# [迁移 MySQL 数据到 OceanBase 集群](https://ask.oceanbase.com/t/topic/20400030)

# 一、目标

搭建mysql数据库，使用tpcc创建模拟数据。

使用 mysqldump 将 mysql的表结构和数据同步到 OceanBase 的MySQL 租户中。

使用 datax 配置至少一个表的 MySQL 到 OceanBase 的 MySQL 租户的离线同步。

# 二、安装mysql数据库

## 1.解压安装启动mysql

tar -xvf mysql-5.7.25-linux-glibc2.12-x86\_64.tar.gz -C /soft/mysql

mkdir -p /data/mysql/data

groupadd mysql

useradd -g mysql mysql

chown -R mysql.mysql /soft/mysql

chown -R mysql.mysql /data/mysql/data

添加配置文件

vi /etc/my.cnf

|  |
| --- |
| [mysqld]  port=3306  user=mysql  basedir=/soft/mysql  datadir=/data/mysql/data  socket=/tmp/mysql.sock  #character config  character\_set\_server=utf8mb4  server\_id=6 |

初始化数据库,密码为空

|  |
| --- |
| mysqld --defaults-file=/etc/my.cnf --basedir=/soft/mysql/ --datadir=/data/mysql/data --user=mysql --initialize-insecure |

重置密码

|  |
| --- |
| mysqladmin -uroot -p password 111111 |

配置环境变量：

|  |
| --- |
| vi /etc/profile  export LANG=en\_US.UTF-8  export PATH=$PATH:/soft/mysql/bin #mysql安装路径  export MYSQL\_HISTFILE=/dev/null  > ~/.mysql\_history  检查操作系统上是否安装了MySQL  rpm -qa |grep mariadb  yum remove mysql-libs |

配置启动文件到开机初始化目录

cp -r /soft/mysql/support-files/mysql.server /etc/init.d/mysqld

chkconfig mysqld on

配置启动方式

/etc/init.d/mysqld start

## 2.建库建表

1.下载编译mysql tpcc测试程序及脚本，并进行编译。

<https://github.com/Percona-Lab/tpcc-mysql/archive/refs/heads/master.zip>

unzip tpcc-mysql-master.zip

cd tpcc-mysql-master/src/

Make

2.创建数据库，并导入tpcc建表脚本

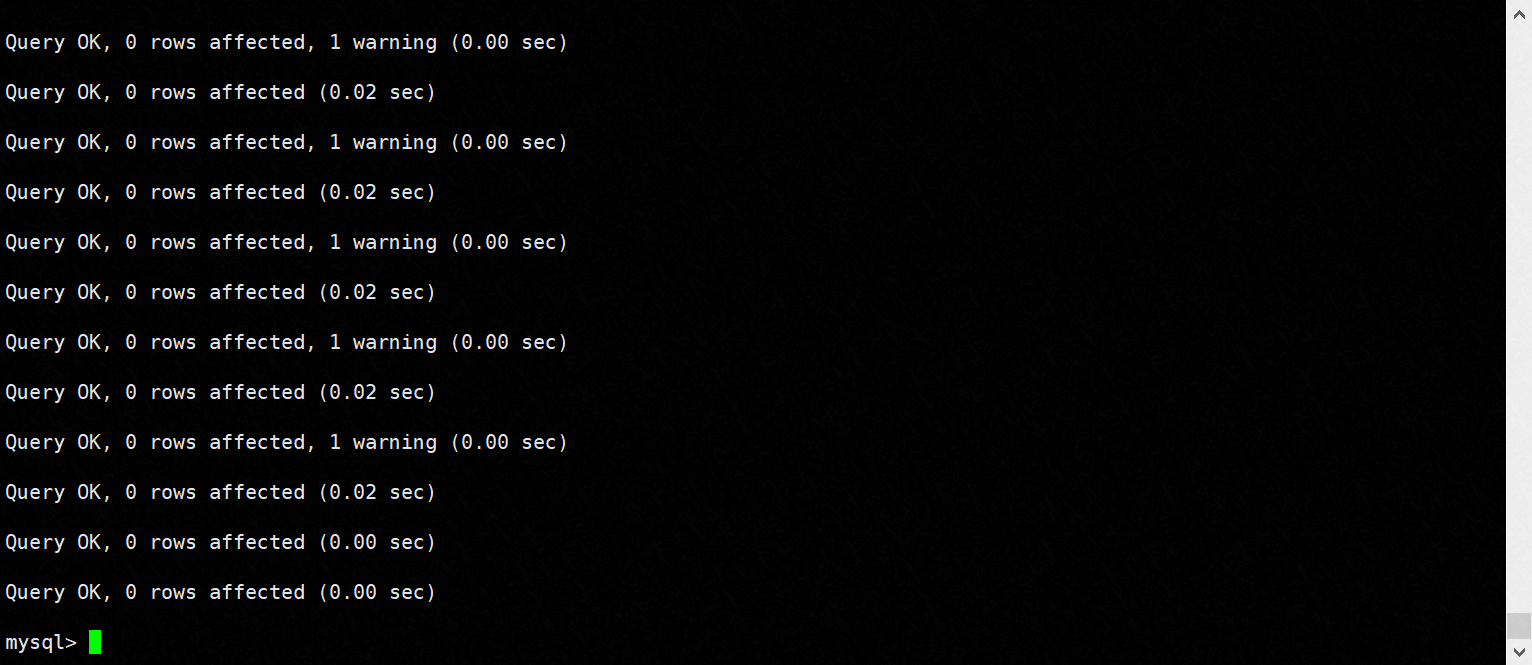
mysql> create database ygbdb;

