

PERFORMANCE TEST



PEMROGRAMAN JARINGAN - B

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A. Parameter Test

Jumlah Request : 1000

Konkurensi : 1,50,100,250,500,1000

B. Hasil Performace Test**1. Server Async**

No test	Concurrency level	Time taken for test	Complete request	Failed request	Total transferred	Request per second	Time per request	Transfer rate
1	1	1.192 seconds	1000	0	122000 bytes	839.14 [#/sec]	1.192 [ms]	99.98 [Kbytes/sec]
2	50	58.461 seconds	1000	0	122000 bytes	17.11 [#/sec]	58.461 [ms]	2.04 [Kbytes/sec]
3	100	57.493 seconds	1000	0	122000 bytes	17.39 [#/sec]	57.493 [ms]	2.07 [Kbytes/sec]
4	250	58.013 seconds	1000	0	122000 bytes	17.24 [#/sec]	58.013 [ms]	2.05 [Kbytes/sec]
5	500	59.020 seconds	1000	0	122000 bytes	16.94 [#/sec]	59.020 [ms]	2.02 [Kbytes/sec]
6	1000	62.574 seconds	1000	0	122000 bytes	15.98 [#/sec]	62.574 [ms]	1.90 [Kbytes/sec]

2. Server Thread

No test	Concurrency level	Time taken for test	Complete request	Failed request	Total transferred	Request per second	Time per request	Transfer rate
1	1	462.873 seconds	1000	0	122000 bytes	2.16 [#/sec]	462.873 [ms]	0.26 [Kbytes/sec]
2	50	260.294 seconds	1000	0	122000 bytes	3.84 [#/sec]	260.294 [ms]	0.46 [Kbytes/sec]
3	100	266.165 seconds	1000	0	122000 bytes	3.76 [#/sec]	266.165 [ms]	0.45 [Kbytes/sec]
4	250	271.513 seconds	1000	0	122000 bytes	3.68 [#/sec]	271.513 [ms]	0.44 [Kbytes/sec]

5	500	271.825 seconds	1000	0	122000 bytes	3.68 [#/sec]	271.825 [ms]	0.44 [Kbytes/sec]
6	1000	262.716 seconds	1000	0	122000 bytes	3.81 [#/sec]	262.716 [ms]	0.45 [Kbytes/sec]

C. Kesimpulan

Server async memproses lebih cepat dibandingkan server thread.

D. Capture Performance Test

1. Server Async Concurrency 1

```

Server Software:      myserver/1.0
Server Hostname:     127.0.0.1
Server Port:         45000

Document Path:       /
Document Length:     4 bytes

Concurrency Level:    1
Time taken for tests: 1.192 seconds
Complete requests:    1000
Failed requests:      0
Non-2xx responses:    1000
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:  839.14 [#/sec] (mean)
Time per request:     1.192 [ms] (mean)
Time per request:     1.192 [ms] (mean, across all concurrent requests)
Transfer rate:        99.98 [Kbytes/sec] received

Connection Times (ms)
      min    mean[+/-sd] median   max
Connect:    0      0   0.8      0      4
Processing:  0      1   2.2      0     44
Waiting:    0      1   2.2      0     44
Total:       0      1   2.3      0     44

Percentage of the requests served within a certain time (ms)
 50%      0
 66%      0
 75%      4
 80%      4
 90%      4
 95%      4
 98%      4
 99%      4
100%     44 (longest request)

```

2. Server Async Concurrency 50

```

Server Software:      myserver/1.0
Server Hostname:     127.0.0.1
Server Port:         45000

Document Path:       /
Document Length:     4 bytes

Concurrency Level:    50
Time taken for tests: 58.461 seconds
Complete requests:    1000
Failed requests:      0
Non-2xx responses:    1000
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:  17.11 [#/sec] (mean)
Time per request:     2923.054 [ms] (mean)
Time per request:     58.461 [ms] (mean, across all concurrent requests)
Transfer rate:        2.04 [Kbytes/sec] received

Connection Times (ms)
      min    mean[+/-sd] median   max
Connect:    0     58 160.8      0    508
Processing:  4 2803 428.1    3043  3061
Waiting:    0 1591 803.4    1528  3051
Total:       4 2861 423.1    3044  3552

Percentage of the requests served within a certain time (ms)
 50%    3044
 66%    3047
 75%    3049
 80%    3051
 90%    3055
 95%    3058
 98%    3061
 99%    3547
100%   3552 (longest request)

```

3. Server Async Concurrency 100

```
Server Software:      myserver/1.0
Server Hostname:      127.0.0.1
Server Port:          45000

Document Path:        /
Document Length:      4 bytes

Concurrency Level:    100
Time taken for tests:  57.493 seconds
Complete requests:    1000
Failed requests:      0
Non-2xx responses:    1000
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:  17.39 [#/sec] (mean)
Time per request:     5749.350 [ms] (mean)
Time per request:     57.493 [ms] (mean, across all concurrent requests)
Transfer rate:        2.07 [Kbytes/sec] received

Connection Times (ms)
      min    mean[+/-sd] median   max
Connect:    0      57 150.4      0     506
Processing: 12 5406 1088.3   5595   6584
Waiting:    4 3032 1673.8   3045   6069
Total:      12 5463 1091.8   5597   6584

Percentage of the requests served within a certain time (ms)
 50%    5597
 66%    5647
 75%    6094
 80%    6097
 90%    6099
 95%    6101
 98%    6104
 99%    6105
100%    6584 (longest request)
```

