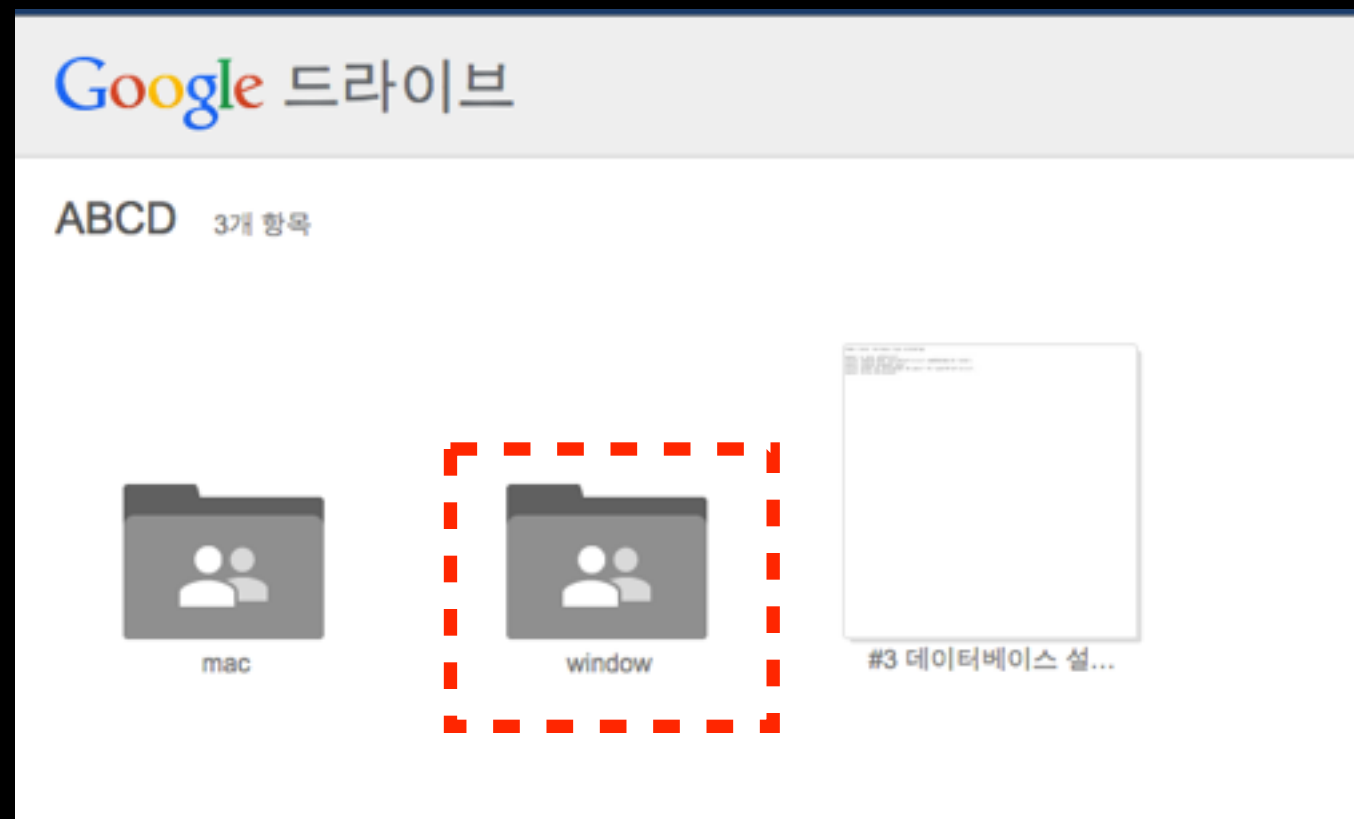
데이터베이스 설치

MySQL 다운로드 경로 (원래여기 지만..)

<http://dev.mysql.com/downloads/>

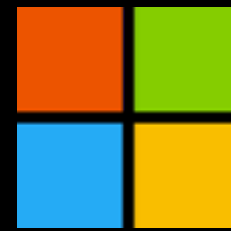
시간관계상 아래의 경로에서 패키지 다운로드

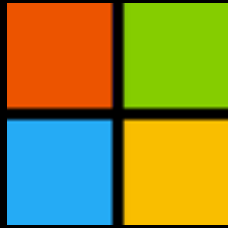
https://drive.google.com/folderview?id=0B_dq0WjvHb09czFhMHY3VmtsWkk&usp=sharing



데이터베이스 설치

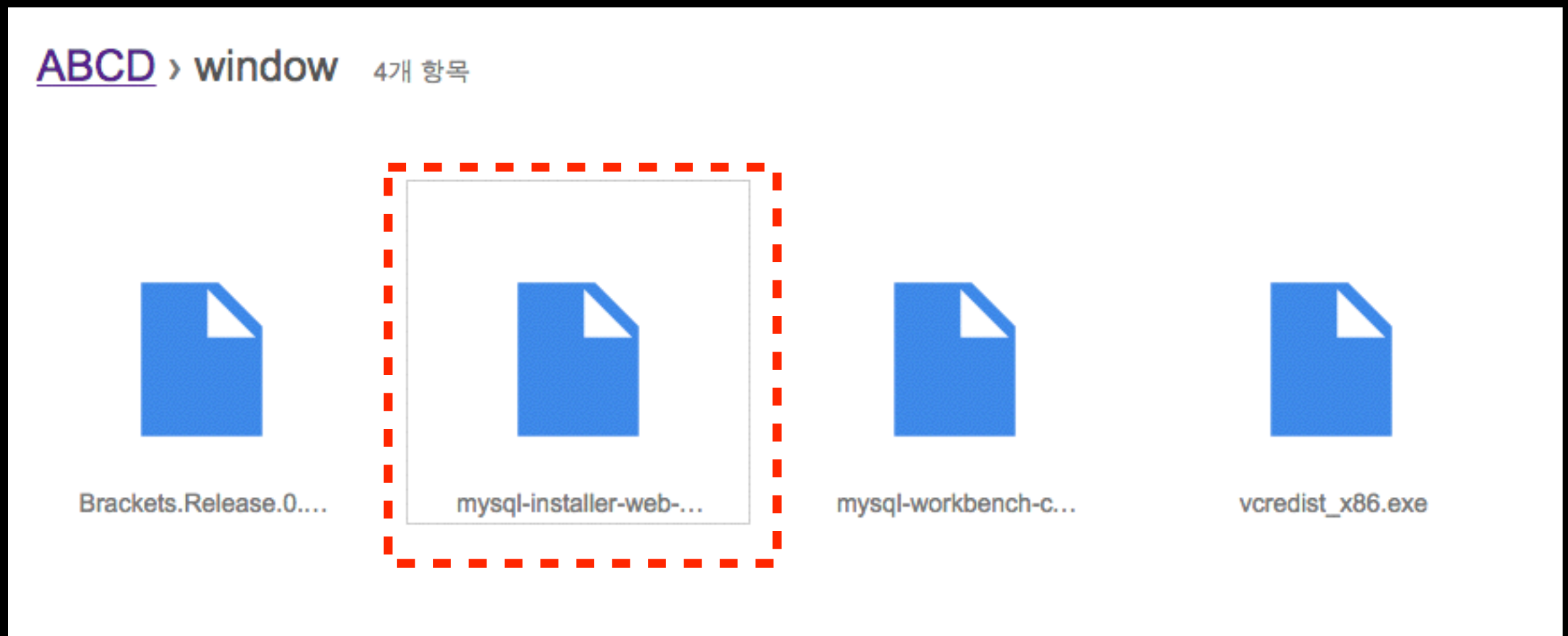
맥과 윈도우 설치방법은 따로 구성되어있음

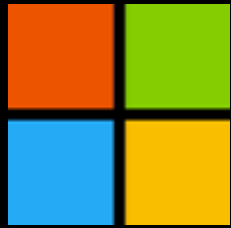




데이터베이스 설치

mysql-installer-web-community-5.6.21.1.msi (GPL) 다운로드





데이터베이스 설치

MySQL Installer

MySQL. Installer

License Agreement

My Oracle Support Authentication

Select Products and Features

Installation

Installation Complete

My Oracle Support Authentication

MySQL Installer for Windows is able to, on your behalf, download new or updated MySQL commercial packages. To do so it needs to authenticate to My Oracle Support using your credentials.

