

# 5강

## Mysql Workbench 사용법





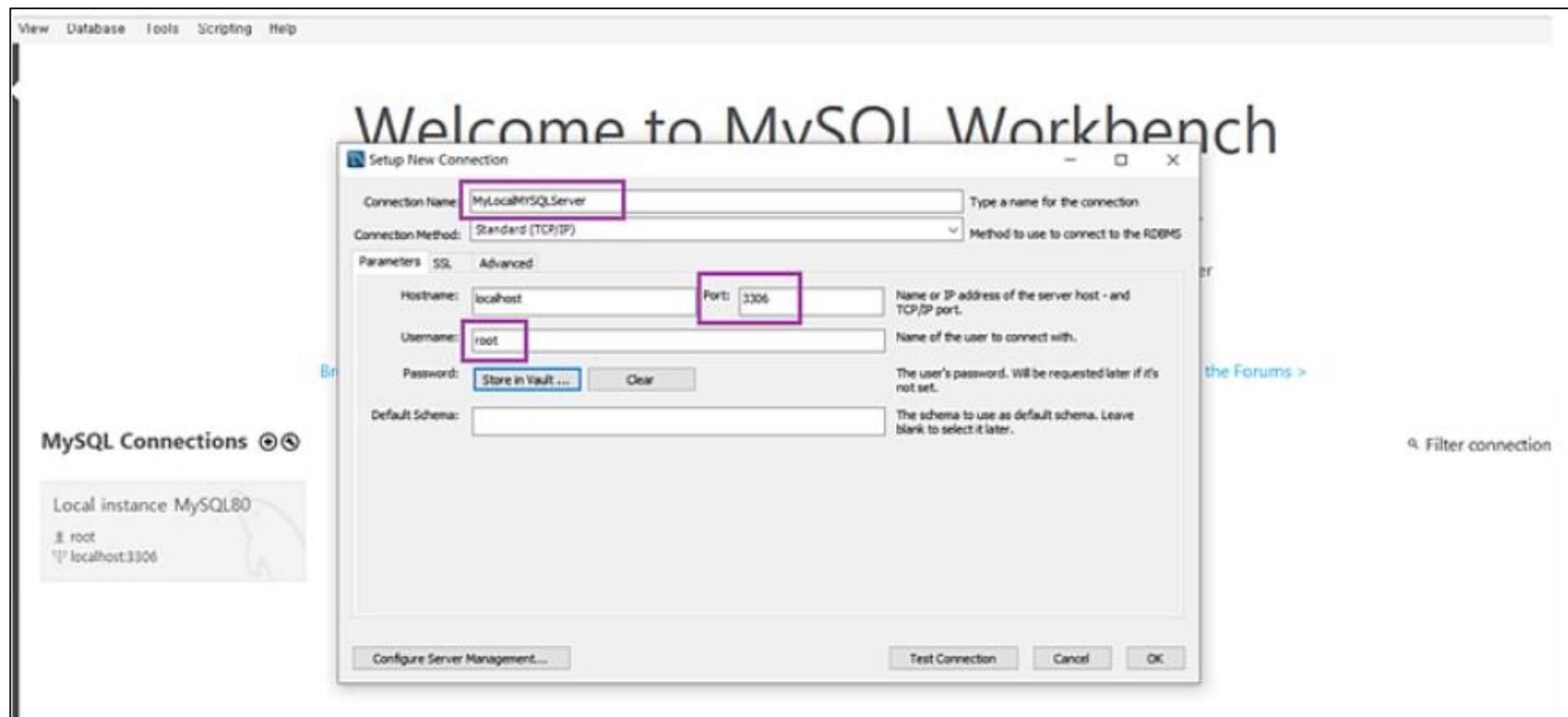
- MySQL 워크벤치는 SQL 개발과 관리, 데이터베이스 설계, 생성 그리고 유지를 위한 단일개발 통합환경을 제공하는 비주얼 데이터 베이스 설계도구 이다.
- 내컴퓨터에 설치된 MySQL과 Workbench를 연결시키는 작업을 **Connections**이라 한다.
- 새로운 커넥션 생성하기



## Connection 생성하기



- Connection Name은 본인이 다른 커넥션과 구분하기 쉬운 이름을 원하는 대로 지정해준다. 그 후 포트번호와 유저네임을 확인하고 Password에서 [Store in Vault] 버튼을 누른다.
- 그럼 비밀번호 입력하는 창이 뜨는데, 설치 시 지정한 root의 비밀번호를 입력하고 ok를 누른다. 비밀번호 입력 후 Setup New Connection 창 오른쪽 하단의 ok 버튼을 누르면 새로운 커넥션 생성 완료





- mydb 클릭하면 실행된다.

