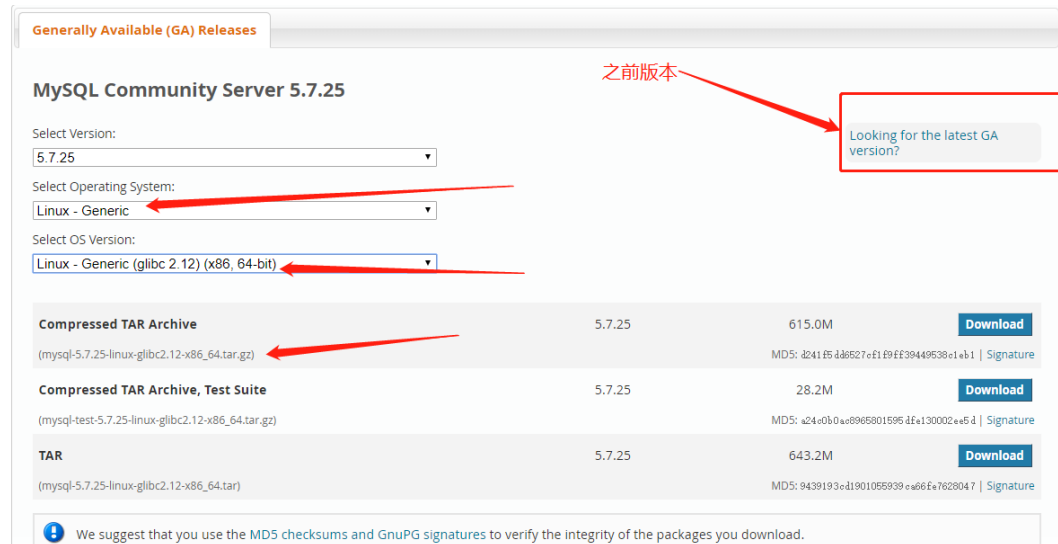


一、安装Mysql

1、mysql官网下载安装包




<https://dev.mysql.com/downloads/mysql/> 如图：是我选择下载的版本；



2、上传解压安装包

软件包名为mysql-5.7.25-linux-glibc2.12-x86_64.tar.gz，将其解压到/usr/local下（安装目录自己确定，我放在/home/mysql下）。

```
tar -zxvf mysql-5.7.25-linux-glibc2.12-x86_64.tar.gz
```

/home/mysql/*.*				
名字	大小	已改变	权限	拥有者
 .		2020/4/29 19:39:22	rw-r--r--	root
 mysql-5.7.25-linux-glibc2.12-x86_64		2020/4/29 20:16:20	rw-r--r--	root
 mysql-5.7.25-linux-glibc2.12-x86_64.tar.gz	629,749 KB	2019/12/3 8:38:27	rw-r--r--	root

3、建立软链接

此时mysql-5.7.25-linux-glibc2.12-x86_64.tar.gz已经被解压到/usr/local，文件夹名为mysql-5.7.25-linux-glibc2.12-x86_64，为了管理方便，为mysql-5.7.25-linux-glibc2.12-x86_64在当前目录建立软链接；

```
ln -s mysql-5.7.25-linux-glibc2.12-x86_64 mysql
```

```
[root@localhost mysql]# ll
total 629760
drwxr-xr-x. 7 root root      4096 Apr 29 05:16 mysql-5.7.25-linux-glibc2.12-x86_64
-rw-r--r--. 1 root root 644862820 Dec  2 16:38 mysql-5.7.25-linux-glibc2.12-x86_64.tar.gz
[root@localhost mysql]# ln -s mysql-5.7.25-linux-glibc2.12-x86_64 mysql
[root@localhost mysql]# ll
total 629760
lrwxrwxrwx. 1 root root      35 Apr 29 05:18 mysql -> mysql-5.7.25-linux-glibc2.12-x86_64
drwxr-xr-x. 7 root root      4096 Apr 29 05:16 mysql-5.7.25-linux-glibc2.12-x86_64
-rw-r--r--. 1 root root 644862820 Dec  2 16:38 mysql-5.7.25-linux-glibc2.12-x86_64.tar.gz
[root@localhost mysql]#
```

