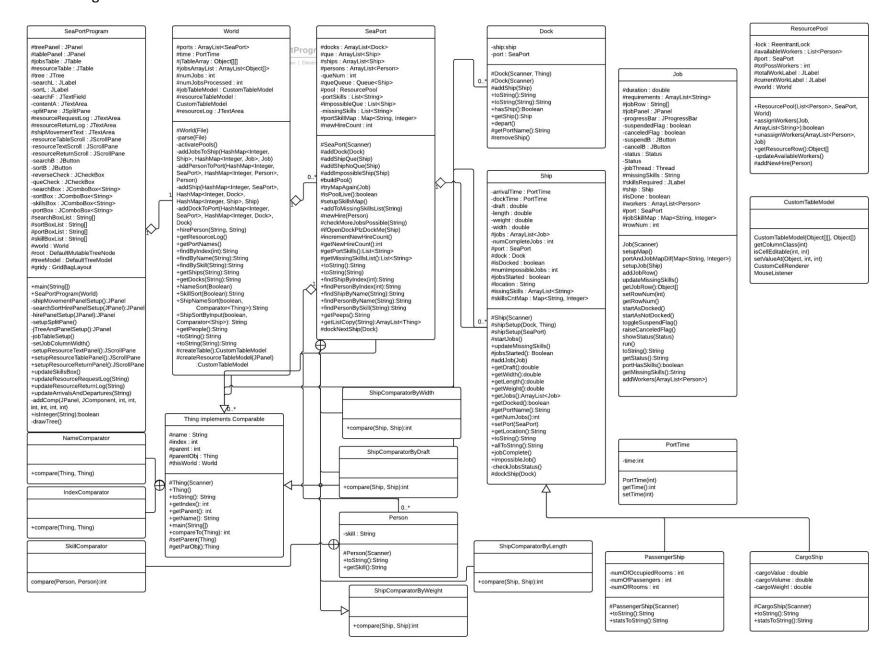
Zachary Finnegan

12/14/2019

Project 4

CMSC 335

1. Design



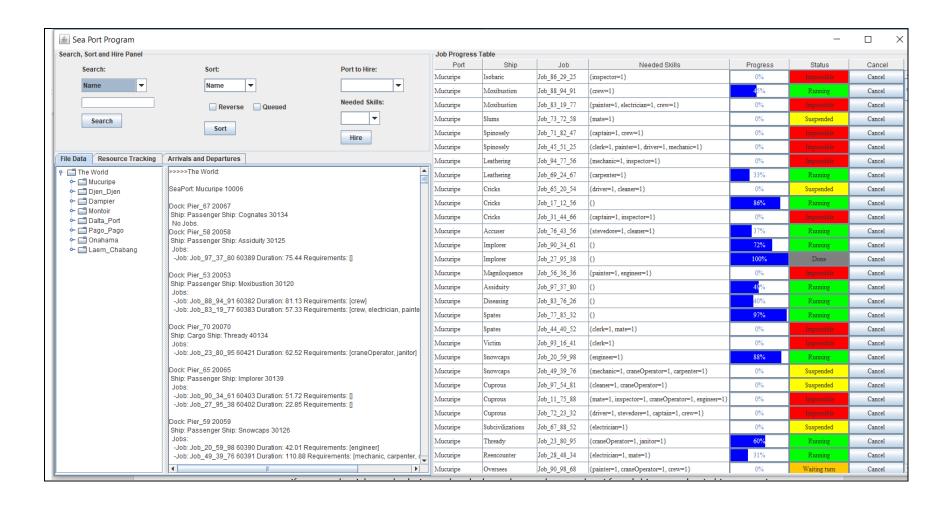
2. User's Guide

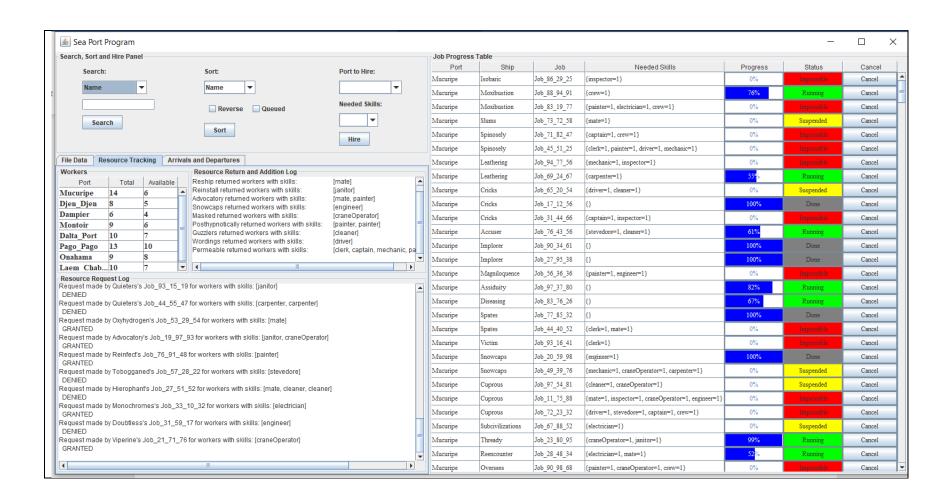
- a. Add the package to your IDE path. Import it to your IDE and then press run. Select the SeaPortData.txt when the JFileChooser pops up and then search and sort to your hearts content.
- b. Version 4 Capability:
 - i. Tracks ship arrivals and departures to and from docks/ports.
 - ii. Tracks how many people each port has and how many of those are currently available for assignment in the Resource Table.
 - iii. Tracks all requests for workers made by jobs and displays if the requests were granted or denied. I only display the first denial so as not to flood the log with denial requests.
 - iv. The jobs table has progress bars that update while status is running. The status is updated in realish time. The cancel button stops the thread. Job requirements are display in the table as will.
 - v. Tracks when jobs return resource and which resource those are.
 - vi. Allows for ports to "hire" new people with specific skills so once impossible jobs can be completed. The returns log will display when a new hire is hired and the Resource Table will update to show that the total possible workers at the port has increased. Jobs that were impossible will update to running, waiting or suspended depending on the internal state of the program.

