

〈1주차 실습〉

MySQL 설치 및 실습

Database Programming



MySQL 설치



MySQL 실행



데이터베이스 생성 및 사용



MySQL 기타 명령어

- 1) “https://dev.mysql.com/” 사이트에 접속
- 2) “MySQL Download” 클릭

The screenshot shows the MySQL Developer Zone website. The top navigation bar includes links to MySQL.COM, DOWNLOADS, DOCUMENTATION, and DEVELOPER ZONE. Below the navigation bar, there are four promotional cards for MySQL 8.0 and MySQL Database Service. On the left, a sidebar contains links to MySQL Database Service, MySQL Documentation, MySQL Downloads (highlighted with a red box and the word 'click'), MySQL Forums, MySQL Enterprise Edition, and MySQL Cluster CGE. The main content area displays 'MySQL Engineering Blogs' with several articles.

MySQL Database Service »

MySQL Documentation »

MySQL Downloads » click

MySQL Forums »

MySQL Enterprise Edition »

MySQL Cluster CGE »

MySQL Community Server

- 8.0.26 GA

MySQL Engineering Blogs

Setup Disaster Recovery for OCI MySQL Database Service

When you create a MySQL Database Service instance in OCI, you have the choice between 3 types: If you have minutes as RTO (Recovery Time Objective) in case of a failure, you must choose a High Availability instance that will deploy a Group Replication Cluster over 3 Availability Domains or 3...

How to import data from Microsoft SQL Server to MySQL Database Service

After having see how we can import data from PostgreSQL and Amazon Redshift, this time we will see how we can export data from Microsoft SQL Server and import it into MySQL Database Service in OCI. This time we will use something extra (for fun but also because it's practical): OCI Object...

How to import data from Amazon Redshift to MySQL Database Service

We saw in this previous post how to import data from PostgreSQL to MySQL Database Service. Using almost the same technique, we will now import data from Amazon Redshift and import it to a MDS instance. With Redshit we have two options to export the data to CSV files that can be imported to...

How to import data from PostgreSQL to MySQL Database Service

MySQL Database Service (aka MDS) is very popular and many users wants to benefit from the managed MySQL service and from MySQL

3) “MySQL Community Server” 클릭

MySQL Community Downloads

- MySQL Yum Repository
- MySQL APT Repository
- MySQL SUSE Repository
- **MySQL Community Server** **click**
- MySQL Cluster
- MySQL Router
- MySQL Shell
- MySQL Workbench
- MySQL Installer for Windows
- MySQL for Visual Studio
- C API (libmysqlclient)
- Connector/C++
- Connector/J
- Connector/NET
- Connector/Node.js
- Connector/ODBC
- Connector/Python
- MySQL Native Driver for PHP
- MySQL Benchmark Tool
- Time zone description tables
- Download Archives

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4) “Go to Download Page” 클릭

MySQL Community Downloads

MySQL Community Server

[General Availability \(GA\) Releases](#)[Archives](#)[Download](#)

MySQL Community Server 8.0.30

Select Operating System:

Microsoft Windows


[Looking for previous GA versions?](#)

Recommended Download:

MySQL Installer for Windows

All MySQL Products. For All Windows Platforms. In One Package.

Starting with MySQL 5.6 the MySQL Installer package replaces the standalone MSI packages.



Windows (x86, 32 & 64-bit), MySQL Installer MSI [Go to Download Page >](#) **click**

Other Downloads:

Windows (x86, 64-bit), ZIP Archive (mysql-8.0.30-winx64.zip)	8.0.30	215.9M	Download
MD5: d17b3d4bab676a2c365b82f65c9a5374 Signature			
Windows (x86, 64-bit), ZIP Archive Debug Binaries & Test Suite (mysql-8.0.30-winx64-debug-test.zip)	8.0.30	544.8M	Download
MD5: dc2127acf c9637ab9822599ea5242952 Signature			

! We suggest that you use the [MD5 checksums](#) and [GnuPG signatures](#) to verify the integrity of the packages you download.

5) Community 버전 “Download” 클릭 (web-community 버전 아님)

MySQL Community Downloads

MySQL Installer

General Availability (GA) Releases Archives

MySQL Installer 8.0.30

Select Operating System:
Microsoft Windows

Looking for previous GA versions?

Windows (x86, 32-bit), MSI Installer (mysql-installer-web-community-8.0.30.0.msi)	8.0.30	5.5M	Download
Windows (x86, 32-bit), MSI Installer (mysql-installer-community-8.0.30.0.msi)	8.0.30	448.3M	Download click

MD5: c095cf221e8023fd8391f81eadce65fb | Signature

MD5: c9cbd5d788f45605dae914392a1df eea | Signature

We suggest that you use the MD5 checksums and GnuPG signatures to verify the integrity of the packages you download.

- 6) “No thanks, just start my download” 클릭
- 7) 다운로드 완료 후, 설치 파일 실행

MySQL Community Downloads

Login Now or Sign Up for a free account.

An Oracle Web Account provides you with the following advantages:

- Fast access to MySQL software downloads
- Download technical White Papers and Presentations
- Post messages in the MySQL Discussion Forums
- Report and track bugs in the MySQL bug system

Login »

using my Oracle Web account

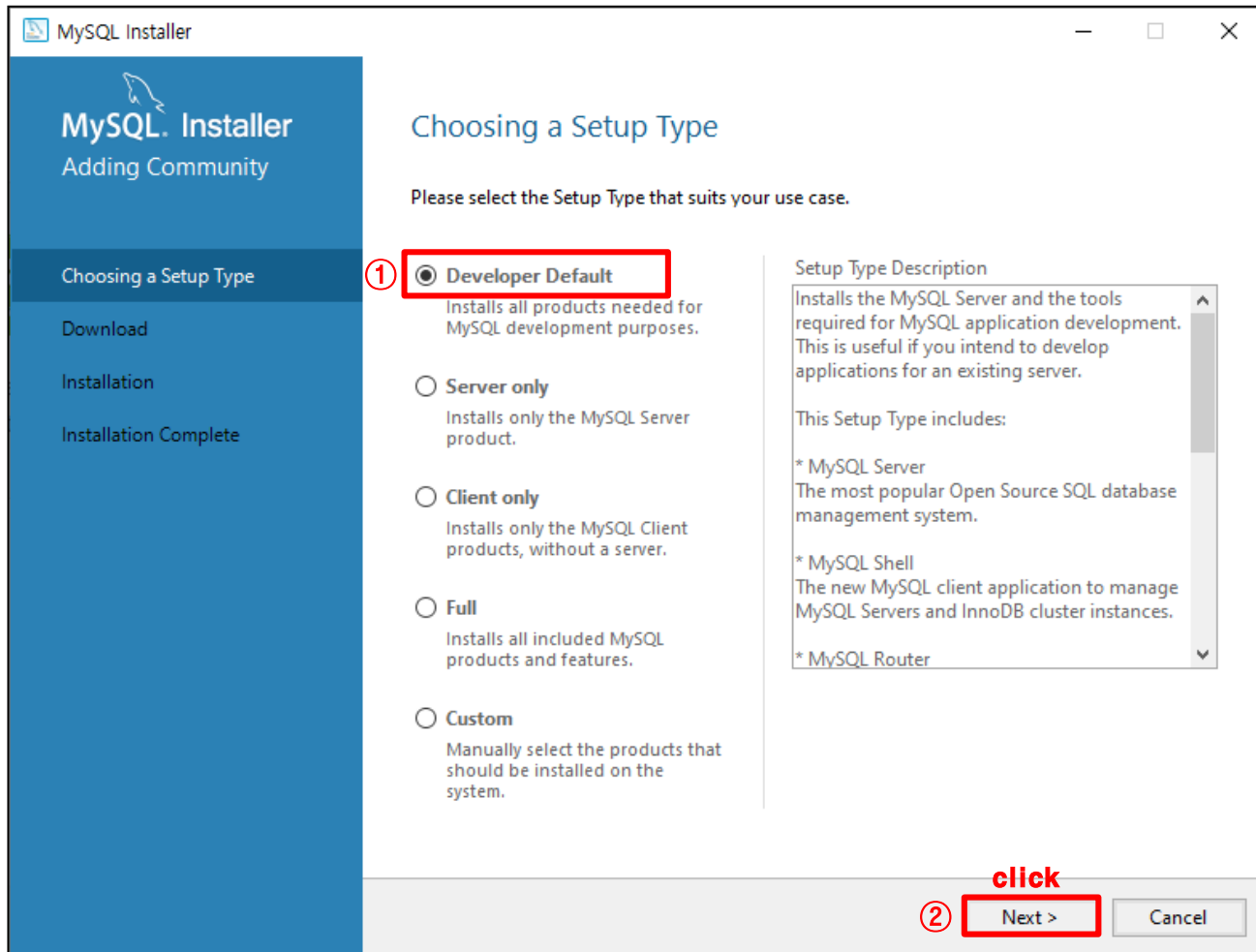
Sign Up »

for an Oracle Web account

MySQL.com is using Oracle SSO for authentication. If you already have an Oracle Web account, click the Login link. Otherwise, you can sign up for a free account by clicking the Sign Up link and following the instructions.