The screenshot shows the MySQL Workbench interface. On the left is a dark sidebar with icons for Home, File, Edit, View, Database, Tools, Scripting, and Help. The main area features a large "Welcome to MySQL Workbench" title and a descriptive paragraph about the tool's capabilities. Below this are three blue links: "Browse Documentation >", "Read the Blog >", and "Discuss on the Forums >". At the bottom, there is a section titled "MySQL Connections" with two entries: "Local instance MySQL80" and "mydb". The "mydb" entry is highlighted with a purple rectangular selection box. A search bar with a magnifying glass icon is located at the bottom right.

MySQL Workbench

File Edit View Database Tools Scripting Help

# Welcome to MySQL Workbench

MySQL Workbench is the official graphical user interface (GUI) tool for MySQL. It allows you to design, create and browse your database schemas, work with database objects and insert data as well as design and run SQL queries to work with stored data. You can also migrate schemas and data from other database vendors to your MySQL database.

Browse Documentation >    Read the Blog >    Discuss on the Forums >

MySQL Connections ⊕ ⊗

Local instance MySQL80

mydb

root  
localhost:3306

root  
127.0.0.1:3306

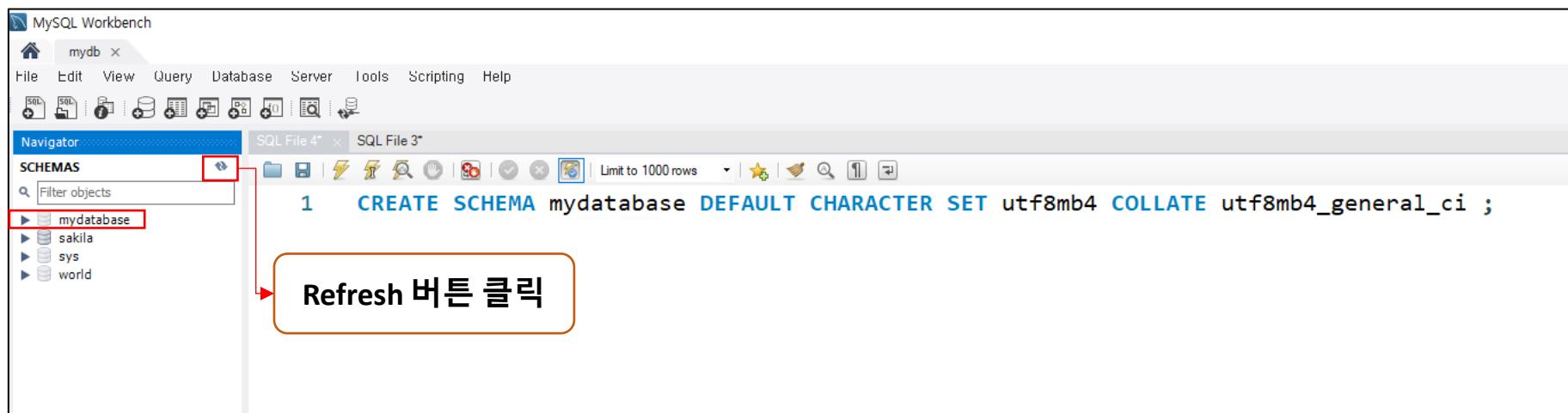


## ➤ MySQL Workbench 사용하기

- localhost로 연결 생성
- 설정했던 비밀번호로 root 계정 접속
- 데이터베이스 생성

정렬방식

```
CREATE SCHEMA mydb DEFAULT CHARACTER SET utf8mb4 COLLATE utf8mb4_general_ci ;
```



항목	사용 이유
utf8mb4	한글을 포함한 전세계 문자 + 이모티콘 사용 가능
Utf8mb4_general_ci	가장 정확하지 않지만 정렬 속도 빠름

