



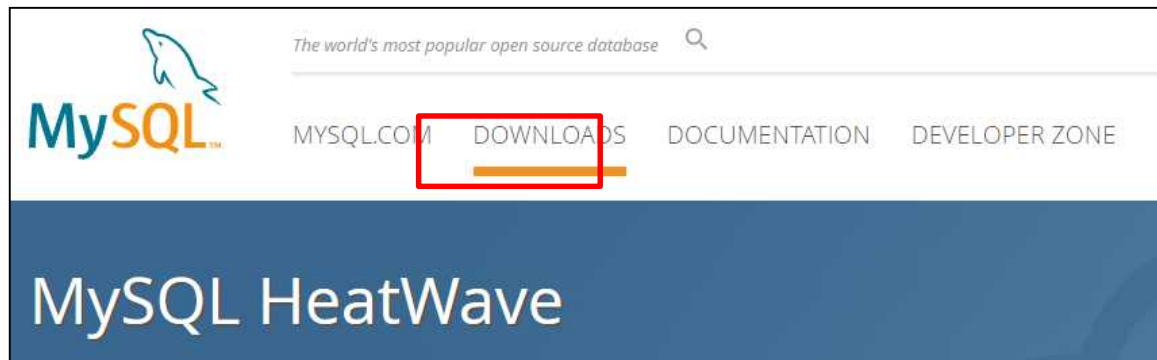
TABA_MySQL 실습

What is MySQL?



- MySQL은 가장 많이 사용되고 있는 관계형 데이터베이스 관리 시스템(RDBMS)
- MySQL은 오픈소스이며, 다중 사용자 및 다중 스레드 지원
- C, JAVA, PHP, R 등 다양한 프로그래밍 언어를 위한 API를 제공
- MySQL은 리눅스, 윈도우 등 다양한 운영체제에서 사용 가능하며, PHP와 웹 개발에 자주 사용(Apache, PHP, MySQL)

Install MySQL



Install MySQL

MySQL Community Downloads

- MySQL Yum Repository
- MySQL APT Repository
- MySQL SUSE Repository
- MySQL Community Server
- MySQL Cluster
- MySQL Router
- MySQL Shell
- MySQL Operator
- 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

Install MySQL

Repository Setup Packages

Red Hat Enterprise Linux 9 / Oracle Linux 9 (Architecture Independent), RPM Package (mysql80-community-release-el9-1.noarch.rpm)	10.3K	Download
Red Hat Enterprise Linux 8 / Oracle Linux 8 (Architecture Independent), RPM Package (mysql80-community-release-el8-4.noarch.rpm)	14.1K	Download
Red Hat Enterprise Linux 7 / Oracle Linux 7 (Architecture Independent), RPM Package (mysql80-community-release-el7-7.noarch.rpm)	10.9K	Download
Red Hat Enterprise Linux 6 / Oracle Linux 6 (Architecture Independent), RPM Package (mysql80-community-release-el6-7.noarch.rpm)	10.9K	Download

MD5: d07a0c6a95783c43d0c520c245cf18e0

MD5: 72a4647a99c7ac1e3a8efb874b1d4af4

MD5: 659400f9842fffb8d64ae0b650f081b9

MD5: 31233d8fbbcdh2700a1723736b21ec67

Install MySQL



[No thanks, just start my download.](#)

Install MySQL

- **MySQL repository 설치**
- `yum install -y https://dev.mysql.com/get/mysql80-community-release-el8-4.noarch.rpm`

```
[root@localhost shjeon]# yum install -y https://dev.mysql.com/get/mysql80-community-release-el8-4.noarch.rpm
CentOS Stream 9 - BaseOS                               112 kB/s | 5.9 MB   00:53
CentOS Stream 9 - AppStream                             5.7 MB/s | 15 MB   00:02
CentOS Stream 9 - Extras packages                       6.5 kB/s | 8.5 kB   00:01
Last metadata expiration check: 0:00:01 ago on Wed 07 Sep 2022 11:04:58 AM KST.
mysql80-community-release-el8-4.noarch.rpm             33 kB/s | 14 kB     00:00
Dependencies resolved.

=====
Package                                Architecture    Version          Repository        Size
=====
Installing:
mysql80-community-release              noarch          el8-4            @commandline      14 k
Transaction Summary
=====
Install 1 Package
```

Install MySQL

- MySQL repository 확인
- `yum repolist enabled | grep "mysql.*"`

```
[root@localhost shjeon]# yum repolist enabled | grep "mysql.*"
mysql-connectors-community      MySQL Connectors Community
mysql-tools-community          MySQL Tools Community
mysql80-community              MySQL 8.0 Community Server
```


Install MySQL

- MySQL 설치
- `yum install -y mysql-server`

```
[root@localhost shjeon]# yum install -y mysql-server
Last metadata expiration check: 0:00:58 ago on Wed 07 Sep 2022 11:07:34 AM KST.
Dependencies resolved.
```

