Week#2

김우진
2017314712

1. INTRODUCTION

In this week, we learned how to install mysql server and tpcc. This report contains the results of performance metrics and TpmC by using tpcc

2. METHODS

The purpose of this experiment is to benchmark mysql by using tpcc. We can observe various metrics and performance easily by using it. Then I analyzed how the performance metrics and TpmC change over time.

3. Performance Evaluation

3.1 Experimental Setup

Type	Specification
OS	Ubuntu 18.04.6 LTS
CPU	Intel(R) Core(TM) i5-10400F CPU @ 2.90GHz
Memory	16643940 kB
Kernel	4.4.0-19041-Microsoft

3.2 Experimental Results

```
*************************************
*** ###easy### TPC-C Load Generator ***
*************************************
option h with value '127.0.0.1'
option S (socket) with value '/tmp/mysql.sock'
option d with value 'tpcc'
option u with value 'root'
option p with value '1234'
option w with value '10'
option c with value '8'
option r with value '10'
option l with value '1200'
non-option ARGV-elements: S
<Parameters>
     [server]: 127.0.0.1
     [port]: 3306
     [DBname]: tpcc
       [user]: root
       [pass]: 1234
  [warehouse]: 10
 [connection]: 8
     [rampup]: 10 (sec.)
    [measure]: 1200 (sec.)

RAMP-UP TIME.(10 sec.)

MEASURING START.

  10, trx: 2486, 95%: 32.835, 99%: 44.187, max_rt: 128.380, 2483|58.757, 248|15.864, 249|117.142, 250|162.878
  20, trx: 2692, 95%: 30.240, 99%: 40.247, max_rt: 57.472, 2693|33.506, 270|12.810, 269|83.615, 268|125.225
  30, trx: 2339, 95%: 35.028, 99%: 46.466, max_rt: 100.706, 2343|43.858, 234|15.744, 234|100.483, 234|131.716
  40, trx: 2358, 95%: 33.290, 99%: 47.266, max_rt: 62.587, 2355|34.203, 236|18.439, 236|105.294, 236|132.619
  50, trx: 2298, 95%: 34.487, 99%: 43.858, max_rt: 66.440, 2294|35.253, 229|11.560, 229|90.812, 230|130.052
  60, trx: 2614, 95%: 30.476, 99%: 39.768, max_rt: 62.939, 2620|35.025, 262|18.462, 261|88.377, 262|120.029
```

```
1190, trx: 2437, 95%: 33.540, 99%: 42.679, max_rt: 61.045, 2439|32.064, 244|15.865, 244|98.220, 243|128.896
1200, trx: 2507, 95%: 31.450, 99%: 41.260, max_rt: 71.277, 2506|47.312, 250|16.550, 250|97.645, 250|153.727

STOPPING THREADS........

<Raw Results>
  [0] sc:8884 lt:289969  rt:0  fl:0 avg_rt: 17.4 (5)
  [1] sc:222716 lt:76134  rt:0  fl:0 avg_rt: 4.3 (5)
  [2] sc:27590 lt:2295  rt:0  fl:0 avg_rt: 2.7 (5)
  [3] sc:29509 lt:376  rt:0  fl:0 avg_rt: 41.1 (80)
  [4] sc:142 lt:29743  rt:0  fl:0 avg_rt: 63.2 (20)
 in 1200 sec.

<Raw Results2(sum ver.)>
  [0] sc:8884  lt:289969  rt:0  fl:0
  [1] sc:222717  lt:76135  rt:0  fl:0
  [2] sc:27590  lt:2295  rt:0  fl:0
  [3] sc:29509  lt:376  rt:0  fl:0
  [4] sc:142  lt:29743  rt:0  fl:0

<Constraint Check> (all must be [OK])
 [transaction percentage]
        Payment: 43.48% (>=43.0%) [OK]
   Order-Status: 4.35% (>= 4.0%) [OK]
       Delivery: 4.35% (>= 4.0%) [OK]
    Stock-Level: 4.35% (>= 4.0%) [OK]
 [response time (at least 90% passed)]
      New-Order: 2.97%  [NG] *
        Payment: 74.52%  [NG] *
   Order-Status: 92.32%  [OK]
       Delivery: 98.74%  [OK]
    Stock-Level: 0.48%  [NG] *

<TpmC>
                14942.650 TpmC
```

4. Conclusion

99% another words almost 100% of the cpu was used during the experiment and the numbers all almost equal