For security reasons these credentials are never stored on disk. You will be asked for them again the next time you run the MySQL Installer.

☐ Yes, I would like to use My Oracle Support

Username:

Password:

Authenticate

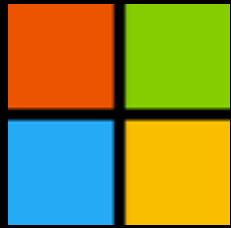
☒ No, I either don't have My Oracle Support or don't want to use it now.

☒ Don't Ask Again

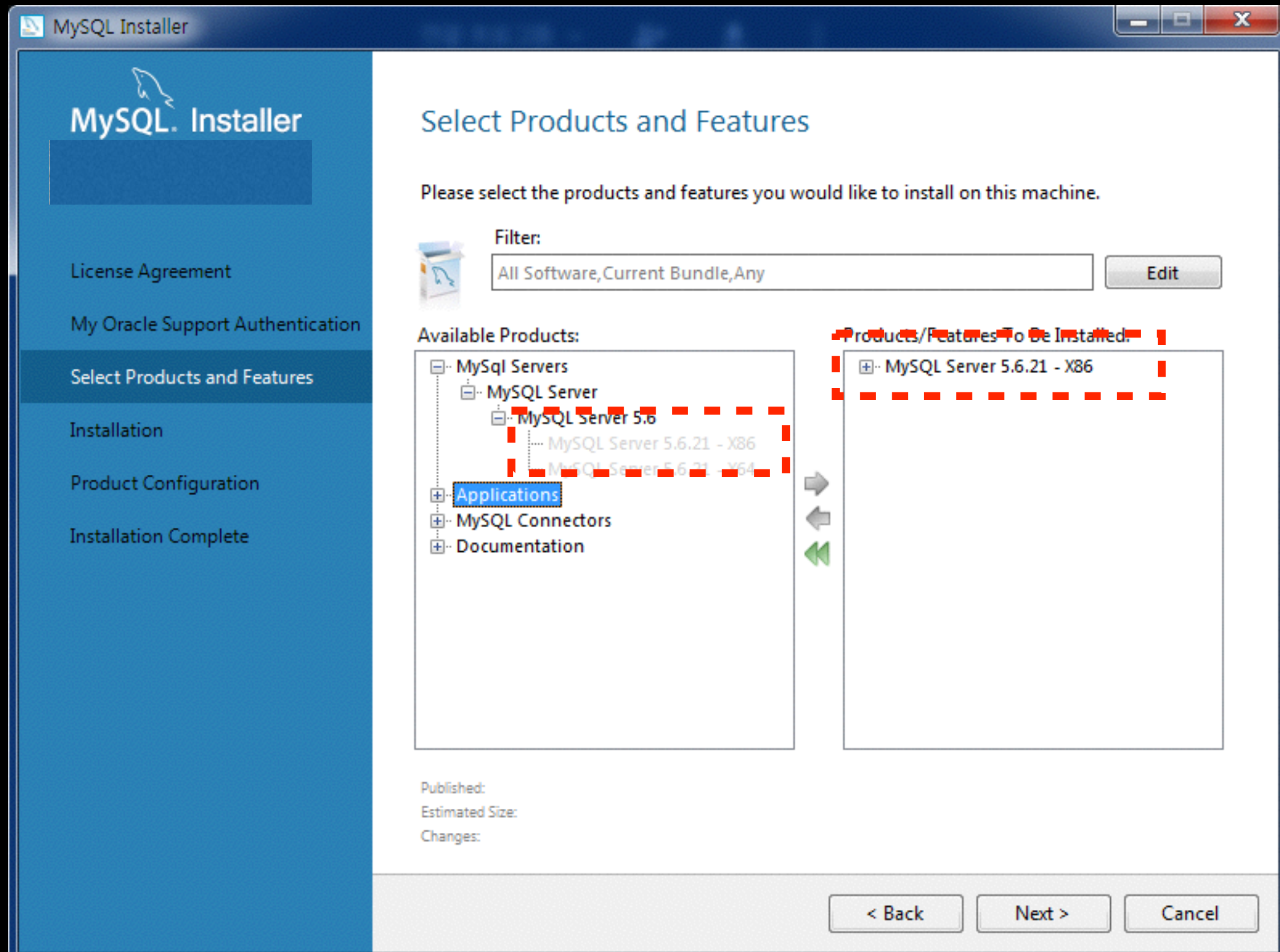
< Back

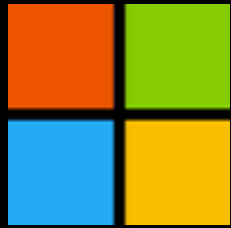
Next >

Cancel



데이터베이스 설치





데이터베이스 설치

MySQL Installer

Type and Networking

Accounts and Roles

Windows Service

Apply Server Configuration

Accounts and Roles

Root Account Password
Enter the password for the root account. Please remember to store this password in a secure place.

MySQL Root Password:

••••

Repeat Password:

••••

Password Strength: **Weak**

MySQL User Accounts

Create MySQL user accounts for your users and applications. Assign a role to the user that consists of a set of privileges.

MySQL Username	Host	User Role	
----------------	------	-----------	--

Add User

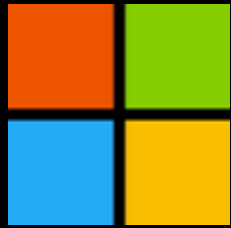
Edit User

Delete

< Back

Next >

Cancel



데이터베이스 설치

MySQL Installer

MySQL. Installer

Type and Networking

Accounts and Roles

Windows Service

Apply Server Configuration

Accounts and Roles

Root Account Password
Enter the password for the root account. Please remember to store this password in a secure place.

MySQL Root Password:

Repeat Password:

Password Strength: **Weak**

MySQL User Accounts
Create MySQL user accounts for your users and applications. Assign a role to the user that consists of a set of privileges.

MySQL Username	Host	User Role	
----------------	------	-----------	--

Add User

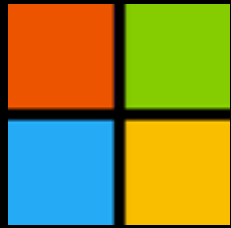
Edit User

Delete

< Back

Next >


Cancel



데이터베이스 설치

MySQL User Details

Please specify the username, password, and database role.

 Username:

Host:

Role:

Authentication: ☒ MySQL ☐ Windows

Password:


Confirm Password:

Password Strength: weak

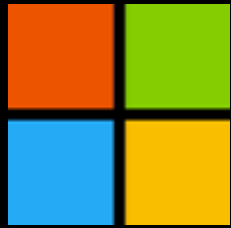
OK Cancel

MySQL User Accounts

Create MySQL user accounts for your users and applications. Assign a role to the user that consists of a set of privileges.


MySQL Username	Host	User Role
 abcd	%	DB Admin

Add User Edit User Delete



데이터베이스 설치

MySQL Installer


MySQL. Installer

Type and Networking

Accounts and Roles

Windows Service

Apply Server Configuration

Windows Service

☒ Configure MySQL Server as a Windows Service

Windows Service Details

Please specify a Windows Service name to be used for this MySQL Server instance. A unique name is required for each instance.

Windows Service Name:

☒ Start the MySQL Server at System Startup

Run Windows Service as ...

The MySQL Server needs to run under a given user account. Based on the security requirements of your system you need to pick one of the options below.

☒ Standard System Account

Recommended for most scenarios.

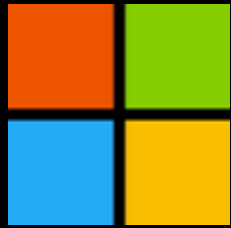
☐ Custom User

An existing user account can be selected for advanced scenarios.