4、建立用户组和用户

```
groupadd -o -g 501 mysql
useradd -u 501 -g mysql -c mysql -s /bin/false mysql
```

在这里，有必要说明一下-r -s /bin/false，其实这个是mysql官方建议的，它建议mysql用户只作为文件或者目录的拥有者，而不具有登录shell的权限，-r指明是系统用户，-s /bin/false指明mysql用户不具有登录shell的权限。当然，你也可以让mysql作为普通用户存在，具有登录shell的权限。

5、设置权限

在这里也做一个说明，所有涉及到mysql的文件都将其所有者和所属组设置为mysql。

```
chown -R mysql:mysql ./
```

```
[root@localhost mysql]# ll
total 20
drwxr-xr-x. 2 root root 4096 Apr 29 05:16 bin
-rw-r--r--. 1 7161 31415 0 Dec 21 2018 COPYING
drwxr-xr-x. 2 root root 4096 Apr 29 05:16 docs
drwxr-xr-x. 3 root root 4096 Apr 29 05:15 include
drwxr-xr-x. 3 root root 4096 Apr 29 05:16 lib
-rw-r--r--. 1 7161 31415 0 Dec 21 2018 README
drwxr-xr-x. 3 root root 4096 Apr 29 05:16 share
[root@localhost mysql]# groupadd -o -g 501 mysql
[root@localhost mysql]# useradd -u 501 -g mysql -c mysql -s /bin/false mysql
[root@localhost mysql]# chown -R mysql:mysql ./
[root@localhost mysql]# ll
total 20
drwxr-xr-x. 2 mysql dba 4096 Apr 29 05:16 bin
-rw-r--r--. 1 mysql dba 0 Dec 21 2018 COPYING
drwxr-xr-x. 2 mysql dba 4096 Apr 29 05:16 docs
drwxr-xr-x. 3 mysql dba 4096 Apr 29 05:15 include
drwxr-xr-x. 3 mysql dba 4096 Apr 29 05:16 lib
-rw-r--r--. 1 mysql dba 0 Dec 21 2018 README
drwxr-xr-x. 3 mysql dba 4096 Apr 29 05:16 share
[root@localhost mysql]#
```

6、安装mysql

(1) 命令

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

#这里我是在/home/mysql目录下

```
./bin/mysqld --user=mysql --basedir=/home/mysql/mysql --
datadir=/home/mysql/mysql/data --initialize
```

basedir和datadir根据自己的安装目录来 如图：

```
[root@localhost mysql]# ll
total 52
drwxr-xr-x. 2 mysql dba 4096 Apr 29 07:18 bin
-rw-r--r--. 1 mysql dba 17987 Dec 21 2018 COPYING
drwxr-xr-x. 2 mysql dba 4096 Apr 29 07:18 docs
drwxr-xr-x. 3 mysql dba 4096 Apr 29 07:17 include
drwxr-xr-x. 5 mysql dba 4096 Apr 29 07:18 lib
drwxr-xr-x. 4 mysql dba 4096 Apr 29 07:17 man
-rw-r--r--. 1 mysql dba 2478 Dec 21 2018 README
drwxr-xr-x. 28 mysql dba 4096 Apr 29 07:18 share
drwxr-xr-x. 2 mysql dba 4096 Apr 29 07:18 support-files
[root@localhost mysql]# clear
[root@localhost mysql]# ./bin/mysqld --user=mysql --basedir=/home/mysql/mysql --datadir=/home/mysql/mysql/data --initialize
2020-04-29T14:20:24.308890Z 0 [Warning] TIMESTAMP with implicit DEFAULT value is deprecated. Please use --explicit_defaults_for_timestamp server option (see documentation for more details).
2020-04-29T14:20:24.558493Z 0 [Warning] InnoDB: New log files created, LSN=45790
2020-04-29T14:20:24.597874Z 0 [Warning] InnoDB: Creating foreign key constraint system tables.
2020-04-29T14:20:24.658892Z 0 [Warning] No existing UUID has been found, so we assume that this is the first time that this server has been started. Generating a new UUID: 9121cc85-8a24-11ea-8a0f-000c2963bd1.
2020-04-29T14:20:24.659892Z 0 [Warning] Gtid table is not ready to be used. Table 'mysql.gtid_executed' cannot be opened.
2020-04-29T14:20:24.661326Z 1 [Note] A temporary password is generated for root@localhost: aY7K-r9&jltL
You have new mail in /var/spool/mail/root
[root@localhost mysql]#
```