4. Server Async Concurrency 250

```
Server Software:      myserver/1.0
Server Hostname:      127.0.0.1
Server Port:          45000

Document Path:        /
Document Length:      4 bytes

Concurrency Level:    250
Time taken for tests:  58.013 seconds
Complete requests:    1000
Failed requests:      0
Non-2xx responses:    1000
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:  17.24 [#/sec] (mean)
Time per request:     14503.150 [ms] (mean)
Time per request:     58.013 [ms] (mean, across all concurrent requests)
Transfer rate:        2.05 [Kbytes/sec] received

Connection Times (ms)
      min    mean[+/-sd] median   max
Connect:    0      58 160.2      0     508
Processing: 48 12539 3802.3  14233  15729
Waiting:    0 7614 4280.7   7632  15708
Total:      48 12597 3803.0  14237  15729

Percentage of the requests served within a certain time (ms)
 50%   14237
 66%   14253
 75%   14736
 80%   14740
 90%   15223
 95%   15240
 98%   15725
 99%   15727
100%   15729 (longest request)
```

5. Server Async Concurrency 500

```

Server Software:      myserver/1.0
Server Hostname:      127.0.0.1
Server Port:          45000

Document Path:        /
Document Length:      4 bytes

Concurrency Level:    500
Time taken for tests:  59.020 seconds
Complete requests:    1000
Failed requests:       0
Non-2xx responses:    1000
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:  16.94 [#/sec] (mean)
Time per request:      29510.021 [ms] (mean)
Time per request:      59.020 [ms] (mean, across all concurrent requests)
Transfer rate:         2.02 [Kbytes/sec] received

Connection Times (ms)
      min    mean[+/-sd] median   max
Connect:    0      59 161.4      0     508
Processing:  88 21673 9517.0  27489  31458
Waiting:    0 14981 8622.3  14763  31431
Total:      88 21732 9519.3  27490  31458

Percentage of the requests served within a certain time (ms)
 50%  27490
 66%  28487
 75%  29472
 80%  29953
 90%  30458
 95%  30950
 98%  31450
 99%  31453
100%  31458 (longest request)

```

6. Server Async Concurrency 1000

```

Server Software:      myserver/1.0
Server Hostname:      127.0.0.1
Server Port:          45000

Document Path:        /
Document Length:      4 bytes

Concurrency Level:    1000
Time taken for tests:  62.574 seconds
Complete requests:    1000
Failed requests:       0
Non-2xx responses:    1000
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:  15.98 [#/sec] (mean)
Time per request:      62573.843 [ms] (mean)
Time per request:      62.574 [ms] (mean, across all concurrent requests)
Transfer rate:         1.90 [Kbytes/sec] received

Connection Times (ms)
      min    mean[+/-sd] median   max
Connect:    0      62 165.3      0     508
Processing: 156 31410 18032.3  31092  62466
Waiting:    0 31272 18061.4  31020  62430
Total:     156 31473 18031.9  31592  62466

Percentage of the requests served within a certain time (ms)
 50%  31592
 66%  41212
 75%  47280
 80%  50311
 90%  56393
 95%  59936
 98%  61454
 99%  62434
100%  62466 (longest request)

```

7. Server Thread Concurrency 1

```

Server Software:      myserver/1.0
Server Hostname:      127.0.0.1
Server Port:          46000

Document Path:        /
Document Length:      4 bytes

Concurrency Level:    1
Time taken for tests:  462.873 seconds
Complete requests:     1000
Failed requests:       0
Non-2xx responses:    1000
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:   2.16 [#/sec] (mean)
Time per request:      462.873 [ms] (mean)
Time per request:      462.873 [ms] (mean, across all concurrent requests)
Transfer rate:         0.26 [Kbytes/sec] received

Connection Times (ms)
      min   mean[+/-sd] median   max
Connect:    0      0  0.4      0      1
Processing:  2    463 254.5    474   1374
Waiting:    1    438 245.3    448   1303
Total:       2    463 254.5    474   1374

Percentage of the requests served within a certain time (ms)
 50%    474
 66%    576
 75%    638
 80%    680
 90%    790
 95%    891
 98%    999
 99%   1084
100%   1374 (longest request)

