

Laporan Tugas 9



Pemrograman Jaringan B

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Surabaya
2020**

A. Parameter Test

Jumlah Request : 1000

Konkurensi : 1, 5, 10, 25, 50, 100, 200

B. Hasil Stress Test

1. Asynchronous Server

No.	Concurrency Level	Time Taken For Rest (seconds)	Complete Request	Failed Request	Total Transferred	Request per second (#/sec)	Time per request (ms)	Transfer Rate
1	1	5.988	1000	0	122000	166.99	5.988	19.90
2	5	4.251	1000	0	122000	235.25	4.251	28.03
3	10	4.385	1000	0	122000	228.07	4.385	27.17
4	25	4.462	1000	0	122000	224.11	4.462	26.70
5	50	3.867	1000	0	122000	258.59	3.867	30.81
6	75	4.532	1000	0	122000	339.870	4.532	26.29
7	100	4.027	1000	0	122000	248.34	4.027	29.59

2. Threaded Server

No.	Concurrency Level	Time Taken For Rest (seconds)	Complete Request	Failed Request	Total Transferred	Request per second (#/sec)	Time per request (ms)	Transfer Rate
1	1	684.702	1000	0	122000	1.46	684.702	0.17
2	5	188.797	1000	0	122000	5.30	188.797	0.63
3	10	194.726	1000	0	122000	5.14	194.726	0.61
4	25	200.788	1000	0	122000	4.98	200.788	0.59
5	50	186.588	1000	0	122000	5.36	186.588	0.64
6	75	209.421	1000	0	122000	4.78	209.421	0.57
7	100	198.006	1000	0	122000	5.05	198.066	0.6

C. Kesimpulan

Berdasarkan hasil tes di atas, dapat dilihat bahwa asynchronous server dapat memproses lebih cepat dibandingkan Thread Server

D. Dokumentasi

a. Apache Benchmark Asynchronous 1000 request

- Concurrency 1

```
humnain@WIJDANNAIM-LAPTOP: /mnt/d/1 Rana/2020/1 Kuliah/Progjar/Tugas/Tugas 9$ ab -n 1000 -c 1 http://127.0.0.1:45000/
This is ApacheBench, Version 2.3 <$Revision: 1807734 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking 127.0.0.1 (be patient)
Completed 100 requests
Completed 200 requests
Completed 300 requests
Completed 400 requests
Completed 500 requests
Completed 600 requests
Completed 700 requests
Completed 800 requests
Completed 900 requests
Completed 1000 requests
Finished 1000 requests

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:  5.988 seconds
Complete requests:    1000
Failed requests:       0
Non-2xx responses:    1000
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:  166.99 [#/sec] (mean)
Time per request:     5.988 [ms] (mean)
Time per request:     5.988 [ms] (mean, across all concurrent requests)
Transfer rate:        19.90 [Kbytes/sec] received

Connection Times (ms)
              min      mean[+/-sd] median   max
Connect:        0       0   0.4      0     6
Processing:     2       5   3.6      4    36
Waiting:        2       5   3.4      4    35
Total:          2       6   3.8      5    36

Percentage of the requests served within a certain time (ms)
 50%    5
 66%    7
 75%    8
 80%    9
 90%   10
 95%   12
 98%   16
 99%   19
100%   36 (longest request)
```

- Concurrency 5

```
humnain@WIJDANNAIM-LAPTOP: /mnt/d/1 Rana/2020/1 Kuliah/Progjar/Tugas/Tugas 9$ ab -n 1000 -c 5 http://127.0.0.1:45000/
This is ApacheBench, Version 2.3 <$Revision: 1807734 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking 127.0.0.1 (be patient)
Completed 100 requests
Completed 200 requests
Completed 300 requests
Completed 400 requests
Completed 500 requests
Completed 600 requests
Completed 700 requests
Completed 800 requests
Completed 900 requests
Completed 1000 requests
Finished 1000 requests

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

Document Path:        /
Document Length:      4 bytes

Concurrency Level:    5
Time taken for tests:  4.251 seconds
Complete requests:    1000
Failed requests:       0
Non-2xx responses:    1000
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:  235.25 [#/sec] (mean)
Time per request:     21.254 [ms] (mean)
Time per request:     4.251 [ms] (mean, across all concurrent requests)
Transfer rate:        28.03 [Kbytes/sec] received

Connection Times (ms)
              min      mean[+/-sd] median   max
Connect:        0       0   0.4      0     5
Processing:    12      21   5.8     19    47
Waiting:       12      20   5.8     19    47
Total:         13      21   5.9     19    48

Percentage of the requests served within a certain time (ms)
 50%    19
 66%    21
 75%    23
 80%    25
 90%    30
 95%    33
 98%    37
 99%    43
100%    48 (longest request)
```

