

1차 프로젝트

설명 및 Tutorial

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1. WEB 조사

■ HTML

- Web page의 기본 구조를 담당
- Hyper Text Mark-up Language의 약자로 월드 와이드 웹 문서를 작성하는 Mark-up Language
 - Mark-up: 문서가 화면에 표시되는 형식 또는 데이터의 논리적인 구조를 명시하기 위한 규칙들을 정의한 언어
- 서버에서 보낸 정보대로 page를 구현하는 것이 용이
- 사용자 입력에 따라 민감하여 각종 script의 도움을 받아 멀티미디어 지원을 위해 외부 프로그램을 불러 옴



1. WEB 조사

■ HTML

- HTML의 기본 구조는 위와 같이 <html> tag로 web page를 표현하고 내부는 <head>(제목)와 <body>(실제 내용) tag로 되어 있다.

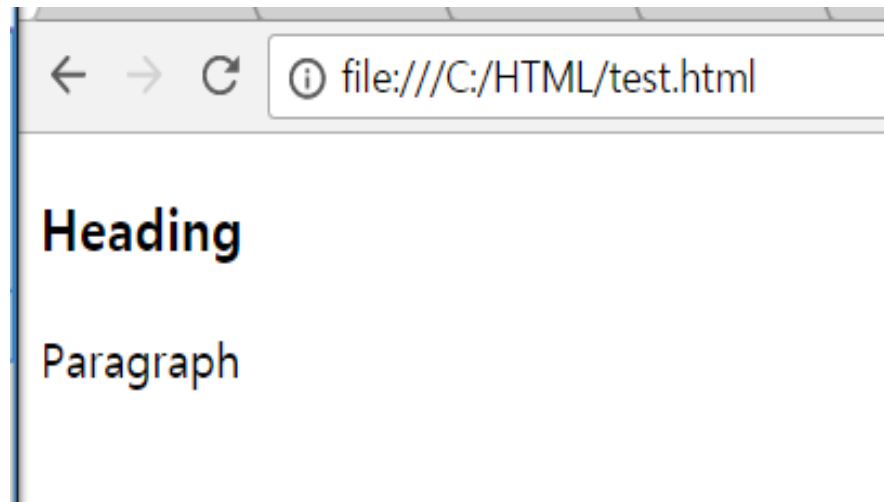
```
<!doctype html>
<html>
  <head>
    <title>Hello HTML</title>
  </head>
  <body>
    <p>Hello World!</p>
  </body>
</html>
```



1. WEB 조사

■ HTML 예제

```
<!DOCTYPE html>
<html>
  <body>
    <div>
      <h3>Heading</h3>
      <p>Paragraph</p>
    </div>
  </body>
</html>
```





2. Database(MySQL)

- MySQL 설치
 - 다음 URL을 웹 브라우저에 입력함
 - <https://dev.mysql.com/downloads/installer>

General Availability (GA) Releases Archives 

MySQL Installer 8.0.19

Select Operating System:

Microsoft Windows 

Looking for previous GA versions?

Windows (x86, 32-bit), MSI Installer (mysql-installer-web-community-8.0.19.0.msi)	8.0.19	18.6M	Download
MD5: 32043776cb2239db45fddaa86dc0ad61 Signature			
Windows (x86, 32-bit), MSI Installer (mysql-installer-community-8.0.19.0.msi)	8.0.19	398.9M	Download
MD5: 1a882015da7fb93f20c4717e63b6817c Signature			

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



2. Database(MySQL)

Begin Your Download

mysql-installer-web-community-8.0.11.0.msi

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
- Comment in the MySQL Documentation

Login »

using my Oracle Web account

Sign Up »

