

CPU BENCHMARKK:

```
ec2-user@ip-172-31-55-92:~/PA1
7. Close
Enter your Choice: 1
t0.420000Giga FLOPS: 5.785714
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1. Floating point operations 1 thread
2. Floating point operations 2 threads
3. Floating point operations 4 threads
4. Integer point operations 1 thread
5. Integer point operations 2 threads
6. Integer point perations 4 threads
7. Close
Enter your Choice: 1
t0.420000Giga FLOPS: 5.785714
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1. Floating point operations 1 thread
2. Floating point operations 2 threads
3. Floating point operations 4 threads
4. Integer point operations 1 thread
5. Integer point operations 2 threads
6. Integer point perations 4 threads
7. Close
Enter your Choice: 1
t0.430000Giga FLOPS: 5.651163
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
t0.420000Giga FLOPS: 5.785714
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1. Floating point operations 1 thread
2. Floating point operations 2 threads
3. Floating point operations 4 threads
4. Integer point operations 1 thread
5. Integer point operations 2 threads
6. Integer point perations 4 threads
7. Close
Enter your Choice: 2
t0.860000Giga FLOPS: 5.651163
[ec2-user@ip-172-31-55-92 PA1]$ ^[[A
-bash: $'\E[A': command not found
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1. Floating point operations 1 thread
2. Floating point operations 2 threads
3. Floating point operations 4 threads
4. Integer point operations 1 thread
5. Integer point operations 2 threads
6. Integer point perations 4 threads
7. Close
Enter your Choice: 2
t0.850000Giga FLOPS: 5.717647
[ec2-user@ip-172-31-55-92 PA1]$ |
```

333399

```
ec2-user@ip-172-31-55-92:~/PA1
Enter your Choice: 3
t1.720000Giga FLOPS: 5.651163
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1. Floating point operations 1 thread
2. Floating point operations 2 threads
3. Floating point operations 4 threads
4. Integer point operations 1 thread
5. Integer point operations 2 threads
6. Integer point perations 4 threads
7. Close
Enter your Choice: 3
t1.700000Giga FLOPS: 5.717647
[ec2-user@ip-172-31-55-92 PA1]$
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1. Floating point operations 1 thread
2. Floating point operations 2 threads
3. Floating point operations 4 threads
4. Integer point operations 1 thread
5. Integer point operations 2 threads
6. Integer point perations 4 threads
7. Close
Enter your Choice: 3
t1.680000Giga FLOPS: 5.785714
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
t0.420000Giga IOPS: 5.785714
[ec2-user@ip-172-31-55-92 PA1]$ ^[[A
-bash: $'\E[A': command not found
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1. Floating point operations 1 thread
2. Floating point operations 2 threads
3. Floating point operations 4 threads
4. Integer point operations 1 thread
5. Integer point operations 2 threads
6. Integer point perations 4 threads
7. Close
Enter your Choice: 4
t0.420000Giga IOPS: 5.785714
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1. Floating point operations 1 thread
2. Floating point operations 2 threads
3. Floating point operations 4 threads
4. Integer point operations 1 thread
5. Integer point operations 2 threads
6. Integer point perations 4 threads
7. Close
Enter your Choice: 4
t0.410000Giga IOPS: 5.926829
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
Enter your Choice: 6
t1.680000Giga IOPS: 5.785714
[ec2-user@ip-172-31-55-92 PA1]$
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1. Floating point operations 1 thread
2. Floating point operations 2 threads
3. Floating point operations 4 threads
4. Integer point operations 1 thread
5. Integer point operations 2 threads
6. Integer point perations 4 threads
7. Close
Enter your Choice: 6
t1.710000Giga IOPS: 5.684211
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1. Floating point operations 1 thread
2. Floating point operations 2 threads
3. Floating point operations 4 threads
4. Integer point operations 1 thread
5. Integer point operations 2 threads
6. Integer point perations 4 threads
7. Close
Enter your Choice: 5
t0.850000Giga IOPS: 5.717647
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
Enter your Choice: 6
t1.710000Giga IOPS: 5.684211
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1. Floating point operations 1 thread
2. Floating point operations 2 threads
3. Floating point operations 4 threads
4. Integer point operations 1 thread
5. Integer point operations 2 threads
6. Integer point perations 4 threads
7. Close
Enter your Choice: 6
t1.680000Giga IOPS: 5.785714
[ec2-user@ip-172-31-55-92 PA1]$
