BSDS HW1
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https://github.com/yejeelee/bsds6650-fall20/tree/main/Assignment1

Description of client design

Param.properties = a file which contains parameters such as maxThreads, numSkiers, numLifts, day, resortID

ReadPropertiesFile = a class which reads properties file

ClientMain class = a class which can start client side
SkiersApiMultiThread = a class which handles multithreading all three phases.

Phase = a class that implements Runnable Interface that can be used a single thread that do POST and GET to SkierAPI

DataAnalysis = a class that analyze the result for client part2
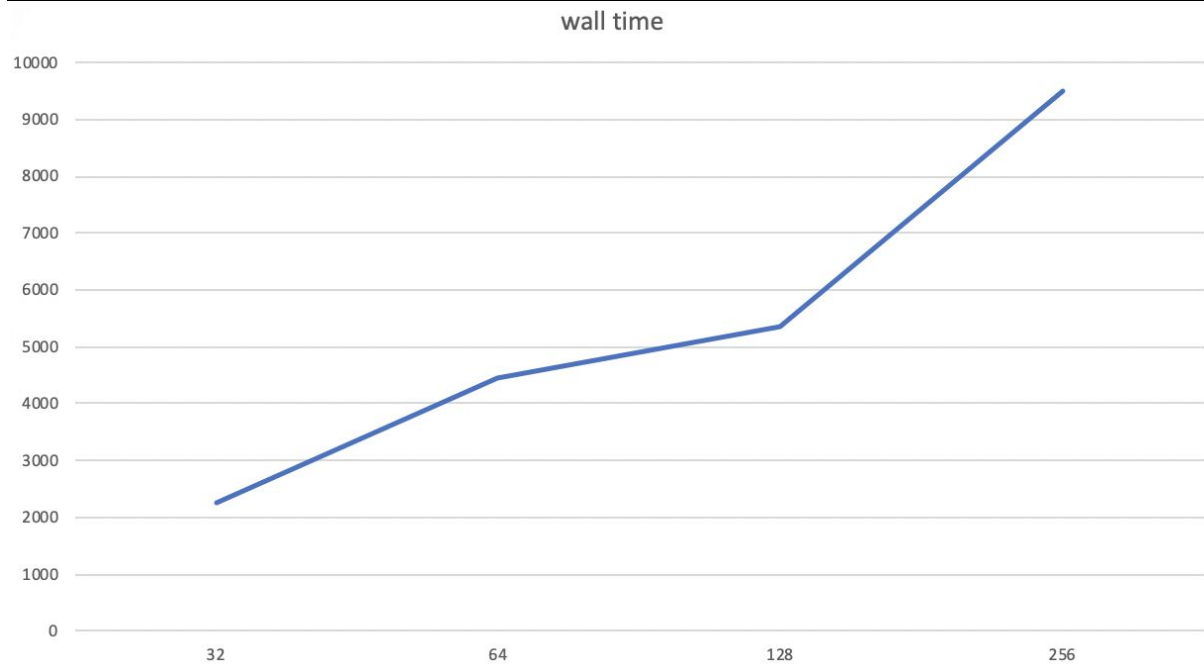CsvFile = a class that creates csvFile, writes to csvFile and closes the csvFile
RowComponent = a class that act as a row which can be append to CsvFile

result.csv = contains all data from executing phase1, phase2, phase3

Client part1)

MaxThreads = 32	total req: 5080 Succesful req: 5080 wall time: 2273 throughput: 2
MaxThreads = 64	total req: 10160 Succesful req: 10160 wall time: 4437 throughput: 2
MaxThreads = 128	total req: 20320 Succesful req: 20320 wall time: 5369 throughput: 3
MaxThreads = 256	total req: 40640 Succesful req: 40640 wall time: 9494

	throughput: 4

wall time

Client Part2

MaxThreads = 32	Mean for POSTs (milliseconds): 10.691041666666667 Mean for GETs (milliseconds): 4.339285714285714 Median for POSTs (milliseconds): 3.5 Median for GETs (milliseconds): 1.5 max for POSTs (milliseconds): 954 max for GETs (milliseconds): 353 99th percentile for POST (milliseconds): 443 99th percentile for GET (milliseconds): 27 Total Wall Time (milliseconds): 3799 throughput: 1
MaxThreads = 64	Mean for POSTs (milliseconds): 17.918958333333332 Mean for GETs (milliseconds): 2.282142857142857 Median for POSTs (milliseconds): 16.0 Median for GETs (milliseconds): 1.5 max for POSTs (milliseconds): 1305 max for GETs (milliseconds): 373 99th percentile for POST (milliseconds): 1016 99th percentile for GET (milliseconds): 9

	Total Wall Time (milliseconds): 4863 throughput: 2
MaxThreads = 128	Mean for POSTs (milliseconds): 31.481927083333332 Mean for GETs (milliseconds): 2.619642857142857 Median for POSTs (milliseconds): 84.0 Median for GETs (milliseconds): 1.5 max for POSTs (milliseconds): 660 max for GETs (milliseconds): 125 99th percentile for POST (milliseconds): 465 99th percentile for GET (milliseconds): 10 Total Wall Time (milliseconds): 6619 throughput: 3
MaxThreads = 256	Mean for POSTs (milliseconds): 54.40567708333333 Mean for GETs (milliseconds): 6.781696428571428 Median for POSTs (milliseconds): 5.0 Median for GETs (milliseconds): 3.0 max for POSTs (milliseconds): 1373 max for GETs (milliseconds): 203 99th percentile for POST (milliseconds): 730 99th percentile for GET (milliseconds): 5 Total Wall Time: 11941 throughput: 3

Vertical (Value) Axis

60

50

40

30

20

10

0

32   64   128   256

—— throughput   —— mean POST   —— mean GET