# Workbench schema 생성하기 방법 1



- IF NOT EXISTS : 존재하지 않으면 작성

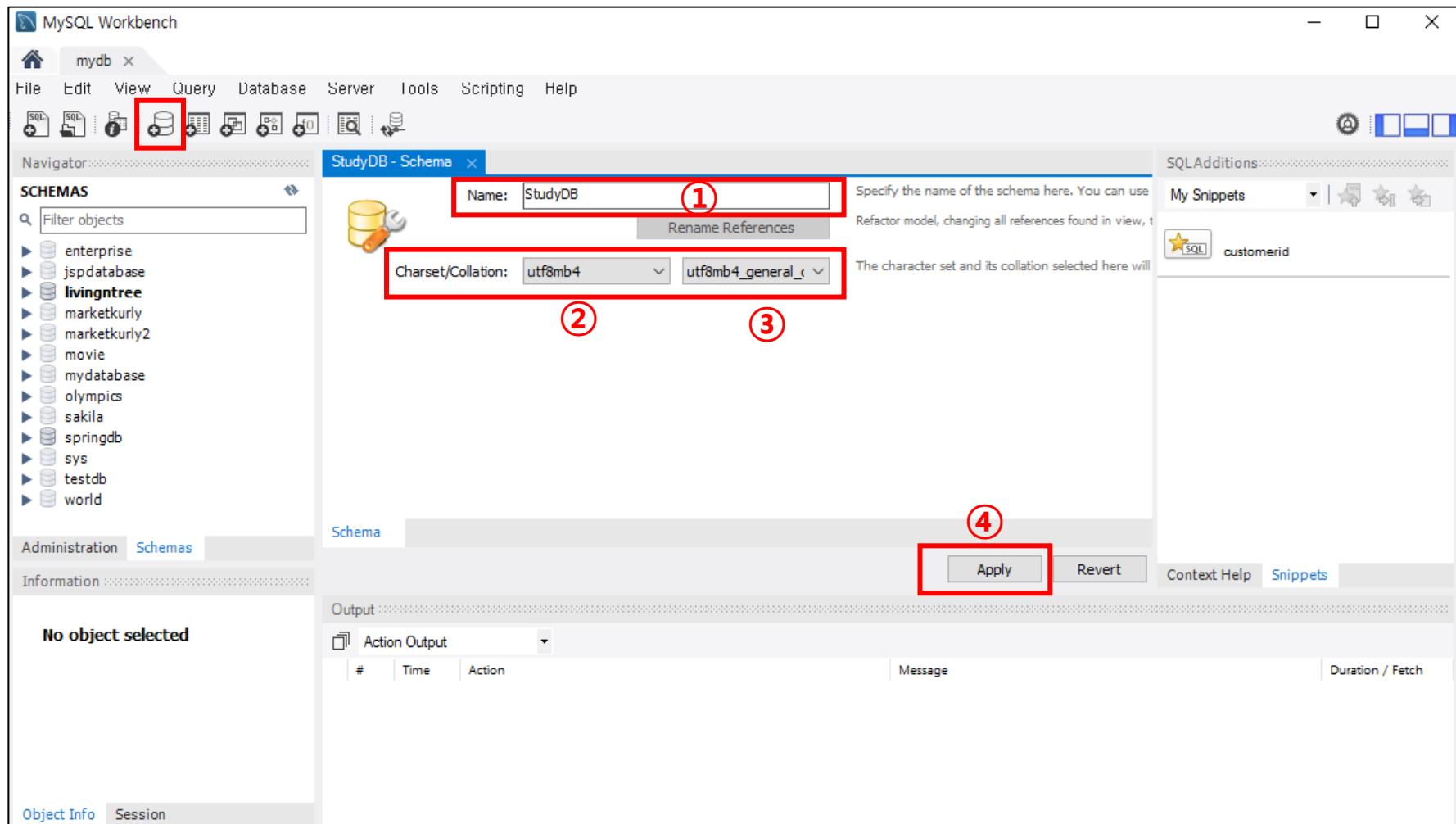
The screenshot shows the MySQL Workbench interface. In the top-left corner, the title bar says "MySQL Workbench" and "mydb". The menu bar includes File, Edit, View, Query, Database, Server, Tools, Scripting, and Help. The toolbar has various icons for database management tasks. The Navigator panel on the left lists databases: mydatabase, mydatabase2, sakila, sys, and world. The main SQL editor window contains the following SQL command:

```
1  create schema IF NOT EXISTS mydatabase2 default character set utf8mb4 collate utf8mb4_general_ci;
```

The Output panel at the bottom shows the execution log:

#	Time	Action	Message	Duration / Fetch
12	20:45:09	create schema `mydatabase` default character utf8mb4 collate utf8mb4_general_ci	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the... 0.000 sec	0.000 sec
13	20:46:33	create schema mydatabase default character set utf8mb4 collate utf8mb4_general_ci	1 row(s) affected	0.000 sec
14	20:48:28	SELECT * FROM sakila.actor LIMIT 0, 1000	200 row(s) returned	0.000 sec / 0.000 sec
15	21:07:57	create schema IF NOT EXISTS mydatabase default character set utf8mb4 collate utf8mb4_general_ci	1 row(s) affected, 1 warning(s): 1007 Can't create database 'mydatabase'; database exists	0.000 sec
16	21:08:17	create schema IF NOT EXISTS mydatabase2 default character set utf8mb4 collate utf8mb4_general_ci	1 row(s) affected	0.016 sec

## Workbench schema 생성하기 방법 2



➤ Apply 버튼을 클릭한다.