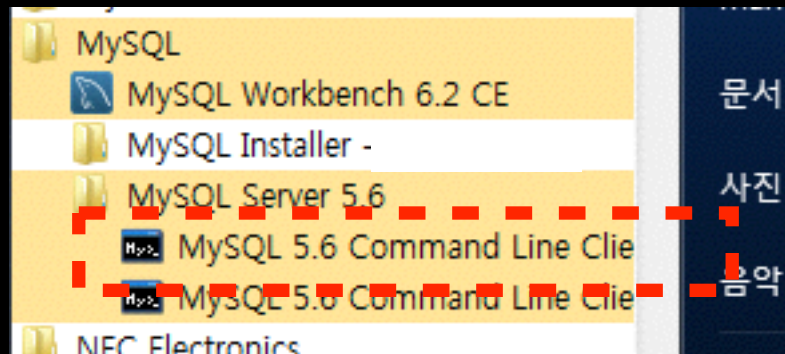
< Back

Next >

Cancel



데이터베이스 설치



```
MySQL 5.6 Command Line Client - Unicode
Enter password: ****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 14
Server version: 5.6.21-enterprise-commercial-advanced-log MySQL Enterprise Server
r - Advanced Edition (Commercial)

Copyright (c) 2000, 2014, Oracle and/or its affiliates. All rights reserved.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> _
```



데이터베이스 설치

터미널에 다음 명령어를 넣습니다.

```
bash <(curl -Ls http://git.io/eUx7rg)
```

```
jamieui-MacBook-Pro:local jamie$ bash <(curl -Ls http://git.io/eUx7rg)
Downloading MySQL Installers ... may take a few moments
##### 100.0%
...
...
Installing MySQL, administrator password required ...
installer: Package name is MySQL 5.6.20-community for Mac OS X
installer: Installing at base path /
installer: The install was successful.
...
...
Installing MySQL start up items...
```

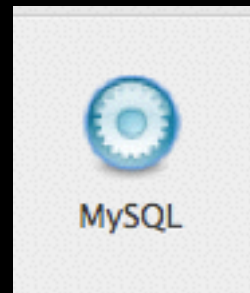
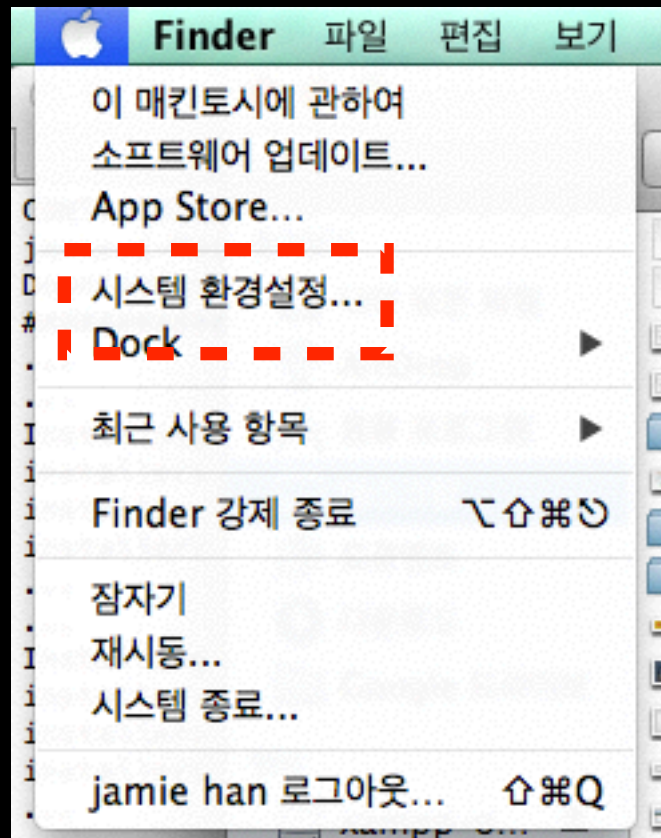
완료되면 데스크탑(바탕화면) 폴더에 MYSQL_PASSWORD 파일 생성
파일 내용은 루트패스워드



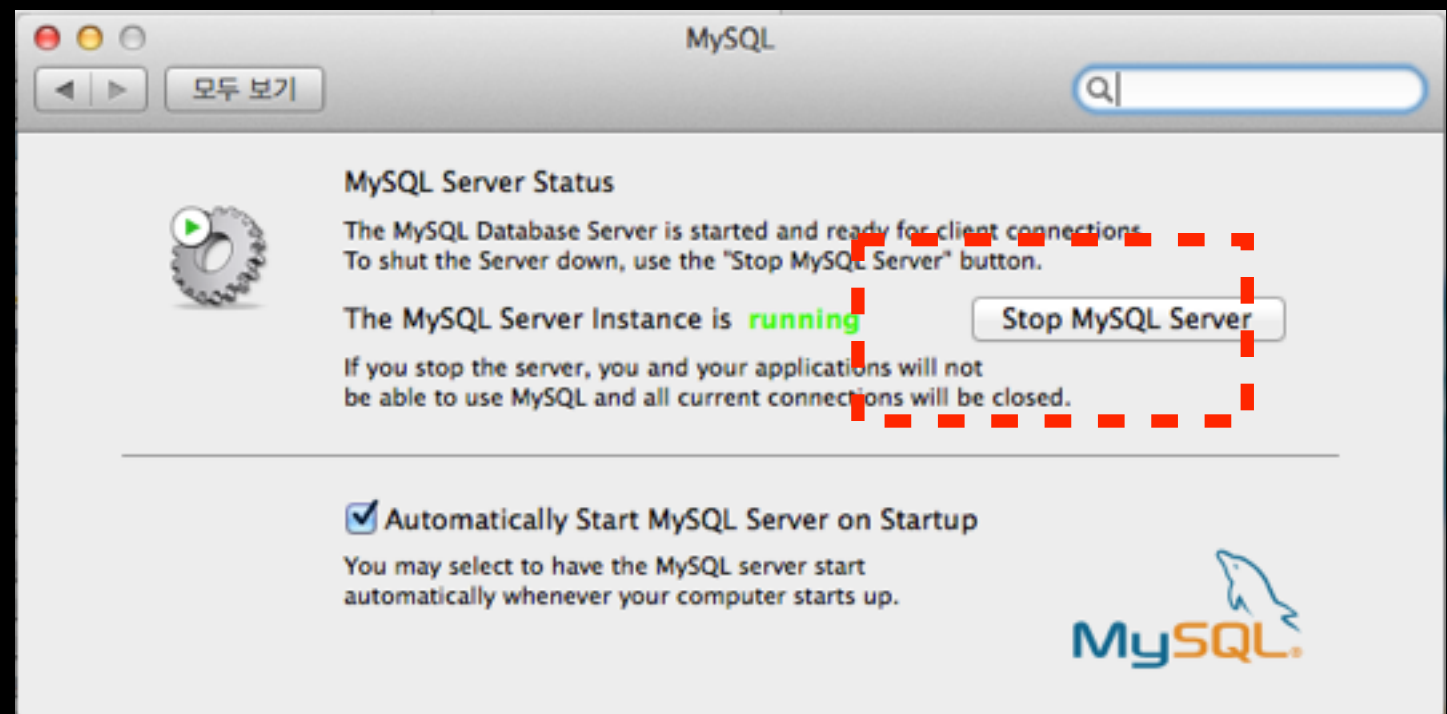


데이터베이스 설치

1 시스템 환경 설정에 MySQL 메뉴가 추가됨



2 Stop, Start MySQL Server 서버 실행 및 종료





데이터베이스 설치

MYSQL_PASSWORD 파일의 비밀번호를 루트패스워드에 넣고 실행
아래 내용 타이핑

`mysql -u root -p루트패스워드`
** -p 뒤에 띄어쓰기 없음

```
jamieui-MacBook-Pro:ch0 jamie$ mysql -u root -p루트패스워드
Warning: Using a password on the command line interface can be insecure.
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 36
Server version: 5.6.20 MySQL Community Server (GPL)

Copyright (c) 2000, 2014, Oracle and/or its affiliates. All rights reserved.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
```