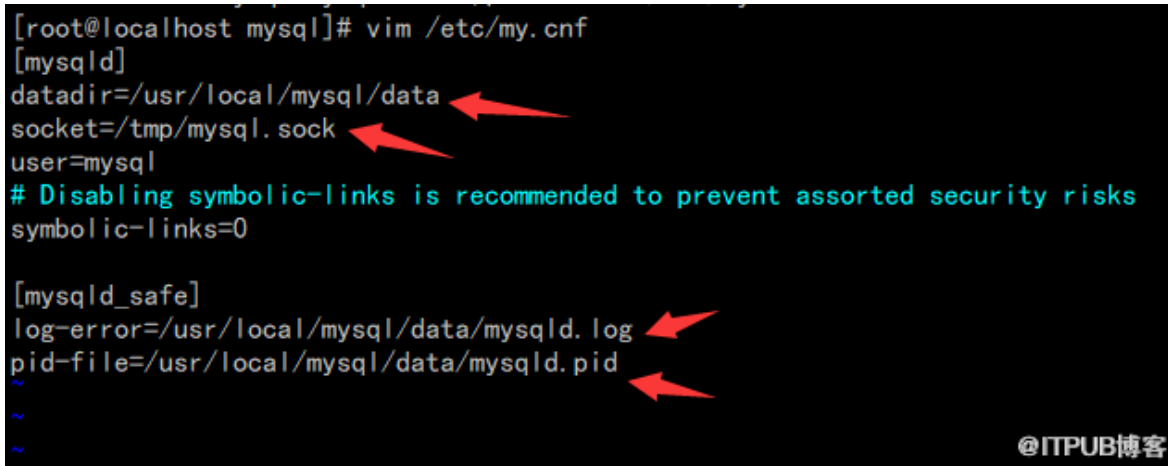
在这里，一定要注意最后生成的初始密码，mysql在第一次登录的时候，需要用这个初始密码，当前生成的密码为aY7K=r9&jltL

(2) 修改/etc/my.cnf的权限

并编辑内容

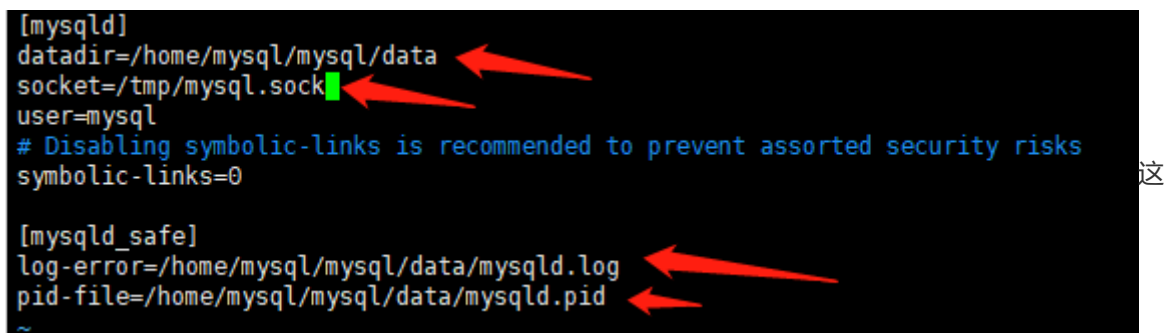
```
chown -R mysql:mysql /etc/my.cnf  
  
vim /etc/my.cnf
```

如图:



```
[root@localhost mysql]# vim /etc/my.cnf  
[mysqld]  
datadir=/usr/local/mysql/data  
socket=/tmp/mysql.sock  
user=mysql  
# Disabling symbolic-links is recommended to prevent assorted security risks  
symbolic-links=0  
  
[mysqld_safe]  
log-error=/usr/local/mysql/data/mysql.log  
pid-file=/usr/local/mysql/data/mysql.pid  
~  
~  
~
```