Apply SQL Script to Database

Review SQL Script

Apply SQL Script

Review the SQL Script to be Applied on the Database

Online DDL –

Algorithm: Default Lock Type: Default

```
1 CREATE SCHEMA `studydb` DEFAULT CHARACTER SET utf8mb4 ;  
2
```

< >

Back Apply Cancel

The screenshot shows the MySQL Workbench interface for applying an SQL script to a database. On the left, there's a sidebar with 'Apply SQL Script to Database', 'Review SQL Script', and 'Apply SQL Script'. The main area is titled 'Review the SQL Script to be Applied on the Database'. It contains an 'Online DDL' section with dropdown menus for 'Algorithm' (set to 'Default') and 'Lock Type' (set to 'Default'). Below this is a code editor showing the following SQL command:

```
1 CREATE SCHEMA `studydb` DEFAULT CHARACTER SET utf8mb4 ;  
2
```

At the bottom of the window are navigation arrows ('<' and '>'), and at the very bottom are three buttons: 'Back', 'Apply' (which is highlighted with a red box), and 'Cancel'.

## 생성한 schema 삭제하기



➤ -- 데이터베이스 삭제 명령어 **DROP**  
**Drop DATABASE studydb ;**

The screenshot shows the MySQL Workbench interface. In the Navigator panel on the left, under the 'SCHEMAS' section, the 'studydb' schema is selected and highlighted with a red box. The 'Tables', 'Views', 'Stored Procedures', and 'Functions' sub-items under 'studydb' are also visible. The main Query Editor window contains the SQL command: **drop database studydb;**. The Output panel at the bottom shows the execution log:

#	Time	Action	Message	Duration / Fetch
1	16:05:45	Apply changes to studydb	Changes applied	

## Schema에서 SQL 구문 작성하는 방법



- SQL 구문 작성하기 전 반드시 어느 Schema에서 사용할 것인지 Schema 이름을 더블클릭 한다.
- (Created SQL) 아이콘 클릭 후 SQL 구문을 입력력한다.

The screenshot shows the MySQL Workbench interface. The title bar says "MySQL Workbench" and the database is set to "mydb". The "File" menu is open, and the "SQL" icon is highlighted with a purple box. The "Navigator" pane shows the "SCHEMAS" section with "mydatabase" and "sakila" selected. The "sakila" schema is expanded, showing "Tables", "Views", "Stored Procedures", and "Functions". The "Tables" section contains entries for "actor", "address", "category", "city", "customer", "language", and "nation". The main workspace has a tab titled "SQL File 4\*" containing the query: `1 • SELECT * FROM actor LIMIT 100;`. Below the query is a "Result Grid" showing the results of the execution. The results table has columns: actor\_id, first\_name, last\_name, and last\_update. The rows show data for actors 1 through 5. The "Output" pane at the bottom shows the execution log:

#	Time	Action	Message	Duration / Fetch
1	11:38:22	SELECT * FROM actor LIMIT 100	Error Code: 1146. Table 'mydatabase.actor' doesn't exist	0.000 sec
2	11:38:52	SELECT * FROM actor LIMIT 100	100 row(s) returned	0.000 sec / 0.000 sec



## ➤ CLI로 실행해 보기

- 터미널 또는 파워쉘에서 MySQL이 설치된 폴더로 이동
- 윈도우: **C:\Program Files\MySQL\MySQL Server 8.0\bin**
- MySQL 8.0 Command Line Client**

```
MySQL 8.0 Command Line Client
Enter password: *****
Welcome to the MySQL monitor. Commands end with ; or #g.
Your MySQL connection id is 18
Server version: 8.0.32 MySQL Community Server - GPL

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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>
```