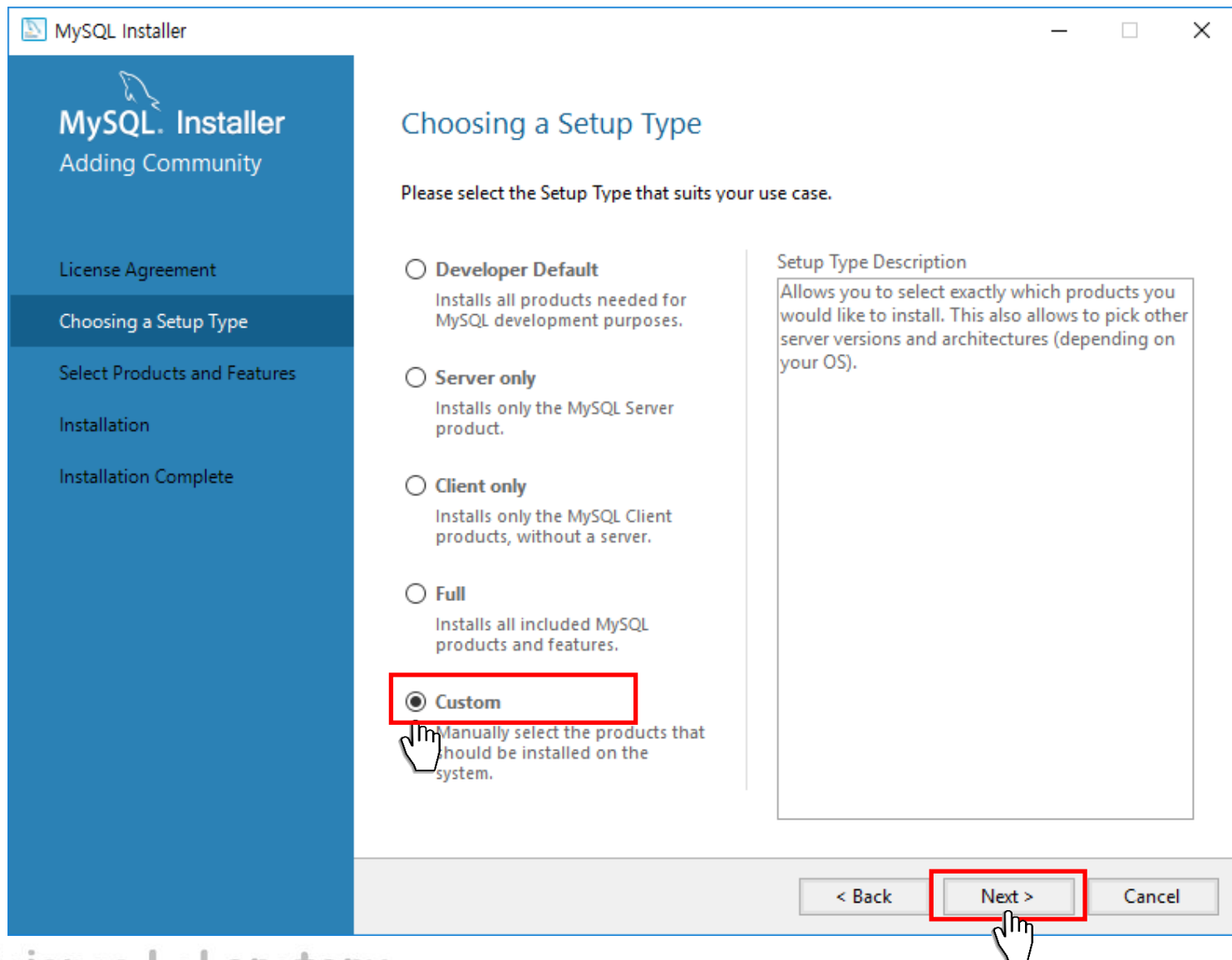
for an Oracle Web account

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

No thanks, just start my download.

