

Ubuntu18.04下安装MySQL

一、查看当前有没有安装MySQL

1、执行以下命令，如果执行后什么都没有返回，则进入MySQL的安装步骤

```
1 | dpkg -l | grep mysql
```

2、如果执行以上命令，显示如下，就证明MySQL已经安装完毕，直接使用MySQL即可

```
wangdao@wangdao:~$ dpkg -l | grep mysql
ii  mysql-client                    5.7.33-0ubuntu0.18.04.1      all      MySQL database client (metapackag
e depending on the latest version)
ii  mysql-client-5.7                5.7.33-0ubuntu0.18.04.1      amd64    MySQL database client binaries
ii  mysql-client-core-5.7           5.7.33-0ubuntu0.18.04.1      amd64    MySQL database core client binari
es
ii  mysql-common                    5.8+1.0.4                    all      MySQL database common files, e.g.
/etc/mysql/my.cnf
ii  mysql-server                    5.7.33-0ubuntu0.18.04.1      all      MySQL database server (metapackag
e depending on the latest version)
ii  mysql-server-5.7                5.7.33-0ubuntu0.18.04.1      amd64    MySQL database server binaries an
d system database setup
ii  mysql-server-core-5.7           5.7.33-0ubuntu0.18.04.1      amd64    MySQL database server binaries
wangdao@wangdao:~$
```

二、安装MySQL

1、执行以下命令进行安装

```
1 | #更新软件列表
2 | $ sudo apt update
3 |
4 | #安装MySQL
5 | $ sudo apt install mysql-server mysql-client
6 |
7 | #安装MySQL客户端依赖包，后面进行编程时候需要使用
8 | $ sudo apt install libmysqlclient-dev
```

2、安装完成之后，输入下面命令进行查看

```
1 | netstat -tap | grep mysql
```

通过上述命令检查之后，如果看到有 mysql 的socket处于 LISTEN 状态则表示安装成功，如下：

```
wangdao@wangdao:~$ netstat -tap | grep mysql
(Not all processes could be identified, non-owned process info
will not be shown, you would have to be root to see it all.)
tcp        0      0 0.0.0.0:mysql        0.0.0.0:*
wangdao@wangdao:~$
```

LISTEN

三、配置MySQL

1、初始化配置

```
1 | sudo mysql_secure_installation
```

```
wangdao@wangdao:~$ sudo mysql_secure_installation
[sudo] password for wangdao:

Securing the MySQL server deployment.

Enter password for user root:
The 'validate_password' plugin is installed on the server.
The subsequent steps will run with the existing configuration
of the plugin.
Using existing password for root.

Estimated strength of the password: 25
Change the password for root ? ((Press y|Y for Yes, any other key for No)
... skipping.
By default, a MySQL installation has an anonymous user,
allowing anyone to log into MySQL without having to have
a user account created for them. This is intended only for
testing, and to make the installation go a bit smoother.
You should remove them before moving into a production
environment.

Remove anonymous users? (Press y|Y for Yes, any other key for No) : Y
Success.

Remove anonymous users? (Press y|Y for Yes, any other key for No) : Y
Success.

Normally, root should only be allowed to connect from
'localhost'. This ensures that someone cannot guess at
the root password from the network.

Disallow root login remotely? (Press y|Y for Yes, any other key for No) : N
... skipping.
By default, MySQL comes with a database named 'test' that
anyone can access. This is also intended only for testing,
and should be removed before moving into a production
environment.

Remove test database and access to it? (Press y|Y for Yes, any other key for No) : N
... skipping.
Reloading the privilege tables will ensure that all changes
made so far will take effect immediately.

Reload privilege tables now? (Press y|Y for Yes, any other key for No) : Y
Success.

All done!
wangdao@wangdao:~$
```

输入密码，在这里根据自己需要配置，我这里已经配置过，所以直接输入即可

因为配置过，直接跳过

根据需要选择即可

2、检查MySQL的服务状态，输入如下命令：

```
1 | $ systemctl status mysql.service
2 | #或者使用如下命令(两者都可以查看当前MySQL的状态)
3 | $ sudo service mysql status
```

