

Linux安装mysql - ZC201695 - 博客园

一、下载

这里我创建了一目录software用于存放我们待会要下载的mysql包, 先去到该目录

命令: cd /software

命令: wget http://mirrors.sohu.com/mysql/MySQL-5.7/mysql-5.7.17-linux-glibc2.5-x86_64.tar

```
Last login: Sun Jan 8 18:50:50 2017
```

```
[larry@localhost ~]$ cd /software/
```

```
[larry@localhost software]$ ll
```

总用量 667240

```
-rw-r--r--. 1 root root      46 1月  4 19:20 1.txt
drwxr-xr-x. 9 root root    4096 1月  4 17:05 apache-tomcat-8.5.9
drwxr-xr-x. 8 root root    4096 12月 7 23:57 eclipse
drwxr-xr-x. 8  10 143     4096 9月 22 16:27 jdk1.8.0_111
-rw-r--r--. 1 root root 683233280 11月 28 06:56 mysql-5.7.17-linux-glibc2.5-x86_64.tar
```

下载完成后, 你会在software这个目录下看到多出了空色框的文件

二、建立用户, 以及mysql的目录

1、groupadd mysql #建立一个mysql的组

2、useradd -r -g mysql mysql #建立mysql用户, 并且把用户放到mysql组

3、passwd mysql #给mysql用户设置一个密码

三、解压mysql

1、把tar包移动到/usr/local 目录下

mv /software/mysql-5.7.17-linux-glibc2.5-x86_64.tar /usr/local

2、解压

cd /usr/local

tar xvf mysql-5.7.17-linux-glibc2.5-x86_64.tar.gz

```
[root@localhost local]# tar xvf mysql-5.7.17-linux-glibc2.5-x86_64.tar
```

```
mysql-5.7.17-linux-glibc2.5-x86_64.tar.gz
```

AC

```
[root@localhost local]# ll
```

总用量 1007872

```
drwxr-xr-x. 2 root root      6 6月  9 2014 bin
drwxr-xr-x. 2 root root      6 6月  9 2014 etc
drwxr-xr-x. 2 root root      6 6月  9 2014 games
drwxr-xr-x. 2 root root      6 6月  9 2014 include
drwxr-xr-x. 2 root root      6 6月  9 2014 lib
drwxr-xr-x. 2 root root      6 6月  9 2014 lib64
drwxr-xr-x. 2 root root      6 6月  9 2014 libexec
-rw-r--r--. 1 root root 683233280 11月 28 06:56 mysql-5.7.17-linux-glibc2.5-x86_64.tar
-rw-----. 1 root root 348825088 1月  8 19:07 mysql-5.7.17-linux-glibc2.5-x86_64.tar.gz
drwxr-xr-x. 2 root root      6 6月  9 2014 sbin
drwxr-xr-x. 5 root root    46 1月  2 08:17 share
drwxr-xr-x. 2 root root      6 6月  9 2014 src
```

多出来的文件

tar zxvf mysql-5.7.17-linux-glibc2.5-x86_64.tar.gz

```
[root@localhost local]# ll
```

总用量 1007872

```
drwxr-xr-x. 2 root root      6 6月  9 2014 bin
drwxr-xr-x. 2 root root      6 6月  9 2014 etc
drwxr-xr-x. 2 root root      6 6月  9 2014 games
drwxr-xr-x. 2 root root      6 6月  9 2014 include
drwxr-xr-x. 2 root root      6 6月  9 2014 lib
drwxr-xr-x. 2 root root      6 6月  9 2014 lib64
drwxr-xr-x. 2 root root      6 6月  9 2014 libexec
drwxr-xr-x. 4 root root    26 1月  8 19:09 mysql-5.7.17-linux-glibc2.5-x86_64
-rw-r--r--. 1 root root 683233280 11月 28 06:56 mysql-5.7.17-linux-glibc2.5-x86_64.tar
-rw-----. 1 root root 348825088 1月  8 19:07 mysql-5.7.17-linux-glibc2.5-x86_64.tar.gz
drwxr-xr-x. 2 root root      6 6月  9 2014 sbin
drwxr-xr-x. 5 root root    46 1月  2 08:17 share
drwxr-xr-x. 2 root root      6 6月  9 2014 src
```