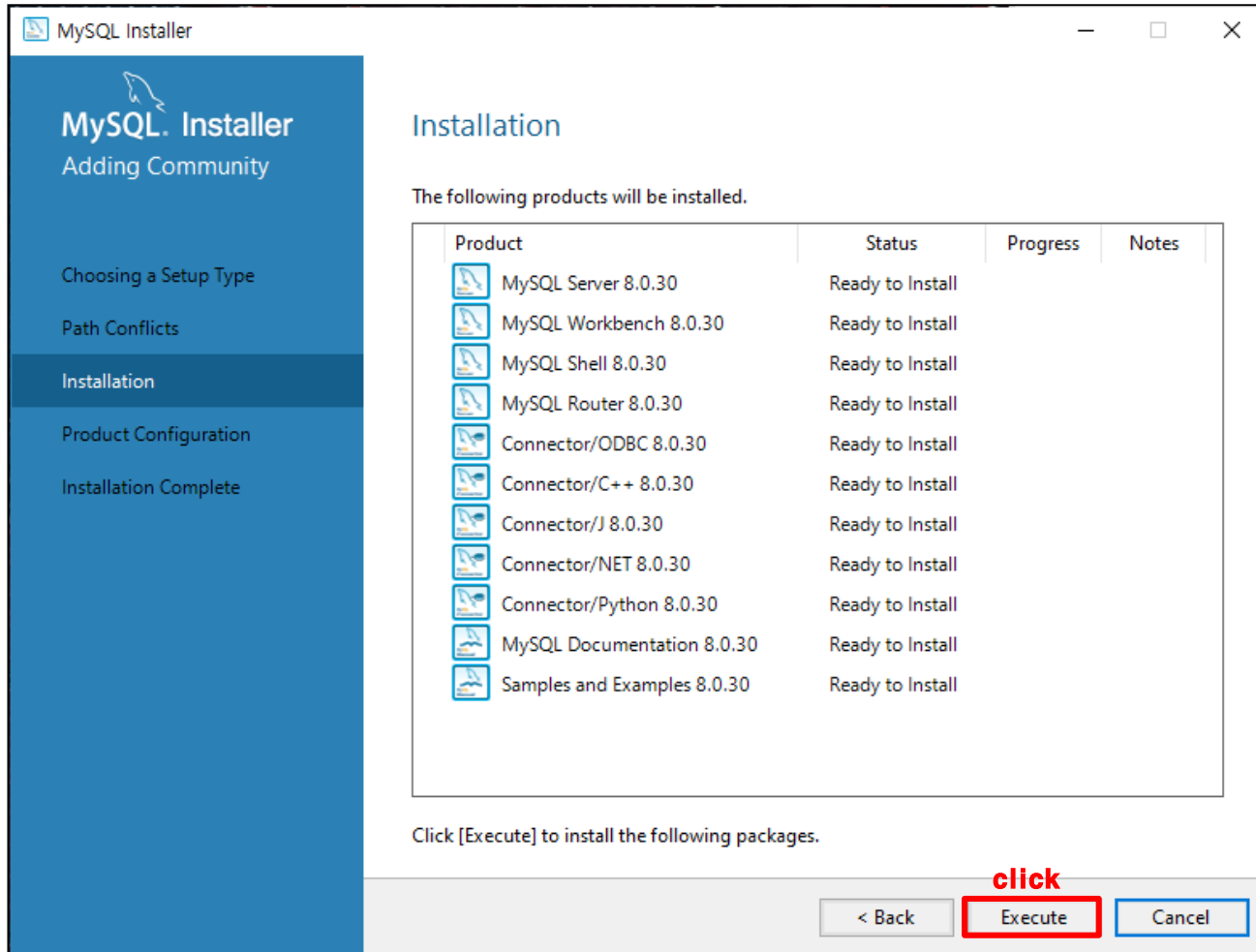
No thanks, just start my download. click

8) “Developer Default” 체크 → “Next” 클릭

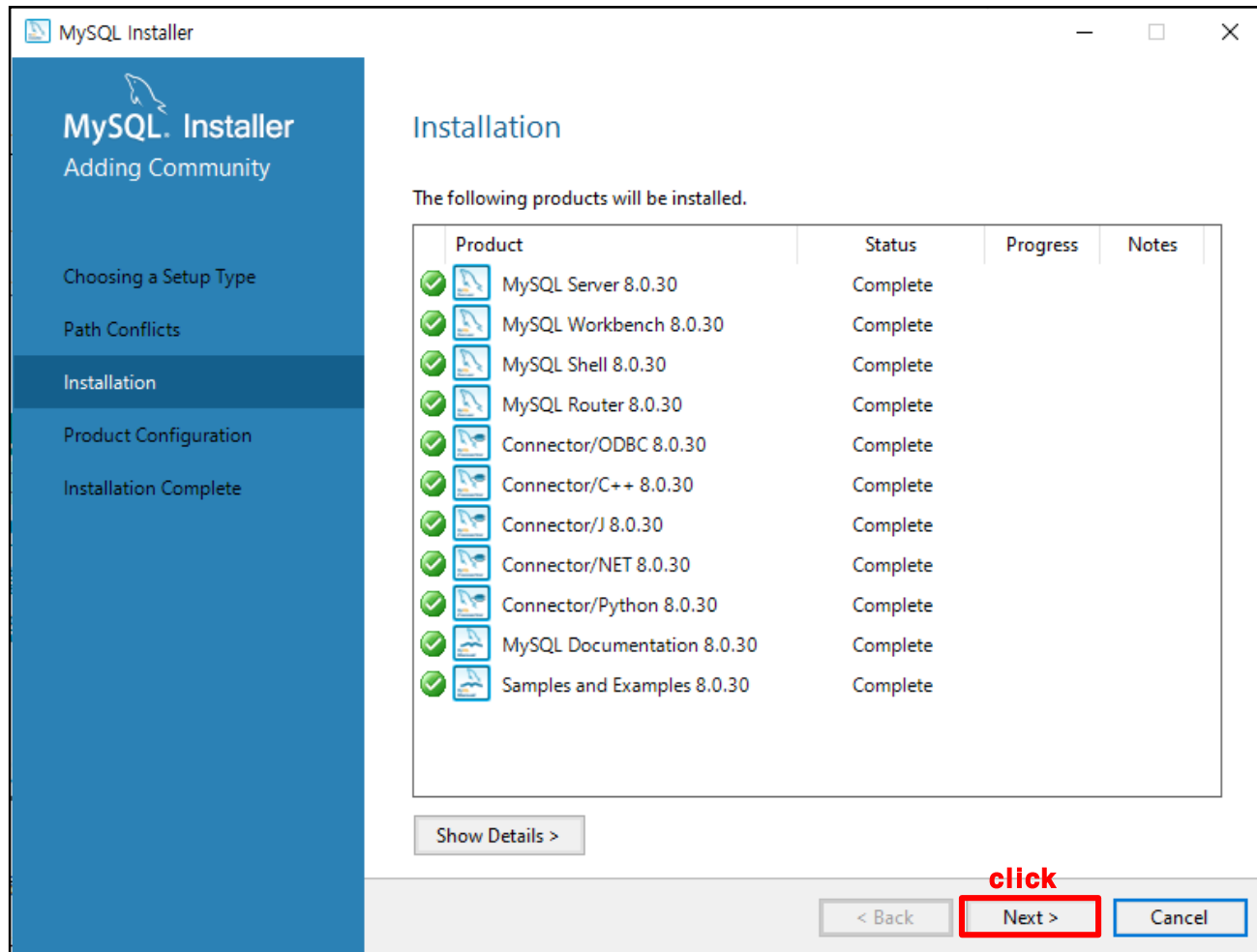


9) “Execute” 클릭

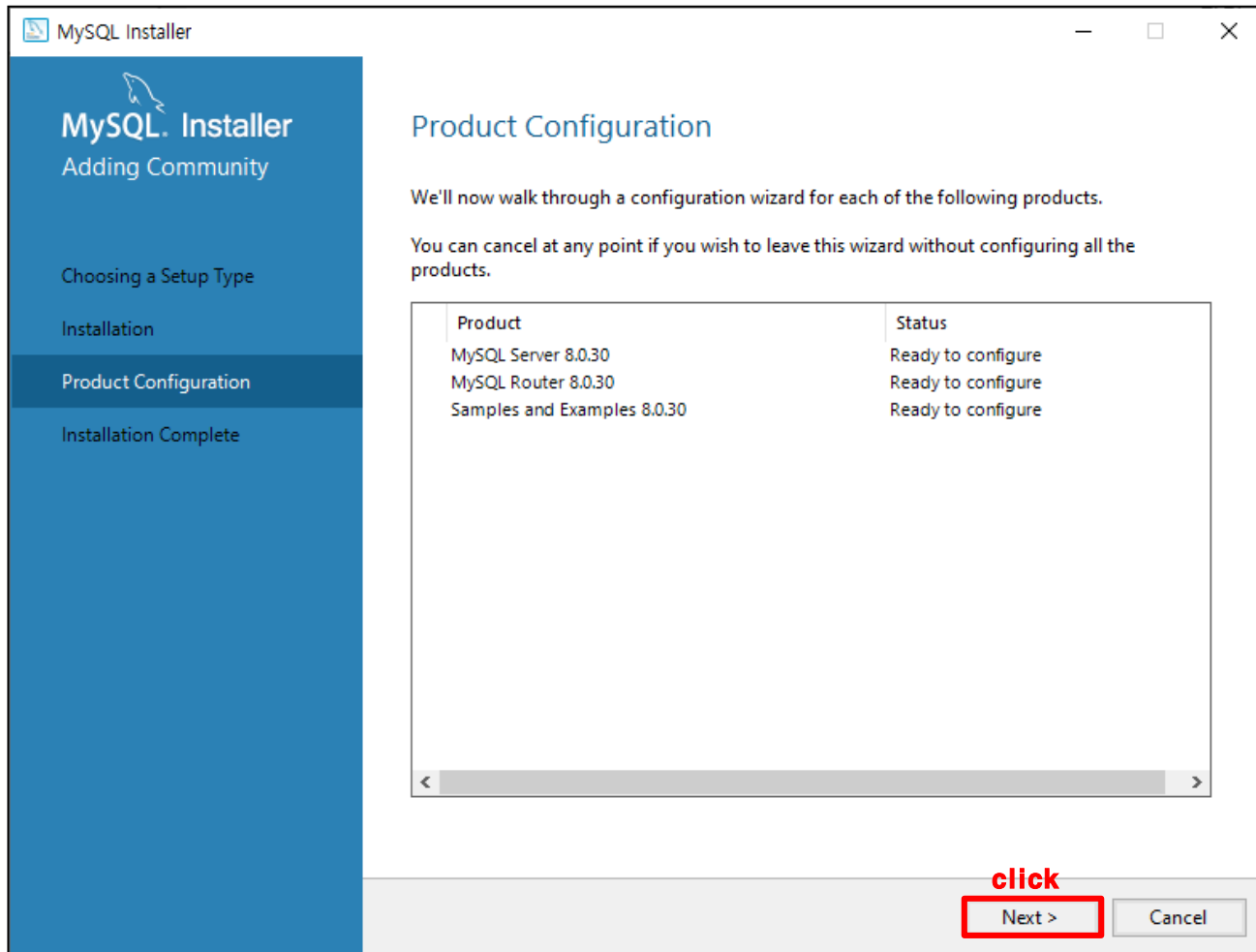
(설치 중 Error가 발생한 경우 Notes→Try again 클릭)



10) 설치 완료 후 “Next” 클릭



11) “Next” 클릭



12) 접속 기본 설정 확인 후 “Next” 클릭

MySQL Installer

MySQL Server 8.0.30

Type and Networking

Authentication Method

Accounts and Roles

Windows Service

Apply Configuration

Type and Networking

Server Configuration Type

Choose the correct server configuration type for this MySQL Server installation. This setting will define how much system resources are assigned to the MySQL Server instance.

Config Type: **Development Computer**

Connectivity

Use the following controls to select how you would like to connect to this server.

