准备

下载：mysql-5.7.11-linux-glibc2.5-x86_64.tar.gz
参考文献： http://dev.mysql.com/doc/refman/5.7/en/binary-installation.html

Linux 安装步骤

1. tar –zxvf mysql-5.7.11-linux-glibc2.5-x86_64.tar.gz
2. cp mysql … to /opt/app/mysql
3. cd /opt/app/mysql
4. ./bin/mysql --help | grep my.cnf

```
root@jack /opt/app/mysql $./bin/mysql --help | grep my.cnf
                              order of preference, my.cnf, $MYSQL_TCP_PORT,
/etc/my.cnf /etc/mysql/my.cnf /usr/local/mysql/etc/my.cnf /opt/app/mysql/my.cnf ~/.my.cnf
```

通过这里可以看到 mysql 的配置信息
注： 按上述步骤，后面文件配置会覆盖签名的

5. 配置(master) ~/.my.cnf 信息如下(如不做主从，则注销掉红色文字):

```
# 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.
[client]
default-character-set = utf8mb4
port=3312
socket=/opt/app/data/mysql/mysql.sock

[mysqld]
# 字符编码
character-set-client-handshake = FALSE
character-set-server = utf8mb4
collation-server = utf8mb4_unicode_ci
init_connect='SET NAMES utf8mb4'

# Remove leading # and set to the amount of RAM for the most important data
# cache in MySQL. Start at 70% of total RAM for dedicated server, else 10%.
innodb_buffer_pool_size = 128M

# Remove leading # to turn on a very important data integrity option: logging
# changes to the binary log between backups.
# log_bin

# These are commonly set, remove the # and set as required.
basedir=/opt/app/mysql
datadir=/opt/app/data/mysql
port = 3312
```

```
socket=/opt/app/data/mysql/mysql.sock

#master 的标示
server-id=1
#slave 会基于此 log-bin 来做 replication
log-bin=mysql-bin
#自动删除过期天数日志
expire_logs_days=3
#每个 binlog 大小
max_binlog_size=10M
#主机，读写都可以
read-only=0


#需要备份数据，多个写多行
binlog-do-db =colorcc
#不需要备份的数据库，多个写多行
binlog-ignore-db=mysql,test

# 为了使用事务的 InnoDB 在复制中最大的持久性和一致性，你应该指定
innodb_flush_log_at_trx_commit=1,sync_binlog=1 选项
innodb_flush_log_at_trx_commit=1
sync_binlog=1

explicit_defaults_for_timestamp=true

# Disabling symbolic-links is recommended to prevent assorted security risks
symbolic-links=0

# Remove leading # to set options mainly useful for reporting servers.
# The server defaults are faster for transactions and fast SELECTs.
# Adjust sizes as needed, experiment to find the optimal values.
# join_buffer_size = 128M
# sort_buffer_size = 2M
# read_rnd_buffer_size = 2M

sql_mode=NO_ENGINE_SUBSTITUTION,STRICT_TRANS_TABLES

[mysql]
default-character-set = utf8mb4

[mysqld_safe]
log-error=/opt/app/data/mysql/mysql.log
pid-file=/opt/app/data/mysql/mysql.pid
```

6. 按文档执行如下信息：

```
shell> groupadd mysql
shell> useradd -r -g mysql -s /bin/false mysql
shell> cd /usr/local
shell> tar zxvf /path/to/mysql-VERSION-OS.tar.gz
```

```
shell> ln -s full-path-to-mysql-VERSION-OS mysql
shell> cd mysql
shell> mkdir mysql-files
shell> chmod 750 mysql-files
shell> chown -R mysql .
shell> chgrp -R mysql .
shell> bin/mysql_install_db --user=mysql    # Before MySQL 5.7.6
shell> bin/mysqld --initialize --user=mysql # MySQL 5.7.6 and up
shell> bin/mysql_ssl_rsa_setup              # MySQL 5.7.6 and up
shell> chown -R root .
shell> chown -R mysql data mysql-files
shell> bin/mysqld_safe --user=mysql &
# Next command is optional
shell> cp support-files/mysql.server /etc/init.d/mysql.server
```

chown -R mysql.mysql .

