Floyd-Warshall – Daniela Garcia 03/10/20

Problems

The thing I had the most trouble with was figuring out where to start and stop the timer in order to be able to time each individual thread and the program as a whole. I overcame this problem by just trying a lot of different things and figuring out what worked and what didn't.

Bugs

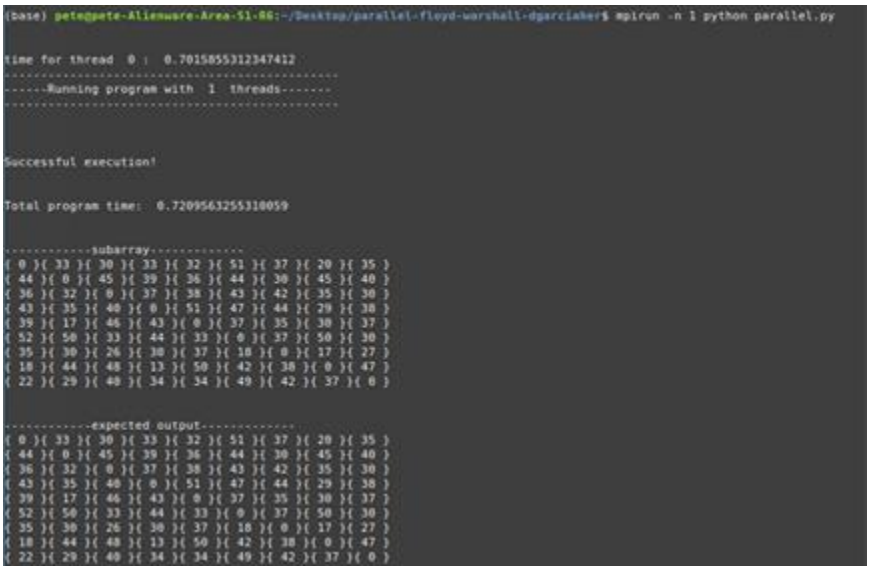
I am not able to run the program with 6 and 8 threads, it runs into an infinite loop

Time

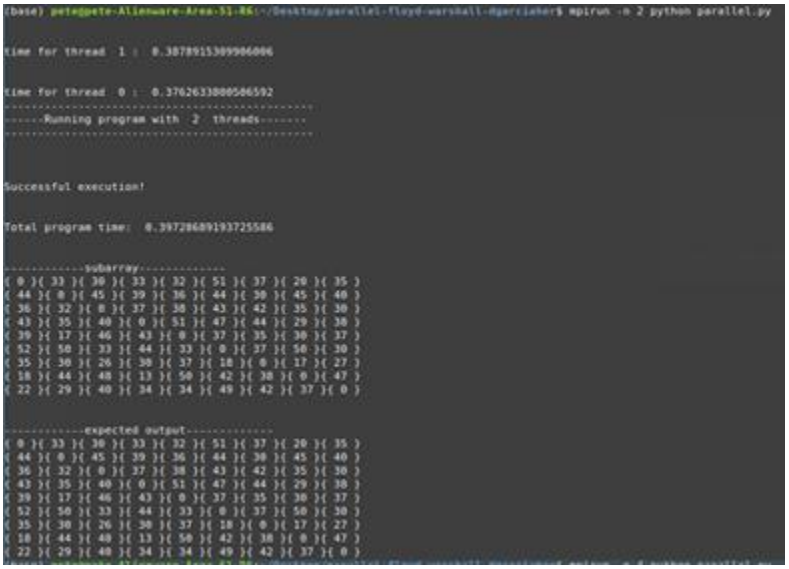
It took me a bit over 3 hours to complete this assignment

Performance measurements

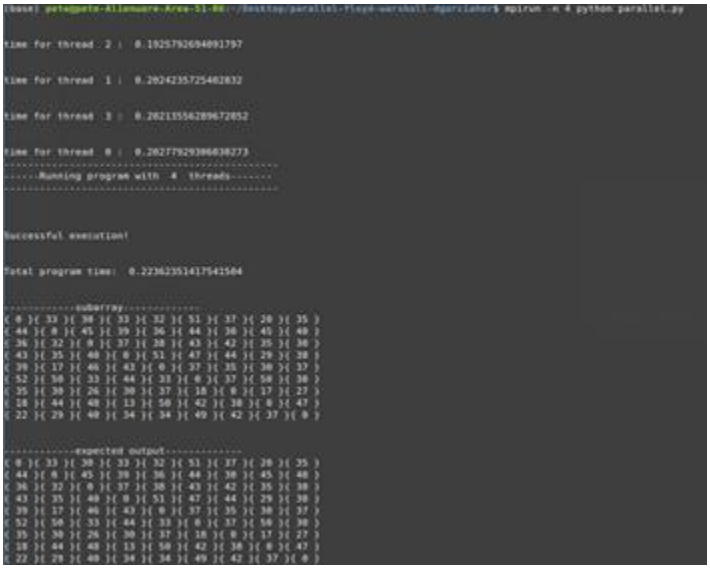
1 thread:



2 threads:



3 threads:



Analysis of times

The time of execution gets smaller as you add more threads. This makes sense as they all work on a piece at the same time so the work should be taking less time when it is split between more processes.

Observations

I found MPI a bit more intuitive to use than the library we had been using for the previous 2 labs. I have been having a hard time testing these labs since my computer can only run 4 threads and I have been

asking a friend to run it on his computer for me. I am not sure if this makes a difference, but he ran it on his computer rather than the VM we were given.

dumpCPUInfo.sh output

AMD Ryzen 8 core i7-2700X CPU @ 3.7GHz