☒ TCP/IP Port: **3306** X Protocol Port: **33060**

☒ Open Windows Firewall ports for network access

☐ Named Pipe Pipe Name: **MYSQL**

☐ Shared Memory Memory Name: **MYSQL**

Advanced Configuration

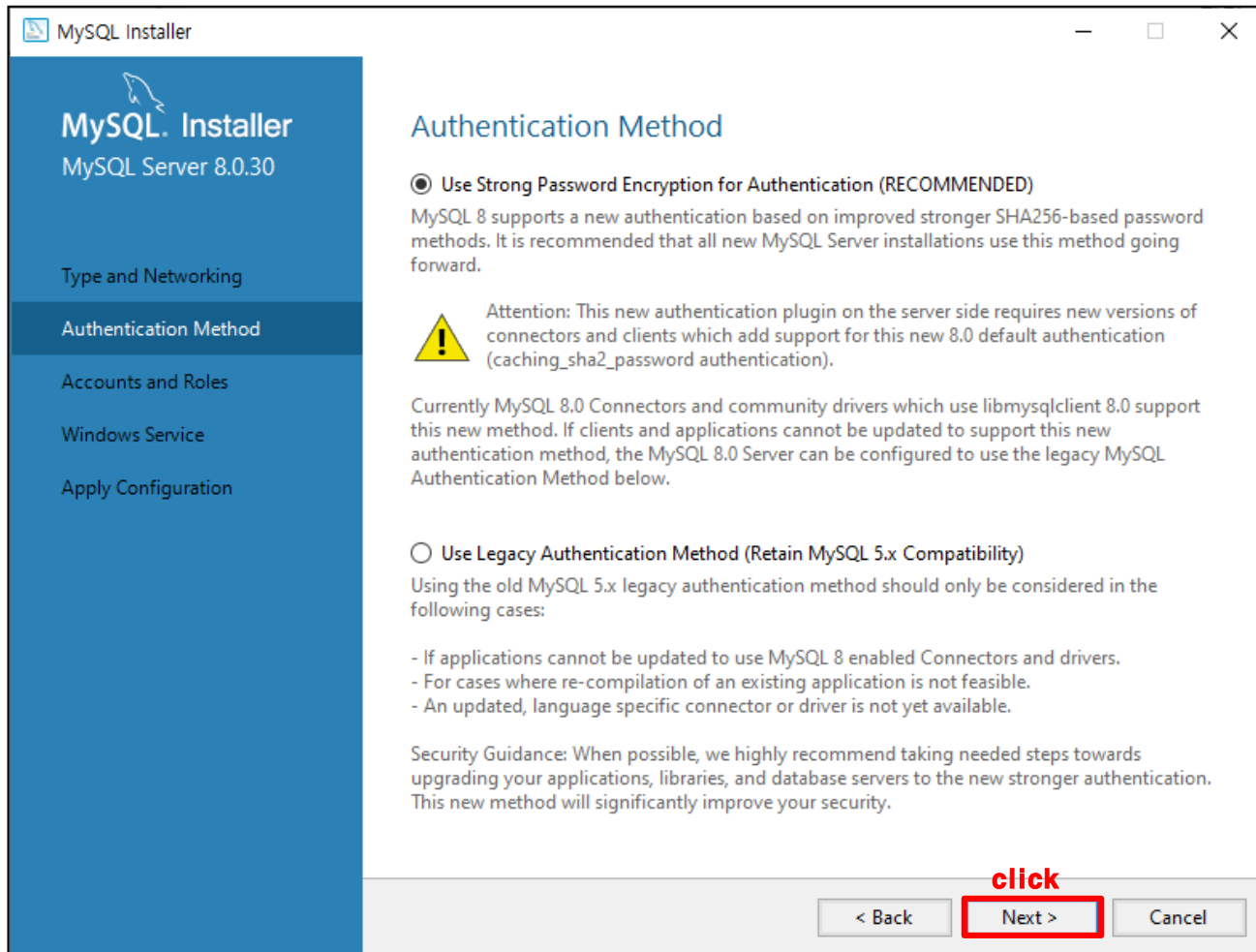
Select the check box below to get additional configuration pages where you can set advanced and logging options for this server instance.

☐ Show Advanced and Logging Options

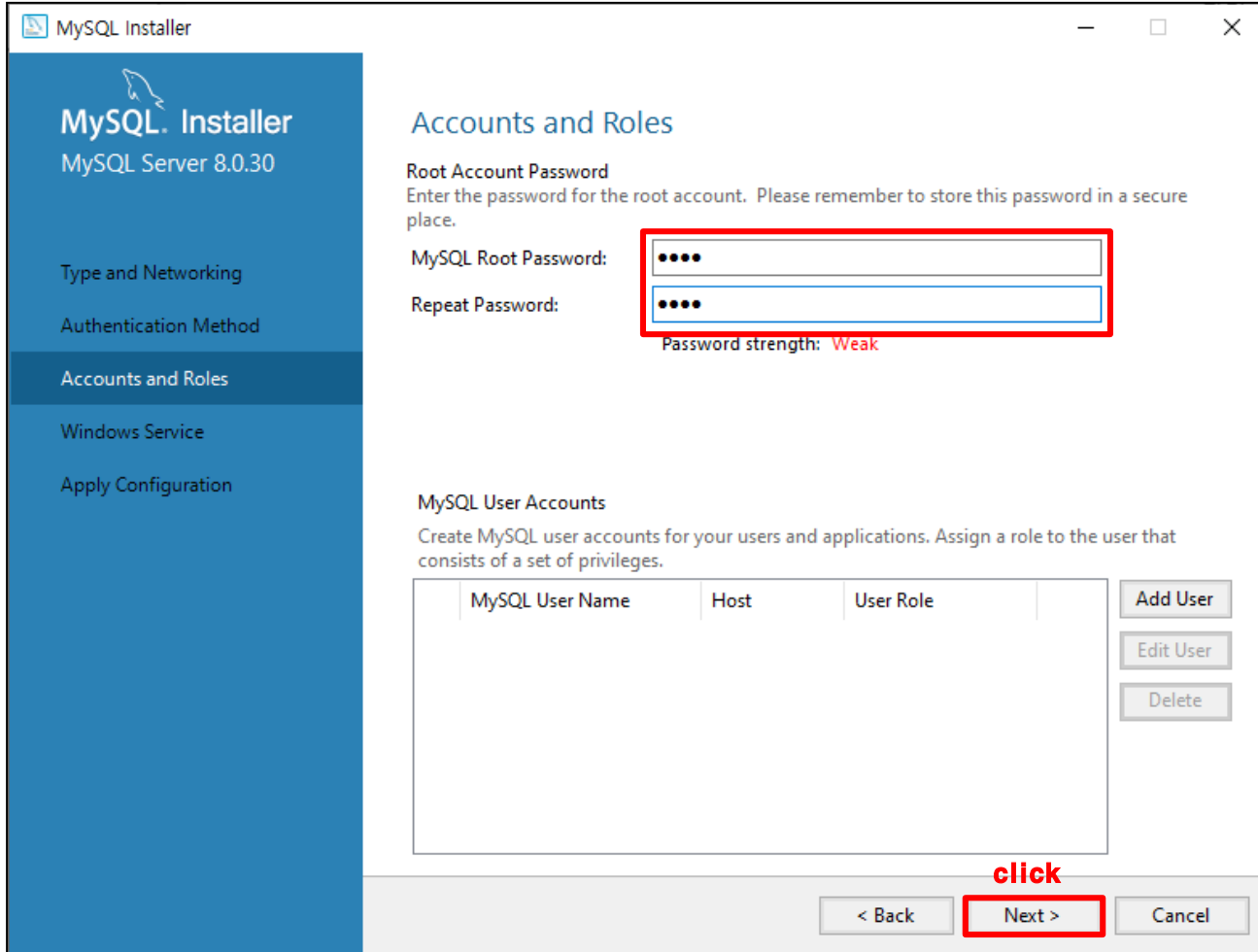
click

Next > Cancel

13) “Next” 클릭



14) Password 입력 → “Next” 클릭 (Password를 반드시 기억해야 함)



MySQL Installer

MySQL Server 8.0.30

Type and Networking

Authentication Method

Accounts and Roles

Windows Service

Apply 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 User Name	Host	User Role
-----------------	------	-----------