这是我们要的目录

这两个文件可以删了

【多出目录 mysql-5.7.17-linux-glibc2.5-x86_64】

注意: 没有data 目录, my.ini 在support-files 目录

3、改一下目录名字为/usr/local/mysql (linux下mysql的默认安装目录)

mv mysql-5.7.17-linux-glibc2.5-x86_64 mysql

```
[root@localhost local]# rm -f mysql-5.7.17-linux-glibc2.5-x86_64.tar
[root@localhost local]# rm -f mysql-5.7.17-linux-glibc2.5-x86_64.tar.gz
[root@localhost local]# mv mysql-5.7.17-linux-glibc2.5-x86_64/ mysql
[root@localhost local]# ll
```

总用量 0

```
drwxr-xr-x. 2 root root 6 6月 9 2014 bin
drwxr-xr-x. 2 root root 6 6月 9 2014 etc
drwxr-xr-x. 2 root root 6 6月 9 2014 games
drwxr-xr-x. 2 root root 6 6月 9 2014 include
drwxr-xr-x. 2 root root 6 6月 9 2014 lib
drwxr-xr-x. 2 root root 6 6月 9 2014 lib64
drwxr-xr-x. 2 root root 6 6月 9 2014 libexec
drwxr-xr-x. 4 root root 26 1月 8 19:09 mysql
drwxr-xr-x. 2 root root 6 6月 9 2014/sbin
drwxr-xr-x. 5 root root 46 1月 2 08:17 share
drwxr-xr-x. 2 root root 6 6月 9 2014 src
```

将我们刚刚要的目录改名为mysql, 并删除没有的文件

四、配置相关的启动配置文件

1、复制my-default.cnf 到 /etc/my.cnf (mysqld启动时自动读取)

cp my-default.cnf /etc/my.cnf

2、复制mysql.server 到/etc/init.d/ 目录下【目的想实现mysqld -install这样开机自动执行效果】

【/etc/init.d/ 目录, 等效于注册表HKEY_LOCAL_MACHINE\SYSTEM\ControlSet001\services 记录有那些服务】

cp mysql.server /etc/init.d/mysql (mysql是服务名)

```
[root@localhost support-files]# ll
```

总用量 28

```
-rw-r--r--. 1 7161 31415 773 11月 28 05:32 magic
-rw-r--r--. 1 7161 31415 1126 11月 28 07:39 my-default.cnf
-rwxr-xr-x. 1 7161 31415 1061 11月 28 07:39 mysqld_multi.server
-rwxr-xr-x. 1 7161 31415 894 11月 28 07:39 mysql-log-rotate
-rwxr-xr-x. 1 7161 31415 10886 11月 28 07:39 mysql.server
```

```
[root@localhost support-files]# cp my-default.cnf /etc/my.cnf
```

```
cp: 是否覆盖"/etc/my.cnf"? yes
```

```
[root@localhost support-files]# cp mysql.server /etc/init.d/mysql
```

```
[root@localhost support-files]#
```