- Concurrency 10

```
hmsain@MTIDANMIAIM-LAPTOP:/mnt/d/1 Rana/2020/1 Kuliah/Progjar/Tugas/Tugas 9$ ab -n 1000 -c 10 http://127.0.0.1:45000/
This is ApacheBench, Version 2.3 <$Revision: 1807734 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
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Benchmarking 127.0.0.1 (be patient)
Completed 100 requests
Completed 200 requests
Completed 300 requests
Completed 400 requests
Completed 500 requests
Completed 600 requests
Completed 700 requests
Completed 800 requests
Completed 900 requests
Completed 1000 requests
Finished 1000 requests

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

Document Path:        /
Document Length:      4 bytes

Concurrency Level:    10
Time taken for tests:  4.385 seconds
Complete requests:    1000
Failed requests:       0
Non-2xx responses:    1000
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:  228.07 [#/sec] (mean)
Time per request:     43.847 [ms] (mean)
Time per request:     4.385 [ms] (mean, across all concurrent requests)
Transfer rate:        27.17 [Kbytes/sec] received

Connection Times (ms)
              min      mean[+/-sd] median   max
Connect:        0         0   0.6      0     5
Processing:    11         43   8.9     41    79
Waiting:        11         43   8.9     41    79
Total:          16         43   8.9     42    79

Percentage of the requests served within a certain time (ms)
 50%    42
 66%    46
 75%    49
 80%    50
 90%    54
 95%    62
 98%    67
 99%    72
100%    79 (longest request)
```

- Concurrency 25

```
hmsain@MTIDANMIAIM-LAPTOP:/mnt/d/1 Rana/2020/1 Kuliah/Progjar/Tugas/Tugas 9$ ab -n 1000 -c 25 http://127.0.0.1:45000/
This is ApacheBench, Version 2.3 <$Revision: 1807734 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
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Benchmarking 127.0.0.1 (be patient)
Completed 100 requests
Completed 200 requests
Completed 300 requests
Completed 400 requests
Completed 500 requests
Completed 600 requests
Completed 700 requests
Completed 800 requests
Completed 900 requests
Completed 1000 requests
Finished 1000 requests

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

Document Path:        /
Document Length:      4 bytes

Concurrency Level:    25
Time taken for tests:  4.462 seconds
Complete requests:    1000
Failed requests:       0
Non-2xx responses:    1000
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:  224.11 [#/sec] (mean)
Time per request:     111.552 [ms] (mean)
Time per request:     4.462 [ms] (mean, across all concurrent requests)
Transfer rate:        26.70 [Kbytes/sec] received

Connection Times (ms)
              min      mean[+/-sd] median   max
Connect:        0         1   1.0      0     7
Processing:    13       110  24.2    105   218
Waiting:       12       110  24.1    105   218
Total:         19       110  23.9    106   219
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%    106
 66%   114
 75%   118
 80%   120
 90%   137
 95%   165
```

