MariaDB/Mysql

Дано:

Две BM на yandex cloud c OC Centos 7:

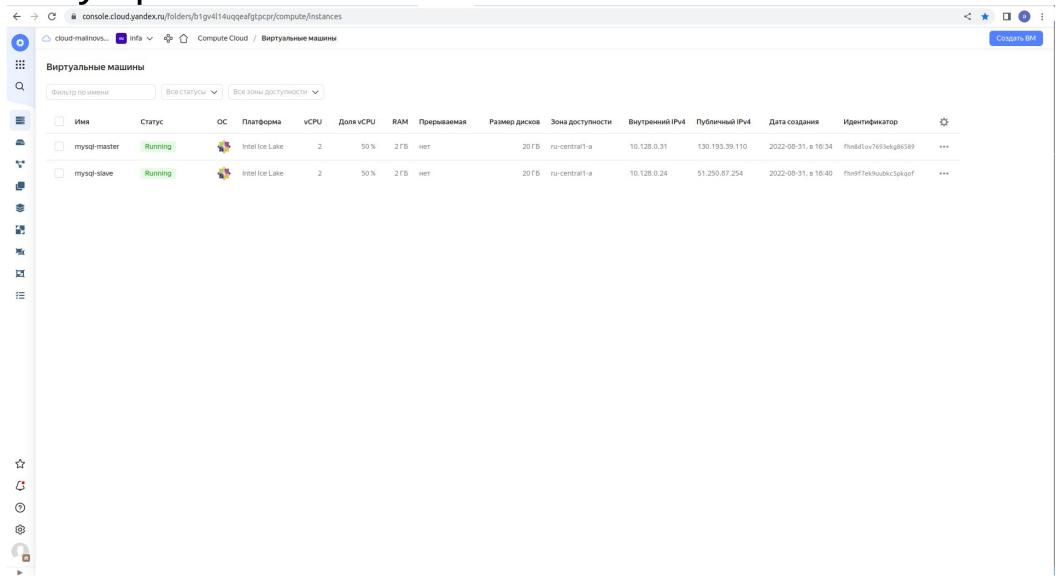
- mysql-master
- mysql-slave

Задание:

- Настроить кластер MariaDB режим Master Slave
- Настроить кластер MariaDB режим Master — Master

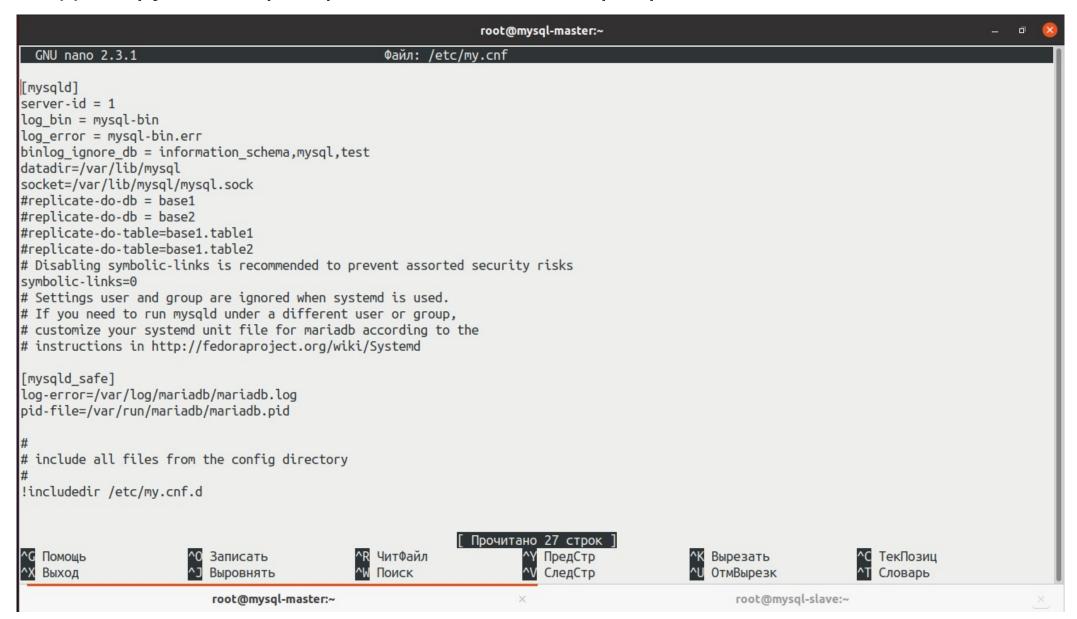
Две BM на yandex cloud с OC Centos 7:

- mysql-master
- mysql-slave

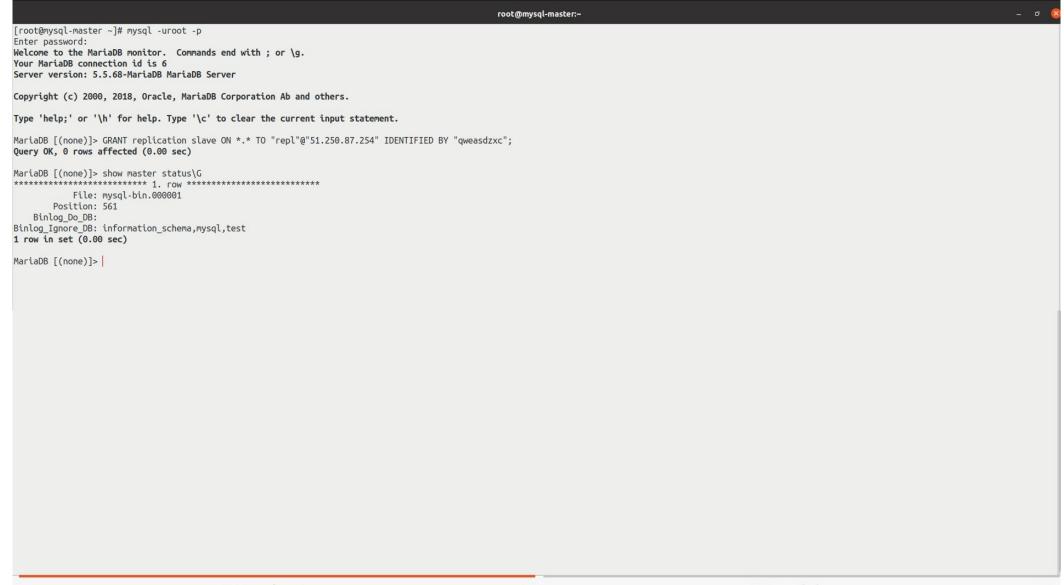


Задание 1. Настроить кластер MariaDB режим Master — Slave.

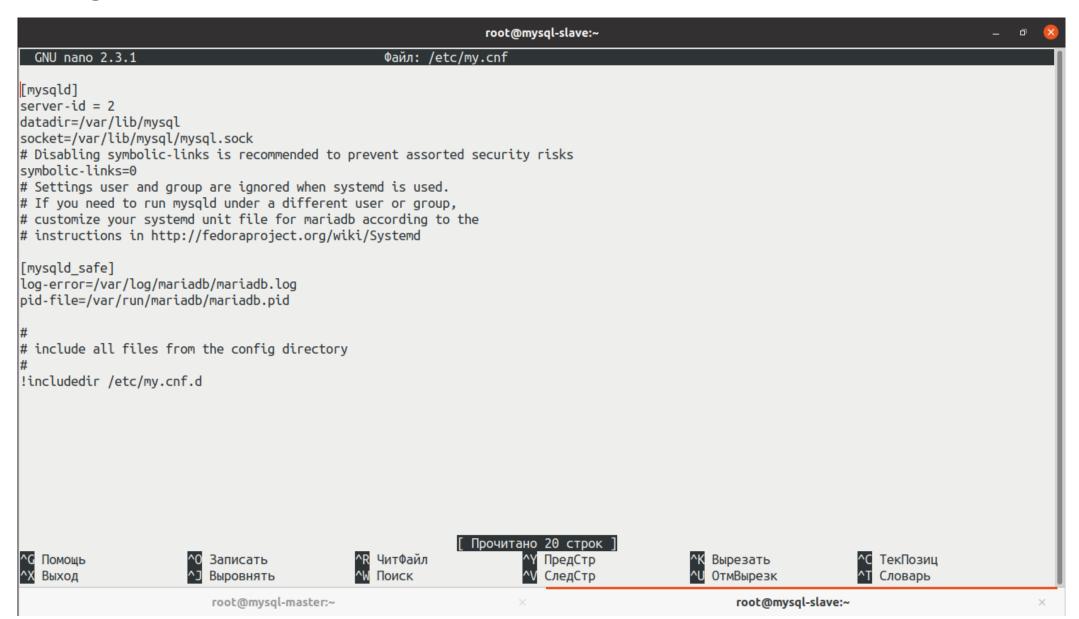
Редактируем конфиг файл MariaDB на сервере master.