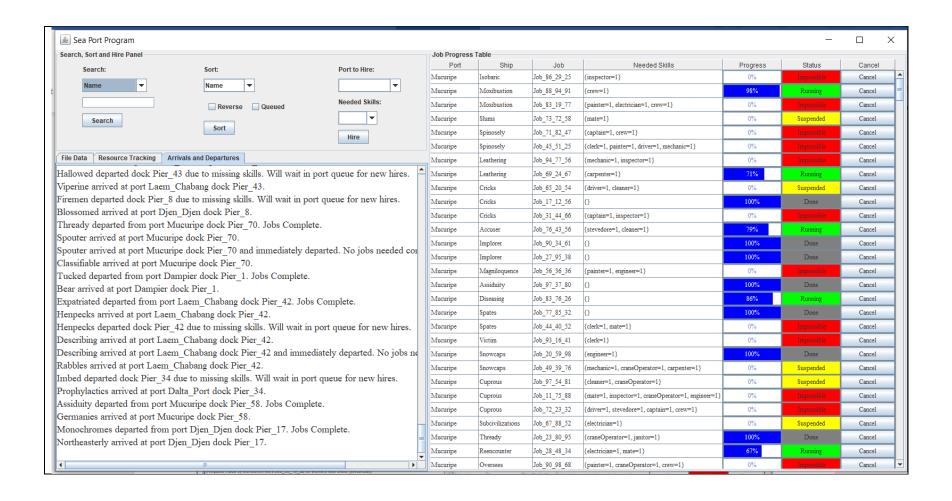
3. Test Plan

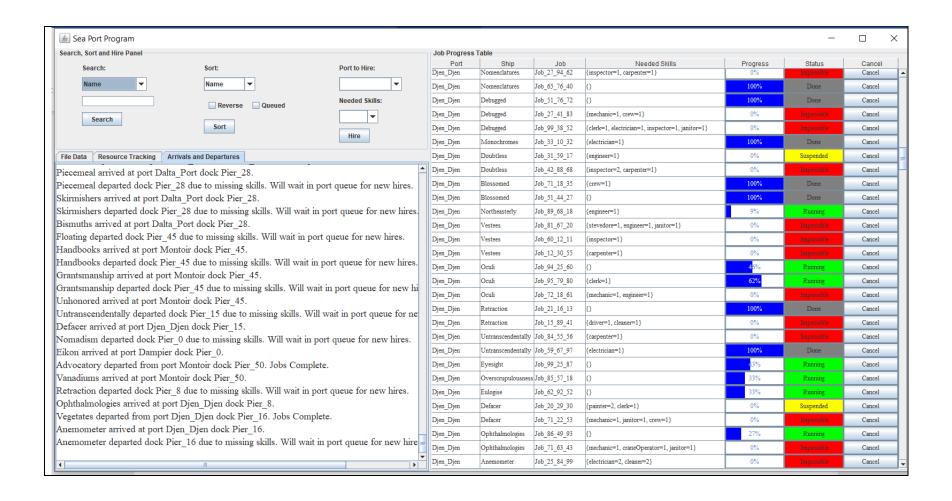
a. This table will only represent new functionality. See previous documentation to see test cases for the original program, version 2 and version 3 of the program.