Query OK, 1 row affected (0.00 sec)

mysql> use ygbdb;

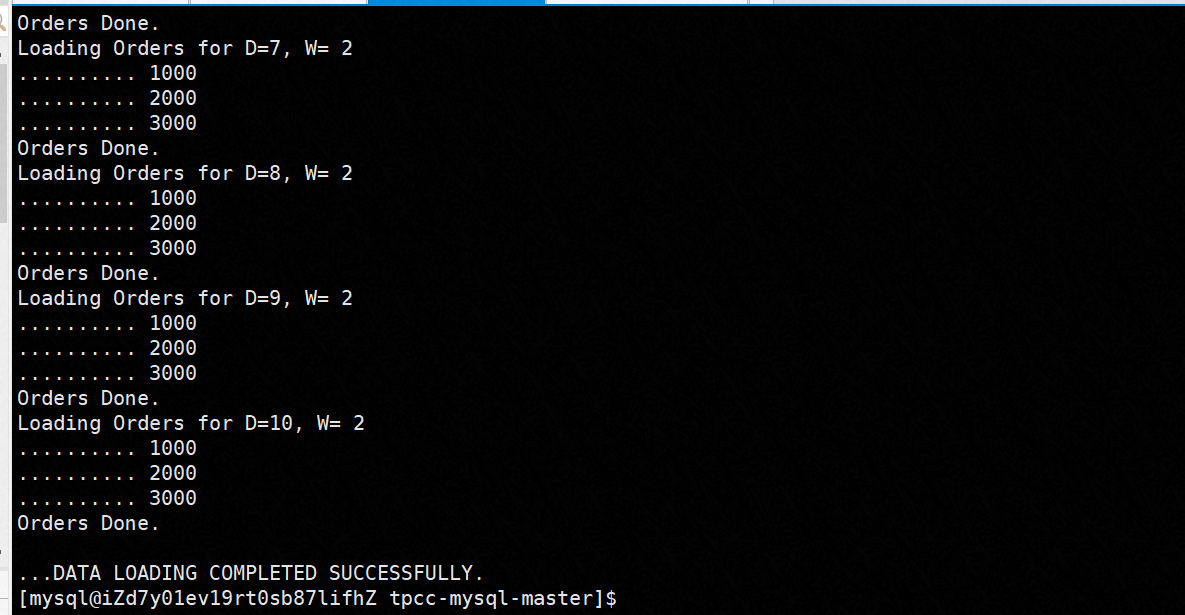
Database changed

mysql> source /home/mysql/tpcc-mysql-master/create\_table.sql



导入测试数据

./tpcc\_load -h127.0.0.1 -P3306 -d ygbdb -uroot -w 2 -p111111



# mysqldump导出数据

使用 mysqldump 将 mysql的表结构和数据同步到 OceanBase 的MySQL 租户中

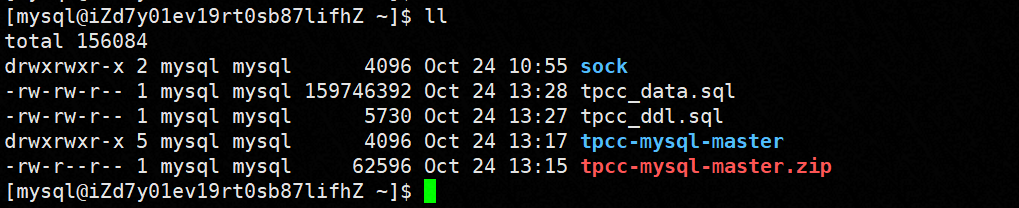
## 1.导出mysql数据

# 导出表结构

mysqldump -h127.0.0.1 -P3306 -p111111 -uroot -d ygbdb --compact > tpcc\_ddl.sql

# 导出数据

mysqldump -h127.0.0.1 -P3306 -p111111 -uroot -t ygbdb --compact > tpcc\_data.sql



## 2.导入OceanBase

-- 连接ob数据库

obclient -h127.1 -uroot@ob\_tent\_ygb#obdemo -P2883 -p -A -c

MySQL [(none)]> use obtest

Database changed

-- 导入表结构

MySQL [obtest]> source /home/admin/tpcc\_ddl.sql

-- 导入数据

MySQL [obtest]> source /home/admin/tpcc\_data.sql

-- 验证

Show tables;

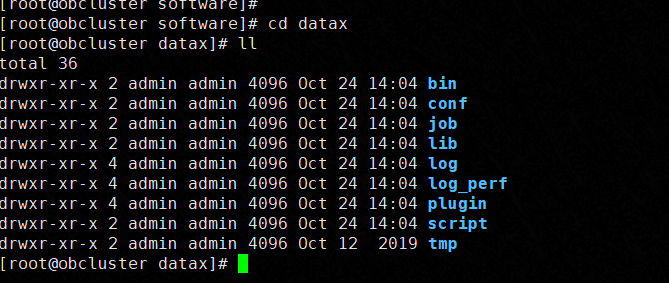


# 使用 datax 配置至少一个表的 MySQL 到 OceanBase 的 MySQL 租户的离线同步

## 1.安装datax

datax下载地址：<http://datax-opensource.oss-cn-hangzhou.aliyuncs.com/datax.tar.gz>

tar /zxvf /opt/software/datax.tar.gz

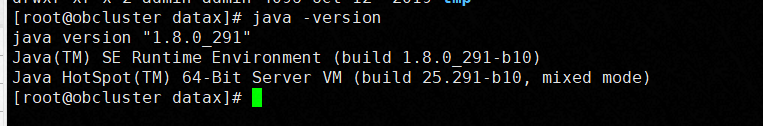


## 2、安装jkd1.8

tar /zxvf jdk-8u291-linux-x64.tar.gz

Admin用户配置环境变量

|  |
| --- |