- Concurrency 50

```
ronain@JIDANMAM-LAPTOP:/mnt/d/1 Rana/2020/1 Kuliah/Progjar/tugas/tugas % $ ab -n 1000 -c 50 http://127.0.0.1:45000/
This is ApacheBench, Version 2.3 <$Revision: 1807734 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking 127.0.0.1 (be patient)
Completed 100 requests
Completed 200 requests
Completed 300 requests
Completed 400 requests
Completed 500 requests
Completed 600 requests
Completed 700 requests
Completed 800 requests
Completed 900 requests
Completed 1000 requests
Finished 1000 requests


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:   3.867 seconds
Complete requests:      1000
Failed requests:         0
Non-2xx responses:      1000
Total transferred:      122000 bytes
HTML transferred:       4000 bytes
Requests per second:    258.59 [#/sec] (mean)
Time per request:       193.356 [ms] (mean)
Time per request:       3.867 [ms] (mean, across all concurrent requests)
Transfer rate:          30.81 [Kbytes/sec] received


Connection Times (ms)
              min      mean[+/-sd] median   max
Connect:        0         1   4.0      0       26
Processing:      4       186  29.2     185     242
Waiting:         4       186  29.2     185     242
Total:          30       187  26.4     186     242


Percentage of the requests served within a certain time (ms)
 50%    186
 66%    195
 75%    201
 80%    206
 90%    218
 95%    231
 98%    236
 99%    238
100%    242 (longest request)
```

- Concurrency 75

```
ronain@JIDANMAM-LAPTOP:/mnt/d/1 Rana/2020/1 Kuliah/Progjar/tugas/tugas % $ ab -n 1000 -c 75 http://127.0.0.1:45000/
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Benchmarking 127.0.0.1 (be patient)
Completed 100 requests
Completed 200 requests
Completed 300 requests
Completed 400 requests
Completed 500 requests
Completed 600 requests
Completed 700 requests
Completed 800 requests
Completed 900 requests
Completed 1000 requests
Finished 1000 requests


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

Document Path:        /
Document Length:       4 bytes

Concurrency Level:     75
Time taken for tests:   4.532 seconds
Complete requests:      1000
Failed requests:         0
Non-2xx responses:      1000
Total transferred:      122000 bytes
HTML transferred:       4000 bytes
Requests per second:    220.67 [#/sec] (mean)
Time per request:       339.870 [ms] (mean)
Time per request:       4.532 [ms] (mean, across all concurrent requests)
Transfer rate:          26.29 [Kbytes/sec] received


Connection Times (ms)
              min      mean[+/-sd] median   max
Connect:        0         3   9.2      0       64
Processing:      7       325  79.0     327     480
Waiting:         7       325  79.0     327     480
Total:          70       328  73.2     328     480


Percentage of the requests served within a certain time (ms)
 50%    328
 66%    352
 75%    366
 80%    380
 90%    428
 95%    450
 98%    469
 99%    474
100%    480 (longest request)
```

- Concurrency 100

```
rwain@WIJDANNAIM-LAPTOP:/mnt/d/1 Rana/2020/1 Kuliah/Progar/Tugas/Tugas 9$ ab -n 1000 -c 100 http://127.0.0.1:45000/
This is ApacheBench, Version 2.3 <$Revision: 1807734 $>
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Benchmarking 127.0.0.1 (be patient)
Completed 100 requests
Completed 200 requests
Completed 300 requests
Completed 400 requests
Completed 500 requests
Completed 600 requests
Completed 700 requests
Completed 800 requests
Completed 900 requests
Completed 1000 requests
Finished 1000 requests

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:   4.027 seconds
Complete requests:      1000
Failed requests:         0
Non-2xx responses:      1000
Total transferred:      122000 bytes
HTML transferred:       4000 bytes
Requests per second:    248.34 [#/sec] (mean)
Time per request:       402.672 [ms] (mean)
Time per request:       4.027 [ms] (mean, across all concurrent requests)
Transfer rate:          29.59 [Kbytes/sec] received

Connection Times (ms)
              min      mean[+/-sd] median   max
Connect:        0       3   6.9      0     35
Processing:    11     379  60.2    389    470
Waiting:        7     379  60.2    388    470
Total:         46     382  54.3    389    478

Percentage of the requests served within a certain time (ms)
 50%    389
 66%    398
 75%    403
 80%    407
 90%    419
 95%    429
 98%    450
 99%    460
100%    478 (longest request)
```