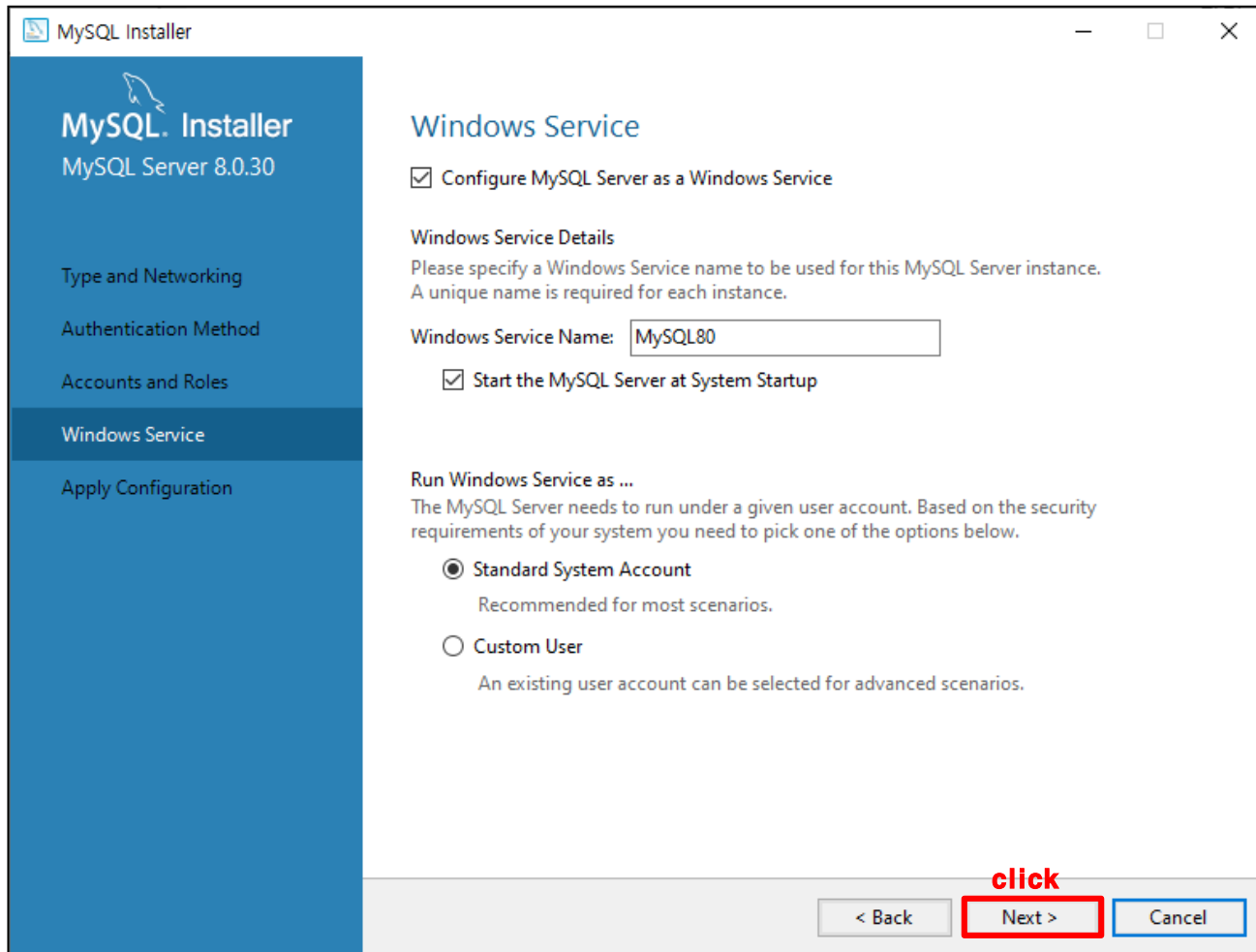
Add User

Edit User

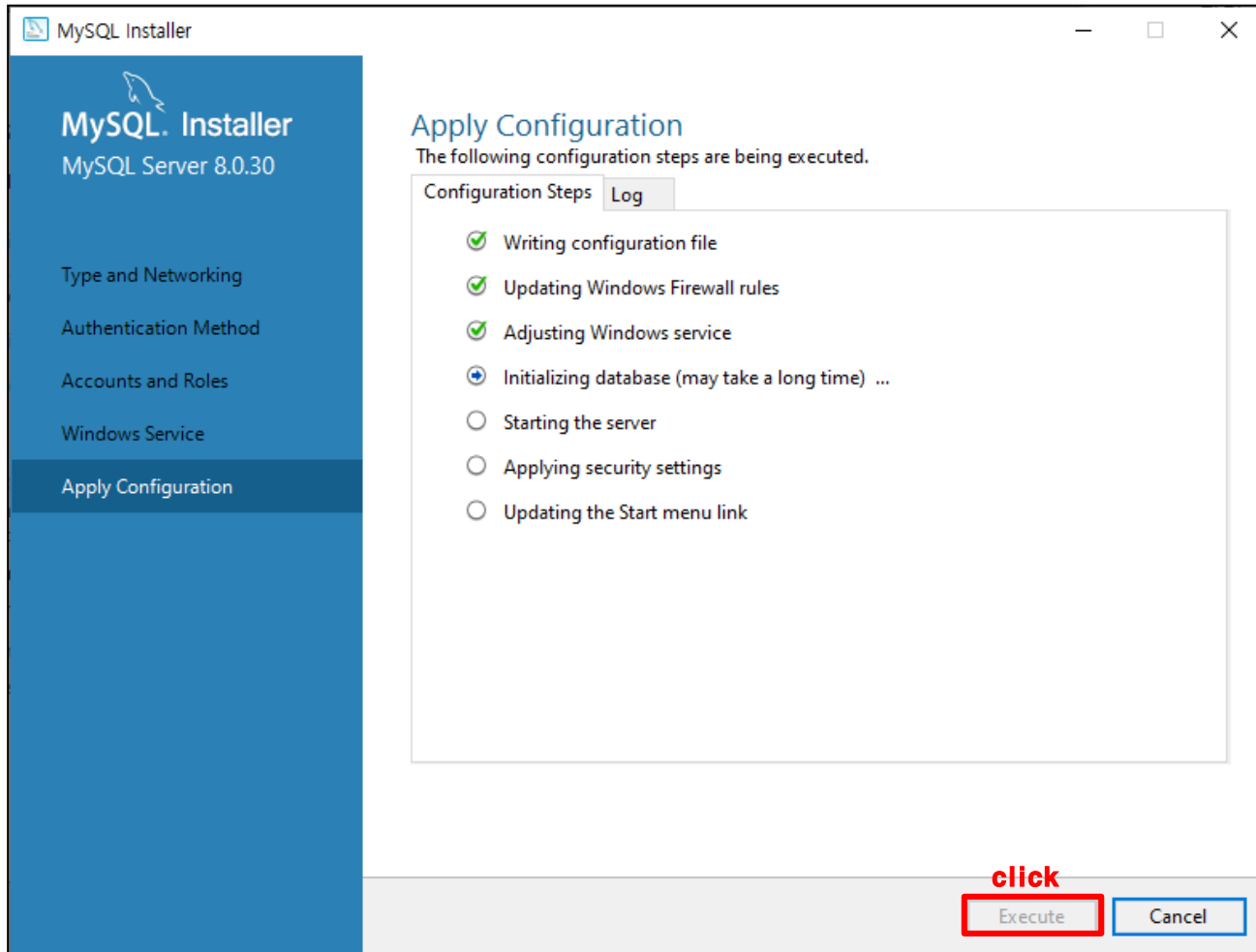
Delete

< Back **click** Next > Cancel

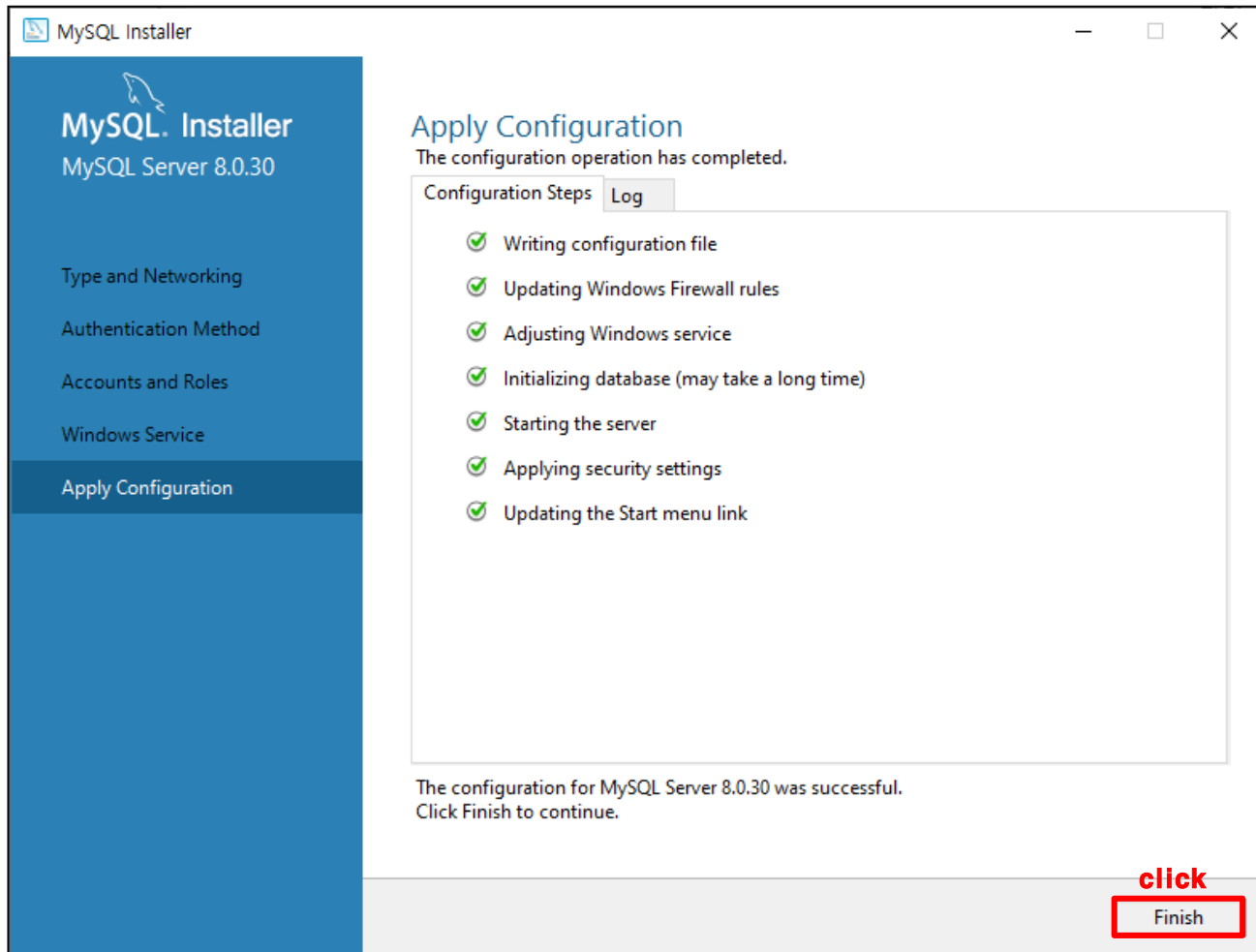
15) “Next” 클릭



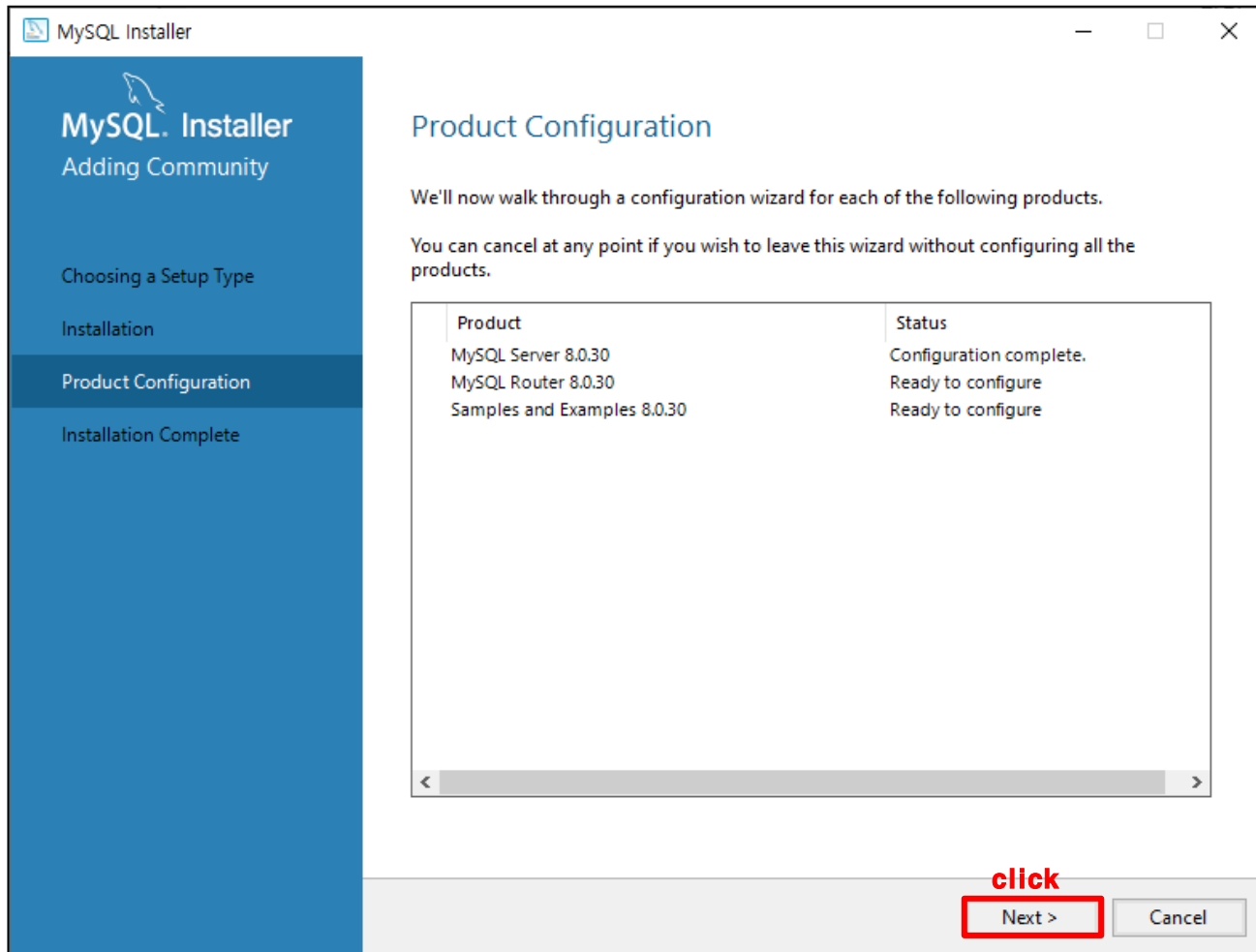
16) “Execute” 클릭



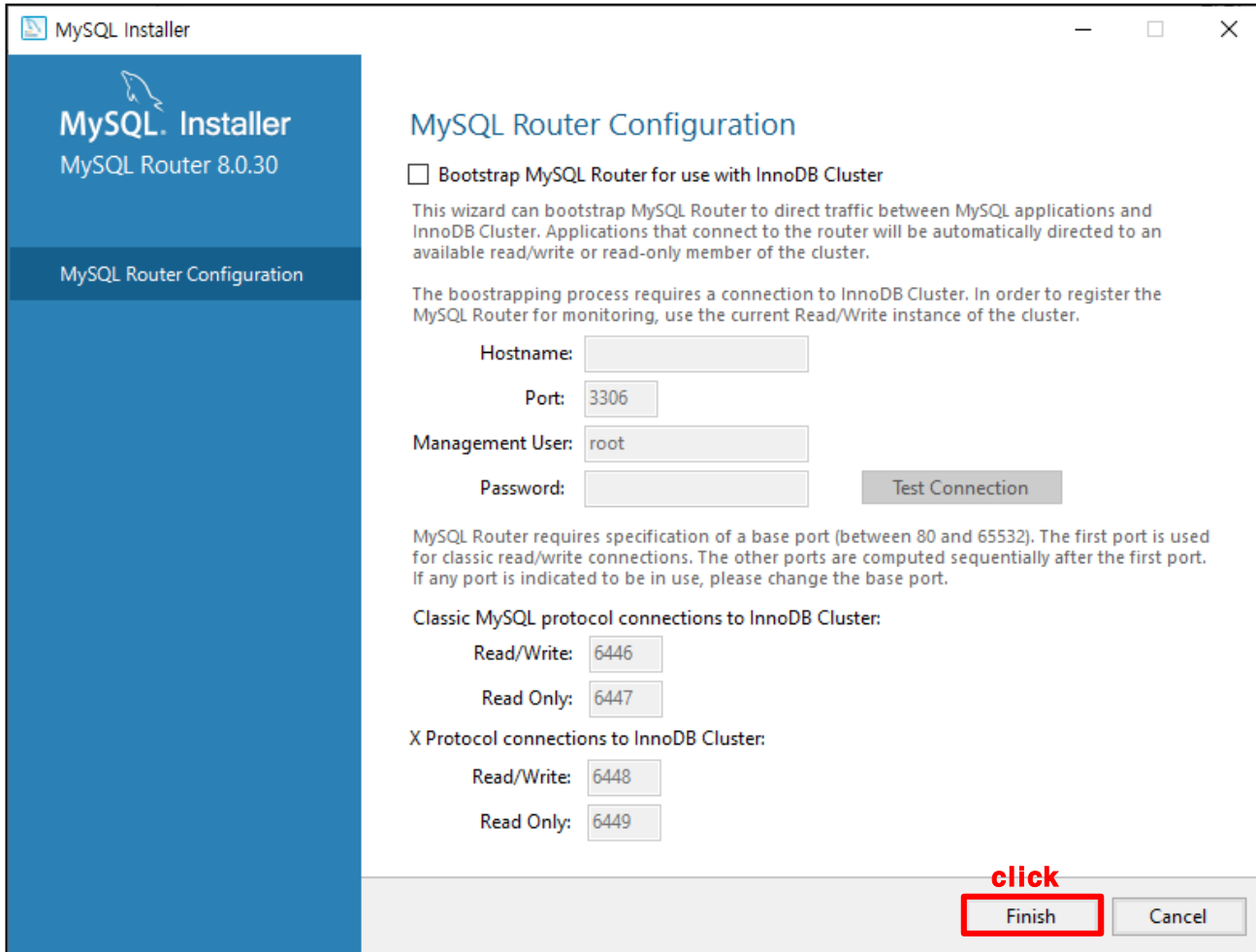
17) “Finish” 클릭



18) “Next” 클릭



19) “Finish” 클릭



The image shows the 'MySQL Router Configuration' window of the MySQL Installer. The window has a blue sidebar on the left with the MySQL logo and the text 'MySQL Installer' and 'MySQL Router 8.0.30'. The main area is white and contains the following content:

MySQL Router Configuration

☐ Bootstrap MySQL Router for use with InnoDB Cluster