```

8. Server Thread Concurrency 50

```

Server Software:      myserver/1.0
Server Hostname:      127.0.0.1
Server Port:          46000

Document Path:        /
Document Length:      4 bytes

Concurrency Level:    50
Time taken for tests:  260.294 seconds
Complete requests:     1000
Failed requests:       0
Non-2xx responses:    1000
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:   3.84 [#/sec] (mean)
Time per request:      13014.693 [ms] (mean)
Time per request:      260.294 [ms] (mean, across all concurrent requests)
Transfer rate:         0.46 [Kbytes/sec] received

Connection Times (ms)
      min   mean[+/-sd] median   max
Connect:    0    260 252.6    500   1001
Processing: 376 12451 1610.8  12537  14042
Waiting:    2  6825 3620.3   7015  14041
Total:      875 12711 1600.9  13032  14541

Percentage of the requests served within a certain time (ms)
 50%   13032
 66%   13037
 75%   13534
 80%   13537
 90%   13541
 95%   14038
 98%   14042
 99%   14539
100%   14541 (longest request)

```

9. Server Thread Concurrency 100

```

Server Software:      myserver/1.0
Server Hostname:      127.0.0.1
Server Port:          46000

Document Path:        /
Document Length:      4 bytes

Concurrency Level:    100
Time taken for tests:  266.165 seconds
Complete requests:    1000
Failed requests:      0
Non-2xx responses:    1000
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:  3.76 [#/sec] (mean)
Time per request:     26616.548 [ms] (mean)
Time per request:     266.165 [ms] (mean, across all concurrent requests)
Transfer rate:        0.45 [Kbytes/sec] received

Connection Times (ms)
      min  mean[+/-sd] median   max
Connect:    0   265 253.4    501   1013
Processing: 554 25084 4594.7  26064  31108
Waiting:    2  13558 7598.5  13529  30102
Total:      901 25350 4588.2  26071  31609

Percentage of the requests served within a certain time (ms)
 50%  26071
 66%  26574
 75%  27077
 80%  27572
 90%  28080
 95%  30093
 98%  30605
 99%  31107
100%  31609 (longest request)

```

10. Server Thread Concurrency 250

```

Server Software:      myserver/1.0
Server Hostname:      127.0.0.1
Server Port:          46000

Document Path:        /
Document Length:      4 bytes

Concurrency Level:    250
Time taken for tests:  271.513 seconds
Complete requests:    1000
Failed requests:      0
Non-2xx responses:    1000
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:  3.68 [#/sec] (mean)
Time per request:     67878.346 [ms] (mean)
Time per request:     271.513 [ms] (mean, across all concurrent requests)
Transfer rate:        0.44 [Kbytes/sec] received

Connection Times (ms)
      min  mean[+/-sd] median   max
Connect:    0   270 255.0    501   1002
Processing: 928 59659 17200.7  64684  73207
Waiting:    1  33885 19564.9  34084  72702
Total:     1019 59930 17192.0  64693  73208

Percentage of the requests served within a certain time (ms)
 50%  64693
 66%  69205
 75%  71109
 80%  71698
 90%  72202
 95%  72701
 98%  73203
 99%  73204
100%  73208 (longest request)

```

11. Server Thread Concurrency 500

```

Server Software:      myserver/1.0
Server Hostname:      127.0.0.1
Server Port:          46000

Document Path:        /
Document Length:      4 bytes

Concurrency Level:     500
Time taken for tests:   271.825 seconds
Complete requests:      1000
Failed requests:        0
Non-2xx responses:      1000
Total transferred:      122000 bytes
HTML transferred:      4000 bytes
Requests per second:    3.68 [#/sec] (mean)
Time per request:       135912.603 [ms] (mean)
Time per request:       271.825 [ms] (mean, across all concurrent requests)
Transfer rate:          0.44 [Kbytes/sec] received

Connection Times (ms)
              min    mean[+/-sd] median   max
Connect:        0    271 258.8      501   1002
Processing:    604 104105 42115.4 128848 143879
Waiting:        1  69613 39468.0   70184 143874
Total:          854 104377 42096.3 129345 143880

Percentage of the requests served within a certain time (ms)
 50%  129345
 66%  131850
 75%  134356
 80%  136366
 90%  140365
 95%  142369
 98%  143368
 99%  143871
100% 143880 (longest request)

```

12. Server Thread Concurrency 1000

```

Server Software:      myserver/1.0
Server Hostname:      127.0.0.1
Server Port:          46000

Document Path:        /
Document Length:      4 bytes

Concurrency Level:     1000
Time taken for tests:   262.716 seconds
Complete requests:      1000
Failed requests:        0
Non-2xx responses:      1000
Total transferred:      122000 bytes
HTML transferred:      4000 bytes
Requests per second:    3.81 [#/sec] (mean)
Time per request:       262716.463 [ms] (mean)
Time per request:       262.716 [ms] (mean, across all concurrent requests)
Transfer rate:          0.45 [Kbytes/sec] received

Connection Times (ms)
              min    mean[+/-sd] median   max
Connect:        0    262 253.5      501   1001
Processing:    962 134557 75128.2 136383 261674
Waiting:        2 134256 75161.2 135852 261660
Total:         1071 134819 75114.9 136385 261674

Percentage of the requests served within a certain time (ms)
 50%  136385
 66%  177473
 75%  200024
 80%  212551
 90%  237614
 95%  250143
 98%  257663
 99%  260169
100% 261674 (longest request)

```