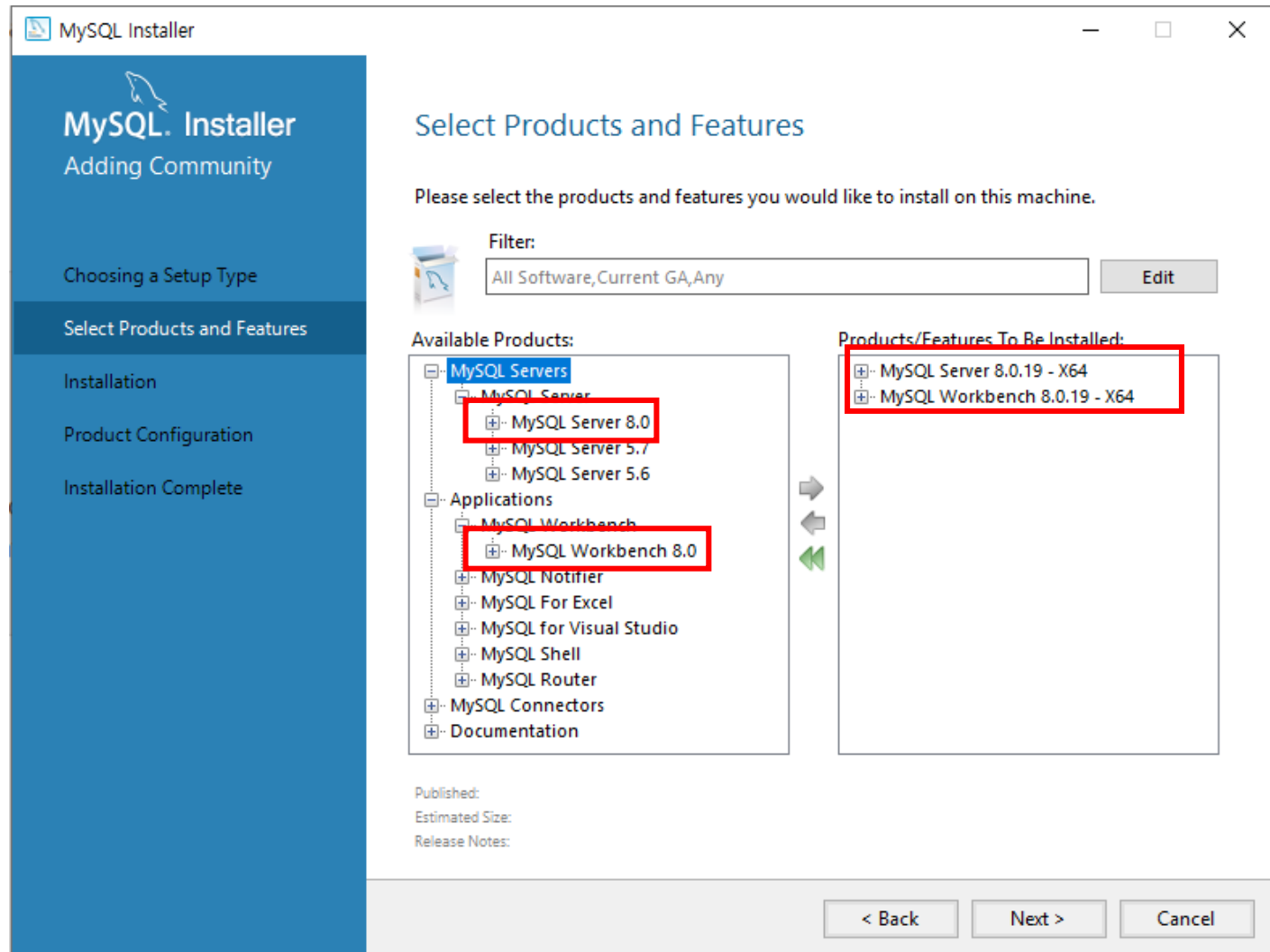


2. Database(MySQL)



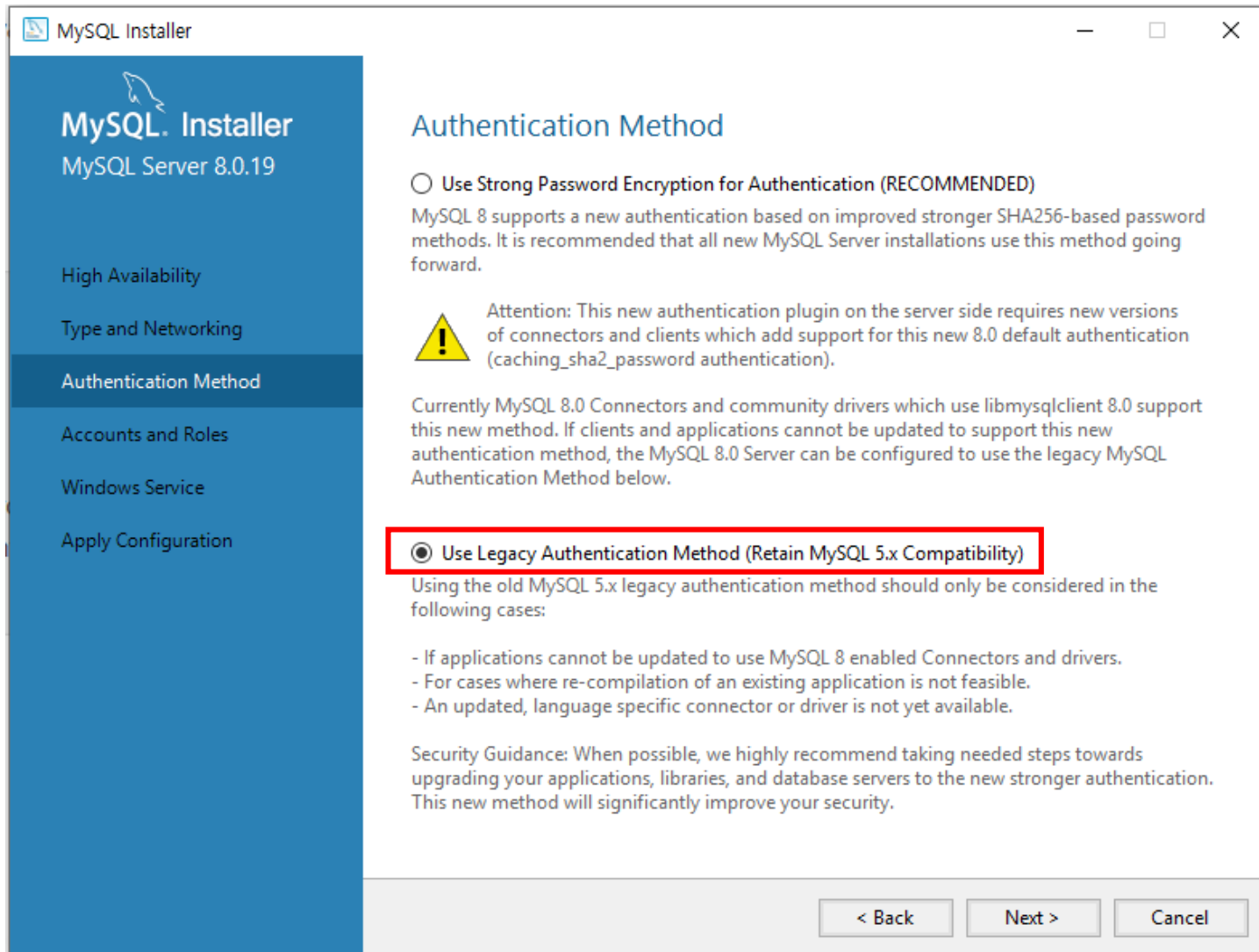


2. Database(MySQL)



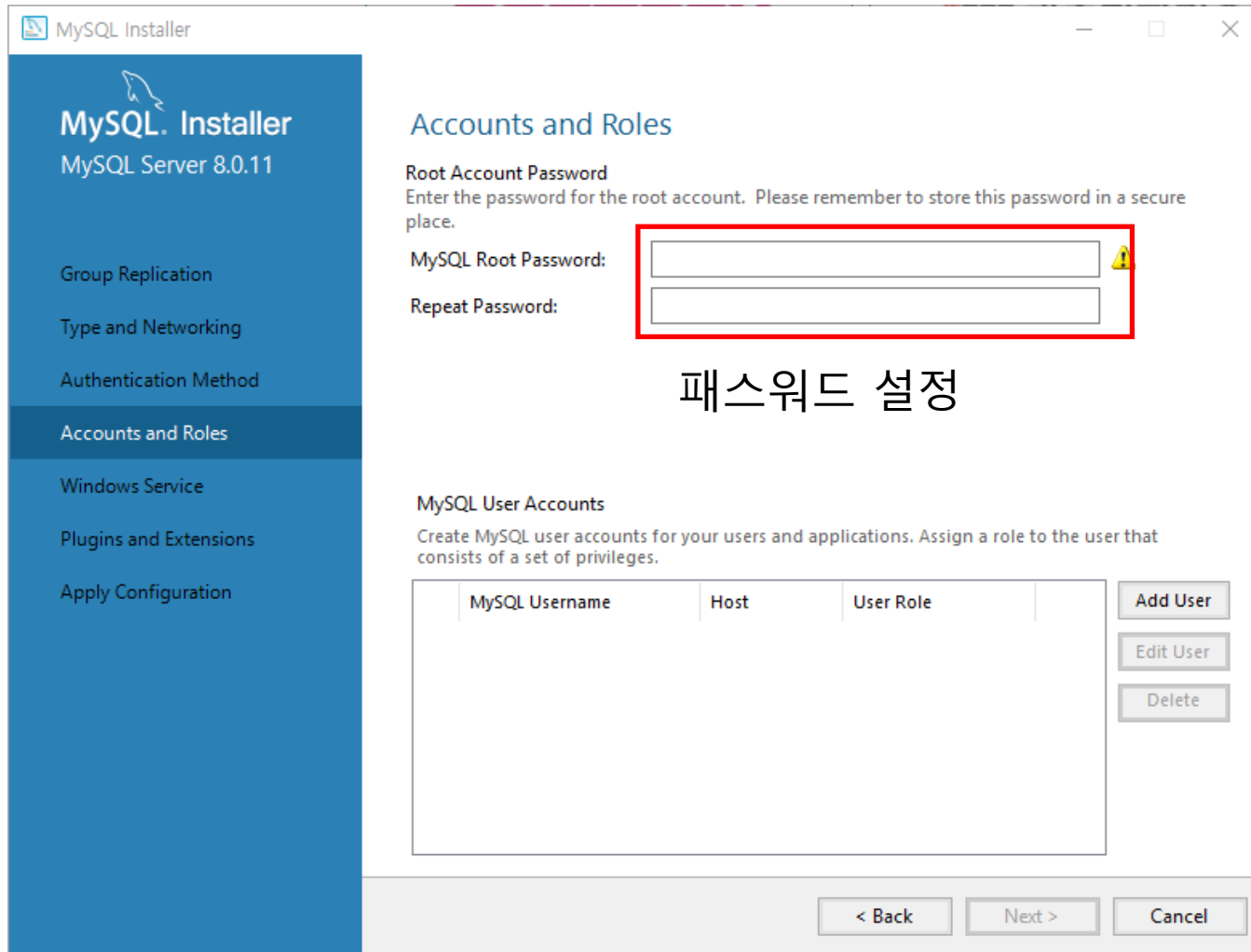


2. Database(MySQL)





2. Database(MySQL)



The screenshot shows the MySQL Installer window for MySQL Server 8.0.11. The left sidebar lists various configuration options, with 'Accounts and Roles' selected. The main area is titled 'Accounts and Roles' and contains two sections: 'Root Account Password' and 'MySQL User Accounts'. The 'Root Account Password' section has two input fields for the root password, which are highlighted with a red rectangle. The 'MySQL User Accounts' section features a table with columns for 'MySQL Username', 'Host', and 'User Role', along with 'Add User', 'Edit User', and 'Delete' buttons. At the bottom, there are '< Back', 'Next >', and 'Cancel' buttons.

