1. Performance test result.

No.test:

1. Jumlah request 10
2. Jumlah request 50
3. Jumlah request 100

No test	Concurrency level	Time taken for test	Complete request	Failed request	Total transferred	Request per second	Time per request	Transfer rate
1	1	0,178 s	10	0	1360 bytes	56,21 #/sec	17,790 ms	7,47 kb/sec
	5	0,327 s	10	0	1360 bytes	30,56 #/sec	32,724 ms	4,06 kb/sec
	10	0,369 s	10	0	1360 bytes	27,09 #/sec	36,920 ms	3,60 kb/sec
2	1	6,148 s	50	0	6800 bytes	8,13 #/sec	122,961 ms	1,08 kb/sec
	10	6,719 s	50	0	6800 bytes	7,44 #/sec	134,382 ms	0,99 kb/sec
	30	8,893 s	50	0	6800 bytes	5,62 #/sec	177,851 ms	0,75 kb/sec
	50	10,553 s	50	0	6800 bytes	4,74 #/sec	211,050 ms	0,63 kb/sec
3	1	41,226 s	100	0	13600 bytes	2,43 #/sec	412,264 ms	0,32 kb/sec
3	10	29,119 s	100	0	13600 bytes	3,43 #/sec	291,190 ms	0,46 kb/sec
3	50	30,386 s	100	0	13600 bytes	3,29 #/sec	303,859 ms	0,44 kb/sec

3	100	30,327	100	0	13600 bytes	3,30 #/sec	303,270 ms	0,44 kb/sec

- Time per request dirata-rata dengan semua konkurensi

2. Test Results (Capture)
a. Test 1 (Jumlah request 10)
- Konkurensi 1

```
reyhanzo@DESKTOP-67R3869: ~                                                    —   □   ×

reyhanzo@DESKTOP-67R3869:~$ ab -n 10 -c 1 http://127.0.0.1:10001/
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Benchmarking 127.0.0.1 (be patient).....done


Server Software:        myserver/1.0
Server Hostname:        127.0.0.1
Server Port:            10001

Document Path:          /
Document Length:        24 bytes

Concurrency Level:      1
Time taken for tests:   0.178 seconds
Complete requests:      10
Failed requests:        0
Total transferred:      1360 bytes
HTML transferred:       240 bytes
Requests per second:    56.21 [#/sec] (mean)
Time per request:       17.790 [ms] (mean)
Time per request:       17.790 [ms] (mean, across all concurrent requests)
Transfer rate:          7.47 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0    0   0.2      0       1
Processing:     4   17  16.7     10      50
Waiting:        3   14  14.7      8      48
Total:          5   18  16.8     10      50

Percentage of the requests served within a certain time (ms)
  50%     10
  66%     13
  75%     33
  80%     39
  90%     50
  95%     50
  98%     50
  99%     50
 100%     50 (longest request)
```

- Konkurensi 5

```
reyhanzo@DESKTOP-67R3869: ~                                               —    □    ✕

reyhanzo@DESKTOP-67R3869:~$ ab -n 10 -c 5 http://127.0.0.1:10001/
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Benchmarking 127.0.0.1 (be patient).....done


Server Software:        myserver/1.0
Server Hostname:        127.0.0.1
Server Port:            10001

Document Path:          /
Document Length:        24 bytes

Concurrency Level:      5
Time taken for tests:   0.327 seconds
Complete requests:      10
Failed requests:        0
Total transferred:      1360 bytes
HTML transferred:       240 bytes
Requests per second:    30.56 [#/sec] (mean)
Time per request:       163.621 [ms] (mean)
Time per request:       32.724 [ms] (mean, across all concurrent requests)
Transfer rate:          4.06 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0    1   0.6      1       2
Processing:    22  132  77.4    178     226
Waiting:       21  127  79.3    176     221
Total:         24  132  76.9    178     226

Percentage of the requests served within a certain time (ms)
  50%    178
  66%    190
  75%    193
  80%    211
  90%    226
  95%    226
  98%    226
  99%    226
 100%    226 (longest request)
```