데이터베이스 설치

```
mysql> CREATE USER 'abcd'@'127.0.0.1' IDENTIFIED BY '1234';

mysql> CREATE DATABASE abcd

mysql> GRANT ALL PRIVILEGES ON abcd.* TO 'abcd'@'127.0.0.1';

mysql> FLUSH PRIVILEGES;
```

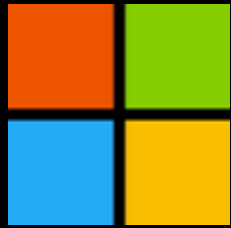
MySQL Workbench 설치

아래의 경로에서 다운로드 (원래는)

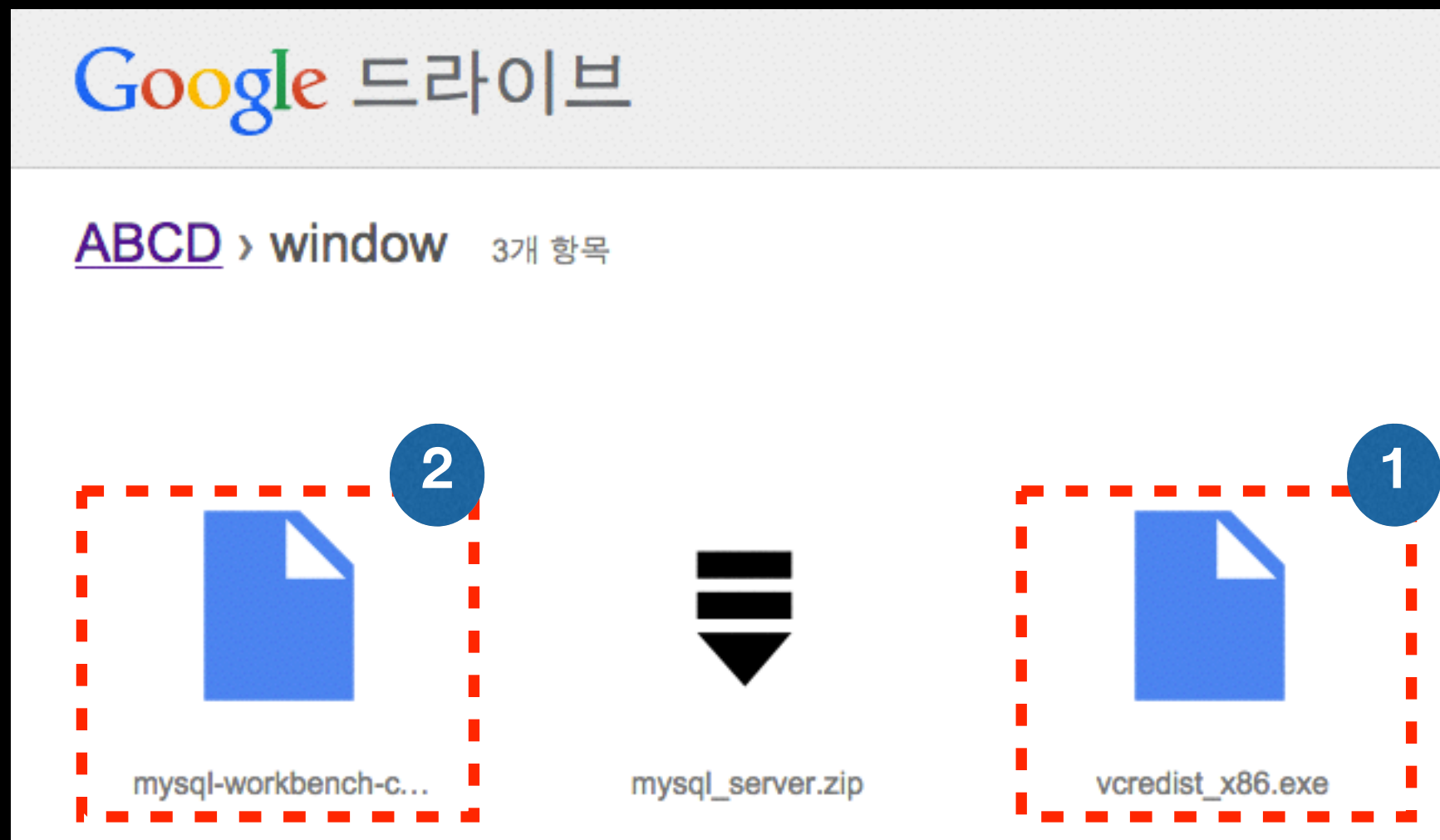
<http://www.mysql.com/products/workbench/>