3、修改 /etc/init.d/mysql 参数

vi /etc/init.d/mysql

给与2个目录位置

basedir=/usr/local/mysql

datadir=/usr/local/mysql/data

```
192.168.88.128 - SecureCRT
文件(F) 编辑(E) 查看(V) 选项(O) 传输(T) 脚本(S) 工具(L) 帮助(H)
192.168.88.128
# - Add the path to the mysql-installation-directory to the basedir variable
# below.
#
# If you want to affect other MySQL variables, you should make your changes
# in the /etc/my.cnf, ~/.my.cnf or other MySQL configuration files.
# If you change base dir, you must also change datadir. These may get
# overwritten by settings in the MySQL configuration files.
basedir=/usr/local/mysql
datadir=/usr/local/mysql/bin/data
# Default value, in seconds, afterwhich the script should timeout waiting
# for server start.
# Value here is overridden by value in my.cnf.
# 0 means don't wait at all
# Negative numbers mean to wait indefinitely
service_startup_timeout=900
# Lock directory for RedHat / SuSE.
lockdir='/var/lock/subsys'
lock_file_path="$lockdir/mysql"
-- INSERT --
```

设置你mysql的目录的位置和data目录的位置

就绪 ssh2: AES-256-CTR 11, 34 24行, 80列 VT100 让我抱有一...

4. 给目录/usr/local/mysql 更改拥有者

chown -R mysql:mysql /usr/local/mysql/

```
192.168.88.128
[root@localhost local]# chown -R mysql:mysql /usr/local/mysql/
[root@localhost local]# ll
总用量 4
drwxr-xr-x. 2 root root 6 6月 9 2014 bin
drwxr-xr-x. 2 root root 6 6月 9 2014 etc
drwxr-xr-x. 2 root root 6 6月 9 2014 games
drwxr-xr-x. 2 root root 6 6月 9 2014 include
drwxr-xr-x. 2 root root 6 6月 9 2014 lib
drwxr-xr-x. 2 root root 6 6月 9 2014 lib64
drwxr-xr-x. 2 root root 6 6月 9 2014 libexec
drwxr-xr-x. 10 mysql mysql 4096 1月 9 00:36 mysql
drwxr-xr-x. 2 root root 6 6月 9 2014 sbin
drwxr-xr-x. 5 root root 46 1月 2 08:17 share
drwxr-xr-x. 2 root root 6 6月 9 2014 src
[root@localhost local]#
```

更改访问权限

5. 解决一下乱码问题

vi /etc/my.cnf

[mysql]

default-character-set=utf8

[mysqld]

default-storage-engine=INNODB

character_set_server=utf8

```
bash: /etc: 是一个目录
[root@localhost larry]# cd /etc
[root@localhost etc]# vi my.cnf
```

编辑文件命令

```
# For advice on how to change settings please see
# http://dev.mysql.com/doc/refman/5.7/en/server-configuration-defaults.html
# *** DO NOT EDIT THIS FILE. It's a template which will be copied to the
# *** default location during install, and will be replaced if you
# *** upgrade to a newer version of MySQL.
```

```
[mysql]
default-character-set=utf8

[mysqld]
default-storage-engine=INNODB
character_set_server=utf8
```

添加这两段话

```
# Remove leading # and set to the amount of RAM for the most important data
```

五、初始化 mysql 的数据库

mysql_install_db (老版本的做法)

新版本:

1.初始化

bin/mysqld --initialize --user=mysql --basedir=/usr/local/mysql --datadir=/usr/local/mysql/data