这里我的安装目录是在/home/mysql目录下，所以按如下配置。



```
[mysqld]  
datadir=/home/mysql/mysql/data  
socket=/tmp/mysql.sock  
user=mysql  
# Disabling symbolic-links is recommended to prevent assorted security risks  
symbolic-links=0  
  
[mysqld_safe]  
log-error=/home/mysql/mysql/data/mysql.log  
pid-file=/home/mysql/mysql/data/mysql.pid  
~
```

里需要特别注意，一定要配置好这4个的路径（根据自己的安装路径来配置），不然不仅之后的服务启不来，而且还会报关于pid的错误。若报相关的pid错误：

```
[root@localhost mysql]# ./support-files/mysql.server start  
Starting MySQL.2020-04-29T05:49:38.672857Z mysqld_safe Directory '/var/lib/mysql' for UNIX socket file don't exists.  
ERROR! The server quit without updating PID file (/home/mysql/mysql/data/localhost.ahhs.pid).
```

修改/etc/my.cnf:

```
[mysqld]  
socket=/home/mysql/mysql/data/mysql.sock
```

7、启动服务

若安装路径不在usr/local下，需要修改support-files/mysql.server文件,如下图:

```

if test -z "$basedir"
then
    basedir=/home/mysql/mysql
    bindir=/home/mysql/mysql/bin
    if test -z "$datadir"
    then
        datadir=/home/mysql/mysql/data
    fi
    sbindir=/home/mysql/mysql/bin
    libexecdir=/home/mysql/mysql/bin
else
    bindir="$basedir/bin"
    if test -z "$datadir"
    then
        datadir="$basedir/data"
    fi
    sbindir="$basedir/sbin"
    libexecdir="$basedir/libexec"
fi

```

启动命令为：

```
./support-files/mysql.server start
```

服务启动无误如图：

```

[root@localhost mysql]# ll
total 56
drwxr-xr-x. 2 mysql dba 4096 Apr 29 07:18 bin
-rw-r--r--. 1 mysql dba 17987 Dec 21 2018 COPYING
drwxr-x---. 5 mysql dba 4096 Apr 29 07:29 data
drwxr-xr-x. 2 mysql dba 4096 Apr 29 07:18 docs
drwxr-xr-x. 3 mysql dba 4096 Apr 29 07:17 include
drwxr-xr-x. 5 mysql dba 4096 Apr 29 07:18 lib
drwxr-xr-x. 4 mysql dba 4096 Apr 29 07:17 man
-rw-r--r--. 1 mysql dba 2478 Dec 21 2018 README
drwxr-xr-x. 28 mysql dba 4096 Apr 29 07:18 share
drwxr-xr-x. 2 mysql dba 4096 Apr 29 07:29 support-files
[root@localhost mysql]# ./support-files/mysql.server start
Starting MySQL. SUCCESS!
[root@localhost mysql]#

```

8、将mysql进程放入系统进程中,这样子就能通过系统命令启动mysql

命令为：

```

cp support-files/mysql.server /etc/init.d/mysqld
chown -R mysql:mysql /etc/init.d/mysqld

```

设置mysql自启动

```

chmod +x /etc/init.d/mysqld
chkconfig --add /etc/init.d/mysqld

```

重新用系统命令启动下mysql，看看系统命令是否生效：

```
service mysqld restart
```

```
[root@localhost mysql]# ll
total 56
drwxr-xr-x. 2 mysql dba 4096 Apr 29 07:18 bin
-rw-r--r--. 1 mysql dba 17987 Dec 21 2018 COPYING
drwxr-xr-x. 5 mysql dba 4096 Apr 29 07:32 data
drwxr-xr-x. 2 mysql dba 4096 Apr 29 07:18 docs
drwxr-xr-x. 3 mysql dba 4096 Apr 29 07:17 include
drwxr-xr-x. 5 mysql dba 4096 Apr 29 07:18 lib
drwxr-xr-x. 4 mysql dba 4096 Apr 29 07:17 man
-rw-r--r--. 1 mysql dba 2478 Dec 21 2018 README
drwxr-xr-x. 28 mysql dba 4096 Apr 29 07:18 share
drwxr-xr-x. 2 mysql dba 4096 Apr 29 07:30 support-files
[root@localhost mysql]# cp support-files/mysql.server /etc/init.d/mysqld
[root@localhost mysql]# chown -R mysql:mysql /etc/init.d/mysqld
[root@localhost mysql]# chmod +x /etc/init.d/mysqld
[root@localhost mysql]# chkconfig --add /etc/init.d/mysqld
[root@localhost mysql]# service mysqld restart
Shutting down MySQL.. SUCCESS!
Starting MySQL. SUCCESS!
[root@localhost mysql]#
```