시간관계상 아래의 경로에서 다운로드

https://drive.google.com/folderview?id=0B_dq0WjvHb09czFhMHY3VmtsWkk&usp=sharing

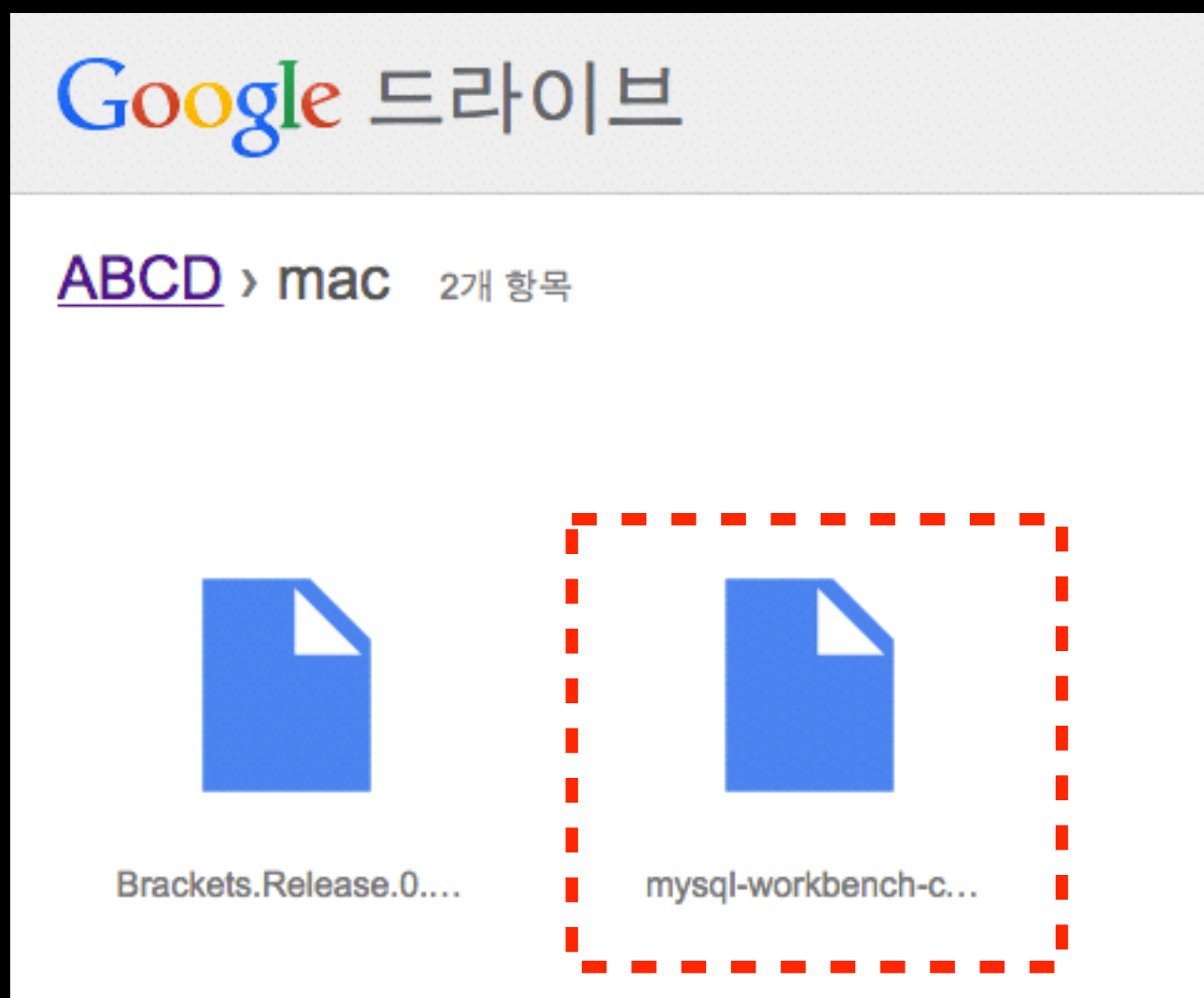


MySQL Workbench 설치

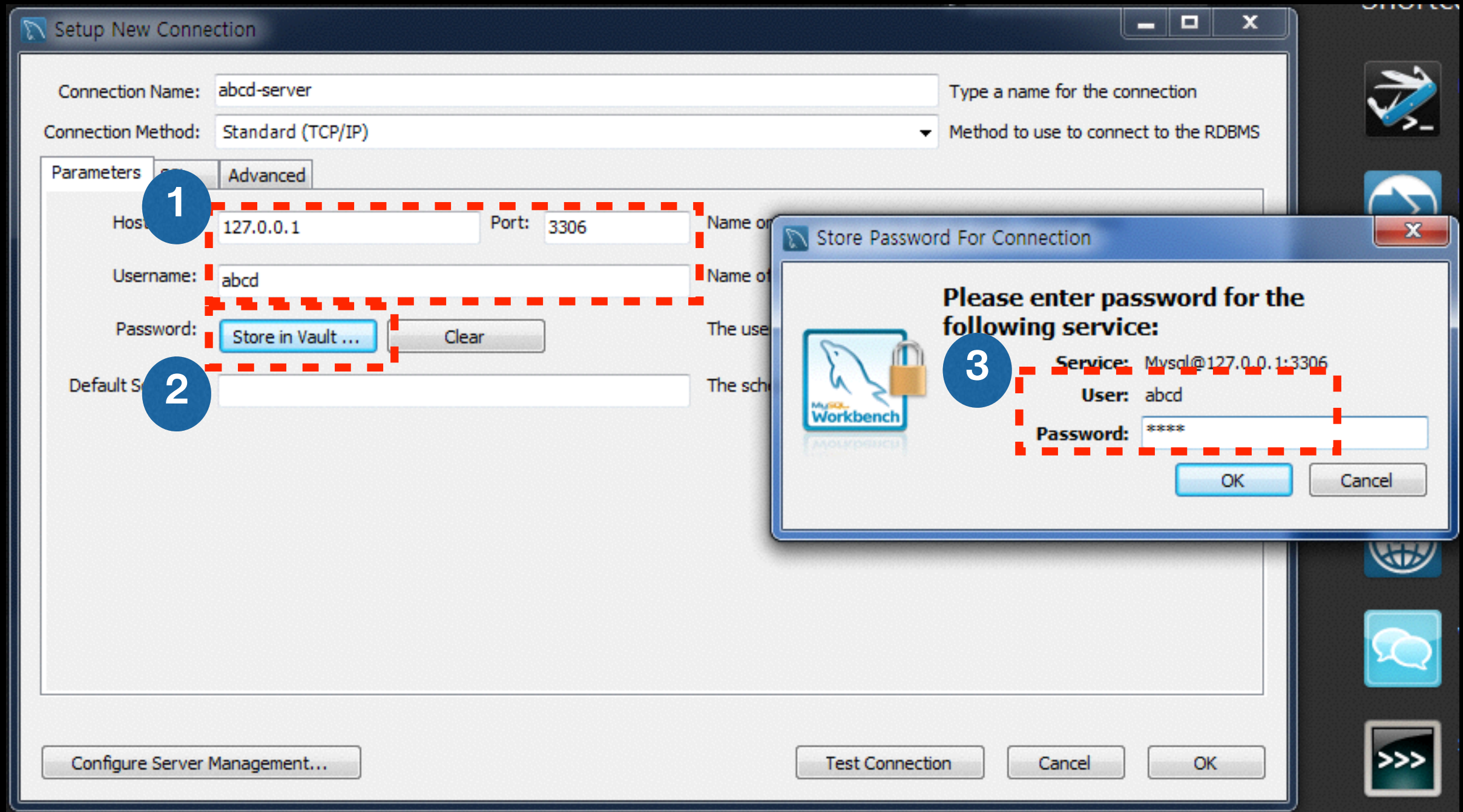




MySQL Workbench 설치

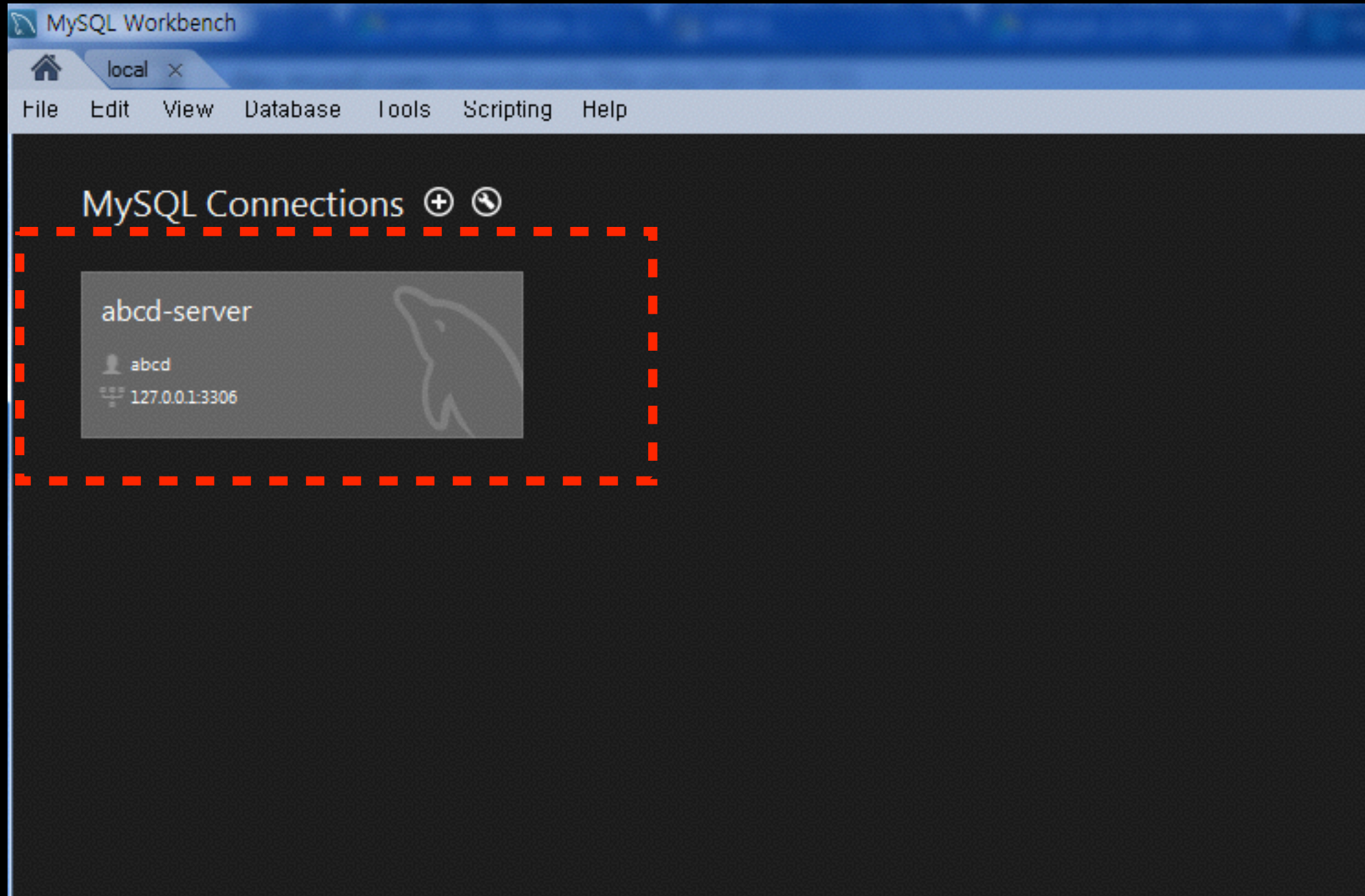