生成出一个data目录, 代表数据库已经初始化成功

并且mysql的root用户生成一个临时密码: 5!uipdk>qmg?

```
[root@localhost mysql]# ll -lK data/
[root@localhost mysql]# ll
总用量 44
drwxr-xr-x. 2 mysql mysql 4096 1月 8 22:13 bin
-rw-r--r--. 1 mysql mysql 17987 11月 28 05:32 COPYING
drwxr-xr-x. 2 mysql mysql 52 1月 8 22:13 docs
drwxr-xr-x. 3 mysql mysql 4096 1月 8 22:13 include
drwxr-xr-x. 5 mysql mysql 4096 1月 8 22:13 lib
drwxr-xr-x. 4 mysql mysql 28 1月 8 22:13 man
-rw-r--r--. 1 mysql mysql 2478 11月 28 05:32 README
drwxr-xr-x. 28 mysql mysql 4096 1月 8 22:13 share
drwxr-xr-x. 2 mysql mysql 4096 1月 8 22:13 support-files
[root@localhost mysql]# bin/mysqld --initialize --user=mysql --basedir=/usr/local/mysql --datadir=/usr/local/mysql/data
2017-01-09T07:13:28.879543Z 0 [warning] TIMESTAMP with implicit DEFAULT value is deprecated. Please use --explicit_defaults
s_for_timestamp server option (see documentation for more details).
2017-01-09T07:13:28.879608Z 0 [warning] 'NO_ZERO_DATE', 'NO_ZERO_IN_DATE' and 'ERROR_FOR_DIVISION_BY_ZERO' sql modes shoul
d be used with strict mode. They will be merged with strict mode in a future release.
2017-01-09T07:13:28.879614Z 0 [warning] 'NO_AUTO_CREATE_USER' sql mode was not set.
2017-01-09T07:13:30.643607Z 0 [warning] InnoDB: New log files created, LSN=45790
2017-01-09T07:13:31.279631Z 0 [warning] InnoDB: Creating foreign key constraint system tables.
2017-01-09T07:13:31.343028Z 0 [warning] No existing UUID has been found, so we assume that this is the first time that thi
s server has been started. Generating a new UUID: 2039765a-d63b-11e6-ad87-000c2935e950.
2017-01-09T07:13:31.344811Z 0 [warning] Gtid table is not ready to be used. Table 'mysql.gtid_executed' cannot be opened.
2017-01-09T07:13:31.347179Z 1 [Note] A temporary password is generated for root@localhost: 5!uipdk>qmg?
[root@localhost mysql]# ^C
[root@localhost mysql]#
```

初始化数据

临时密码

2.给数据库加密

bin/mysql_ssl_rsa_setup --datadir=/usr/local/mysql/data

```
[root@localhost mysql]# bin/mysql_ssl_rsa_setup --datadir=/usr/local/mysql/data
Generating a 2048 bit RSA private key
```

给数据加密

```
.....+++
.....+++
writing new private key to 'ca-key.pem'
-----
Generating a 2048 bit RSA private key
.....+++
.....+++
writing new private key to 'server-key.pem'
-----
Generating a 2048 bit RSA private key
.....+++
.....+++
writing new private key to 'client-key.pem'
-----
[root@localhost mysql]#
```

3.启动mysql

bin/mysqld_safe --user=mysql &

```
[root@localhost mysql]# bin/mysqld_safe --user=mysql &
[2] 5878
[root@localhost mysql]# 2017-01-09T07:18:46.103763Z mysqld_safe Logging to './data/localhost.localdoma
Logging to './data/localhost.localdomain.err'.
2017-01-09T07:18:46.190717Z mysqld_safe Starting mysqld daemon with databases from ./data
2017-01-09T07:18:46.675971Z mysqld_safe mysqld from pid file ./data/localhost.localdomain.pid ended
```

启动mysql服务

【检查ps -ef|grep mysql】

六、进入客户端

1.登录 ./mysql -uroot -p

如果报错信息为:

```
[root@localhost bin]#  
[root@localhost bin]#  
[root@localhost bin]# ./mysql -uroot -p  
Enter password:  
ERROR 2002 (HY000): Can't connect to local MySQL server through socket '/tmp/mysql.sock' (2)  
[root@localhost bin]# ps -ef|grep mysql  
root      4778      3839  0 00:33 pts/1    00:00:00 grep --color=auto mysql  
[root@localhost bin]# cd
```

解决方法: 删除了 /tmp/mysql.sock.lock文件

命令: rm -f /tmp/mysql.sock.lock

```
[root@localhost bin]# more /tmp/mysql.sock.lock  
3441  
[root@localhost bin]# rm -f /tmp/mysql.sock.lock  
[root@localhost bin]# ./mysqld_safe --user=mysql &  
[1] 5199
```

