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Project 6: Concurrency

The starter code was provided, it was just a matter of editing the delta stepping algorithm so that it would run in parallel. It would run, while keeping all threads in sync with a cyclic barrier, and communicating between threads with a ConcurrentLinkedQueue.
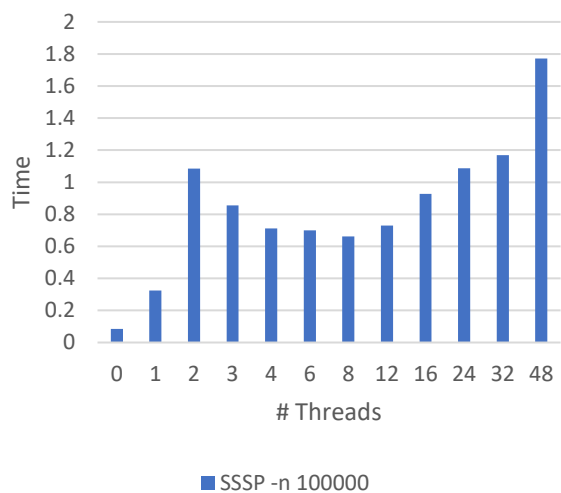
Run by doing:

javac SSSP.java

java SSSP >insert whatever arguments<
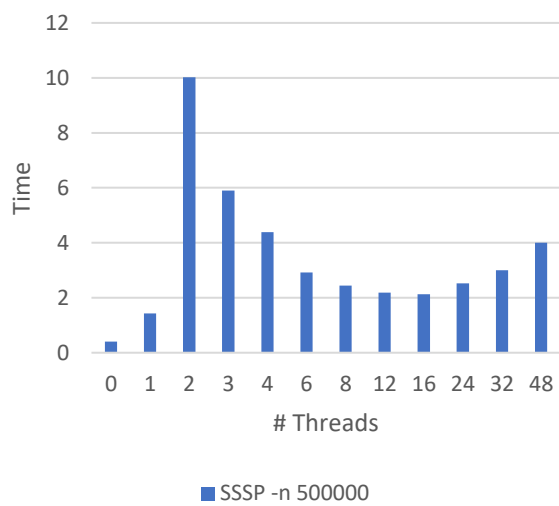
java SSSP -n 500000 -t #

I didn't check until the very end, but I noticed that there were some other users logged in during my time slot. The graphs from running the code are on the next page.

Performance appeared to be the best between 8-12 threads, irregularities in data may be due to others using the server at the same time
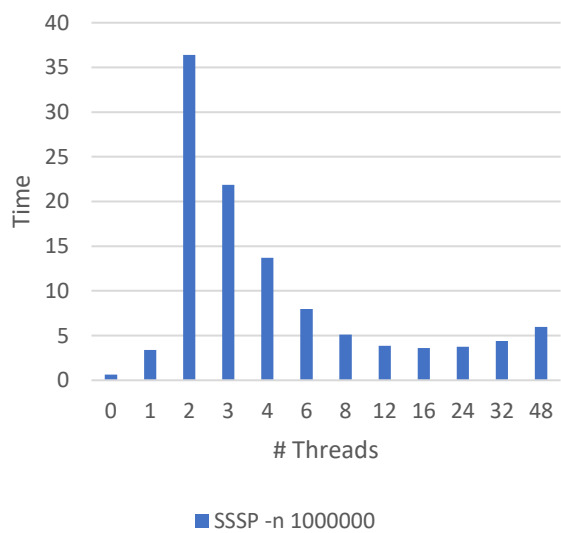
SSSP -n 100000 -t #

SSSP -n 500000 -t #

SSSP -n 1000000 -t #

SSSP -n 1000000 -d 100 -t #