Создаем служебную учетную запись на сервере master для репликации.



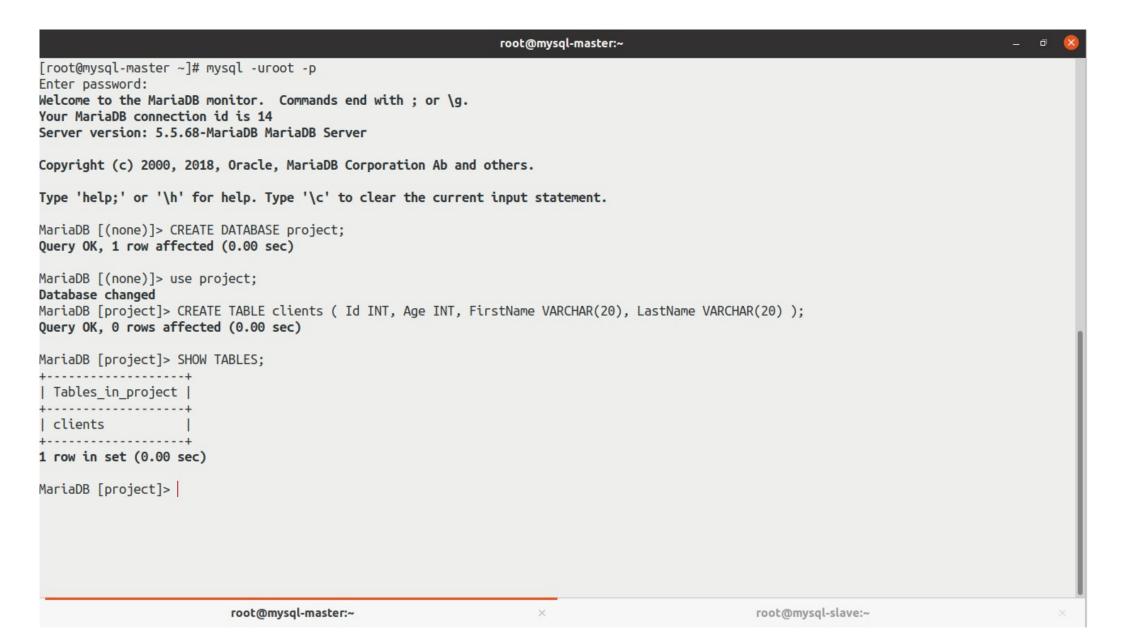
Редактируем конфиг файл MariaDB на сервере stage.



Подключаем сервер slave к master по данным созданным на master. Запускаем сервер для репликации. Ниже видим что все успешно ошибок нет.

```
root@mysql-slave:~
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
MariaDB [(none)]> change master to master_host = "130.193.39.110", master_user = "repl", master_password = "qweasdzxc", master_log_file = "mysql-bin.000001", master_log_pos = 404;
Query OK, 0 rows affected (0.03 sec)
MariaDB [(none)]> start slave;
Query OK, 0 rows affected (0.00 sec)
MariaDB [(none)]> SHOW SLAVE STATUS\G
Slave_IO_State: Waiting for master to send event
                 Master_Host: 130.193.39.110
                 Master User: repl
                Master Port: 3306
               Connect Retry: 60
             Master_Log_File: mysql-bin.000001
         Read Master Log Pos: 561
              Relay Log File: mariadb-relay-bin.000002
               Relay Log Pos: 686
       Relay Master Log File: mysql-bin.000001
            Slave IO Running: Yes
           Slave SQL Running: Yes
            Replicate Do DB:
         Replicate Ignore DB:
          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: 561
             Relay Log Space: 982
            Until Condition: None
             Until Log File:
              Until Log Pos: 0
          Master SSL Allowed: No
          Master SSL CA File:
          Master SSL CA Path:
            Master SSL Cert:
           Master_SSL_Cipher:
              Master SSL Key:
       Seconds Behind Master: 0
Master SSL Verify Server Cert: No
               Last IO Errno: 0
               Last IO Error:
              Last SQL Errno: 0
              Last_SQL_Error:
                                    root@mysql-master:~
                                                                                                                                          root@mysql-slave:~
```

Для теста создаем БД project и таблицу clients на сервере master.