9、将mysql设置为在任何目录下可以登录

```
vim ~/.bash_profile
```

```
export PATH=$PATH:/usr/local/mysql/bin(你的安装bin目录)
```

#这里我是在/home/mysql目录下

```
export PATH=$PATH:/home/mysql/mysql/bin
```

```
[root@localhost mysql]# vim ~/.bash_profile

# .bash_profile

# Get the aliases and functions
if [ -f ~/.bashrc ]; then
    . ~/.bashrc
fi

# User specific environment and startup programs

PATH=$PATH:$HOME/bin

export PATH
export PATH=$PATH:/home/mysql/mysql/bin

~
```

```
source ~/.bash_profile
```

10、登录mysql数据库，输入刚才的初始密码

```
mysql -uroot -p
```

#Linux登录MySQL时出现 CAN'T CONNECT TO LOCAL MYSQL SERVER THROUGH SOCKET
'/TMP/MYSQL.SOCK'解决方法

```
mysql -h 127.0.0.1 -P 3306 -uroot -p
```

11、为root用户设置新密码

```
mysql> alter user 'root'@'localhost' identified by "123456";
```

12、修改root用户为在任何客户端都可以登录

```
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> show tables;
+-----+
| Tables_in_mysql |
+-----+
| columns_priv |
| db |
| engine_cost |
| event |
| func |
| general_log |
| gtid_executed |
| help_category |
| help_keyword |
| help_relation |
| help_topic |
| innodb_index_stats |
| innodb_table_stats |
| ndb_binlog_index |
| plugin |
| proc |
| procs_priv |
| proxies_priv |
| server_cost |
| servers |
| slave_master_info |
| slave_relay_log_info |
| slave_worker_info |
| slow_log |
| tables_priv |
| time_zone |
| time_zone_leap_second |
| time_zone_name |
| time_zone_transition |
| time_zone_transition_type |
| user |
+-----+
31 rows in set (0.00 sec)
```

```
mysql> update user set host = '%' where user = 'root';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql>show databases;  
mysql>use mysql;  
mysql>update user set host = '%' where user = 'root';  
mysql> flush privileges;
```

13_1、关闭linux的防火墙，使远程工具可以登录上(不推荐)

```
[root@localhost ~]# chkconfig --list | grep iptables  
[root@localhost ~]# chkconfig --level 2345 iptables off  
[root@localhost ~]# shutdown -r now
```

13_2、linux的防火墙开放mysql的3306端口，使远程工具可以登录上(推荐)

查看[防火墙配置 \(Centos6.8和Centos7以上\)](#)

14、Navicat连接mysql，输入虚拟机ip，用户名：root，密码：123456即可访问mysql



二、linux下mysql中文乱码(中文问号)解决办法

```
mysql> show variables like 'character_set%';
```

```
mysql> show variables like 'char%';
+-----+-----+
| Variable_name | Value |
+-----+-----+
| character_set_client | latin1 |
| character_set_connection | latin1 |
| character_set_database | latin1 |
| character_set_filesystem | binary |
| character_set_results | latin1 |
| character_set_server | latin1 |
| character_set_system | utf8 |
| character_sets_dir | /usr/share/mysql/charsets/ |
+-----+-----+
```

修改 /etc/my.cnf文件,在mysqld中加入的是 character-set-server=utf8

```
[mysqld]
...
character-set-server=utf8
...
```

重起MySQL[服务器](#)，使其设置的内容生效

```
service mysqld restart
```

三、MySQL 在 Linux 下表名不区分大小写(实为表名全小写)

在 [mysqld] 节中添加：
`lower_case_table_names=1`