MySQL Workbench 설치

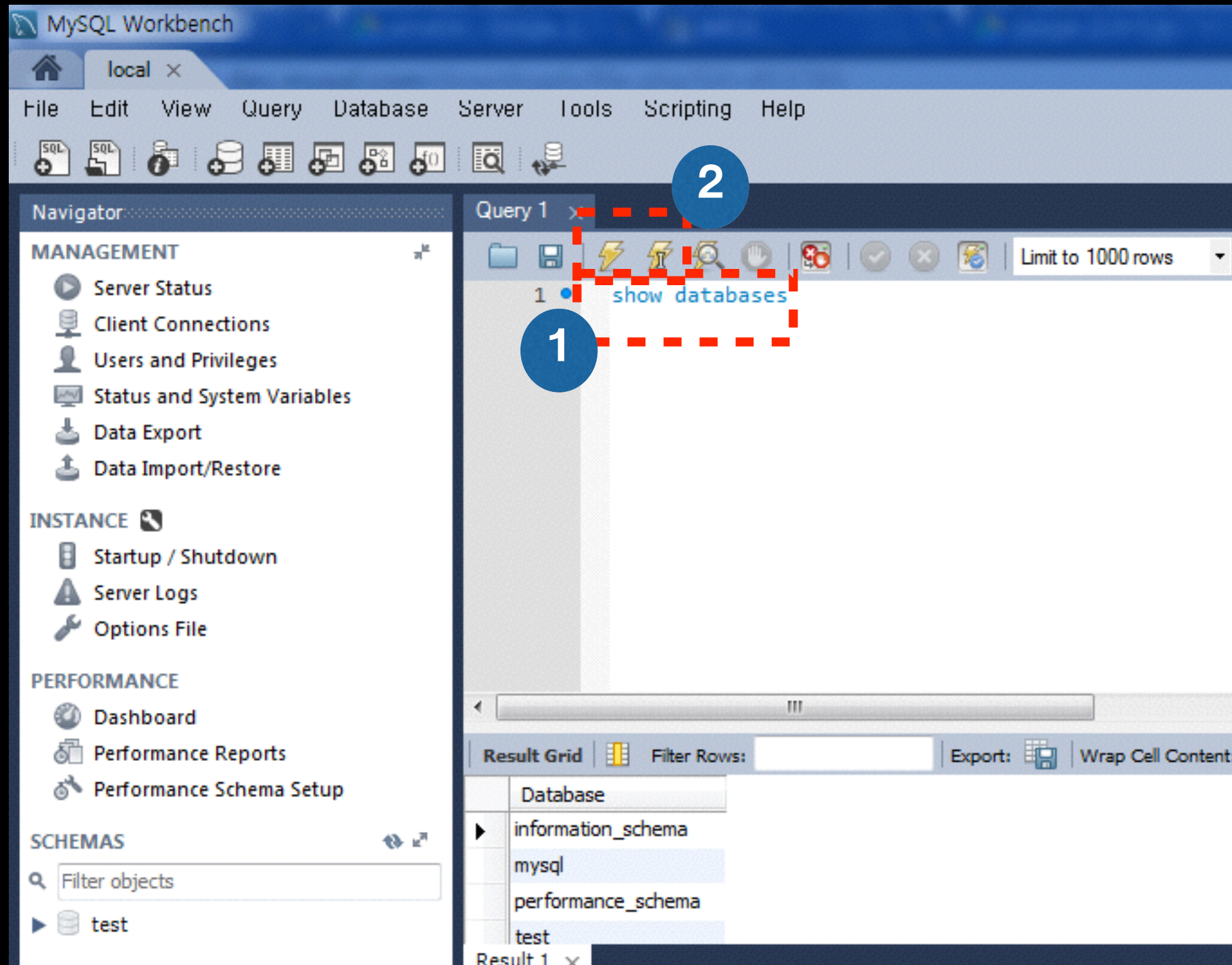


공통

MySQL Workbench 설치



MySQL Workbench 설치



2. SQL

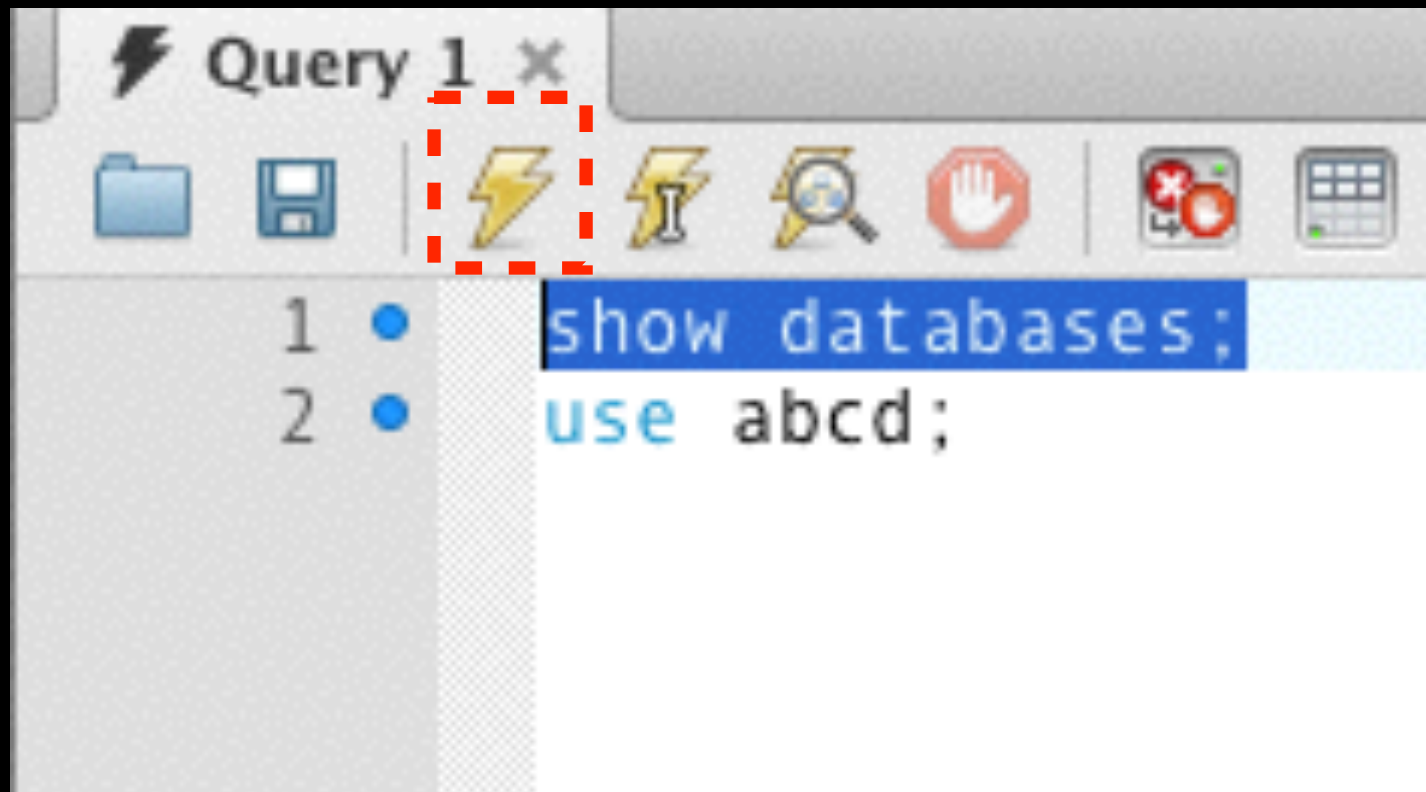
(Structured Query Language)



SQL

```
show databases;  
use abcd;
```

데이터베이스 목록을 보여줍니다.
데이터베이스를 사용합니다.



