

# 1. MySQL 在 Centos 7环境安装

说明：

- 安装与卸载中，用户全部切换成为root，一旦 安装，普通用户能使用的
- 初期练习，mysql不进行用户管理，全部使用root进行，尽快适应mysql语句，后面学了用户管理，在考虑新建普通用户

## 1. 卸载不要的环境

```
1 [whb@VM-0-3-centos ~]$ ps ajx |grep mariadb # 先检查是否有mariadb存在
2 13134 14844 14843 13134 pts/0 14843 S+ 1005 0:00 grep --color=auto mariadb
3 19010 19187 19010 19010 ? -1 Sl 27 16:55 /usr/libexec/mysqld --basedir=/usr --datadir=/var/lib/mysql --plugin-dir=/usr/lib64/mysql/plugin --log-error=/var/log/mariadb/mariadb.log --pid-file=/var/run/mariadb/mariadb.pid --socket=/var/lib/mysql/mysql.sock
4 [whb@VM-0-3-centos ~]$ systemctl stop mariadb.service # 停止mariadb 服务
5 ==== AUTHENTICATING FOR org.freedesktop.systemd1.manage-units ===
6 Authentication is required to manage system services or units.
7 Authenticating as: root
8 Password:
9 ==== AUTHENTICATION COMPLETE ===
10 [whb@VM-0-3-centos ~]$ ps axj |grep mariadb # 停止完成
11 13134 14976 14975 13134 pts/0 14975 S+ 1005 0:00 grep --color=auto mariadb
```

## 2. 检查系统安装包

```
1
2 [whb@VM-0-3-centos ~]$ rpm -qa | grep mariadb
3 or
4 [whb@VM-0-3-centos ~]$ rpm -qa | grep mysql
5 ...
6 ...
7 ...
8
9 # 下面是打印出来的mysql的样例，
10 [root@bite-alicloud mysql]# rpm -qa | grep mysql
11 mysql-community-common-5.7.41-1.el7.x86_64
```

```
12 mysql-community-server-5.7.41-1.el7.x86_64
13 mysql57-community-release-el7-11.noarch
14 mysql-community-client-5.7.41-1.el7.x86_64
15 mysql-community-libs-5.7.41-1.el7.x86_64
```

### 3. 卸载这些默认安装包

```
1 #卸载显示出来的mariadb/mysql安装包
2 [whb@VM-0-3-centos ~]$ sudo yum remove mariadb # 还是试着将上面的包都一个一个卸载吧
3
4
5 备份/etc/my.cnf,备份/var/lib/mysql数据
```

### 4. 获取mysql官方yum源

```
1 #1. 获取mysql官方yum源      http://repo.mysql.com/
2 # 一定要看下面的文字! 如果后面自己安装不成功,就看看这个
3 # 注意: 最好安装和自己系统一致的mysql版本, 否则可能会存在软件兼容性问题
4 # 查看自己的系统版本
5 # [root@VM-0-2-centos ~]# cat /etc/redhat-release
6 # CentOS Linux release 7.8.2003 (Core)
7 # 可以进入 http://repo.mysql.com/, 找一下和自己版本一致的资源
8 # 下载到你的本地, 然后上传到你的Linux服务器
```