MySQL Installer
MySQL Server 8.0.11

Group Replication
Type and Networking
Authentication Method
Accounts and Roles
Windows Service
Plugins and Extensions
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:

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

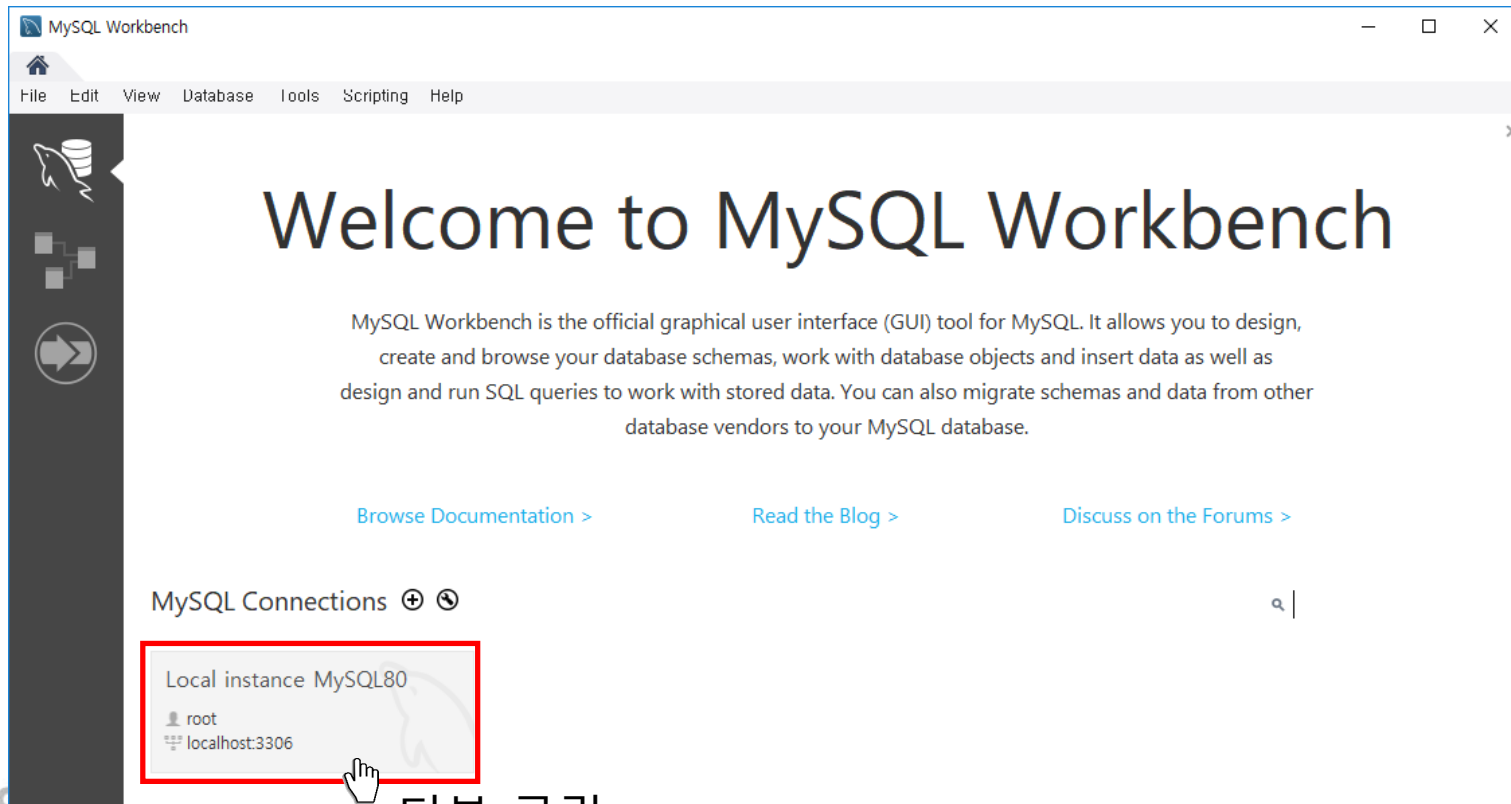
패스워드 설정



2. Database(MySQL)

■ MySQL Workbench

- 데이터베이스 설계 및 구현을 위한 GUI 프로그램
- SQL 편집, 데이터베이스 모델링, 데이터베이스 관리, 데이터베이스 마이그레이션 등의 기능을 제공함