## ➤ Show databases -&gt; mysql 모든 스키마(데이터 베이스) 출력

```
MySQL 8.0 Command Line Client
+-----+-----+-----+
8 rows in set (0.01 sec)

mysql> use mysql
Database changed
mysql> show databases;
+-----+
| Database |
+-----+
| enterprise
| information_schema
| jspdatabase
| livingntree
| marketkurly
| marketkurly2
| movie
| mydatabase
| mysql
| olympics
| performance_schema
| sakila
| springdb
| studydb
| sys
| testdb
| world
+-----+
17 rows in set (0.00 sec)

mysql>
```



- use sakila -> sakila 스키마(데이터 베이스)로 이동
- Show tables; -> sakila 데이터베이스안의 모든 테이블 보기

The screenshot shows a terminal window titled "MySQL 8.0 Command Line Client". The command entered was "show tables;" in the context of the "mydatabase" database. The output lists 21 tables:

Tables_in_mydatabase
backup_customer
business_view
businesses
client
client_view
customer
emp
info_view
member
menu_view
menus
menus_view
orders
ordertable
people
rating_view
ratings
salesperson
section_view
sections
testtbl

At the bottom of the output, it says "21 rows in set (0.00 sec)". The MySQL prompt "mysql>" is visible at the bottom of the window.



## ➤ SELECT \* FROM customer; -&gt; SQL 구문 직접 입력

```
MySQL 8.0 Command Line Client
+-----+
| colier | 8579   | 흘길동 | 2023-05-06 |
| industria | 1234 | 김학민 | 2023-05-06 |
+-----+
2 rows in set (0.01 sec)

mysql> select * from customer;
+-----+
| customerid | first_name | last_name | email           | phone      |
+-----+
| 1 | JOHN       | BONHAN    | john@gmail.com | 5555555 |
| 3 | ROBERT     | SMITH     | robert@webseo.com | 987321879 |
| 4 | FRANK       | BLAKE     | frank@iamea.com | 987365463 |
+-----+
3 rows in set (0.01 sec)

mysql> select * from ratings;
+-----+
| rating_id | fk_business_id | stars | comment          | created        |
+-----+
| 1 | 2 | 4 | 치떡이 진리. 순대는 별로 | 2021-07-01 12:30:04 |
| 2 | 16 | 3 | 그냥저냥 먹을만해요 | 2021-07-01 17:16:07 |
| 3 | 14 | 5 | 인생꼴빵. 말이 필요없음 | 2021-07-03 11:28:12 |
| 4 | 5 | 3 | 육수는 괜찮은데 면은 그냥 시판면 쓴 것 같네요. | 2021-07-04 19:03:50 |
| 5 | 11 | 4 | 나오는데 넘 오래걸림. 맛은 있어요 | 2021-07-04 13:37:42 |
| 6 | 9 | 2 | 빵집에서 파는 마카롱이랑 비슷하거나 못합니다. | 2021-07-06 15:19:23 |
| 7 | 16 | 5 | 신림에서 먹던 맛 완벽재현 | 2021-07-06 20:01:39 |
| 8 | 7 | 3 | 그냥 그렇다 | 2023-05-01 19:23:08 |
| 9 | 7 | 2 | 맛이없다 | 2023-05-15 21:51:28 |
+-----+
9 rows in set (0.01 sec)

mysql> _
```



## ➤ Command Line Client 종료 -&gt; Exit

```
선택 MySQL 8.0 Command Line Client
+----+----+----+----+
| 100 | SPENCER    | DEPP          | 2006-02-15 04:34:33 |
+----+----+----+----+
100 rows in set (0.00 sec)

mysql> SELECT * FROM actor LIMIT 10;
+----+----+----+----+
| actor_id | first_name | last_name   | last_update   |
+----+----+----+----+
| 1 | PENELOPE  | GUINNESS    | 2006-02-15 04:34:33 |
| 2 | NICK       | WAHLBERG    | 2006-02-15 04:34:33 |
| 3 | ED          | CHASE        | 2006-02-15 04:34:33 |
| 4 | JENNIFER   | DAVIS        | 2006-02-15 04:34:33 |
| 5 | JOHNNY     | LOLLOBRIGIDA | 2006-02-15 04:34:33 |
| 6 | BETTE      | NICHOLSON   | 2006-02-15 04:34:33 |
| 7 | GRACE      | MOSTEL       | 2006-02-15 04:34:33 |
| 8 | MATTHEW    | JOHANSSON   | 2006-02-15 04:34:33 |
| 9 | JOE         | SWANK        | 2006-02-15 04:34:33 |
| 10 | CHRISTIAN  | GABLE        | 2006-02-15 04:34:33 |
+----+----+----+----+
10 rows in set (0.00 sec)

mysql>
```