### 5. 安装mysql yum 源, 对比前后yum源

```
1 # 安装前
2 [whb@VM-0-3-centos 9.9]$ ls
3 mysql57-community-release-el7-10.noarch.rpm
4
5 查看你本地的yum源 [我的和你的肯定不同, 但是没有mysql相关的yum源]
6 [whb@VM-0-3-centos 9.9]$ ls /etc/yum.repos.d/ -al
7 total 88
8 drwxr-xr-x.  2 root root  4096 Apr  9 15:43 .
9 drwxr-xr-x. 106 root root 12288 Apr 12 10:50 ..
10 -rw-r--r--   1 root root  2523 Dec 26 19:31 Centos-Base.repo
11 -rw-r--r--   1 root root   614 Nov 10 18:42 CentOS-Base.repo_bak
12 -rw-r--r--   1 root root  2523 Jun 16 2018 CentOS-Base.repo.bak
13 -rw-r--r--   1 root root  1309 Apr  8 2020 CentOS-CR.repo
14 -rw-r--r--   1 root root   649 Apr  8 2020 CentOS-Debuginfo.repo
```

```

15 -rw-r--r-- 1 root root 230 Nov 10 18:42 CentOS-Epel.repo
16 -rw-r--r-- 1 root root 314 Apr 8 2020 CentOS-fasttrack.repo
17 -rw-r--r-- 1 root root 630 Apr 8 2020 CentOS-Media.repo
18 -rw-r--r-- 1 root root 998 Dec 11 2018 CentOS-SCLo-scl.repo
19 -rw-r--r-- 1 root root 971 Oct 29 2018 CentOS-SCLo-scl-rh.repo
20 -rw-r--r-- 1 root root 1331 Apr 8 2020 CentOS-Sources.repo
21 -rw-r--r-- 1 root root 7577 Apr 8 2020 CentOS-Vault.repo
22 -rw-r--r-- 1 root root 616 Apr 8 2020 CentOS-x86_64-kernel.repo
23 -rw-r--r-- 1 root root 1919 Apr 8 23:57 docker-ce.repo
24 -rw-r--r-- 1 root root 1050 Nov 1 04:33 epel.repo
25 -rw-r--r-- 1 root root 1149 Nov 1 04:33 epel-testing.repo
26 -rw-r--r-- 1 root root 173 Dec 9 16:08 google-chrome.repo
27
28
29 ##安装中
30 [whb@VM-0-3-centos 9.9]$ rpm -Uvh mysql57-community-release-el7-10.noarch.rpm
31 warning: mysql57-community-release-el7-10.noarch.rpm: Header V3 DSA/SHA1
    Signature, key ID 5072e1f5: NOKEY
32 error: can't create transaction lock on /var/lib/rpm/.rpm.lock (Permission
    denied)
33 # 如果上面出错了
34 [whb@VM-0-3-centos 9.9]$ sudo rpm -Uvh mysql57-community-release-el7-
    10.noarch.rpm
35 [sudo] password for whb:
36 warning: mysql57-community-release-el7-10.noarch.rpm: Header V3 DSA/SHA1
    Signature, key ID 5072e1f5: NOKEY
37 Preparing... ##### [100%]
38 Updating / installing...
39 1:mysql57-community-release-el7-10 ##### [100%]
40
41 # 安装后
42 [whb@VM-0-3-centos 9.9]$ ls /etc/yum.repos.d/ -al
43 total 96
44 drwxr-xr-x. 2 root root 4096 Apr 12 11:04 .
45 drwxr-xr-x. 106 root root 12288 Apr 12 10:50 ..
46 -rw-r--r-- 1 root root 2523 Dec 26 19:31 Centos-Base.repo
47 -rw-r--r-- 1 root root 614 Nov 10 18:42 CentOS-Base.repo_bak
48 -rw-r--r-- 1 root root 2523 Jun 16 2018 CentOS-Base.repo.bak
49 -rw-r--r-- 1 root root 1309 Apr 8 2020 CentOS-CR.repo
50 -rw-r--r-- 1 root root 649 Apr 8 2020 CentOS-Debuginfo.repo
51 -rw-r--r-- 1 root root 230 Nov 10 18:42 CentOS-Epel.repo
52 -rw-r--r-- 1 root root 314 Apr 8 2020 CentOS-fasttrack.repo
53 -rw-r--r-- 1 root root 630 Apr 8 2020 CentOS-Media.repo
54 -rw-r--r-- 1 root root 998 Dec 11 2018 CentOS-SCLo-scl.repo
55 -rw-r--r-- 1 root root 971 Oct 29 2018 CentOS-SCLo-scl-rh.repo
56 -rw-r--r-- 1 root root 1331 Apr 8 2020 CentOS-Sources.repo
57 -rw-r--r-- 1 root root 7577 Apr 8 2020 CentOS-Vault.repo