| [admin@obcluster software]$ more ~/.bash\_profile  # .bash\_profile  # Get the aliases and functions  if [ -f ~/.bashrc ]; then  . ~/.bashrc  fi  # User specific environment and startup programs  PATH=$PATH:$HOME/.local/bin:$HOME/bin  export PATH  export LD\_LIBRARY\_PATH=:/home/admin/oceanbase/lib  export JAVA\_HOME=/home/admin/jdk1.8.0\_291  export JRE\_HOME=${JAVA\_HOME}/jre  export CLASSPATH=.:${JAVA\_HOME}/lib:${JRE\_HOME}/lib  export PATH=${JAVA\_HOME}/bin:$PATH |



## 编写mysql同步到ob的json文件

源端mysql ： 196.36.135.24:3306/ygbdb

目标端ob: -h196.36.231.16 -uroot@ob\_tent\_ygb#obdemo -P2883 -p111111

同步表 ：district

|  |
| --- |
| vi ./datax/job/wang.json  {  "job": {  "setting": {  "speed": {  "channel": 2,  },  "errorLimit": {  "record": 10  }  },  "content": [  {  "reader": {  "name": "mysqlreader",  "parameter": {  "username": "root",  "password": "111111",  "column": [  "\*"  ],  "connection": [  {  "jdbcUrl": [  "jdbc:mysql://196.36.135.24:3306/ygbdb"  ],  "table": [  "district"  ]  }  ]  }  },  "writer": {  "name": "oceanbasev10writer",  "parameter": {  "writeMode": "insert",  "username": "root",  "password":"111111",  "writerThreadCount": 5,  "column": [  "\*"  ],  "connection": [  {  "jdbcUrl": "||\_dsc\_ob10\_dsc\_||obdemo:ob\_tent\_ygb||\_dsc\_ob10\_dsc\_||jdbc:mysql://196.36.231.16:2883/mysql2ob\_db?useUnicode=true&characterEncoding=utf-8",  "table": [  "district"  ]  }  ]  }  }  }  ]  }  } |

## 4.datax执行迁移

python /opt/software/datax/bin/datax.py /home/admin/mysql2ob.json

确认数据量：