- Konkurensi 10

```
reyhanzo@DESKTOP-67R3869: ~                                              —    □    ×

reyhanzo@DESKTOP-67R3869:~$ ab -n 10 -c 10 http://127.0.0.1:10001/
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Benchmarking 127.0.0.1 (be patient).....done


Server Software:        myserver/1.0
Server Hostname:        127.0.0.1
Server Port:            10001

Document Path:          /
Document Length:        24 bytes

Concurrency Level:      10
Time taken for tests:   0.369 seconds
Complete requests:      10
Failed requests:        0
Total transferred:      1360 bytes
HTML transferred:       240 bytes
Requests per second:    27.09 [#/sec] (mean)
Time per request:       369.199 [ms] (mean)
Time per request:       36.920 [ms] (mean, across all concurrent requests)
Transfer rate:          3.60 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        1    2   0.6      2       2
Processing:    55  193 125.6    169     366
Waiting:       55  187 122.5    160     359
Total:         58  194 125.0    170     367

Percentage of the requests served within a certain time (ms)
  50%    170
  66%    297
  75%    310
  80%    352
  90%    367
  95%    367
  98%    367
  99%    367
 100%    367 (longest request)
reyhanzo@DESKTOP-67R3869:~$
```

b. Test 2 (Jumlah Request 50)
-   Konkurensi 1

```
reyhanzo@DESKTOP-67R3869: ~                                    —    □    ✕

reyhanzo@DESKTOP-67R3869:~$ ab -n 50 -c 1 http://127.0.0.1:10001/
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Benchmarking 127.0.0.1 (be patient).....done


Server Software:        myserver/1.0
Server Hostname:        127.0.0.1
Server Port:            10001

Document Path:          /
Document Length:        24 bytes

Concurrency Level:      1
Time taken for tests:   6.148 seconds
Complete requests:      50
Failed requests:        0
Total transferred:      6800 bytes
HTML transferred:       1200 bytes
Requests per second:    8.13 [#/sec] (mean)
Time per request:       122.961 [ms] (mean)
Time per request:       122.961 [ms] (mean, across all concurrent requests)
Transfer rate:          1.08 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0    0   0.3      0       2
Processing:    35  122  64.9    121     325
Waiting:       31  110  59.9     97     299
Total:         36  122  64.9    121     325

Percentage of the requests served within a certain time (ms)
  50%    121
  66%    142
  75%    161
  80%    173
  90%    215
  95%    232
  98%    325
  99%    325
 100%    325 (longest request)
reyhanzo@DESKTOP-67R3869:~$
```

- Konkurensi 10

```
reyhanzo@DESKTOP-67R3869: ~                                              —  □  ×

reyhanzo@DESKTOP-67R3869:~$ ab -n 50 -c 10 http://127.0.0.1:10001/
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Benchmarking 127.0.0.1 (be patient).....done


Server Software:        myserver/1.0
Server Hostname:        127.0.0.1
Server Port:            10001

Document Path:          /
Document Length:        24 bytes

Concurrency Level:      10
Time taken for tests:   6.719 seconds
Complete requests:      50
Failed requests:        0
Total transferred:      6800 bytes
HTML transferred:       1200 bytes
Requests per second:    7.44 [#/sec] (mean)
Time per request:       1343.817 [ms] (mean)
Time per request:       134.382 [ms] (mean, across all concurrent requests)
Transfer rate:          0.99 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0    3   7.1      0      24
Processing:    60 1247 510.7   1267    2026
Waiting:       60 1233 505.4   1267    2003
Total:         84 1250 506.0   1268    2026

Percentage of the requests served within a certain time (ms)
  50%   1268
  66%   1602
  75%   1680
  80%   1714
  90%   1786
  95%   1967
  98%   2026
  99%   2026
 100%   2026 (longest request)
```