b. Apache Benchmark Asynchronous 1000 request

- Concurrency 1

```
rwain@WIJDANNAIM-LAPTOP:/mnt/d/1 Rana/2020/1 Kuliah/Progar/Tugas/Tugas 9$ sudo ab -n 1000 -c 1 http://127.0.0.1:46000/
[sudo] password for rwain:
This is ApacheBench, Version 2.3 <$Revision: 1807734 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking 127.0.0.1 (be patient)
Completed 100 requests
Completed 200 requests
Completed 300 requests
Completed 400 requests
Completed 500 requests
Completed 600 requests
Completed 700 requests
Completed 800 requests
Completed 900 requests
Completed 1000 requests
Finished 1000 requests

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:   684.702 seconds
Complete requests:      1000
Failed requests:         0
Non-2xx responses:      1000
Total transferred:      122000 bytes
HTML transferred:       4000 bytes
Requests per second:    1.46 [#/sec] (mean)
Time per request:       684.702 [ms] (mean)
Time per request:       684.702 [ms] (mean, across all concurrent requests)
Transfer rate:          0.17 [Kbytes/sec] received

Connection Times (ms)
              min      mean[+/-sd] median   max
Connect:        0       0   0.1      0      2
Processing:    1   684 774.1    388   5196
Waiting:        1   638 723.1    369   5109
Total:         1   685 774.1    389   5197

Percentage of the requests served within a certain time (ms)
 50%    389
 66%    681
 75%    944
 80%   1185
 90%   1857
 95%   2392
 98%   2900
 99%   3271
100%   5197 (longest request)
rwain@WIJDANNAIM-LAPTOP:/mnt/d/1 Rana/2020/1 Kuliah/Progar/Tugas/Tugas 9$
```

- Concurrency 5

```
runaim@NTJDANNAIM-LAPTOP:/mnt/d/1 Rana/2020/1 Kulliah/Progjar/Tugas/Tugas 9$ sudo ab -n 1000 -c 5 -r -k -s 999999 http://127.0.0.1:46000/
[sudo] password for runaim:
This is ApacheBench, Version 2.3 <$Revision: 1807734 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking 127.0.0.1 (be patient)
Completed 100 requests
Completed 200 requests
Completed 300 requests
Completed 400 requests
Completed 500 requests
Completed 600 requests
Completed 700 requests
Completed 800 requests
Completed 900 requests
Completed 1000 requests
Finished 1000 requests

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

Document Path:        /
Document Length:      4 bytes

Concurrency Level:    5
Time taken for tests:  188.797 seconds
Complete requests:    1000
Failed requests:      0
Non-2xx responses:    1000
Keep-Alive requests:  0
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:  5.30 [#/sec] (mean)
Time per request:     943.985 [ms] (mean)
Time per request:     188.797 [ms] (mean, across all concurrent requests)
Transfer rate:        0.63 [Kbytes/sec] received

Connection Times (ms)
              min      mean[+/-sd] median   max
Connect:        0        0  0.1         0       1
Processing:    2  934 1013.0       586   5772
Waiting:       2  896  974.7       559   5381
Total:         3  934 1013.0       587   5772

Percentage of the requests served within a certain time (ms)
 50%    587
 66%    989
 75%   1332
 80%   1570
 90%   2290
 95%   3109
 98%   4191
 99%   4619
100%   5772 (longest request)
runaim@NTJDANNAIM-LAPTOP:/mnt/d/1 Rana/2020/1 Kulliah/Progjar/Tugas/Tugas 9$
```

- Concurrency 10

```
runaim@NTJDANNAIM-LAPTOP:/mnt/d/1 Rana/2020/1 Kulliah/Progjar/Tugas/Tugas 9$ sudo ab -n 1000 -c 10 -r -k -s 999999 http://127.0.0.1:46000/
[sudo] password for runaim:
This is ApacheBench, Version 2.3 <$Revision: 1807734 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking 127.0.0.1 (be patient)
Completed 100 requests
Completed 200 requests
Completed 300 requests
Completed 400 requests
Completed 500 requests
Completed 600 requests
Completed 700 requests
Completed 800 requests
Completed 900 requests
Completed 1000 requests
Finished 1000 requests

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

Document Path:        /
Document Length:      4 bytes

Concurrency Level:    10
Time taken for tests:  194.726 seconds
Complete requests:    1000
Failed requests:      0
Non-2xx responses:    1000
Keep-Alive requests:  0
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:  5.14 [#/sec] (mean)
Time per request:     194.726 [ms] (mean)
Time per request:     194.726 [ms] (mean, across all concurrent requests)
Transfer rate:        0.61 [Kbytes/sec] received

Connection Times (ms)
              min      mean[+/-sd] median   max
Connect:        0        0  0.2         0       3
Processing:    2 1921 2213.7      1139  12422
Waiting:       2 1876 2167.9      1104  12373
Total:         5 1922 2213.7      1139  12422

Percentage of the requests served within a certain time (ms)
 50%   1139
 66%   1925
 75%   2673
 80%   3092
 90%   5172
 95%   6973
 98%   8390
 99%   9824
100%  12422 (longest request)
runaim@NTJDANNAIM-LAPTOP:/mnt/d/1 Rana/2020/1 Kulliah/Progjar/Tugas/Tugas 9$
```