如下显示就说明MySQL服务是正常的。

```
wangdao@wangdao:~$ systemctl status mysql.service
● mysql.service - MySQL Community Server
   Loaded: loaded (/lib/systemd/system/mysql.service; enabled; vendor preset: enabled)
   Active: active (running) since Fri 2021-03-12 09:21:31 CST; 32min ago
     Main PID: 1294 (mysqld)
       Tasks: 29 (limit: 2310)
      CGroup: /system.slice/mysql.service
              └─1294 /usr/sbin/mysqld --daemonize --pid-file=/run/mysqld/mysqld.pid

3月 12 09:21:07 wangdao systemd[1]: Starting MySQL Community Server...
3月 12 09:21:31 wangdao systemd[1]: Started MySQL Community Server.
wangdao@wangdao:~$
wangdao@wangdao:~$
```

四、登录MySQL

1、使用以下命令进行登录

```
1 | mysql -u root -p
```

```
wangdao@wangdao:~$ mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 12
Server version: 5.7.33-0ubuntu0.18.04.1 (Ubuntu)

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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>
mysql>
```

这样就安装成功了，无需下面的操作。如果登录不进去，直接跳到“安装MySQL中常见问题”“密码设置问题”继续执行即可。

ubuntu18.04安装MySQL异常问题

一、卸载MySQL

如果在安装MySQL过程中安装多次都失败了，可以选择先清除MySQL，方法步骤如下。

1、首先在系统终端中查看MySQL的依赖项，运行命令

```
1 | dpkg --get-selections | grep mysql
```

2、卸载命令

```
1 | sudo apt-get remove mysql-common
```

3、卸载命令

```
1 | sudo apt-get autoremove --purge mysql-server-5.7
```

4、清除残留数据，运行命令

```
1 | dpkg -f | grep ^rc | awk '{print$2}' | sudo xargs dpkg -P
```

5、再次查看MySQL的剩余依赖项，运行命令

```
1 | dpkg --get-depends | grep mysql
```

6、继续删除剩余依赖项，如：

```
1 | sudo apt-get autoremove --purge mysql-apr-config
```

7、继续运行步骤1中的命令

```
1 | dpkg --get-depends | grep mysql
```

直到执行该命令后什么都没有显示。

安装MySQL中常见问题

1、密码设置问题

密码设置一直不符合要求，其实就是密码设置简单了，稍微设置复杂点即可，或者修改密码设置等级与长度。

可能出现的就是这个报错

```
1 | ERROR 1819 (HY000): Your password does not satisfy the current policy requirements
```

可以在mysql中进行如下修改：

1、输入一下这个命令，显示相关密码的信息

```
1 | #执行查看命令
2 | $ sudo cat /etc/mysql/debian.cnf
3 |
4 | #得到如下信息
5 | $ sudo cat /etc/mysql/debian.cnf
6 | # Automatically generated for Debian scripts. DO NOT TOUCH!
7 | [client]
8 | host      = localhost
9 | user      = debian-sys-maint    #这个用户名
10 | password = NByGHAMyGHerjzGw   #这个是密码
11 | socket    = /var/run/mysqld/mysqld.sock
12 | [mysql_upgrade]
13 | host      = localhost
```

```

14 user      = debian-sys-maint
15 password  = NBygHAMyGHerjzGw
16 socket    = /var/run/mysqld/mysqld.sock
17
18
19 #用上面的用户名和命名登录MySQL数据库
20 $ mysql -u debian-sys-maint -p
21
22 #输入命令后然后输入密码，对应上面的passwd，输入后进入MySQL命令行界面
23 $ mysql -u debian-sys-maint -p
24 Enter password:
25 welcome to the MySQL monitor.  Commands end with ; or \g.
26 Your MySQL connection id is 4
27 Server version: 5.7.33-0ubuntu0.18.04.1 (Ubuntu)
28
29 Copyright (c) 2000, 2021, Oracle and/or its affiliates.
30
31 Oracle is a registered trademark of Oracle Corporation and/or its
32 affiliates. Other names may be trademarks of their respective
33 owners.
34
35 Type 'help;' or '\h' for help. Type '\c' to clear the current input
36 statement.
37
38 mysql> #这个标志表示已经成功进入mysql命令行界面
39
40 #然后在mysql命令行输入命令（以分号结尾）
41 mysql> use mysql;
42
43 mysql> SHOW VARIABLES LIKE 'validate_password%';
44 +-----+-----+
45 | Variable_name | Value |
46 +-----+-----+
47 | validate_password_check_user_name | OFF |
48 | validate_password_dictionary_file | |
49 | validate_password_length | 8 |
50 | validate_password_mixed_case_count | 1 |
51 | validate_password_number_count | 1 |
52 | validate_password_policy | MEDIUM |
53 | validate_password_special_char_count | 1 |
54 +-----+-----+
55 7 rows in set (0.08 sec)
56
57 mysql>
58 #然后设置密码策略为简单
59 mysql> set global validate_password_policy=LOW;
60 Query OK, 0 rows affected (0.00 sec)
61 mysql>
62
63 #设置密码长度为4
64 mysql> set global validate_password_length=4;
65 Query OK, 0 rows affected (0.00 sec)
66 mysql>
67
68 #然后在继续查看密码相关信息
69 mysql> show variables like 'validate_password%';
70 +-----+-----+