결과

Result Set Filter: <input type="text"/>		Export:
Database		
▶ information_s...		
abcd		
test		



SQL

테이블 생성

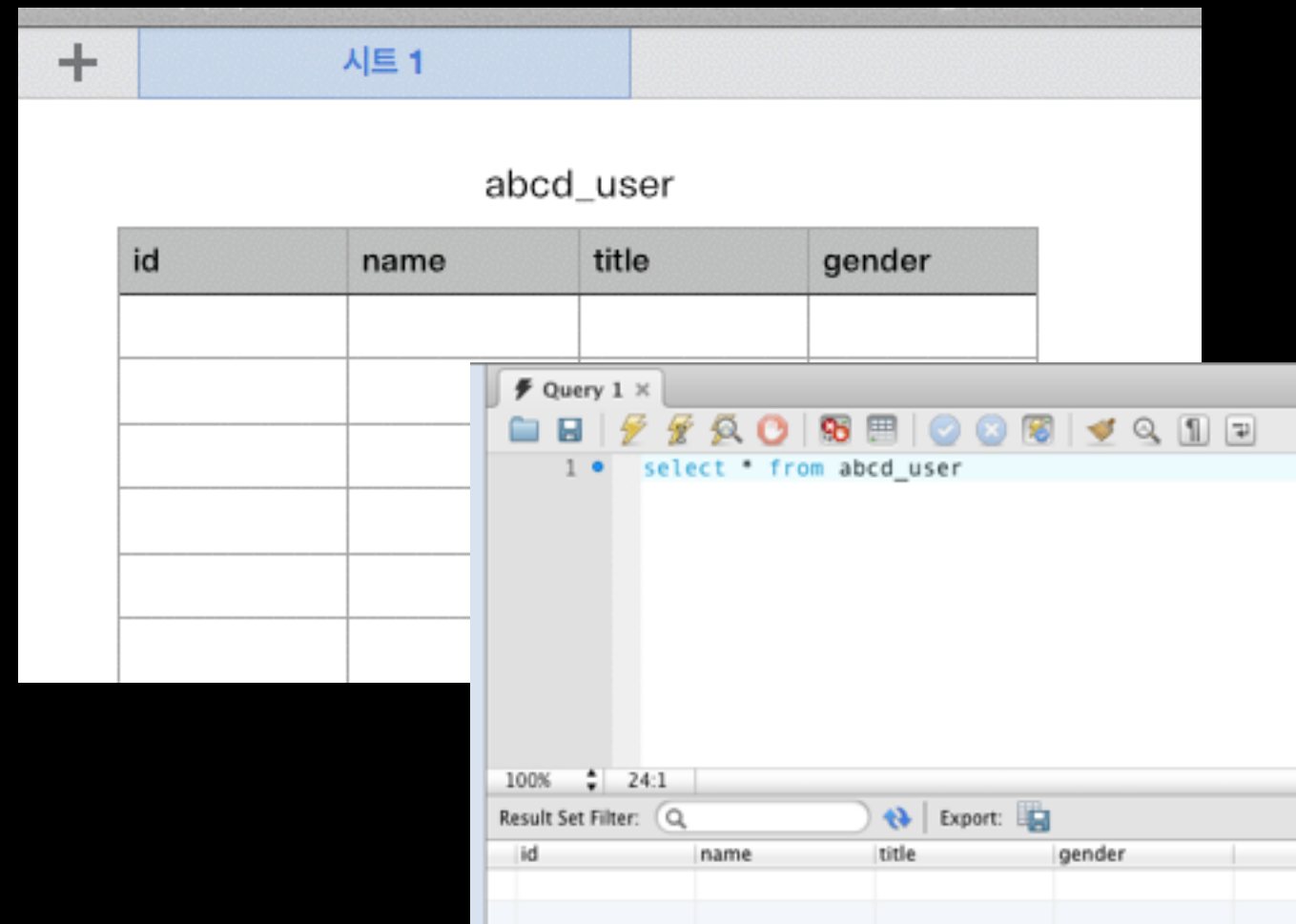
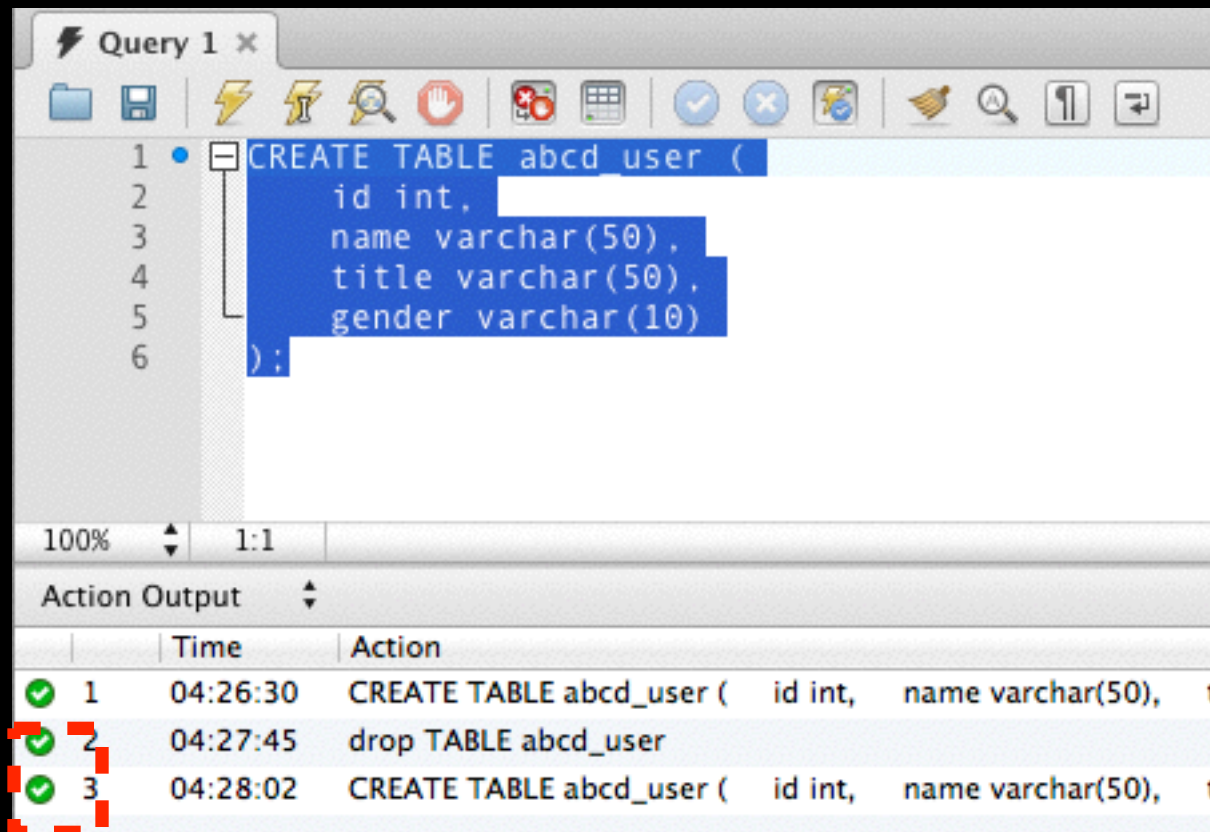
```
CREATE TABLE abcd_user (  
  id int,  
  name VARCHAR(50),  
  title VARCHAR(50),  
  gender VARCHAR(10)  
);
```