- Concurrency 25

```
rwain@W12DANNAIH-LAPTOP: /mnt/d/1 Rana/2020/1 Kuliah/Progjar/Tugas/Tugas 9$ sudo ab -n 1000 -c 25 -r -k -s 999999 http://127.0.0.1:4000/
[sudo] password for rwain:
This is ApacheBench, Version 2.3 <$Revision: 1807734 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking 127.0.0.1 (be patient)
Completed 100 requests
Completed 200 requests
Completed 300 requests
Completed 400 requests
Completed 500 requests
Completed 600 requests
Completed 700 requests
Completed 800 requests
Completed 900 requests
Completed 1000 requests
Finished 1000 requests

Server Software:      myserver/1.0
Server Hostname:      127.0.0.1
Server Port:          40000

Document Path:        /
Document Length:      4 bytes

Concurrency Level:    25
Time taken for tests:  200.788 seconds
Complete requests:    1000
Failed requests:       0
Non-2xx responses:    1000
Keep-Alive requests:  0
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:  4.98 [#/sec] (mean)
Time per request:     5019.706 [ms] (mean)
Time per request:     200.788 [ms] (mean, across all concurrent requests)
Transfer rate:        0.59 [Kbytes/sec] received

Connection Times (ms)
              min      mean[+/-sd] median   max
Connect:      0        0  0.5      0       6
Processing:   5 4796 4821.4   3102   19626
Waiting:      4 4746 4765.7   3069   19427
Total:        9 4796 4821.3   3102   19626

Percentage of the requests served within a certain time (ms)
 50%    3102
 66%    5293
 75%    7599
 80%    8150
 90%   13393
 95%   15705
 98%   16947
 99%   17594
100%   19626 (longest request)
rwain@W12DANNAIH-LAPTOP: /mnt/d/1 Rana/2020/1 Kuliah/Progjar/Tugas/Tugas 9$
```

- Concurrency 50

```
rwain@W12DANNAIH-LAPTOP: /mnt/d/1 Rana/2020/1 Kuliah/Progjar/Tugas/Tugas 9$ sudo ab -n 1000 -c 50 -r -k -s 999999 http://127.0.0.1:4000/
[sudo] password for rwain:
This is ApacheBench, Version 2.3 <$Revision: 1807734 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking 127.0.0.1 (be patient)
Completed 100 requests
Completed 200 requests
Completed 300 requests
Completed 400 requests
Completed 500 requests
Completed 600 requests
Completed 700 requests
Completed 800 requests
Completed 900 requests
Completed 1000 requests
Finished 1000 requests

Server Software:      myserver/1.0
Server Hostname:      127.0.0.1
Server Port:          40000

Document Path:        /
Document Length:      4 bytes

Concurrency Level:    50
Time taken for tests:  186.588 seconds
Complete requests:    1000
Failed requests:       0
Non-2xx responses:    1000
Keep-Alive requests:  0
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:  5.36 [#/sec] (mean)
Time per request:     9529.385 [ms] (mean)
Time per request:     186.588 [ms] (mean, across all concurrent requests)
Transfer rate:        0.64 [Kbytes/sec] received

Connection Times (ms)
              min      mean[+/-sd] median   max
Connect:      0        1  1.6      0      12
Processing:   6 8440 7912.3   6176   34128
Waiting:      4 8400 7874.7   6167   33908
Total:       15 8440 7911.9   6176   34128

Percentage of the requests served within a certain time (ms)
 50%    6176
 66%    9831
 75%   12273
 80%   16309
 90%   21700
 95%   23580
 98%   28093
 99%   30024
100%   34128 (longest request)
rwain@W12DANNAIH-LAPTOP: /mnt/d/1 Rana/2020/1 Kuliah/Progjar/Tugas/Tugas 9$
```