Package	Architecture	Version	Repository	Size
Installing:				
mysql-community-server	x86_64	8.0.30-1.el8	mysql80-community	54 M
Installing dependencies:				
compat-openssl11	x86_64	1:1.1.1k-4.el9	appstream	1.5 M
mysql-community-client	x86_64	8.0.30-1.el8	mysql80-community	14 M
mysql-community-client-plugins	x86_64	8.0.30-1.el8	mysql80-community	2.5 M
mysql-community-common	x86_64	8.0.30-1.el8	mysql80-community	647 k
mysql-community-icu-data-files	x86_64	8.0.30-1.el8	mysql80-community	2.1 M

- MySQL 설치 확인
- `mysqld -V`

```
[root@localhost shjeon]# mysqld -V
/usr/sbin/mysqld Ver 8.0.30 for Linux on x86_64 (MySQL Community Server - GPL)
```

Install MySQL

- MySQL 서버 실행 및 상태 확인
- `systemctl enable mysqld && systemctl start mysqld && systemctl status mysqld`

```
[root@localhost shjeon]# systemctl enable mysqld && systemctl start mysqld && systemctl status mysqld
● mysqld.service - MySQL Server
   Loaded: loaded (/usr/lib/systemd/system/mysqld.service; enabled; vendor preset: disabled)
   Active: active (running) since Wed 2022-09-07 11:17:20 KST; 89ms ago
     Docs: man:mysqld(8)
           http://dev.mysql.com/doc/refman/en/using-systemd.html
  Process: 36678 ExecStartPre=/usr/bin/mysqld_pre_systemd (code=exited, status=0/SUCCESS)
 Main PID: 36756 (mysqld)
    Status: "Server is operational"
     Tasks: 39 (limit: 4316)
    Memory: 281.4M
       CPU: 3.147s
    CGroup: /system.slice/mysqld.service
            └─36756 /usr/sbin/mysqld

Sep 07 11:17:15 localhost.localdomain systemd[1]: Starting MySQL Server...
Sep 07 11:17:20 localhost.localdomain systemd[1]: Started MySQL Server.
```

MySQL 기본

- MySQL 8.0 버전은 서버 설치과정에서 임시 번호 생성
- `grep 'temporary password' /var/log/mysqld.log`

```
[root@localhost shjeon]# grep 'temporary password' /var/log/mysqld.log
2022-09-07T02:17:17.401082Z 6 [Note] [MY-010454] [Server] A temporary password is generated for root@localhost: pseR4ns*el<R
```

MySQL 기본

- MySQL 접속
- Mysql -u root -p
- 임시 비밀번호가 없는 경우 그냥 **mysql** 입력하면 됨.

```
[root@localhost shjeon]# mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.30

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 기본

- Root 유저의 비밀번호 변경
- 비밀번호에는 대문자, 소문자, 숫자, 기호 모두 조합
- ALTER USER 'root'@'localhost' IDENTIFIED BY 'Tibero1!';

```
[root@centos8 vagrant]# mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 12
Server version: 8.0.26 Source distribution

Copyright (c) 2000, 2021, 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> alter user 'root'@'localhost' IDENTIFIED BY 'TABa1';
Query OK, 0 rows affected (0.01 sec)
```

MySQL 기본

- 사용자 정보 확인
- `select user, host, authentication_string FROM mysql.user;`

```
mysql> select user, host, authentication_string from mysql.user;
```

user	host	authentication_string
mysql.infoschema	localhost	\$A\$005\$THISISACOMBINATIONOFINVALIDSALTANDPASSWORDTHATMUSTNEVERBRBEUSED
mysql.session	localhost	\$A\$005\$THISISACOMBINATIONOFINVALIDSALTANDPASSWORDTHATMUSTNEVERBRBEUSED
mysql.sys	localhost	\$A\$005\$THISISACOMBINATIONOFINVALIDSALTANDPASSWORDTHATMUSTNEVERBRBEUSED
root	localhost	*9058A56D277B8F43DADC2E73AB1BEE8CDE7F9F37

```
4 rows in set (0.00 sec)
```

MySQL 기본

- MySQL 내 데이터베이스 조회하기
- `show databases;`
- 데이터베이스 사용하기
- `use database명`

```
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
4 rows in set (0.01 sec)

mysql> use mysql
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
```


MySQL 기본

- Database 내 테이블 확인하기
- `show tables;`

```
mysql> show tables;
```

```
+-----+  
| Tables_in_mysql |  
+-----+  
| columns_priv    |  
| component       |  
| db              |  
| default_roles   |  
| engine_cost     |  
| func            |  
| general_log     |  
| global_grants   |  
| gtid_executed   |  
| help_category   |  
| help_keyword    |  
| help_relation   |  
| help_topic      |
```


MySQL 기본

- Database 만들기
- create database 데이터베이스명;
- show databases;

```
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
| testdb |
+-----+
5 rows in set (0.01 sec)
```