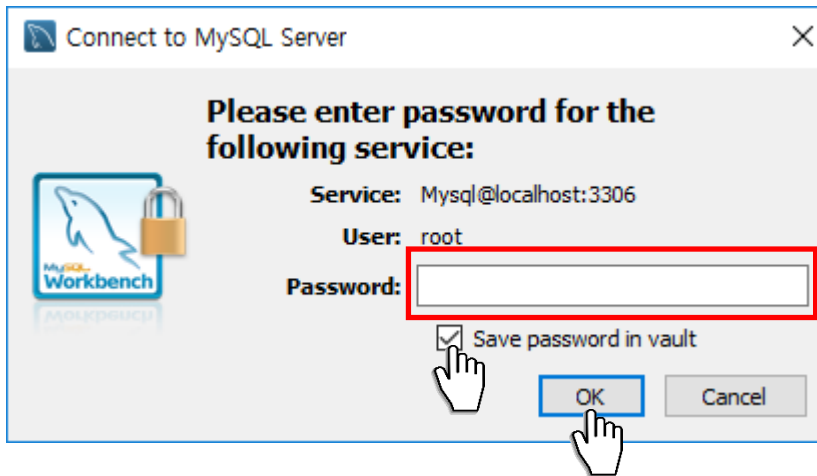


더블 클릭



2. Database(MySQL)

- MySQL Workbench 실행

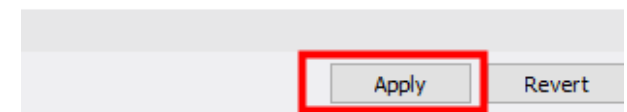
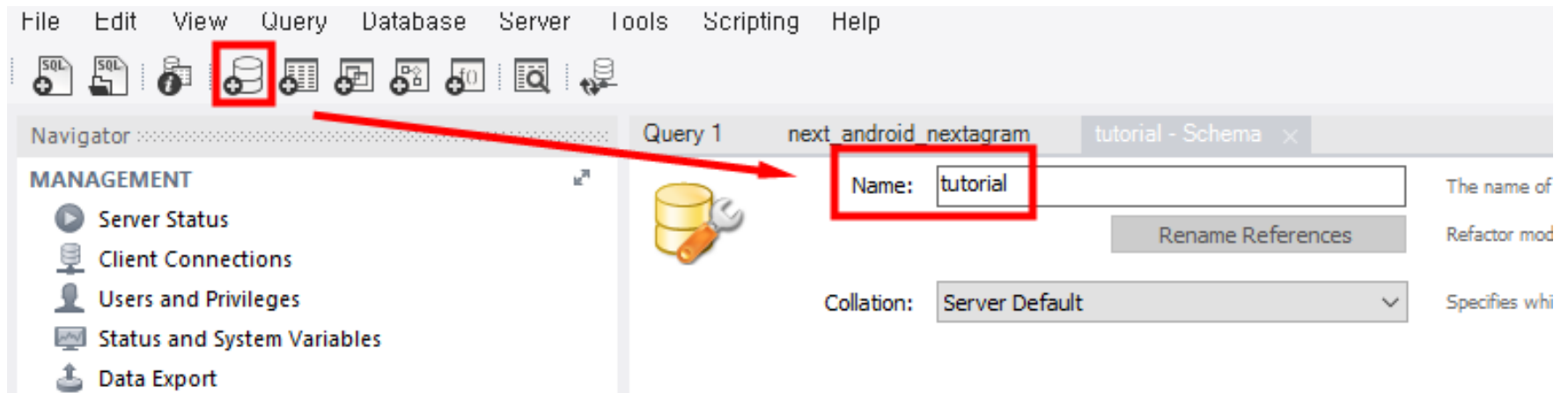


앞에서 설정한 암호입력



2. Database(MySQL)

■ Tutorial 데이터베이스 생성





2. Database(MySQL)

Apply SQL Script to Database

Review SQL Script
Apply SQL Script

Review the SQL Script to be Applied on the Database

Online DDL

Algorithm: Lock Type:

```
1 CREATE SCHEMA `tutorial` ;
2
```

Back **Apply** Cancel



2. Database(MySQL)

Apply SQL Script to Database

Review SQL Script

Apply SQL Script

Applying SQL script to the database

The following tasks will now be executed. Please monitor the execution.
Press Show Logs to see the execution logs.

☒ Execute SQL Statements

SQL script was successfully applied to the database.

Show Logs

Back

Finish

Cancel



2. Database(MySQL)

■ SQL 편집기 사용법

- 단일 명령문 실행
 - 실행하고자 하는 명령문으로 커서를 옮긴 다음 “Ctrl키 + Enter키” 혹은 번개+커서 아이콘 클릭
- 다중 명령문 실행
 - 실행하고자 하는 명령문들을 선택한 다음 “Ctrl키 + Shift키 + Enter키” 혹은 번개 아이콘 클릭
 - 명령문들을 선택하지 않으면 현재 편집창의 모든 명령문을 실행함
- 모든 명령문은 세미콜론(;)으로 끝나야 함