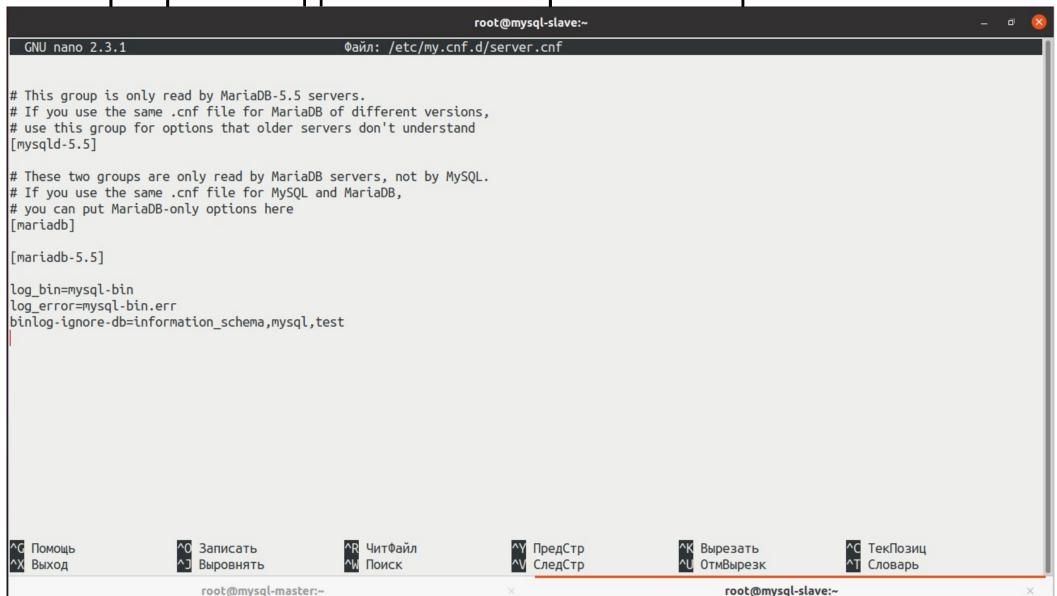


Переходим на сервер slave и видим что там появилась БД project и таблица clients что означает что кластер master-slave работает.



Задание 2. Настроить кластер MariaDB режим Master — Master.

Ha сервере slave дописываем строчки в конфиг MariaDB.



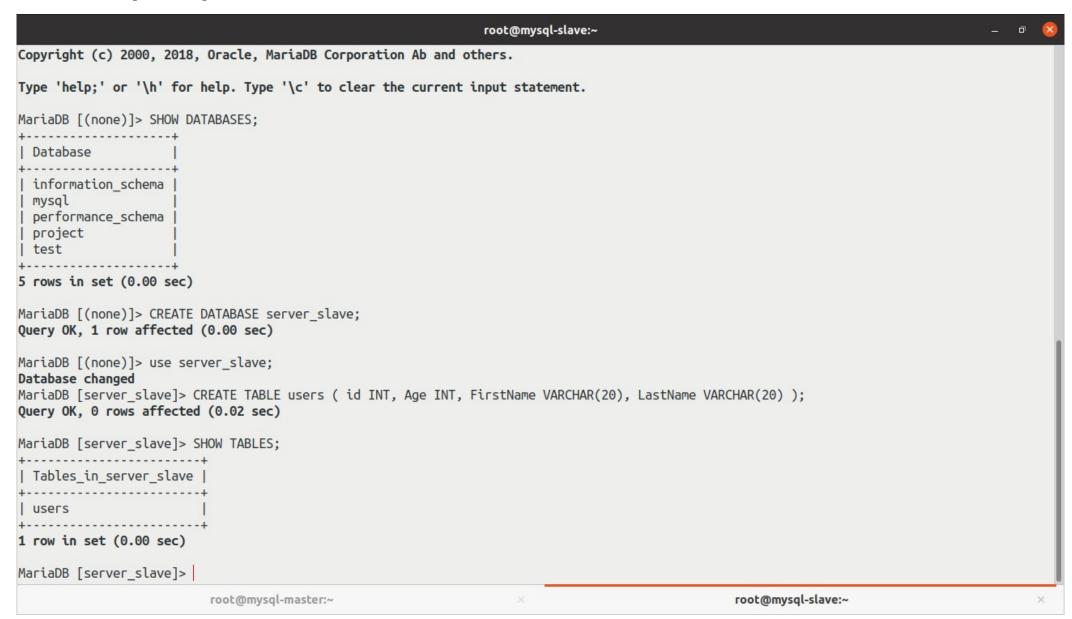
Создадим учетную запись для репликации с сервера master.

```
root@mysql-slave:~
[root@mysql-slave ~]# mysql -uroot -p
Enter password:
Welcome to the MariaDB monitor. Commands end with ; or \q.
Your MariaDB connection id is 19
Server version: 5.5.68-MariaDB MariaDB Server
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
MariaDB [(none)]> GRANT replication slave ON *.* TO "repl"@"130.193.39.110" IDENTIFIED BY "qweasdzxc";
Query OK, 0 rows affected (0.00 sec)
MariaDB [(none)]> show master status\G
*******************
           File: mysql-bin.000001
       Position: 563
   Binlog Do DB:
Binlog Ignore DB: information schema, mysql, test
1 row in set (0.00 sec)
MariaDB [(none)]>
                         root@mysql-master:~
                                                                                               root@mysql-slave:~
```