bin/mysqld --initialize --user=mysql

```
root@jack /opt/app/mysql $ bin/mysqld --initialize --user=mysql
2016-03-02T10:19:58.199554Z 0 [Warning] 'NO_ZERO_DATE', 'NO_ZERO_IN_DATE' and 'ERROR_FOR_DIVISION_BY_ZERO'
 future release.
2016-03-02T10:19:58.199853Z 0 [Warning] 'NO_AUTO_CREATE_USER' sql mode was not set.
2016-03-02T10:20:12.497287Z 0 [Warning] InnoDB: New log files created, LSN=45790

2016-03-02T10:20:13.459455Z 0 [Warning] InnoDB: Creating foreign key constraint system tables.
2016-03-02T10:20:13.787285Z 0 [Warning] No existing UUID has been found, so we assume that this is the fir
872f-000c29af4809.
2016-03-02T10:20:13.803433Z 0 [Warning] Gtid table is not ready to be used. Table 'mysql.gtid_executed' ca
2016-03-02T10:20:13.841187Z 1 [Note] A temporary password is generated for root@localhost: =lyU+_U7zBoi
```

注： 保存密码 root@localhost: =lyU+_U7zBoi

bin/mysql_ssl_rsa_setup

```
root@jack /opt/app/mysql $bin/mysql_ssl_rsa_setup
Generating a 2048 bit RSA private key
................+++
.....................................................+++
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'
-----
```

chown -R mysql.mysql /opt/app/data/mysql

bin/mysqld_safe --user=mysql &

ps -ef | grep mysql

mysql -uroot -p=lyU+_U7zBoi -P3312

7. 修改 root 密码

   SET PASSWORD FOR 'root'@'localhost' = PASSWORD('root');

8. 授权客户端访问

grant 权限 1,权限 2,…权限 n on 数据库名称.表名称 to 用户名@用户地址 identified by '连接口令';

权限 1,权限 2,…权限 n 代表 select,insert,update,delete,create,drop,index,alter,grant,references,reload,shutdown,process,file 等 14 个权限。
当权限 1,权限 2,…权限 n 被 all privileges 或者 all 代替，表示赋予用户全部权限。
当数据库名称.表名称被*.*代替，表示赋予用户操作服务器上所有数据库所有表的权限。
用户地址可以是 localhost，也可以是 ip 地址、机器名字、域名。也可以用'%'表示从任何地址连接。
'连接口令'不能为空，否则创建失败。

eg: grant all privileges on *.* to 'root'@'%' identified by 'root';
flush privileges;

9. 使用技巧

Mysqlbinlog 查看二进制文件：

如果 binlog 格式是行模式的,请加 -vv 参数

不要查看当前正在写入的 binlog 文件

mysqlbinlog ***--no-defaults*** mysql-bin.000001 mysql-bin.000001.txt

基于开始/结束时间

```
mysqlbinlog --start-datetime='2013-09-10 00:00:00' --stop-datetime='2013-09-10 01:01:01' -d 库名 二进制文件
```

基于 pos 值

```
mysqlbinlog --start-postion=107 --stop-position=1000 -d 库名 二进制文件
```

远程查看

```
mysqlbinlog -u username -p password -hl-db1.dba.beta.cn6.qunar.com -P3306 \
--read-from-remote-server --start-datetime='2013-09-10 23:00:00' --stop-datetime='2013-09-10 23:30:00' mysql-bin.000001 > t.binlog
```