This wizard can bootstrap MySQL Router to direct traffic between MySQL applications and InnoDB Cluster. Applications that connect to the router will be automatically directed to an available read/write or read-only member of the cluster.

The bootstrapping process requires a connection to InnoDB Cluster. In order to register the MySQL Router for monitoring, use the current Read/Write instance of the cluster.

Hostname:

Port:

Management User:

Password:

MySQL Router requires specification of a base port (between 80 and 65532). The first port is used for classic read/write connections. The other ports are computed sequentially after the first port. If any port is indicated to be in use, please change the base port.

Classic MySQL protocol connections to InnoDB Cluster:

Read/Write:

Read Only:

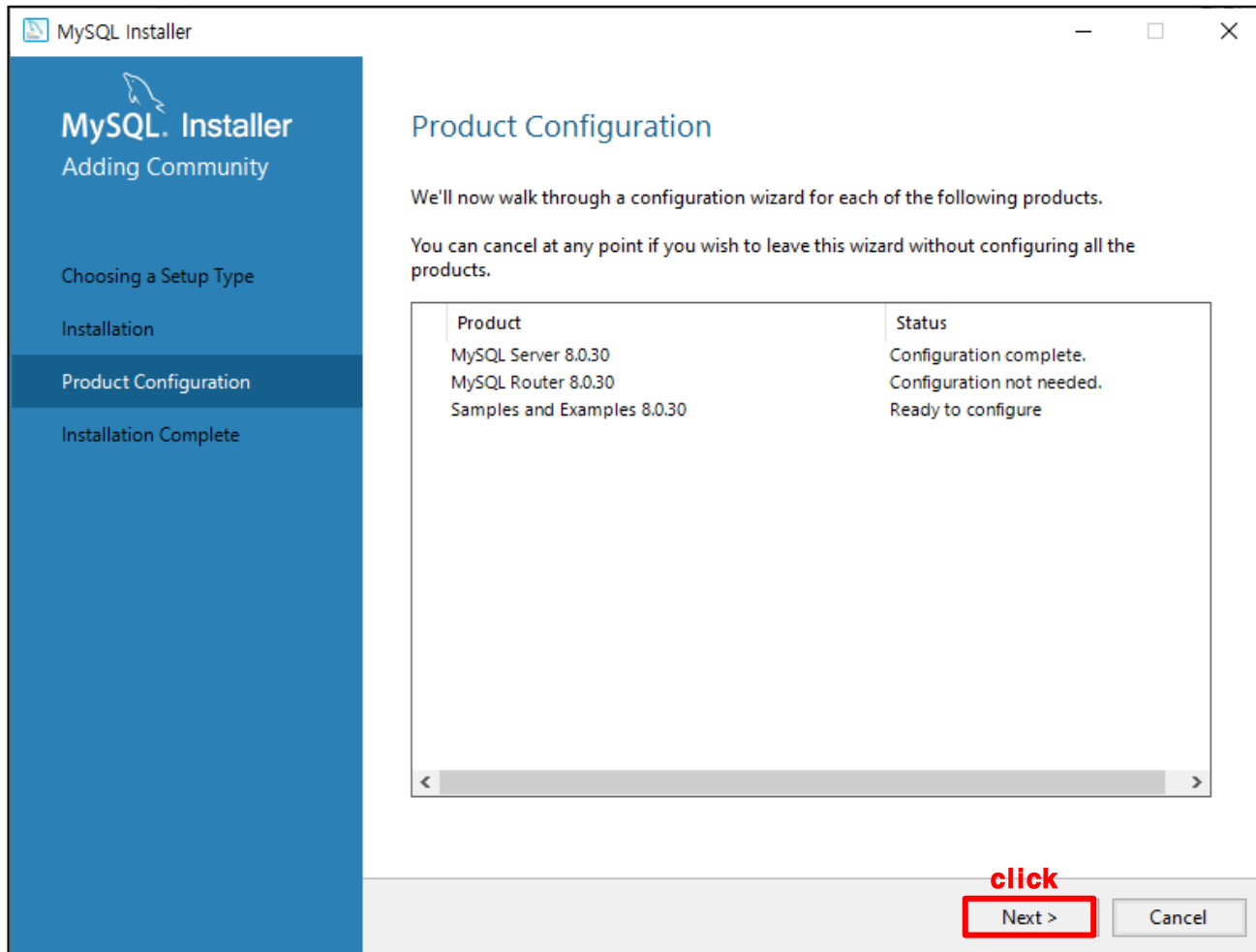
X Protocol connections to InnoDB Cluster:

Read/Write:

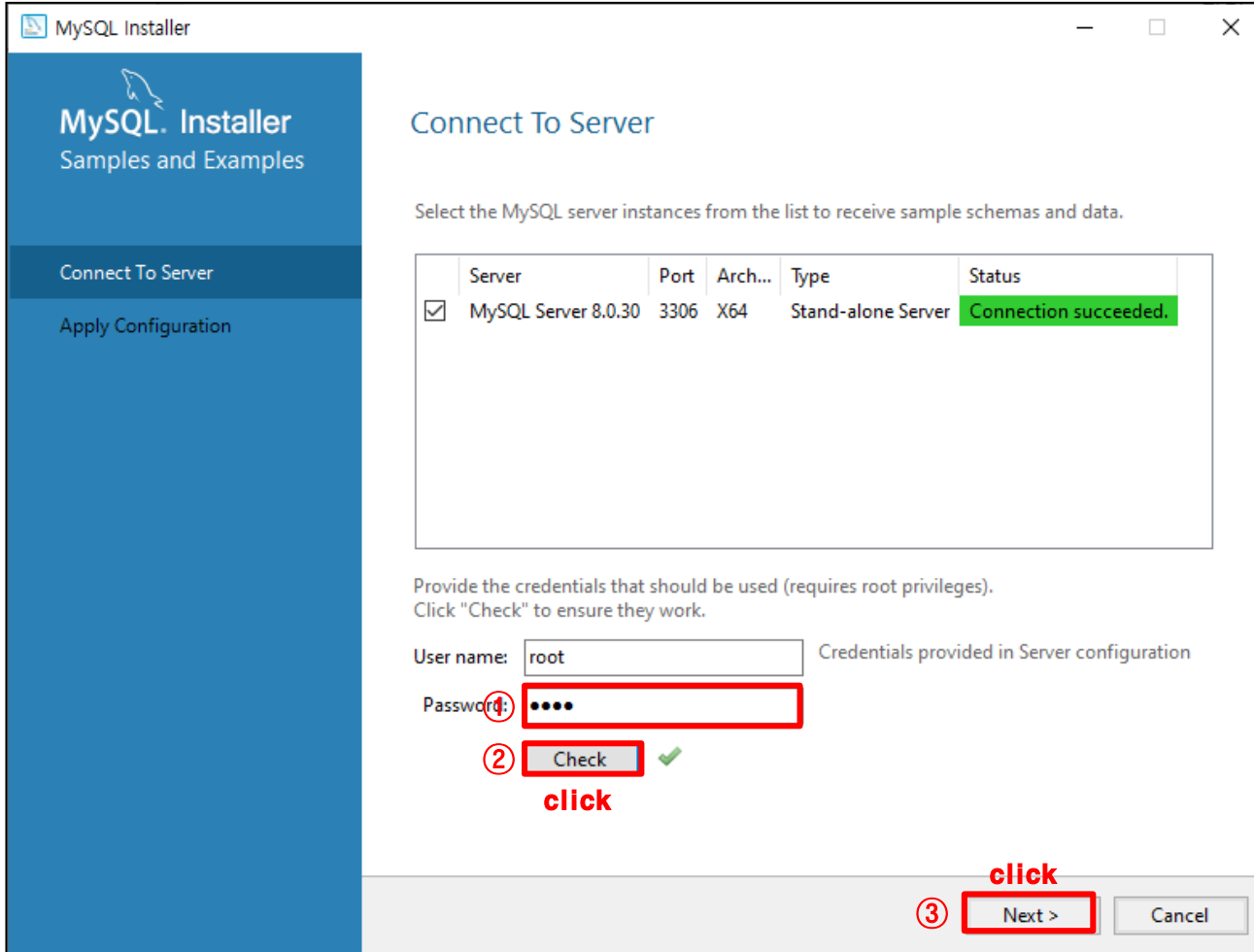
Read Only:

At the bottom right, there are two buttons: 'Finish' and 'Cancel'. The 'Finish' button is highlighted with a red rectangle and the word 'click' in red text above it.

20) “Next” 클릭



21) Password 입력 후 “Check” 클릭 → “Next” 클릭 (Password는 16번 단계에서 설정한 Password)



The screenshot shows the 'MySQL Installer' window, specifically the 'Connect To Server' step. The left sidebar has 'Connect To Server' selected. The main area shows a table of available MySQL server instances. One instance, 'MySQL Server 8.0.30', is selected with a checkmark, and its status is 'Connection succeeded.'. Below the table, there are fields for 'User name' (root) and 'Password' (masked with dots). A red box highlights the 'Password' field. Below the password field, a red circle with the number '2' is next to the 'Check' button, which has a green checkmark next to it. The text 'click' is written in red below the 'Check' button. At the bottom right, a red circle with the number '3' is next to the 'Next >' button, which has a red box around it. The text 'click' is written in red above the 'Next >' button. The 'Cancel' button is also visible.

MySQL Installer

MySQL. Installer
Samples and Examples

Connect To Server

Apply Configuration

Connect To Server

Select the MySQL server instances from the list to receive sample schemas and data.

Server	Port	Arch...	Type	Status
<input checked="" type="checkbox"/> MySQL Server 8.0.30	3306	X64	Stand-alone Server	Connection succeeded.

Provide the credentials that should be used (requires root privileges).
Click "Check" to ensure they work.

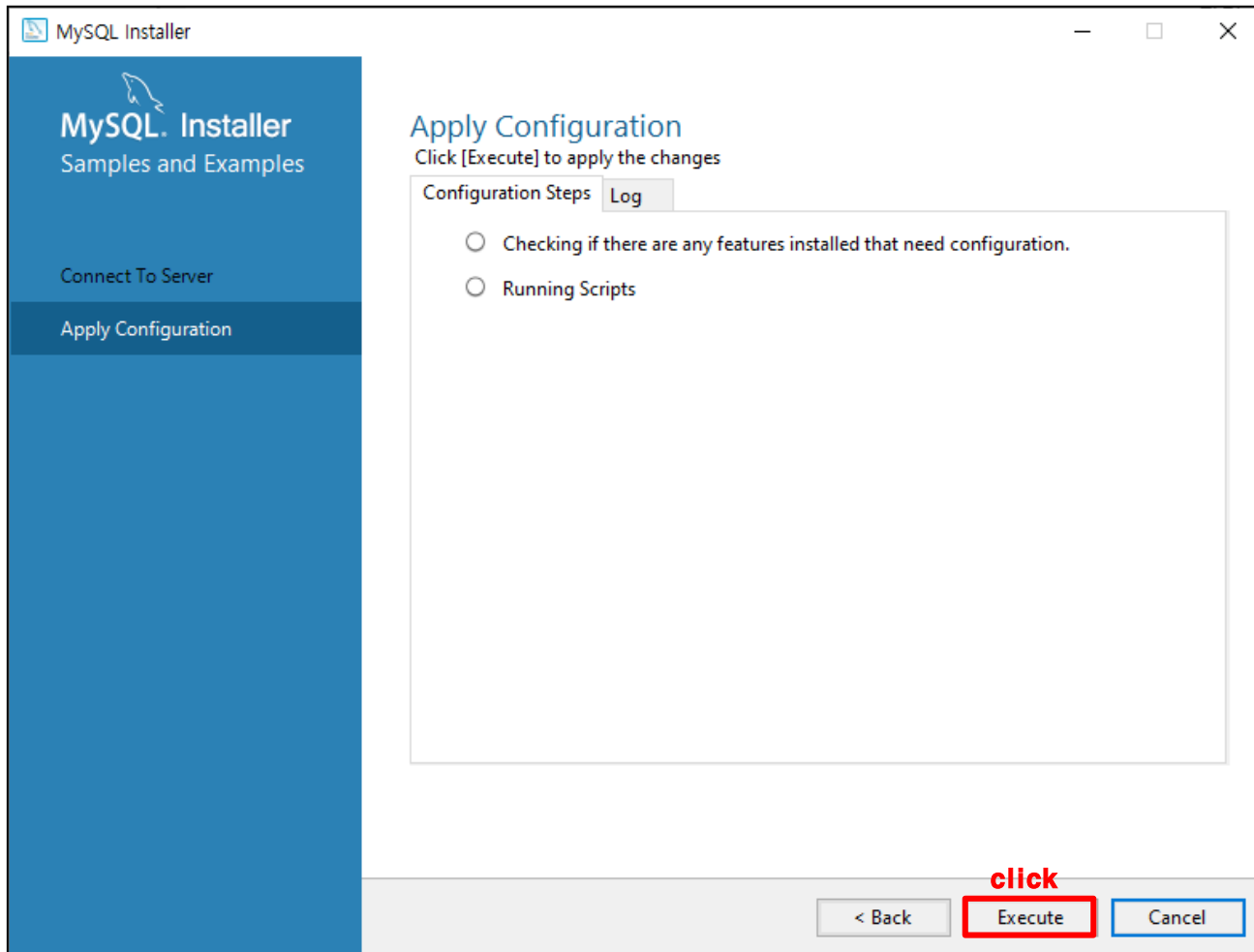
User name: Credentials provided in Server configuration

Password:

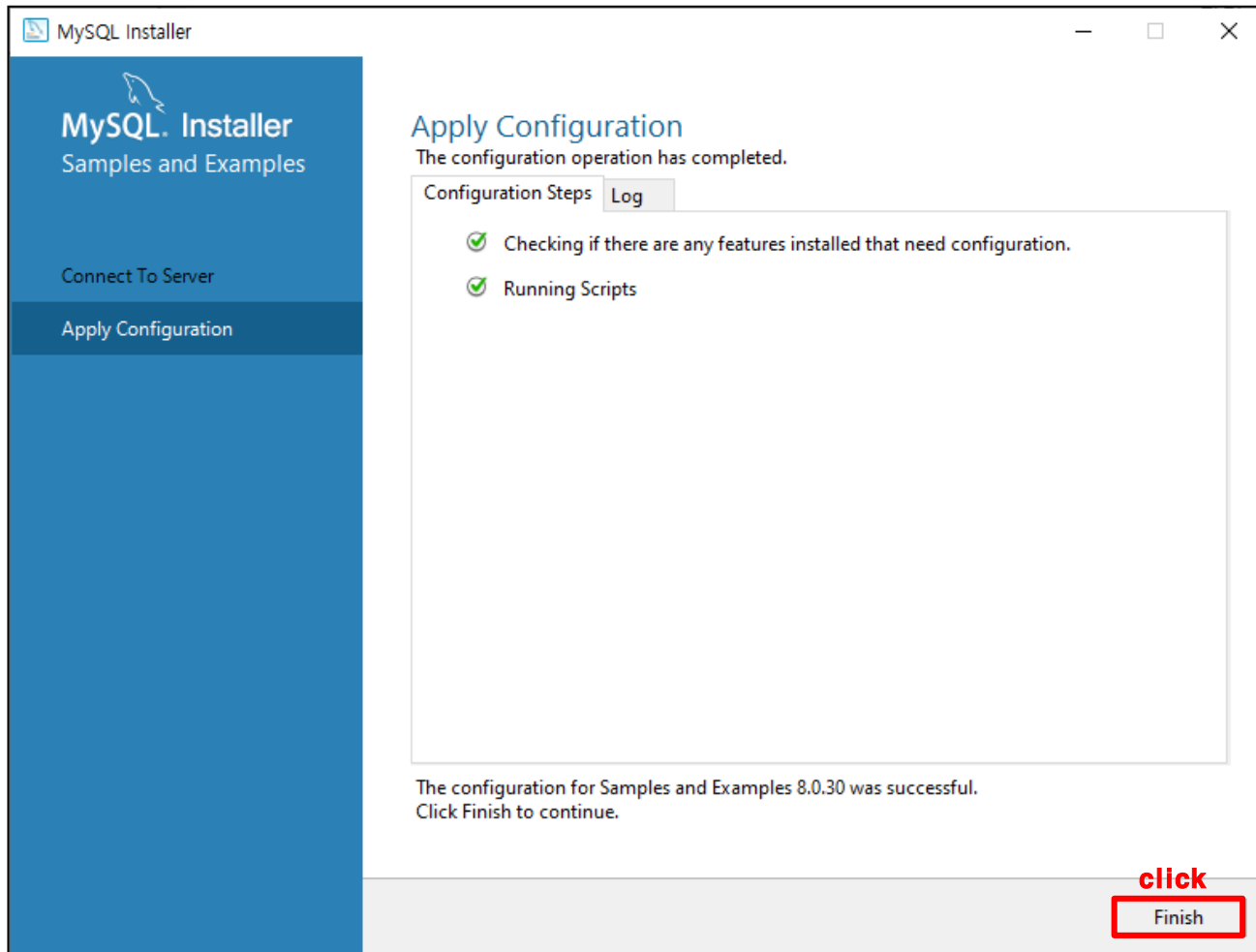
② ✓
click

③ click

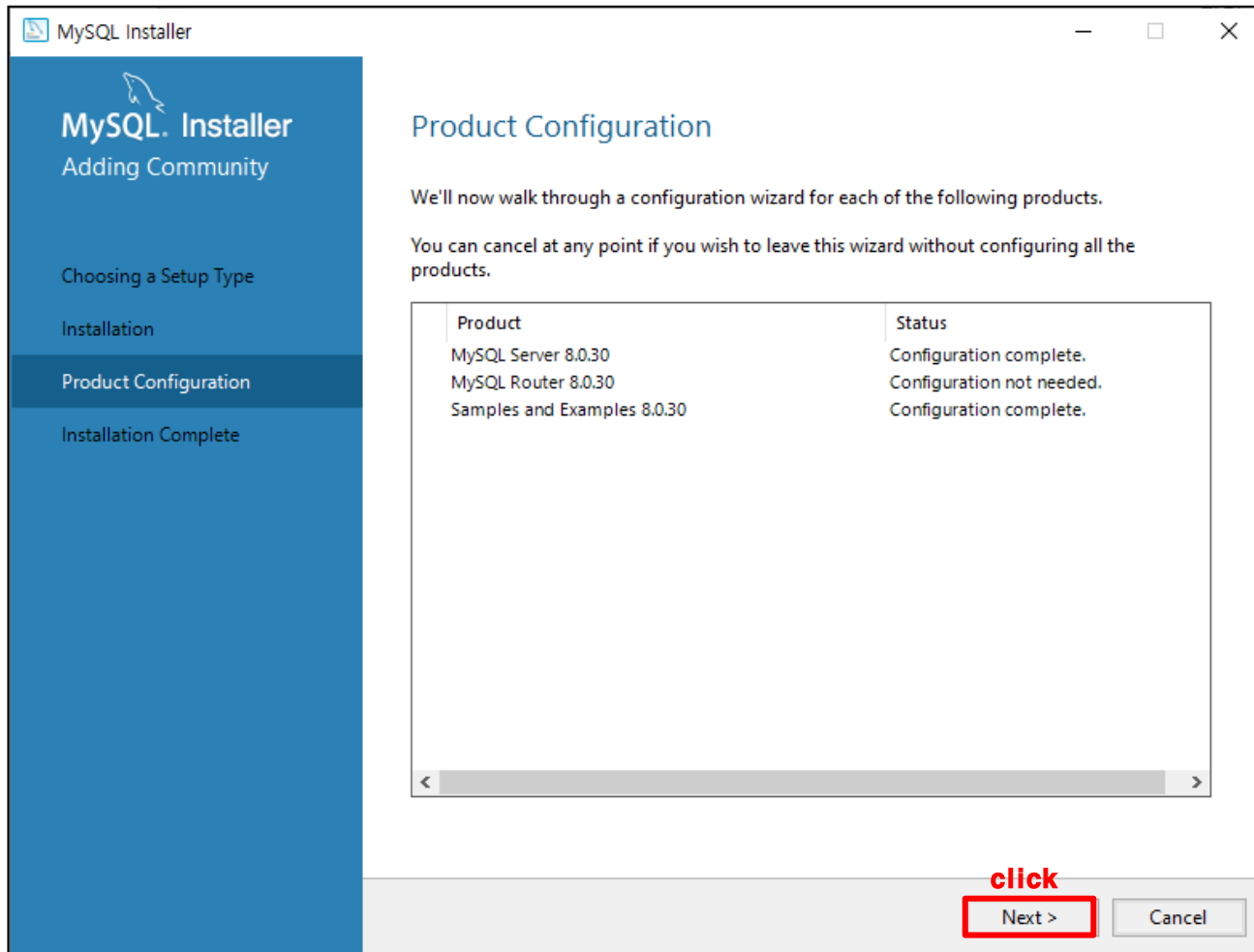
22) “Execute” 클릭



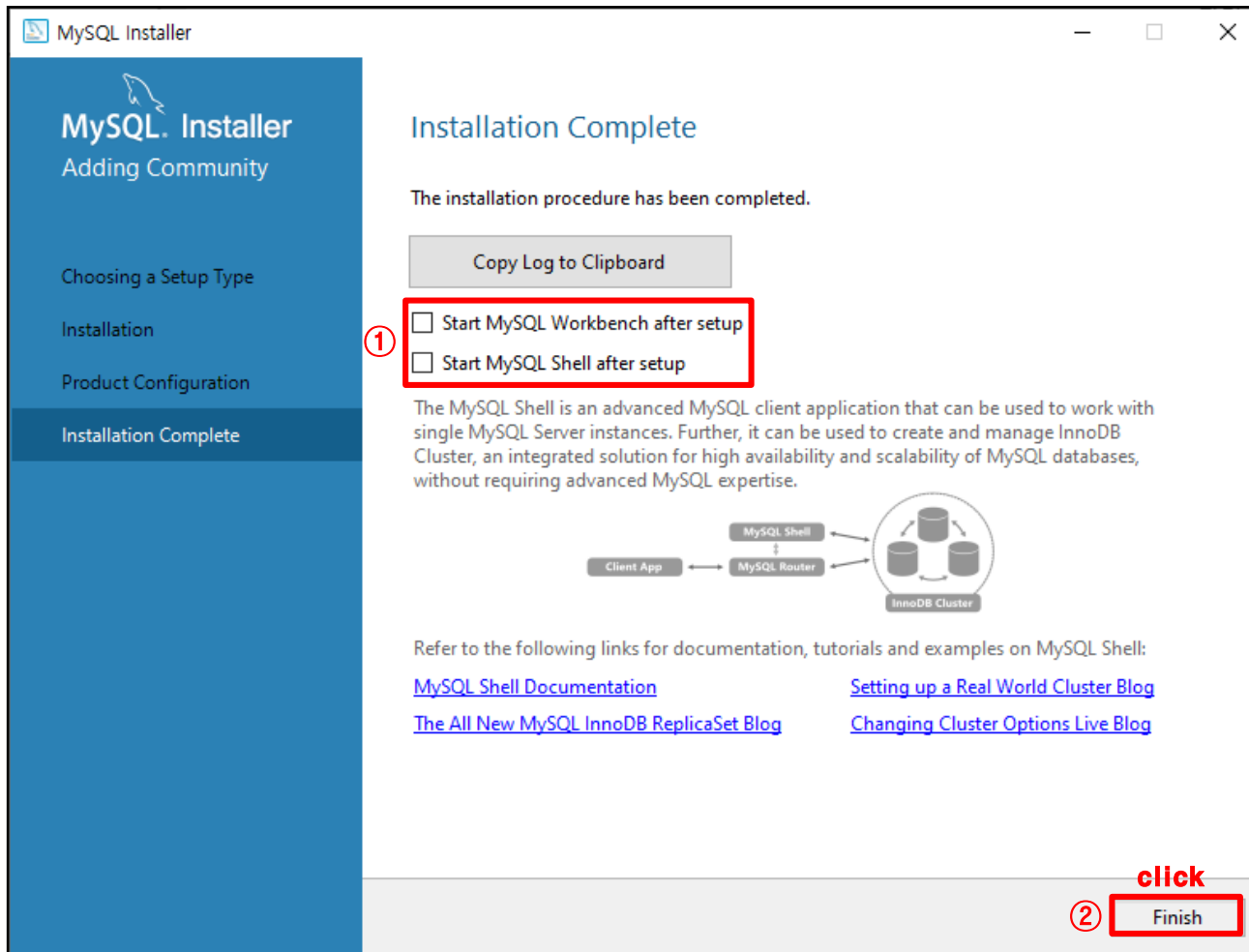
23) “Finish” 클릭



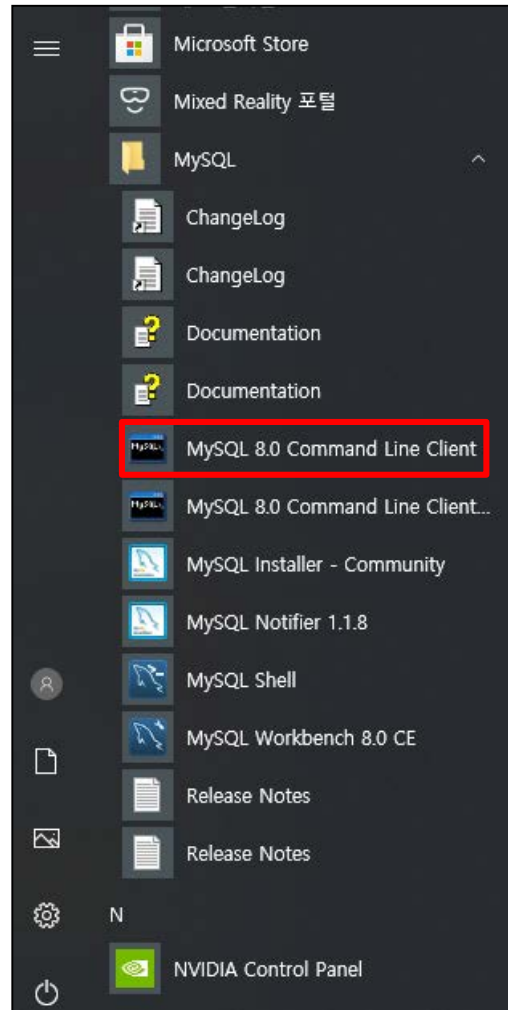
24) “Next” 클릭



25) 체크박스 해제 → “Finish” 클릭

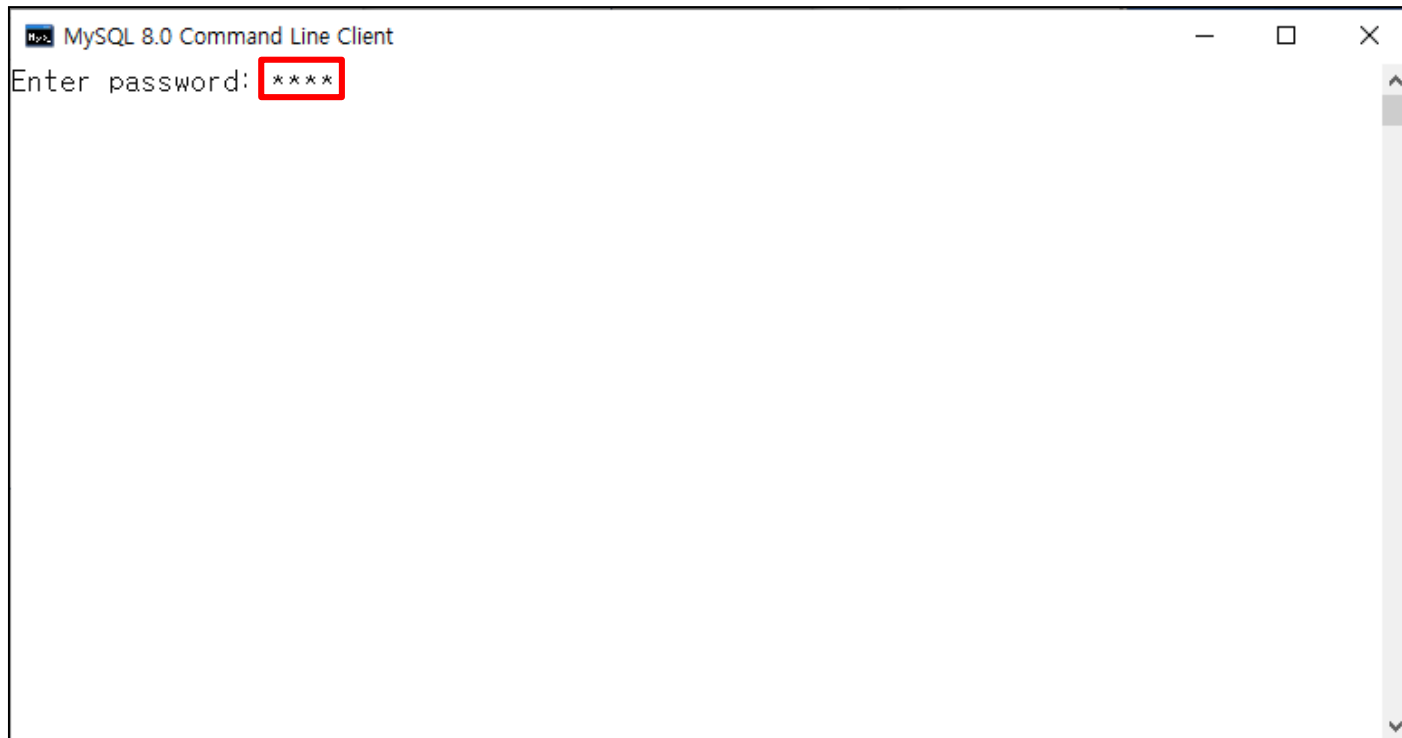


- 1) 시작 → “MySQL 8.0 Command Line Client” 클릭
(MySQL 8.0 Command Line Client – Unicode 아님)

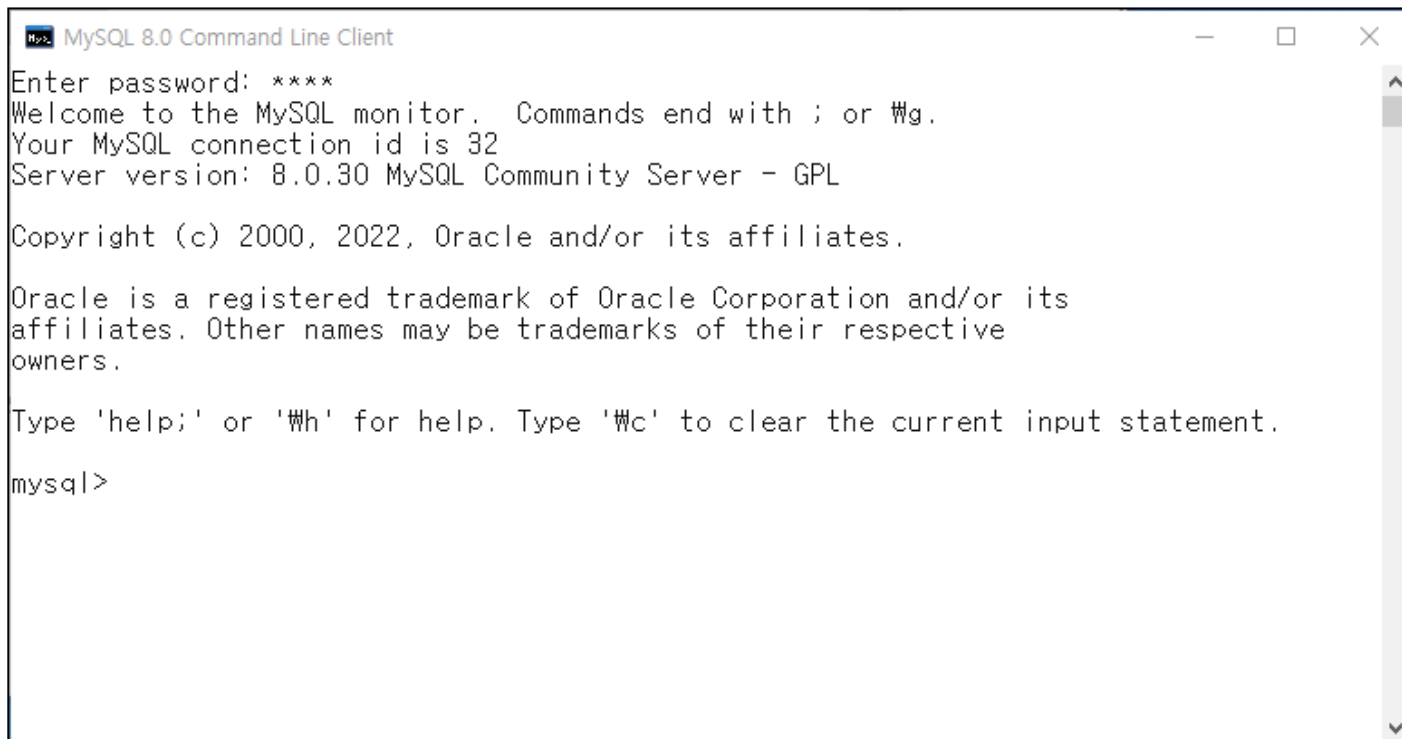


2) 비밀번호 입력

(Password는 설치 16번 단계에서 설정한 Password)



3) 접속 성공 시 화면



```
MySQL 8.0 Command Line Client
Enter password: ****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 32
Server version: 8.0.30 MySQL Community Server - GPL

Copyright (c) 2000, 2022, Oracle and/or its affiliates.

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 생성

```
CREATE DATABASE database_name;
```

- 데이터베이스 사용

- 사용할 데이터베이스 지정

```
USE database_name;
```

- 전체 데이터베이스 조회

```
SHOW DATABASES;
```

- 데이터베이스 삭제

```
DROP DATABASE database_name;
```

■ 데이터베이스 생성 예시

```
mysql> CREATE DATABASE dbpdb;  
Query OK, 1 row affected (0.01 sec)
```

■ 데이터베이스 사용 예시

• 사용할 데이터베이스 지정

```
mysql> USE dbpdb;  
Database changed
```

■ 전체 데이터베이스 조회 예시

```
mysql> SHOW DATABASES;  
+-----+  
| Database |  
+-----+  
| dbpdb   |  
| final   |  
+-----+  
2 rows in set (0.00 sec)
```

■ 데이터베이스 삭제 예시

```
mysql> DROP DATABASE dbpdb;  
Query OK, 0 rows affected (0.01 sec)
```

- 전체 테이블 조회

```
SHOW TABLE STATUS;    // 테이블 전체 정보 조회
```

```
SHOW TABLES;          // 테이블 이름만 조회
```

- 테이블 스키마 구조 확인

```
DESC table_name;
```

- 데이터 조회

```
SELECT * FROM table_name;
```

■ 전체 테이블 조회 예시

• 테이블이 없는 경우

```
mysql> SHOW TABLE STATUS;  
Empty set (0.00 sec)
```

```
mysql> SHOW TABLES;  
Empty set (0.00 sec)
```

• 테이블이 있는 경우

```
mysql> SHOW TABLE STATUS;  
+-----+-----+-----+-----+-----+-----+-----+-----+  