- Konkurensi 30

```
reyhanzo@DESKTOP-67R3869: ~                                    —    □    ×

reyhanzo@DESKTOP-67R3869:~$ ab -n 50 -c 30 http://127.0.0.1:10001/
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Benchmarking 127.0.0.1 (be patient).....done


Server Software:        myserver/1.0
Server Hostname:        127.0.0.1
Server Port:            10001

Document Path:          /
Document Length:        24 bytes

Concurrency Level:      30
Time taken for tests:   8.893 seconds
Complete requests:      50
Failed requests:        0
Total transferred:      6800 bytes
HTML transferred:       1200 bytes
Requests per second:    5.62 [#/sec] (mean)
Time per request:       5335.518 [ms] (mean)
Time per request:       177.851 [ms] (mean, across all concurrent requests)
Transfer rate:          0.75 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0    2    2.2      2       7
Processing:    86 3766 1933.2   4754    6035
Waiting:       86 3745 1933.8   4754    6032
Total:         93 3768 1931.0   4756    6035

Percentage of the requests served within a certain time (ms)
  50%    4756
  66%    5319
  75%    5400
  80%    5542
  90%    5786
  95%    5819
  98%    6035
  99%    6035
 100%    6035 (longest request)
```

- Konkurensi 50

```
reyhanzo@DESKTOP-67R3869: ~                                           —    □    ✕

reyhanzo@DESKTOP-67R3869:~$ ab -n 50 -c 50 http://127.0.0.1:10001/
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Benchmarking 127.0.0.1 (be patient).....done


Server Software:        myserver/1.0
Server Hostname:        127.0.0.1
Server Port:            10001

Document Path:          /
Document Length:        24 bytes

Concurrency Level:      50
Time taken for tests:   10.553 seconds
Complete requests:      50
Failed requests:        0
Total transferred:      6800 bytes
HTML transferred:       1200 bytes
Requests per second:    4.74 [#/sec] (mean)
Time per request:       10552.512 [ms] (mean)
Time per request:       211.050 [ms] (mean, across all concurrent requests)
Transfer rate:          0.63 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        3    7   3.8      6       18
Processing:   146 5503 3223.0   5582   10531
Waiting:      144 5485 3229.4   5567   10525
Total:        165 5510 3219.7   5588   10534

Percentage of the requests served within a certain time (ms)
  50%   5588
  66%   7593
  75%   8166
  80%   8675
  90%   9988
  95%  10461
  98%  10534
  99%  10534
 100%  10534 (longest request)
```

    c.   Test 3 (jumlah Request 100)

-    Konkurensi 1

```
reyhanzo@DESKTOP-67R3869: ~                                          —   □   ×

reyhanzo@DESKTOP-67R3869:~$ ab -n 100 -c 1 http://127.0.0.1:10001/
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Benchmarking 127.0.0.1 (be patient).....done


Server Software:        myserver/1.0
Server Hostname:        127.0.0.1
Server Port:            10001

Document Path:          /
Document Length:        24 bytes

Concurrency Level:      1
Time taken for tests:   41.226 seconds
Complete requests:      100
Failed requests:        0
Total transferred:      13600 bytes
HTML transferred:       2400 bytes
Requests per second:    2.43 [#/sec] (mean)
Time per request:       412.264 [ms] (mean)
Time per request:       412.264 [ms] (mean, across all concurrent requests)
Transfer rate:          0.32 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0    0   0.5      0       3
Processing:    69  411 171.0    397     977
Waiting:       69  375 163.3    350     951
Total:         69  412 170.9    398     978

Percentage of the requests served within a certain time (ms)
  50%    398
  66%    465
  75%    519
  80%    556
  90%    629
  95%    728
  98%    907
  99%    978
 100%    978 (longest request)
reyhanzo@DESKTOP-67R3869:~$
```