查看 binlog 文件内容：

```
show binlog events;
```

查看指定 binlog 文件的内容

```
show binlog events in 'mysql-bin.000002';
```

查看当前正在写入的 binlog 文件

```
show master status\G
```

获取 binlog 文件列表

```
show binary logs;
```

10. 附 slave 配置 ~/.my.cnf

```
# 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.
[client]
default-character-set=utf8mb4
port=3312
socket=/opt/app/data/mysql/mysql.sock

[mysqld]
#  字符编码
character-set-client-handshake=FALSE
character-set-server = utf8mb4
collation-server = utf8mb4_unicode_ci
init_connect='SET NAMES utf8mb4'

# Remove leading # and set to the amount of RAM for the most important data
# cache in MySQL. Start at 70% of total RAM for dedicated server, else 10%.
innodb_buffer_pool_size = 128M

# Remove leading # to turn on a very important data integrity option: logging
# changes to the binary log between backups.
# log_bin

# These are commonly set, remove the # and set as required.
basedir=/opt/app/mysql
datadir=/opt/app/data/mysql
port = 3312
socket=/opt/app/data/mysql/mysql.sock

#slaver 的标示
server-id=2
relay_log          = mysql-relay-bin
#log_bin              = mysql-bin
#log_slave_updates = 1
#read_only              = 1
# expire_logs_days          = 10
# max_binlog_size            = 100M
# binlog_format               = mixed
# slave-net-timeout=60
# master-connect-retry=10
#复制某个库
replicate-do-db=colorcc
#不复制某个库
replicate-ignore-db=mysql,test

# 为了使用事务的 InnoDB 在复制中最大的持久性和一致性，你应该指定 innodb_flush_log_at_trx_commit=1,sync_binlog=1 选项
innodb_flush_log_at_trx_commit=1
```

```
sync_binlog=1



explicit_defaults_for_timestamp=true

# Disabling symbolic-links is recommended to prevent assorted security risks
symbolic-links=0

# Remove leading # to set options mainly useful for reporting servers.
# The server defaults are faster for transactions and fast SELECTs.
# Adjust sizes as needed, experiment to find the optimal values.
# join_buffer_size = 128M
# sort_buffer_size = 2M
# read_rnd_buffer_size = 2M

sql_mode=NO_ENGINE_SUBSTITUTION,STRICT_TRANS_TABLES

[mysqld_safe]
log-error=/opt/app/data/mysql/mysql.log
pid-file=/opt/app/data/mysql/mysql.pid

[mysql]
default-character-set = utf8mb4
```

11. Kka

主从配置

1. Master 上创建备份帐号

```
GRANT REPLICATION SLAVE,RELOAD,SUPER,replication client ON *.* TO 'repl'@'192.168.5.%' IDENTIFIED BY 'repl';
```

2. Master 锁表，禁止写操作

```
FLUSH TABLES WITH READ LOCK;
```

3. Master 导出数据

```
mysqldump -uroot -proot -P3312 colorcc > colorcc.sql
```

4. Slave 拷贝 colorcc.sql 数据

```
mysql -uroot -proot -P3312 colorcc < /opt/app/data/mysql/colorcc.sql
```

5. Master 上查看 binlog 信息如下:

```
mysql> show master status;
+------------------+----------+--------------+------------------+-------------------+
| File             | Position | Binlog_Do_DB | Binlog_Ignore_DB | Executed_Gtid_Set |
+------------------+----------+--------------+------------------+-------------------+
| mysql-bin.000002 |     1973 | colorcc      | mysql,test       |                   |
+------------------+----------+--------------+------------------+-------------------+
1 row in set (0.00 sec)
```

6. Slave 配置 master 信息如下:

```
change master to master_host='192.168.5.130', master_user='repl', master_password='repl', master_port=3312,
```

master_log_file='mysql-bin.000002', master_log_pos=1973;

7. Slave 的 mysql 重启.
8. 查看 Slave 状态

   show slave status \G;

```
mysql> show slave status \G;
*************************** 1. row ***************************
               Slave_IO_State: Waiting for master to send event
                  Master_Host: 192.168.5.130
                  Master_User: repl
                  Master_Port: 3312
                Connect_Retry: 60
              Master_Log_File: mysql-bin.000002
          Read_Master_Log_Pos: 2243
               Relay_Log_File: mysql-relay-bin.000003
                Relay_Log_Pos: 590
        Relay_Master_Log_File: mysql-bin.000002
             Slave_IO_Running: Yes
            Slave_SQL_Running: Yes
              Replicate_Do_DB: colorcc
          Replicate_Ignore_DB: mysql,test
           Replicate_Do_Table:
       Replicate_Ignore_Table:
      Replicate_Wild_Do_Table:
  Replicate_Wild_Ignore_Table:
                   Last_Errno: 0
                   Last_Error:
                 Skip_Counter: 0
          Exec_Master_Log_Pos: 2243
              Relay_Log_Space: 797
```

9. Master 解锁。

   unlock tables;

10. 验证：

    Master 的 colorcc.test 插入一条信息， slave 上 select 可以看到。

11. 其他

Slave 重置： stop slave; reset slave; mysql restart;

12.