| Name      | Engine | Version | Row_format | Rows | Avg_row_length | Data_length | Max  
+-----+-----+-----+-----+-----+-----+-----+-----+  
| employee  | InnoDB | 10      | Dynamic    | 0    | 0              | 16384       |  
+-----+-----+-----+-----+-----+-----+-----+-----+  
1 row in set (0.01 sec)
```

```
mysql> SHOW TABLES;  
+-----+  
| Tables_in_dbpdb |  
+-----+  
| employee         |  
+-----+  
1 row in set (0.00 sec)
```


■ 테이블 스키마 확인 예시

```
mysql> DESC EMPLOYEE;
```

Field	Type	Null	Key	Default	Extra
Fname	varchar(15)	NO		NULL	
Minit	char(1)	YES		NULL	
Lname	varchar(15)	NO		NULL	
Ssn	char(9)	NO	PRI	NULL	
Bdate	date	YES		NULL	
Address	varchar(30)	YES		NULL	
Sex	char(1)	YES		NULL	
Salary	decimal(10,2)	YES		NULL	
Super_ssn	char(9)	YES		NULL	
Dno	int	NO		NULL	

10 rows in set (0.00 sec)

■ 데이터 조회 예시

• 데이터가 없는 경우

```
mysql> SELECT * FROM EMPLOYEE;
```

Empty set (0.01 sec)

• 데이터가 있는 경우

```
mysql> SELECT * FROM EMPLOYEE;
```

Fname	Minit	Lname	Ssn	Bdate	Address	Sex	Salary	Super_ssn	Dno
John	B	Smith	123456789	1965-01-09	731 Fondren, Houston, TX	M	30000.00	333445555	5
Franklin	T	Wong	333445555	1955-12-08	683 Voss, Houston, TX	M	40000.00	888665555	5
Joyce	A	English	453453453	1972-07-31	5631 Rice, Houston, TX	F	25000.00	333445555	5
Ramesh	K	Narayan	666884444	1962-09-15	975 Fire Oak, Humble, TX	M	38000.00	333445555	5
James	E	Borg	888665555	1937-11-10	450 Stone, Houston, TX	M	55000.00	NULL	1
Jennifer	S	Wallace	987654321	1941-06-20	291 Berry, Bellaire, TX	F	43000.00	888665555	4
Ahmad	V	Jabbar	987987987	1969-03-29	980 Dallas, Houston, TX	M	25000.00	987654321	4
Alicia	J	Zelaya	999887777	1968-01-19	3321 Castle, Spring, TX	F	25000.00	987654321	4

8 rows in set (0.00 sec)

- 실행 결과 저장

- SPOOL 시작

TEE 또는 WT 경로₩파일명.txt

- SPOOL 종료

NOTEE 또는 Wt

- 쿼리 파일 실행

SOURCE 또는 W. 경로₩파일명.txt

- MySQL 종료

QUIT 또는 Wq