2.修改密码

set password=password('123456');

```
[root@localhost bin]# ./mysql -uroot -p  
Enter password:  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 3  
Server version: 5.7.17  
  
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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> ^C  
mysql> set password=password('123456')  
-> ;  
Query OK, 0 rows affected, 1 warning (0.00 sec)  
  
mysql> exit  
Bye  
[root@localhost bin]# ./mysql -uroot -p123456  
mysql: [Warning] Using a password on the command line interface can be insecure.  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 4  
Server version: 5.7.17 MySQL Community Server (GPL)
```

七、 远程访问 (即你用Windows系统能访问Linux系统的mysql)

我们先看看数据结构:


```

mysql: [Warning] Using a password on the command line interface can be insecure.
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 6
Server version: 5.7.17 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> use mysql          选择数据库
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> select Host,User from user;      查询主机和用户
+-----+-----+
| Host      | User      |
+-----+-----+
| localhost | mysql.sys |
| localhost | root      |
+-----+-----+
2 rows in set (0.00 sec)

mysql>

```

现在我们的Windows系统是无法访问到虚拟机下的Linux系统的mysql的，因为没有权限

1、授权

grant all privileges on *.* to root@'%' identified by '123456';

select host,user from user; 【多出1条远程登录用户记录】

flush privileges;

```

Database changed
mysql> select Host,User from user;
+-----+-----+
| Host      | User      |
+-----+-----+
| localhost | mysql.sys |
| localhost | root      |
+-----+-----+
2 rows in set (0.00 sec)

mysql> grant all privileges on *.* to root@'%' identified by '123456';
Query OK, 0 rows affected, 1 warning (0.00 sec)

mysql> select Host,User from user;
+-----+-----+
| Host      | User      |
+-----+-----+
| %          | root      |
| localhost | mysql.sys |
| localhost | root      |
+-----+-----+
3 rows in set (0.00 sec)

mysql>

```

现在用Windows系统访问我Linux系统的mysql，你会发现依然是不能访问，那是因为防火墙没有关

命令: mysql -h (你Linux系统的ip地址) -uroot -p123456

```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [版本 10.0.14393]
(c) 2016 Microsoft Corporation. 保留所有权利。

C:\Users\Administrator>mysql -h192.168.88.128 -uroot -p123456
Warning: Using a password on the command line interface can be insecure.
ERROR 2003 (HY000): Can't connect to MySQL server on 'localhost' (10061)

C:\Users\Administrator>
```

访问虚拟机上面的mysql

报错信息 由于防火墙没有关

2、关闭防火墙或者给防火墙开放端口

systemctl stop firewalld.service

成功访问后的效果图如下:

```
C:\Users\Administrator>mysql -h192.168.88.128 -uroot -p123456
Warning: Using a password on the command line interface can be insecure.
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 4
Server version: 5.7.17 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>
```

远程访问命令

八、设置开机自动启动

1、添加服务mysql

chkconfig --add mysql 【mysqld -install】

2、设置mysql服务为自动

chkconfig mysql on

```
[root@localhost etc]# chkconfig --add mysql
[root@localhost etc]# chkconfig mysql on
[root@localhost etc]#
```

设置为开机自动启动

3、重启检查

init 6

ps -ef|grep mysql

九、设置path

vi /etc/profile

export PATH=\$JAVA_HOME/bin:/usr/local/mysql/bin:\$PATH

```
done
export LANG=zh_CN.UTF-8
export JAVA_HOME=/software/jdk1.8.0_111
export CLASSPATH=.:$JAVA_HOME/lib/tools.jar:$JAVA_HOME/lib/dt.jar:$JAVA_HOME/jre/lib/rt.jar
export PATH=$JAVA_HOME/bin:/usr/local/mysql/bin:$PATH
unset 1
unset -f pathmunge
"profile" 79L, 1959C written
[root@localhost etc]#
```

设置环境变量