```

```

58 -rw-r--r--    1 root root    616 Apr  8  2020 CentOS-x86_64-kernel.repo
59 -rw-r--r--    1 root root   1919 Apr  8 23:57 docker-ce.repo
60 -rw-r--r--    1 root root   1050 Nov  1 04:33 epel.repo
61 -rw-r--r--    1 root root   1149 Nov  1 04:33 epel-testing.repo
62 -rw-r--r--    1 root root    173 Dec  9 16:08 google-chrome.repo
63 -rw-r--r--    1 root root   1627 Apr  5  2017 mysql-community.repo      #安装了
    mysql yum源
64 -rw-r--r--    1 root root   1663 Apr  5  2017 mysql-community-source.repo

```

## 6. 看看能不能正常工作

```

1 #在看看能不能正常工作
2 [whb@VM-0-3-centos 9.9]$ yum list |grep mysql
3 Repository epel is listed more than once in the configuration
4 mysql57-community-release.noarch           el7-10             installed

5 akonadi-mysql.x86_64                       1.9.2-4.el7        base
6 anope-mysql.x86_64                         2.0.9-3.el7        epel
7 apr-util-mysql.x86_64                     1.5.2-6.el7        base
8 calligra-kexi-driver-mysql.x86_64         2.9.10-2.el7       epel
9 collectd-mysql.x86_64                     5.8.1-1.el7        epel
10 dmlite-plugins-mysql.x86_64               1.14.2-1.el7       epel
11 dovecot-mysql.x86_64                      1:2.2.36-8.el7     base

```

## 7. 安装mysql服务

```

1 [whb@VM-0-3-centos 9.9]$ sudo yum install -y mysql-community-server
2 [sudo] password for whb:
3 Loaded plugins: aliases, auto-update-debuginfo, fastestmirror, protectbase
4 Repository epel is listed more than once in the configuration
5 ...
6          Installing : mysql-community-common-5.7.33-1.el7.x86_64      #公共模块

7          Installing : mysql-community-libs-5.7.33-1.el7.x86_64       #库
8          Installing : mysql-community-client-5.7.33-1.el7.x86_64     #客户端
9          Installing : mysql-community-server-5.7.33-1.el7.x86_64     #服务器
10 ... #安装了服务和客户端

```

11

12 # 如果报错了，看第16步《常见问题》

## 8. 查看配置文件和数据存储位置

```
1 [whb@VM-0-3-centos 9.9]$ ls /etc/my.cnf
2 /etc/my.cnf
3 [whb@VM-0-3-centos 9.9]$ sudo ls /var/lib/mysql
4 ....
```

## 9. 启动服务

```
1 [whb@VM-0-3-centos 9.9]$ systemctl start mysqld.service
2 ==== AUTHENTICATING FOR org.freedesktop.systemd1.manage-units ====
3 Authentication is required to manage system services or units.
4 Authenticating as: root
5 Password:
6 ==== AUTHENTICATION COMPLETE ===
```

## 10. 查看启动服务

```
1 [whb@VM-0-3-centos 9.9]$ ps axj |grep mysqld
2      1 23183 23182 23182 ?          -1 Sl      27    0:00 /usr/sbin/mysqld --
   daemonize --pid-file=/var/run/mysqld/mysqld.pid
3 13134 23243 23242 13134 pts/0    23242 S+    1005    0:00 grep --color=auto
   mysqld
```

## 11. 登陆方法一【不行就下一个】

```
1 #获取临时root密码
2 [whb@VM-0-3-centos 9.9]$ sudo grep 'temporary password' /var/log/mysqld.log
3 2021-04-12T03:23:46.153263Z 1 [Note] A temporary password is generated for
   root@localhost: yLMa!T:v+5!*<
4
5 #使用临时密码登录
6 [whb@VM-0-3-centos 9.9]$ mysql -uroot -p
7 Enter password:
8
```

```
9 #判断修改密码时候新密码是否符合当前的策略, 不满足报错, 不让修改, 关闭它
10 #安全强度, 默认为中, 即1, 要求必须包含 数字、符号、大小写字母, 长度至少为8位
11 mysql> set global validate_password_policy=0;
12 Query OK, 0 rows affected (0.00 sec)
13
14 #密码最小长度
15 mysql> set global validate_password_length=1;
16 Query OK, 0 rows affected (0.00 sec)
17
18 #修改本地登录密码, 暂不授权远程登录
19 mysql> ALTER USER 'root'@'localhost' IDENTIFIED BY 'qwer@wu.888';
20 Query OK, 0 rows affected (0.00 sec)
21
22 mysql> FLUSH PRIVILEGES;
23 Query OK, 0 rows affected (0.00 sec)
24
25 #如果你安装的最新的mysql, 没有所谓的临时密码, root默认没有密码
```