Подключаем сервер master к slave по данным созданным на slave. Запускаем сервер для репликации. Ниже видим что все успешно ошибок нет.

```
root@mysql-master:~
Enter password:
Welcome to the MariaDB monitor. Commands end with ; or \g.
Your MariaDB connection id is 31
Server version: 5.5.68-MariaDB MariaDB Server
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
MariaDB [(none)]> change master to master host = "51.250.87.254", master user = "reply", master password = "qweasdzxc", master log file = "mys
ql-bin.000001", master_log pos = 722;
Ouery OK, 0 rows affected (0.03 sec)
MariaDB [(none)]> start slave:
Ouery OK, 0 rows affected (0.00 sec)
MariaDB [(none)]> SHOW SLAVE STATUS\G
 Slave IO State: Waiting for master to send event
                 Master Host: 51.250.87.254
                 Master User: reply
                 Master Port: 3306
               Connect Retry: 60
             Master Log File: mysql-bin.000001
         Read Master Log Pos: 722
              Relay Log File: mariadb-relay-bin.000002
               Relay Log Pos: 529
       Relay Master Log File: mysgl-bin.000001
            Slave IO Running: Yes
           Slave SQL Running: Yes
             Replicate Do DB:
         Replicate Ignore DB:
          Replicate Do Table:
                                                                                              root@mysql-slave:~
                         root@mysql-master:~
```

Для теста создаем БД server_slave и таблицу users на сервере slave.



Переходим на сервер master и видим что там появилась БД server_slave и таблица users что означает что кластер master-master работает.

```
root@mysql-master:~
               Last SQL Errno: 0
               Last SOL Error:
 Replicate Ignore Server Ids:
            Master Server Id: 2
1 row in set (0.00 sec)
MariaDB [(none)]> SHOW DATABASES;
 Database
 information_schema
  mysql
 performance schema
  project
 server slave
  test
6 rows in set (0.01 sec)
MariaDB [(none)]> use server slave;
Reading table information for completion of table and column names
You can turn off this feature to get a guicker startup with -A
Database changed
MariaDB [server slave]> SHOW TABLES;
 Tables_in_server_slave
1 row in set (0.00 sec)
MariaDB [server_slave]>
                          root@mysql-master:~
                                                                                                    root@mysql-slave:~
```

Так же снова для теста можем создать БД и таблицу на сервере master.

```
root@mysql-master:~
+----+
6 rows in set (0.01 sec)
MariaDB [(none)]> use server_slave;
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
MariaDB [server_slave]> SHOW TABLES;
 Tables in server slave |
1 row in set (0.00 sec)
MariaDB [server_slave]> CREATE DATABASE server_master;
Query OK, 1 row affected (0.00 sec)
MariaDB [server slave]> USE server master;
Database changed
MariaDB [server master] > CREATE TABLE test ( id INT, Age INT, FirstName VARCHAR(20), LastName VARCHAR(20));
Query OK, 0 rows affected (0.00 sec)
MariaDB [server master] > SHOW TABLES;
| Tables_in_server_master |
1 row in set (0.00 sec)
MariaDB [server master]>
                          root@mysql-master:~
                                                                                                  root@mysql-slave:~
```

Переходим на сервер slave и видим что БД и таблица появились. В итоге:

Кластер master-master настроен.

```
root@mysql-slave:~
 users
1 row in set (0.00 sec)
MariaDB [server_slave]> SHOW DATABASES;
 Database
 information_schema
 mysql
 performance schema
 project
 server master
 server_slave
  test
7 rows in set (0.00 sec)
MariaDB [server slave]> use server master;
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
MariaDB [server master]> SHOW TABLES;
| Tables in server master
1 row in set (0.00 sec)
MariaDB [server_master]>
                           root@mysql-master:~
                                                                                                     root@mysql-slave:~
```