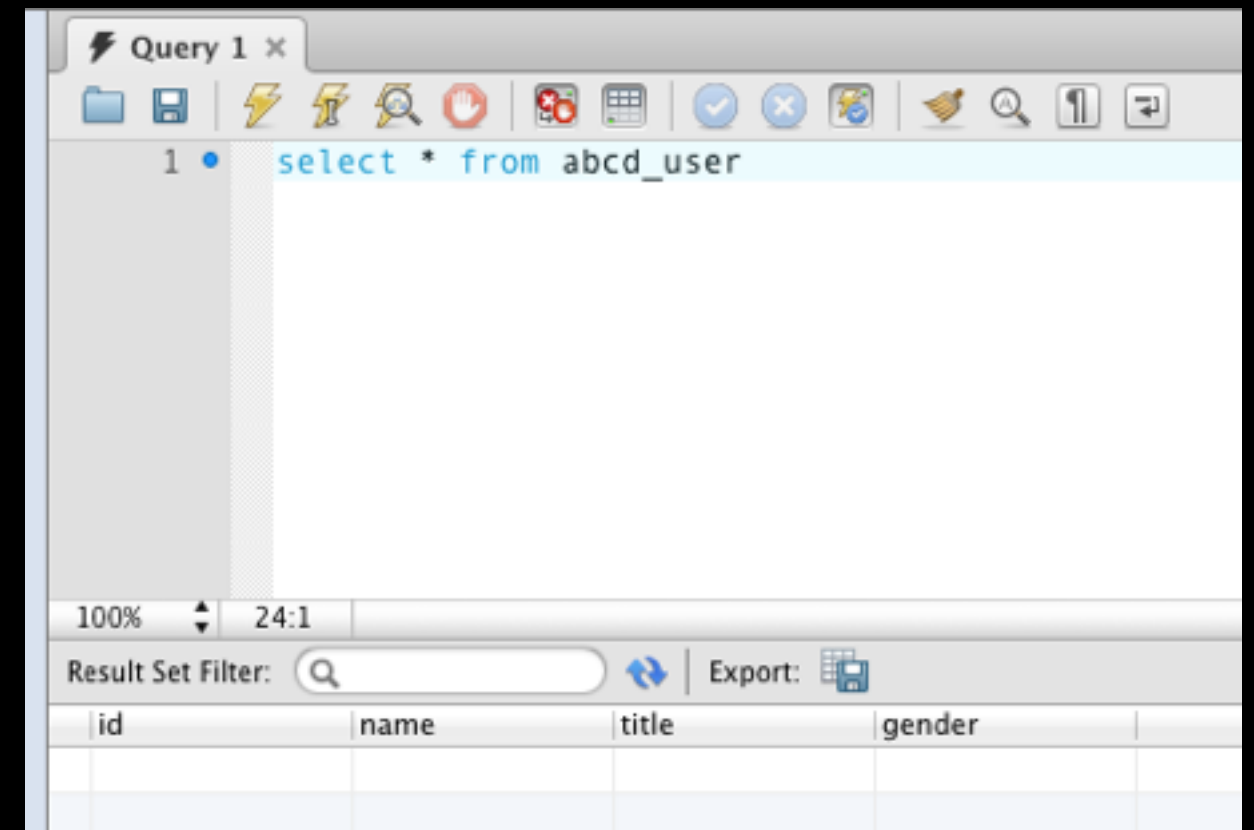
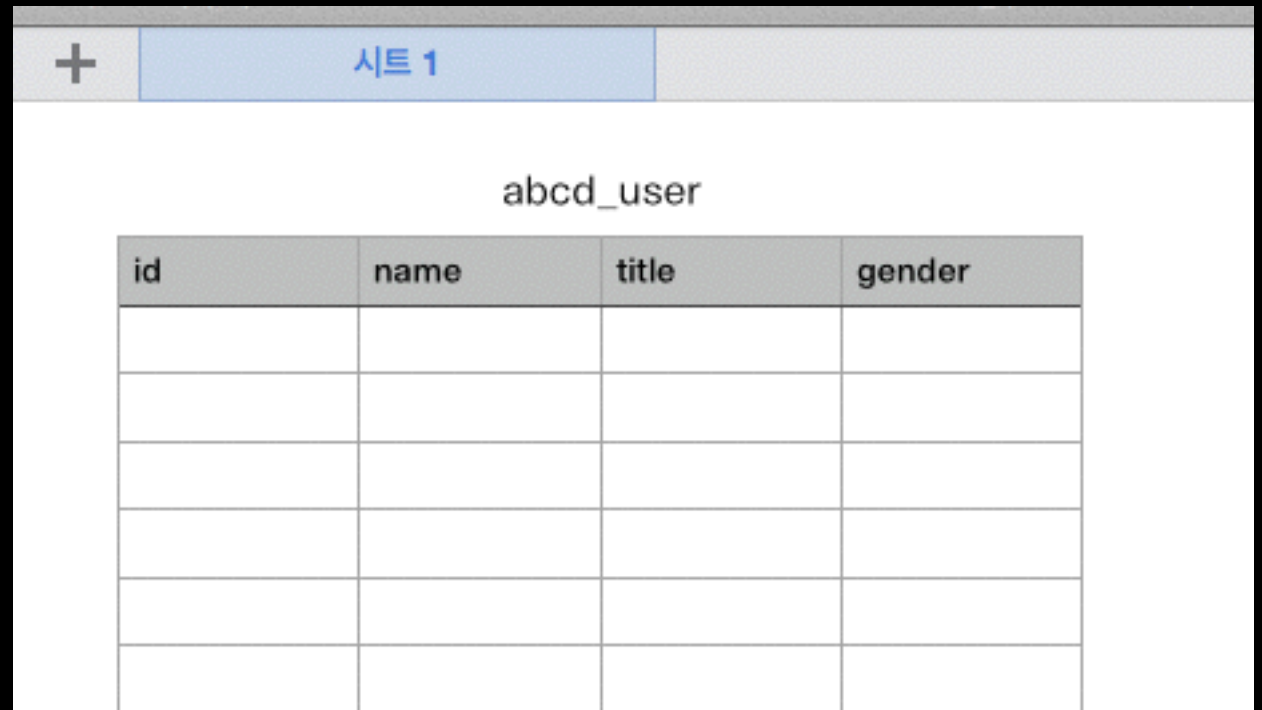
숫자형 id 컬럼

50자가 들어갈 수 있는 문자형 name 컬럼

50자가 들어갈 수 있는 문자형 title 컬럼

10자가 들어갈 수 있는 gender 컬럼







SQL

테이블 삭제 (DROP)

```
CREATE TABLE test_table (  
    id INT,  
    name VARCHAR(50)  
);
```

```
SELECT * FROM test_table;
```

```
DROP TABLE test_table;
```




SQL

데이터 입력 (INSERT)

```
INSERT  
INTO abcd_user (id, name, title, gender)  
VALUES (1, 'jamie', '사장', '남자');
```

```
INSERT  
INTO abcd_user (id, name, title, gender)  
VALUES (2, 'jerry', '쥐', '남자');
```

```
INSERT  
INTO abcd_user (id, name, title, gender)  
VALUES (3, 'tom', '고양이', '여자');
```

```
SELECT * FROM abcd_user;
```



SQL

조회 (SELECT)

```
SELECT * FROM abcd_user;
```

```
SELECT name, title FROM abcd_user;
```

```
SELECT * FROM abcd_user  
WHERE name = 'tom';
```

```
SELECT * FROM abcd_user  
WHERE id = '1';
```

```
SELECT * FROM abcd_user  
WHERE id = '1' AND name = 'tom';
```

```
SELECT * FROM abcd_user  
WHERE id = '1' OR name = 'tom';
```



SQL

갱신 (UPDATE)

```
UPDATE abcd_user  
SET name='john'  
WHERE id = 1;
```

```
UPDATE abcd_user  
SET name='anna', title='인턴'  
WHERE id = 1;
```

```
UPDATE abcd_user  
SET title='부장'  
WHERE name='anna';
```

```
UPDATE abcd_user  
SET title='낙하산';
```



SQL

```
DELETE  
FROM abcd_user  
WHERE id = 2;
```

```
DELETE  
FROM abcd_user  
WHERE name = 'john';
```

Q&A

수고하셨습니다. :D

- ABCD Foundation
<https://www.facebook.com/groups/562787713823026/>
- 한성일
<https://www.facebook.com/jamie.han.16>
iheart79@gmail.com