## 12. 登陆方法二【不行就下一个】

```
1 # 如果你安装的最新的mysql, 没有所谓的临时密码, root默认没有密码
2 # 试着直接client登陆一下
```

## 13. 登陆方式三【应该行了吧】

```
1 [root@bite-alicloud mysql]# vim /etc/my.cnf      # 打开mysql配置文件
2
3 在[mysqld]最后一栏配置(不知道是什么, 就放在配置文件最后) 加入: skip-grant-tables 选项,
  并保存退出
4
5 [root@bite-alicloud mysql]# systemctl restart mysqld # 重启mysql服务
6
7 # 登陆成功
8 [root@bite-alicloud mysql]# mysql -uroot
9 Welcome to the MySQL monitor.  Commands end with ; or \g.
10 Your MySQL connection id is 2
11 Server version: 5.7.41 MySQL Community Server (GPL)
12
13 Copyright (c) 2000, 2023, Oracle and/or its affiliates.
14
15 Oracle is a registered trademark of Oracle Corporation and/or its
16 affiliates. Other names may be trademarks of their respective
17 owners.
```

```
18
19 Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
20
21 mysql>
```

## 14. 设置开机启动[可以不设]

```
1 #开启开机自启动
2 systemctl enable mysqld
3 systemctl daemon-reload
```

## 15. 配置my.cnf

```
1 #配置一下my.conf,主要是数据库客户端和服务器的编码格式
2
3 [whb@VM-0-3-centos 9.9]$ cat /etc/my.cnf
4 # For advice on how to change settings please see
5 # http://dev.mysql.com/doc/refman/5.7/en/server-configuration-defaults.html
6 [mysql]
7 #default-character-set=utf8 , 暂不设置, mysql有bug, 汉字不回显
8
9 [mysqld]
10 #
11 # Remove leading # and set to the amount of RAM for the most important data
12 # cache in MySQL. Start at 70% of total RAM for dedicated server, else 10%.
13 # innodb_buffer_pool_size = 128M
14 #
15 # Remove leading # to turn on a very important data integrity option: logging
16 # changes to the binary log between backups.
17 # log_bin
18 #
19 # Remove leading # to set options mainly useful for reporting servers.
20 # The server defaults are faster for transactions and fast SELECTs.
21 # Adjust sizes as needed, experiment to find the optimal values.
22 # join_buffer_size = 128M
23 # sort_buffer_size = 2M
24 # read_rnd_buffer_size = 2M
25 port=3306
26 datadir=/var/lib/mysql
27 socket=/var/lib/mysql/mysql.sock
28
29 # Disabling symbolic-links is recommended to prevent assorted security risks
30 symbolic-links=0
```

```
31
32 log-error=/var/log/mysqld.log
33 pid-file=/var/run/mysqld/mysqld.pid
34
35 character-set-server=utf8
36 default-storage-engine=innodb
37
38 # 配置完毕，重启mysql即可
```

## 16. 常见问题：

```
1 mysql 已经配置了客户端服务器utf8编码，但是无法输入中文
2
3 确保您在终端命令行中可以输入中文
4 [whb@VM-0-3-centos ~]$ env |grep LANG
5 LANG=en_US.utf8
```

```
1 安装遇到密钥过期的问题：
2 Failing package is: mysql-community-client-5.7.39-1.el7.x86_64
3 GPG Keys are configured as: file:///etc/pki/rpm-gpg/RPM-GPG-KEY-mysql
4
5 解决方案：
6 rpm --import https://repo.mysql.com/RPM-GPG-KEY-mysql-2022
```