```

```

71 | variable_name | value |
72 +-----+-----+
73 | validate_password_check_user_name | OFF |
74 | validate_password_dictionary_file | |
75 | validate_password_length | 4 |
76 | validate_password_mixed_case_count | 1 |
77 | validate_password_number_count | 1 |
78 | validate_password_policy | LOW |
79 | validate_password_special_char_count | 1 |
80 +-----+-----+
81 7 rows in set (0.00 sec)
82
83 mysql>
84
85 #接着输入如下命令（以分号结尾），有四个命令，相应的'你的命名'换成自己想设计的密码，
86 mysql> update mysql.user set authentication_string=password('你的密码，四位')
    where user='root' and Host ='localhost';
87 mysql> update user set plugin="mysql_native_password";
88 mysql> flush privileges;
89 mysql> quit;

```

2、使用远程登录的配置修改

1、进入配置文件修改相应配置，命令如下：

```
1 | sudo vim /etc/mysql/mysql.conf.d/mysqld.cnf
```

注释掉bind-address = 127.0.0.1,

```

40 #
41 # Instead of skip-networking the default is now to listen only on
42 # localhost which is more compatible and is not less secure.
43 #bind-address = 127.0.0.1
44 #
45 # * Fine Tuning
46 #
47 key_buffer_size = 16M
48 max_allowed_packet = 16M
49 thread_stack = 192K
50 thread_cache_size = 8

```

保存退出，然后进入mysql数据库，

```
1 | mysql -u root -p
```

执行授权命令

```

1 | #你的密码需要自己设置，不要直接复制
2 | mysql> grant all on *.* to root@'%' identified by '你的密码' with grant
    option;
3 |
4 | # 刷新权限
5 | mysql> flush privileges;
6 |
7 | #然后执行exit命令退出mysql服务
8 | mysql> exit;

```

再执行如下命令重启mysql

```
1 | systemctl restart mysql
```

3、MySQL常用命令

```
1 | #查看MySQL的状态
2 | $ sudo service mysql status
3 |
4 | #MySQL的启动
5 | $ sudo service mysql start
6 |
7 | #MySQL的停止
8 | $ sudo service mysql stop
```

4、设置MySQL的自动补全功能

直接只用命令进入到配置文件，命令如下：

```
1 | $ cd /etc/mysql/mysql.conf.d/
2 |
3 | $ sudo vim mysqld.cnf
```

在下面加入一行auto-rehash，显示如下：

```
38 lc-messages-dir = /usr/share/mysql
39 skip-external-locking
40 #
41 # Instead of skip-networking the default is now to listen only on
42 # localhost which is more compatible and is not less secure.
43 #bind-address      = 127.0.0.1
44 #
45 auto-rehash
46 # * Fine Tuning
47 #
48 key_buffer_size    = 16M
...
...
```

然后保存退出

```
1 | w!sudo tee %
```

然后必须要重启MySQL，命令如下

```
1 | sudo service mysql start
```

这样在MySQL中就可以进行自动联想功能（类似Linux下的命令行一样，也是Tab键。注意：只能联想表和列的名字，并没有Linux下面的功能强大）。

5、在重启MySQL时候如果出现打不开，可以查看日志

1、查看系统日志

```
1 | vim /var/log/syslog  
2 | #在里面搜索关键字mysql、error
```

2、查看MySQL自己的日志

```
1 | vim /var/log/mysql/error.log
```