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1. Floating point operations 1 thread
2. Floating point operations 2 threads
3. Floating point operations 4 threads
4. Integer point operations 1 thread
5. Integer point operations 2 threads
6. Integer point perations 4 threads
7. Close
Enter your Choice: 6
t1.710000Giga IOPS: 5.684211
[ec2-user@ip-172-31-55-92 PA1]$ |
```

MEMORY BENCHMARK:

```
ec2-user@ip-172-31-55-92:~/PA1
memory.c:123:9: warning: assignment from incompatible pointer type [enabled by default]
    dest1=&dest;
    ^
[ec2-user@ip-172-31-55-92 PA1]$ 1
-bash: 1: command not found
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1.Sequential 1B 1 thread
2.Sequential 1KB 1 thread
3.Sequential 1MB 1 thread
4. Sequential 1B 2 threads
5. Sequential 1KB 2 threads
6.Sequential 1MB 2 threads
7.Random 1B 1 thread
8.Random 1KB 1 thread
9. Random 1MB 1 threadClose
10. Random 1B 2 threads
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 1
time taken for 1st thread0.080000Latency: 80.000000
Throughput: 0.000012
[ec2-user@ip-172-31-55-92 PA1]$ |

ec2-user@ip-172-31-55-92:~/PA1
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 1
time taken for 1st thread0.080000Latency: 80.000000
Throughput: 0.000012
[ec2-user@ip-172-31-55-92 PA1]$ 2
-bash: 2: command not found
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1.Sequential 1B 1 thread
2.Sequential 1KB 1 thread
3.Sequential 1MB 1 thread
4. Sequential 1B 2 threads
5. Sequential 1KB 2 threads
6.Sequential 1MB 2 threads
7.Random 1B 1 thread
8.Random 1KB 1 thread
9. Random 1MB 1 threadClose
10. Random 1B 2 threads
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 2
time taken for 1st thread0.080000Latency: 0.078125
Throughput: 0.012207
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
9. Random 1MB 1 threadClose
10. Random 1B 2 threads
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 2
time taken for 1st thread0.080000Latency: 0.078125
Throughput: 0.012207
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1.Sequential 1B 1 thread
2.Sequential 1KB 1 thread
3.Sequential 1MB 1 thread
4. Sequential 1B 2 threads
5. Sequential 1KB 2 threads
6.Sequential 1MB 2 threads
7.Random 1B 1 thread
8.Random 1KB 1 thread
9. Random 1MB 1 threadClose
10. Random 1B 2 threads
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 3
time taken for 1st thread0.080000Latency: 0.000076
Throughput: 12.500000
[ec2-user@ip-172-31-55-92 PA1]$ |

ec2-user@ip-172-31-55-92:~/PA1
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 4
time taken for 1st thread0.170000time taken for 2nd thread0.180000Latency: 175.0
00000
Throughput: 0.000005
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1.Sequential 1B 1 thread
2.Sequential 1KB 1 thread
3.Sequential 1MB 1 thread
4. Sequential 1B 2 threads
5. Sequential 1KB 2 threads
6.Sequential 1MB 2 threads
7.Random 1B 1 thread
8.Random 1KB 1 thread
9. Random 1MB 1 threadClose
10. Random 1B 2 threads
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 4
time taken for 1st thread0.170000time taken for 2nd thread0.170000Latency: 170.0
00000
Throughput: 0.000006
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 5
time taken for 1st thread0.180000time taken for 2nd thread0.180000Latency: 0.175781
Throughput: 0.005425
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1.Sequential 1B 1 thread
2.Sequential 1KB 1 thread
3.Sequential 1MB 1 thread
4. Sequential 1B 2 threads
5. Sequential 1KB 2 threads
6.Sequential 1MB 2 threads
7.Random 1B 1 thread
8.Random 1KB 1 thread
9. Random 1MB 1 threadClose
10. Random 1B 2 threads
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 5
time taken for 1st thread0.170000time taken for 2nd thread0.170000Latency: 0.166016
Throughput: 0.005744
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 6
time taken for 1st thread0.170000time taken for 2nd thread0.180000Latency: 0.000167
Throughput: 5.718954
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1.Sequential 1B 1 thread
2.Sequential 1KB 1 thread
3.Sequential 1MB 1 thread
4. Sequential 1B 2 threads
5. Sequential 1KB 2 threads
6.Sequential 1MB 2 threads
7.Random 1B 1 thread
8.Random 1KB 1 thread
9. Random 1MB 1 threadClose
10. Random 1B 2 threads
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 6
time taken for 1st thread0.170000time taken for 2nd thread0.170000Latency: 0.000162
Throughput: 5.882353
[ec2-user@ip-172-31-55-92 PA1]$ |
```



```
ec2-user@ip-172-31-55-92:~/PA1
9. Random 1MB 1 threadClose
10. Random 1B 2 threads
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 7
time taken for 1st thread0.070000Latency: 70.000000
Throughput: 0.000014