- Concurrency 75

```
runain@WIJDANNAIM-LAPTOP:/mnt/d/1 Rana/2020/1 Kuliah/Progjar/Tugas/Tugas 9$ sudo ab -n 1000 -c 75 -r -k -s 999999 http://127.0.0.1:46000/
[sudo] password for runain:
This is ApacheBench, Version 2.3 <$Revision: 1807734 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking 127.0.0.1 (be patient)
Completed 100 requests
Completed 200 requests
Completed 300 requests
Completed 400 requests
Completed 500 requests
Completed 600 requests
Completed 700 requests
Completed 800 requests
Completed 900 requests
Completed 1000 requests
Finished 1000 requests


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

Document Path:        /
Document Length:      4 bytes

Concurrency Level:    75
Time taken for tests:  209.421 seconds
Complete requests:    1000
Failed requests:      0
Non-2xx responses:    1000
Keep-Alive requests:  0
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:  4.78 [#/sec] (mean)
Time per request:     15706.586 [ms] (mean)
Time per request:     209.421 [ms] (mean, across all concurrent requests)
Transfer rate:        0.57 [Kbytes/sec] received

Connection Times (ms)
              min      mean[+/-sd] median   max
Connect:        0        1   2.4      0       14
Processing:      4   13404 14006.0   9373   60223
Waiting:        4   13361 13969.8   9290   60223
Total:         17   13405 14005.4   9374   60223

Percentage of the requests served within a certain time (ms)
 50%    9374
 66%   14025
 75%   17622
 80%   19828
 90%   33743
 95%   50451
 98%   54887
 99%   56518
100%   60223 (longest request)
runain@WIJDANNAIM-LAPTOP:/mnt/d/1 Rana/2020/1 Kuliah/Progjar/Tugas/Tugas 9$
```

- Concurrency 100

```
runain@WIJDANNAIM-LAPTOP:/mnt/d/1 Rana/2020/1 Kuliah/Progjar/Tugas/Tugas 9$ sudo ab -n 1000 -c 100 -r -k -s 999999 http://127.0.0.1:46000/
[sudo] password for runain:
Sorry, try again.
[sudo] password for runain:
This is ApacheBench, Version 2.3 <$Revision: 1807734 $>
Copyright 1996 Adam Twiss, Zeus Technology Ltd, http://www.zeustech.net/
Licensed to The Apache Software Foundation, http://www.apache.org/

Benchmarking 127.0.0.1 (be patient)
Completed 100 requests
Completed 200 requests
Completed 300 requests
Completed 400 requests
Completed 500 requests
Completed 600 requests
Completed 700 requests
Completed 800 requests
Completed 900 requests
Completed 1000 requests
Finished 1000 requests


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:  198.066 seconds
Complete requests:    1000
Failed requests:      0
Non-2xx responses:    1000
Keep-Alive requests:  0
Total transferred:    122000 bytes
HTML transferred:     4000 bytes
Requests per second:  5.05 [#/sec] (mean)
Time per request:     19806.571 [ms] (mean)
Time per request:     198.066 [ms] (mean, across all concurrent requests)
Transfer rate:        0.60 [Kbytes/sec] received

Connection Times (ms)
              min      mean[+/-sd] median   max
Connect:        0        1   3.3      0       17
Processing:    136   15997 15976.3 11763   72079
Waiting:       134   15951 15926.6 11727   71331
Total:        151   15998 15975.3 11764   72079

Percentage of the requests served within a certain time (ms)
 50%    11764
 66%    20785
 75%    23691
 80%    26037
 90%    37414
 95%    50448
 98%    61453
 99%    67899
100%    72079 (longest request)
runain@WIJDANNAIM-LAPTOP:/mnt/d/1 Rana/2020/1 Kuliah/Progjar/Tugas/Tugas 9$
```