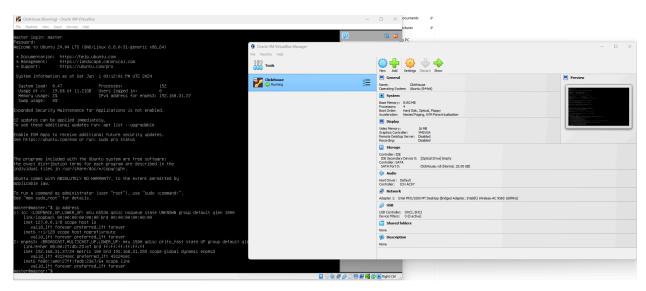
Установка ClickHouse

• ClickHouse был установлен на виртуальную машину Ubuntu Server 24.



Была создана таблица trips и загружен датасет.

```
master :) select * from trips limit(1) \G
FROM trips
LIMIT 1
Query id: 6f82dbdc-5970-4e1b-9f88-2109252749b0
trip_id:
                                  1201746944
trip_id: 1201746944
pickup_datetime: 2015-07-01 00:00:12
dropoff_datetime: 2015-07-01 00:08:33
pickup_longitude: 73.9787368774414
pickup_latitude: 40.78765869140625
dropoff_longitude: 73.96562194824219
dropoff_latitude: 40.80792999267578
passengen count: 1
 passenger_count:
trip_distance:
fare_amount:
                                   1.78
 extra:
                                   0.5
1.96
tip_amount:
tolls_amount:
                                   11.76
 total_amount:
payment_type:
pickup_ntaname:
                                   Upper West Side
  dropoff_ntaname:
                                   Morningside Heights
1 row in set. Elapsed: 0.007 sec.
 master :)
```

 Был проведен тест производительности на дефолтных настройках.

```
Windows PowerShell
                            master@master: ~
master@master:~$ echo "SELECT * FROM default.trips LIMIT 10000
Loaded 1 queries.
Queries executed: 10.
localhost:9000, queries: 10, QPS: 12.121, RPS: 36365778.500, N
0.000%
                0.056 sec.
10.000%
                0.059 sec.
20.000%
                0.064 sec.
30.000%
                0.066 sec.
40.000%
                0.069 sec.
50.000%
                0.069 sec.
60.000%
                0.069 sec.
70.000%
                0.072 sec.
80.000%
                0.076 sec.
90.000%
                0.079 sec.
95.000%
                0.093 sec.
99.000%
                0.093 sec.
99.900%
                0.093 sec.
99.990%
                0.093 sec.
master@master:~$
```

• Создал файл /etc/clickhouse-server/user.d/x_config.xml.

Изменение количества потоков с 4 до 1 увеличило время обработки запроса примерно в 2 раза:

```
Queries executed: 10.
localhost:9000, queries: 10, QPS: 5.240, RPS: 15722280.181, MiR
0.000%
                0.155 sec.
10.000%
                0.160 sec.
                0.175 sec.
20.000%
30.000%
                0.181 sec.
40.000%
                0.182 sec.
50.000%
                0.183 sec.
               0.183 sec.
60.000%
70.000%
               0.184 sec.
80.000%
                0.185 sec.
90.000%
               0.189 sec.
95.000%
               0.192 sec.
99.000%
               0.192 sec.
99.900%
               0.192 sec.
99.990%
                0.192 sec.
```