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1.Sequential 1B 1 thread
2.Sequential 1KB 1 thread
3.Sequential 1MB 1 thread
4. Sequential 1B 2 threads
5. Sequential 1KB 2 threads
6.Sequential 1MB 2 threads
7.Random 1B 1 thread
8.Random 1KB 1 thread
9. Random 1MB 1 threadClose
10. Random 1B 2 threads
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 7
time taken for 1st thread0.070000Latency: 70.000000
Throughput: 0.000014
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
9. Random 1MB 1 threadClose
10. Random 1B 2 threads
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 8
time taken for 1st thread0.080000Latency: 0.078125
Throughput: 0.012207
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1.Sequential 1B 1 thread
2.Sequential 1KB 1 thread
3.Sequential 1MB 1 thread
4. Sequential 1B 2 threads
5. Sequential 1KB 2 threads
6.Sequential 1MB 2 threads
7.Random 1B 1 thread
8.Random 1KB 1 thread
9. Random 1MB 1 threadClose
10. Random 1B 2 threads
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 8
time taken for 1st thread0.070000Latency: 0.068359
Throughput: 0.013951
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```

ec2-user@ip-172-31-55-92:~/PA1
9. Random 1MB 1 threadClose
10. Random 1B 2 threads
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 8
time taken for 1st thread0.070000Latency: 0.068359
Throughput: 0.013951
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1.Sequential 1B 1 thread
2.Sequential 1KB 1 thread
3.Sequential 1MB 1 thread
4. Sequential 1B 2 threads
5. Sequential 1KB 2 threads
6.Sequential 1MB 2 threads
7.Random 1B 1 thread
8.Random 1KB 1 thread
9. Random 1MB 1 threadClose
10. Random 1B 2 threads
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 9
time taken for 1st thread0.070000Latency: 0.000067
Throughput: 14.285714
[ec2-user@ip-172-31-55-92 PA1]$ |

```

```

ec2-user@ip-172-31-55-92:~/PA1
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 10
time taken for 1st thread0.150000time taken for 2nd thread0.150000Latency: 150.000000
Throughput: 0.000006
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1.Sequential 1B 1 thread
2.Sequential 1KB 1 thread
3.Sequential 1MB 1 thread
4. Sequential 1B 2 threads
5. Sequential 1KB 2 threads
6.Sequential 1MB 2 threads
7.Random 1B 1 thread
8.Random 1KB 1 thread
9. Random 1MB 1 threadClose
10. Random 1B 2 threads
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 10
time taken for 1st thread0.160000time taken for 2nd thread0.160000Latency: 160.000000
Throughput: 0.000006
[ec2-user@ip-172-31-55-92 PA1]$ |

```



```
ec2-user@ip-172-31-55-92:~/PA1
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 11
time taken for 1st thread0.160000time taken for 2nd thread0.160000Latency: 0.156
250
Throughput: 0.006104
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1.Sequential 1B 1 thread
2.Sequential 1KB 1 thread
3.Sequential 1MB 1 thread
4. Sequential 1B 2 threads
5. Sequential 1KB 2 threads
6.Sequential 1MB 2 threads
7.Random 1B 1 thread
8.Random 1KB 1 thread
9. Random 1MB 1 threadClose
10. Random 1B 2 threads
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 11
time taken for 1st thread0.150000time taken for 2nd thread0.150000Latency: 0.146
484
Throughput: 0.006510
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 12
time taken for 1st thread0.150000time taken for 2nd thread0.160000Latency: 0.000
148
Throughput: 6.458333
[ec2-user@ip-172-31-55-92 PA1]$ ./a.out
1.Sequential 1B 1 thread
2.Sequential 1KB 1 thread
3.Sequential 1MB 1 thread
4. Sequential 1B 2 threads
5. Sequential 1KB 2 threads
6.Sequential 1MB 2 threads
7.Random 1B 1 thread
8.Random 1KB 1 thread
9. Random 1MB 1 threadClose
10. Random 1B 2 threads
11. Random 1KB 2 threads
12. Random 1MB 2 thread
13. CloseEnter your Choice: 12
time taken for 1st thread0.150000time taken for 2nd thread0.150000Latency: 0.000
143
Throughput: 6.666667
[ec2-user@ip-172-31-55-92 PA1]$ |
```

DISK BENCHMARK:

```
ec2-user@ip-172-31-55-92:~/PA1
6. Read Sequential 1MB 2 threads
7. Read Random 1B 1 thread
8. Read Random 1KB 1 thread
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 1
t0.030000Latency: 0.003000
Throughput: 3178.914388
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
6. Read Sequential 1MB 2 threads
7. Read Random 1B 1 thread
8. Read Random 1KB 1 thread
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 2
t0.030000Latency: 0.000003
Throughput: 3255208.333333
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 4

Start time 1: 0.000000   Start time 2: 0.000000
End time 1: 70.000000   End time 2: 70.000000
Latency: 0.003500
Throughput: 10899.135045
[ec2-user@ip-172-31-55-92 PA1]$
```

