Wyatt Emery

Talon Marquard

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COSC 3020

Project 3 Task 4

Our project went very smoothly, after asking for some help from Dr. Bailey. We were very good at missing the obvious answer. We had many grand theories that we thought would work that vastly over complicated the problem. Once we realized to approach the problem backwards we knew what we had to do. From there the most difficult part was getting a version of it to run in O(n^2). More mistakes were made trying to get that to work than the O(nlogn) version. After many errors solved for the slow version it was complete. These problems were all simple syntax and errors and silly mistakes that had to be found and corrected. Our test cases were successful and we could find no errors once it was all running.

Our timing results can be seen in the Excel file and our O(nlogn) does run at that time complexity, and our O(n^2) runs at O(n^2).

Task two was worked on together after much thinking through the problem we were facing. Task 3 report was written by Talon after working on the approach of the problem with Wyatt. Wyatt built the outline of the program, including an excellent disjoint set function that ended up not being used. Task 4 was split up with Wyatt writing the input output and the build of our vectors and data structures, and all of the infrastructure of the problem. Talon wrote the slow and fast algorithms that found the order the jobs should take. Time complexity was calculated by Wyatt. This report summary was written by Talon.

This was a very fun problem to take on and we are very happy with our result.