- Konkurensi 10

```
reyhanzo@DESKTOP-67R3869: ~                                         □   ✕

reyhanzo@DESKTOP-67R3869:~$ ab -n 100 -c 10 http://127.0.0.1:10001/
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Benchmarking 127.0.0.1 (be patient).....done


Server Software:        myserver/1.0
Server Hostname:        127.0.0.1
Server Port:            10001

Document Path:          /
Document Length:        24 bytes

Concurrency Level:      10
Time taken for tests:   29.119 seconds
Complete requests:      100
Failed requests:        0
Total transferred:      13600 bytes
HTML transferred:       2400 bytes
Requests per second:    3.43 [#/sec] (mean)
Time per request:       2911.897 [ms] (mean)
Time per request:       291.190 [ms] (mean, across all concurrent requests)
Transfer rate:          0.46 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0    1   0.9      0       3
Processing:   359 2797 637.6   2777    3842
Waiting:      359 2748 628.4   2759    3837
Total:        363 2798 637.2   2777    3843
WARNING: The median and mean for the initial connection time are not within a normal deviation
        These results are probably not that reliable.

Percentage of the requests served within a certain time (ms)
  50%   2777
  66%   3110
  75%   3297
  80%   3453
  90%   3648
  95%   3731
  98%   3800
  99%   3843
 100%   3843 (longest request)
```

- Konkurensi 50

```
reyhanzo@DESKTOP-67R3869:~$ ab -n 100 -c 50 http://127.0.0.1:10001/
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Benchmarking 127.0.0.1 (be patient).....done


Server Software:        myserver/1.0
Server Hostname:        127.0.0.1
Server Port:            10001

Document Path:          /
Document Length:        24 bytes

Concurrency Level:      50
Time taken for tests:   30.386 seconds
Complete requests:      100
Failed requests:        0
Total transferred:      13600 bytes
HTML transferred:       2400 bytes
Requests per second:    3.29 [#/sec] (mean)
Time per request:       15192.928 [ms] (mean)
Time per request:       303.859 [ms] (mean, across all concurrent requests)
Transfer rate:          0.44 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:        0   26  28.2     24      71
Processing:   272 11450 4679.3  14536  16512
Waiting:      195 11419 4681.0  14536  16464
Total:        342 11476 4652.4  14537  16513

Percentage of the requests served within a certain time (ms)
  50%  14537
  66%  14800
  75%  14952
  80%  15037
  90%  15419
  95%  15581
  98%  15887
  99%  16513
 100%  16513 (longest request)
reyhanzo@DESKTOP-67R3869:~$
```

- Konkurensi 100

```
reyhanzo@DESKTOP-67R3869: ~

reyhanzo@DESKTOP-67R3869:~$ ab -n 100 -c 100 http://127.0.0.1:10001/
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Benchmarking 127.0.0.1 (be patient).....done


Server Software:        myserver/1.0
Server Hostname:        127.0.0.1
Server Port:            10001

Document Path:          /
Document Length:        24 bytes

Concurrency Level:      100
Time taken for tests:   30.327 seconds
Complete requests:      100
Failed requests:        0
Total transferred:      13600 bytes
HTML transferred:       2400 bytes
Requests per second:    3.30 [#/sec] (mean)
Time per request:       30326.953 [ms] (mean)
Time per request:       303.270 [ms] (mean, across all concurrent requests)
Transfer rate:          0.44 [Kbytes/sec] received

Connection Times (ms)
              min  mean[+/-sd] median   max
Connect:       13    33  12.5     32      57
Processing:   600 15208 8775.9  15013   30257
Waiting:      569 15168 8774.0  14942   30257
Total:        656 15240 8763.6  15045   30270

Percentage of the requests served within a certain time (ms)
  50%  15045
  66%  19950
  75%  23033
  80%  24563
  90%  27463
  95%  29152
  98%  30077
  99%  30270
 100%  30270 (longest request)
reyhanzo@DESKTOP-67R3869:~$
```