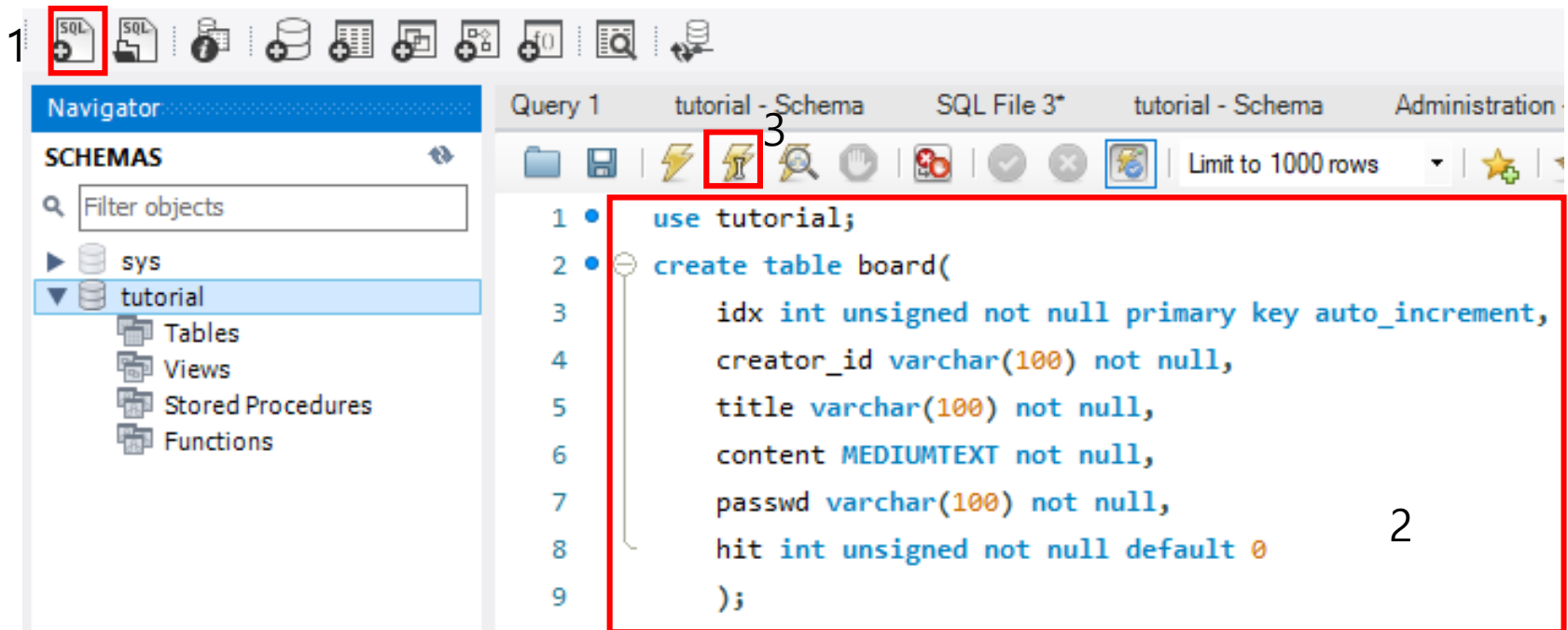




2. Database(MySQL)

- board_free 테이블 생성

1



3

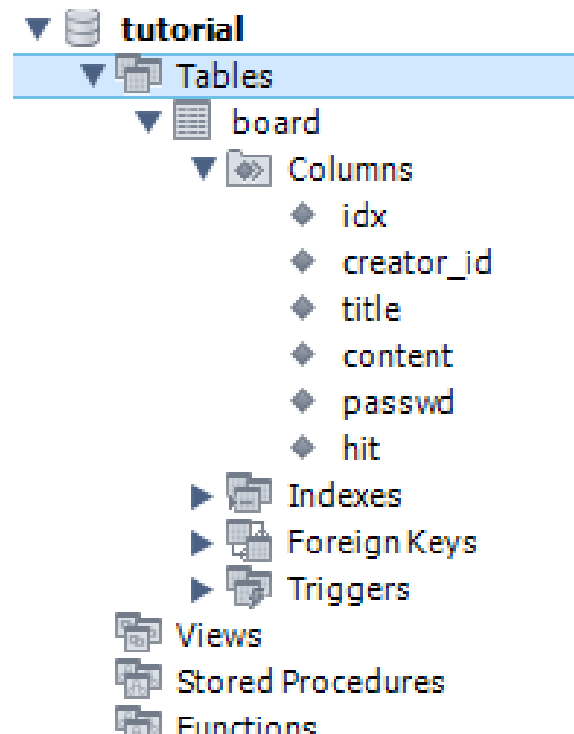
```
1 • use tutorial;
2 • create table board(
3     idx int unsigned not null primary key auto_increment,
4     creator_id varchar(100) not null,
5     title varchar(100) not null,
6     content MEDIUMTEXT not null,
7     passwd varchar(100) not null,
8     hit int unsigned not null default 0
9 );
```