```
ec2-user@ip-172-31-55-92:~/PA1
6. Read Sequential 1MB 2 threads
7. Read Random 1B 1 thread
8. Read Random 1KB 1 thread
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 5
Latency: 0.000003
Throughput: 11160714.285714
[ec2-user@ip-172-31-55-92 PA1]$
```

```
ec2-user@ip-172-31-55-92:~/PA1
6. Read Sequential 1MB 2 threads
7. Read Random 1B 1 thread
8. Read Random 1KB 1 thread
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 13
Latency: 90.000000
Throughput: 0.000011
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
6. Read Sequential 1MB 2 threads
7. Read Random 1B 1 thread
8. Read Random 1KB 1 thread
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 14
Latency: 0.087891
Throughput: 0.010851
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
6. Read Sequential 1MB 2 threads
7. Read Random 1B 1 thread
8. Read Random 1KB 1 thread
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 15
Latency: 0.000086
Throughput: 11.111111
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
6. Read Sequential 1MB 2 threads
7. Read Random 1B 1 thread
8. Read Random 1KB 1 thread
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 16
Latency: 180.000000
Throughput: 0.000011
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
6. Read Sequential 1MB 2 threads
7. Read Random 1B 1 thread
8. Read Random 1KB 1 thread
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 17
Latency: 0.175781
Throughput: 0.010851
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
6. Read Sequential 1MB 2 threads
7. Read Random 1B 1 thread
8. Read Random 1KB 1 thread
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 18
Latency: 0.000172
Throughput: 11.111111
[ec2-user@ip-172-31-55-92 PA1]$ |
```



```
ec2-user@ip-172-31-55-92:~/PA1
6. Read Sequential 1MB 2 threads
7. Read Random 1B 1 thread
8. Read Random 1KB 1 thread
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 7
Latency: 0.003000
Throughput: 3178.914388
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
6. Read Sequential 1MB 2 threads
7. Read Random 1B 1 thread
8. Read Random 1KB 1 thread
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 8
Latency: 0.000004
Throughput: 2441406.250000
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 10

Start time 1: 0.000000 Start time 2: 0.000000
End time 1: 80.000000 End time 2: 80.000000
Latency: 0.004000
Throughput: 9536.743164
[ec2-user@ip-172-31-55-92 PA1]$
```

```
ec2-user@ip-172-31-55-92:~/PA1
6. Read Sequential 1MB 2 threads
7. Read Random 1B 1 thread
8. Read Random 1KB 1 thread
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 11
Latency: 0.000004
Throughput: 9765625.000000
[ec2-user@ip-172-31-55-92 PA1]$
```

```
ec2-user@ip-172-31-55-92:~/PA1
6. Read Sequential 1MB 2 threads
7. Read Random 1B 1 thread
8. Read Random 1KB 1 thread
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 19
Latency: 80.000000
Throughput: 0.000012
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
6. Read Sequential 1MB 2 threads
7. Read Random 1B 1 thread
8. Read Random 1KB 1 thread
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 20
Latency: 0.087891
Throughput: 0.010851
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
6. Read Sequential 1MB 2 threads
7. Read Random 1B 1 thread
8. Read Random 1KB 1 thread
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 21
Latency: 0.000086
Throughput: 11.111111
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
6. Read Sequential 1MB 2 threads
7. Read Random 1B 1 thread
8. Read Random 1KB 1 thread
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 22
Latency: 180.000000
Throughput: 0.000011
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
6. Read Sequential 1MB 2 threads
7. Read Random 1B 1 thread
8. Read Random 1KB 1 thread
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 23
Latency: 0.175781
Throughput: 0.010851
[ec2-user@ip-172-31-55-92 PA1]$ |
```

```
ec2-user@ip-172-31-55-92:~/PA1
6. Read Sequential 1MB 2 threads
7. Read Random 1B 1 thread
8. Read Random 1KB 1 thread
9. Read Random 1MB 1 thread
10. Read Random 1B 2 threads
11. Read Random 1KB 2 threads
12. Read Random 1MB 2 thread
13. Write Sequential 1B 1 thread
14. Write Sequential 1KB 1 thread
15. Write Sequential 1MB 1 thread
16. Write Sequential 1B 2 threads
17. Write Sequential 1KB 2 threads
18. Write Sequential 1MB 2 threads
19. Write Random 1B 1 thread
20. Write Random 1KB 1 thread
21. Write Random 1MB 1 threadClose
22. Write Random 1B 2 threads
23. Write Random 1KB 2 threads
24. Write Random 1MB 2 thread
25. Close
Enter your Choice: 24
Latency: 0.000172
Throughput: 11.111111
[ec2-user@ip-172-31-55-92 PA1]$ |
```