2



2. Database(MySQL)

- Tables 우클릭 -> Refresh All 하여, 생성한 테이블 확인





3. SQL 기본

- create database [DB명]
 - 데이터베이스를 생성

```
C:\Program Files\MySQL\bin> mysql> create database basic;  
Query OK, 1 row affected (0.00 sec)  
  
mysql> show databases;  
+-----+  
| Database |  
+-----+  
| information_schema |  
| basic |  
| mysql |  
| performance_schema |  
| sakila |  
| sys |  
| world |  
+-----+  
7 rows in set (0.00 sec)
```



3. SQL 기본

- show databases
 - 데이터베이스 리스트 확인

```
C:\Program Files\MySQL\MySQL Server 5.5\bin> mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sakila |
| sys |
| world |
+-----+
6 rows in set (0.00 sec)

mysql>
```



3. SQL 기본

- use [DB명]
 - 데이터베이스를 선택



C:\WP

```
mysql> use basic;  
Database changed  
mysql>
```



3. SQL 기본

- create table
 - 테이블 생성

```
C:\Program Files\MySQL\MySQL5.5\bin> mysql> create table sample(  
-> item varchar(20),  
-> price int);  
Query OK, 0 rows affected (0.04 sec)  
  
mysql>
```



3. SQL 기본

- show tables
 - 테이블 리스트 출력

```
C:\WProgram
mysql> show tables;
+-----+
| Tables_in_basic |
+-----+
| sample          |
+-----+
1 row in set (0.00 sec)

mysql>
```



3. SQL 기본

- desc [table명]
 - 테이블 속성 확인

```
C:\Program Files\MySQL\MySQL Server 5.7\bin
mysql> desc sample;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| item  | varchar(20)   | YES  |     | NULL    |       |
| price | int(11)       | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql>
```




3. SQL 기본

- insert
 - 데이터 삽입



C:\Program Files\MySQL\MySQL Server 5.7\bin\mysql>

```
mysql> insert into sample(item, price) value('사과', 2000);  
Query OK, 1 row affected (0.00 sec)
```



3. SQL 기본

- SELECT 문은 SQL 질의(또는 쿼리)라고도 부름
- 기본적인 SELECT 문은 다음과 같은 구조를 가짐

```
SELECT [DISTINCT] { * | column [alias], ...}  
FROM      table  
[ WHERE  condition ]  
[ GROUP BY      group_by_expression ]  
[ HAVING group_condition ]  
[ ORDER BY      column ];
```

- SELECT, FROM, WHERE, GROUP BY, HAVING, ORDER BY 각각을 절(clause)이라고 부르며 순서대로 나와야 함
- '[']' 는 생략 가능하다는 것을 의미하고, '|' 는 OR를 의미함
- condition은 TRUE 또는 FALSE 값을 가지는 조건식을 의미함
- 컬럼명 앞에 테이블명을 명시할 수 있음
 - 예: EMP 테이블의 NAME 컬럼을 EMP.NAME으로 표시



3. SQL 기본

- select
 - 데이터 출력

C:\Program Files\MySQL

```
mysql> select * from sample;
```

```
+-----+-----+
```

```
| item   | price |
```

```
+-----+-----+
```

```
| 사과   | 2000  |
```

```
+-----+-----+
```

```
1 row in set (0.00 sec)
```

```
mysql> select item from sample;
```

```
+-----+
```

```
| item   |
```

```
+-----+
```

```
| 사과   |
```

```
+-----+
```

```
1 row in set (0.00 sec)
```



3. SQL 기본

- select ... where
 - 데이터 조건 출력

```
C:\Program Files\MySQL\MySQL Ser
mysql> select * from sample where item='사과';
+-----+-----+
| item  | price |
+-----+-----+
| 사과  | 2000  |
+-----+-----+
1 row in set (0.00 sec)

mysql> select * from sample where item='포도';
Empty set (0.00 sec)
```



3. SQL 기본

- update
 - 데이터 수정

C:\Program Files\MySQL\MySQL Server 5.7\bin

```
mysql> select * from sample where item='사과';
```

item	price
사과	2000

```
1 row in set (0.00 sec)
```

```
mysql> update sample set price=3000 where item='사과';
```

```
Query OK, 1 row affected (0.00 sec)
```

```
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> select * from sample where item='사과';
```

item	price
사과	3000

```
1 row in set (0.00 sec)
```



3. SQL 기본

- delete
 - 데이터 삭제

```
C:\Program Files\MySQL\MySQL
mysql> select * from sample;
+-----+-----+
| item  | price |
+-----+-----+
| 사과  | 3000  |
| 포도  | 1500  |
+-----+-----+
2 rows in set (0.00 sec)

mysql> delete from sample where item='사과';
Query OK, 1 row affected (0.01 sec)

mysql> select * from sample;
+-----+-----+
| item  | price |
+-----+-----+
| 포도  | 1500  |
+-----+-----+
1 row in set (0.00 sec)
```