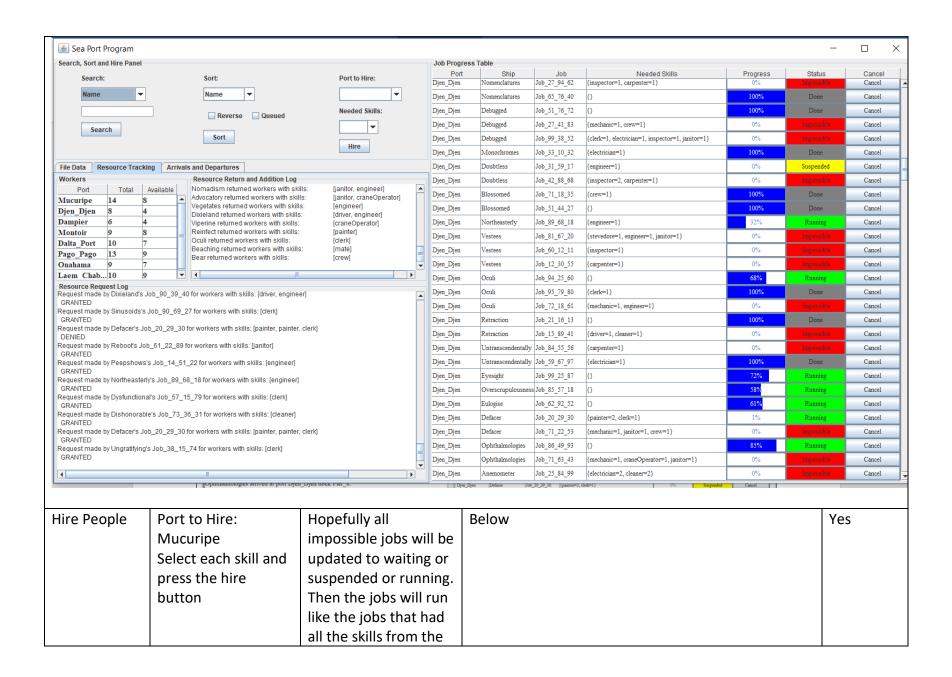
Test	Input	Expected Output	Screenshot Output	Pass?
Whole Thing	Start the program	Jobs will run, progress	Below	Yes
		bar will update, logs		
		will update		

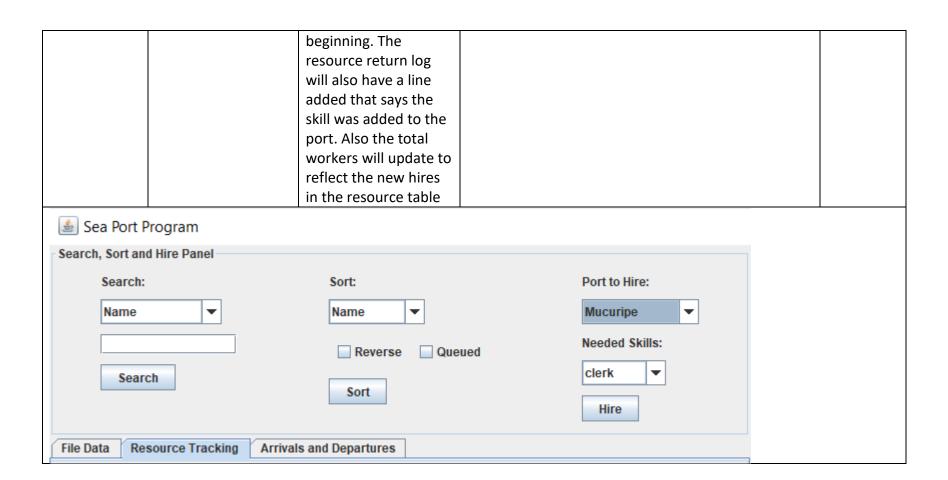


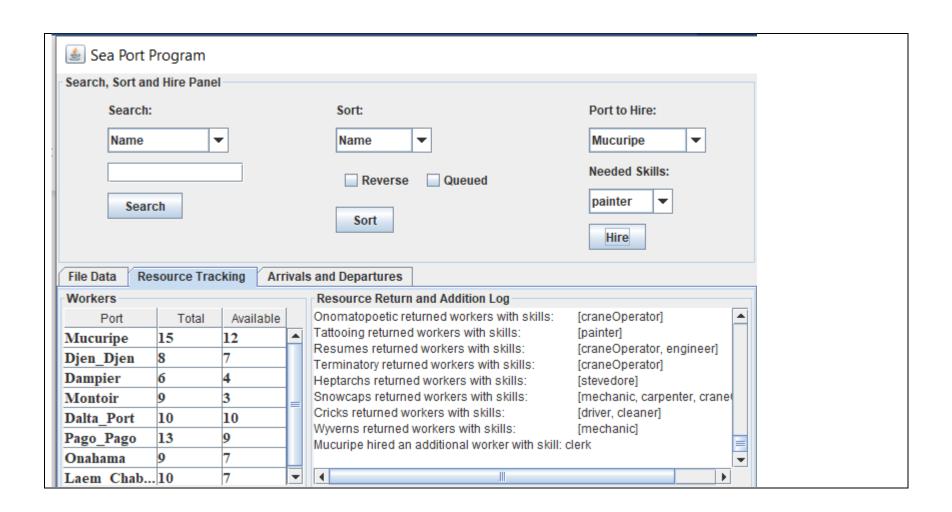


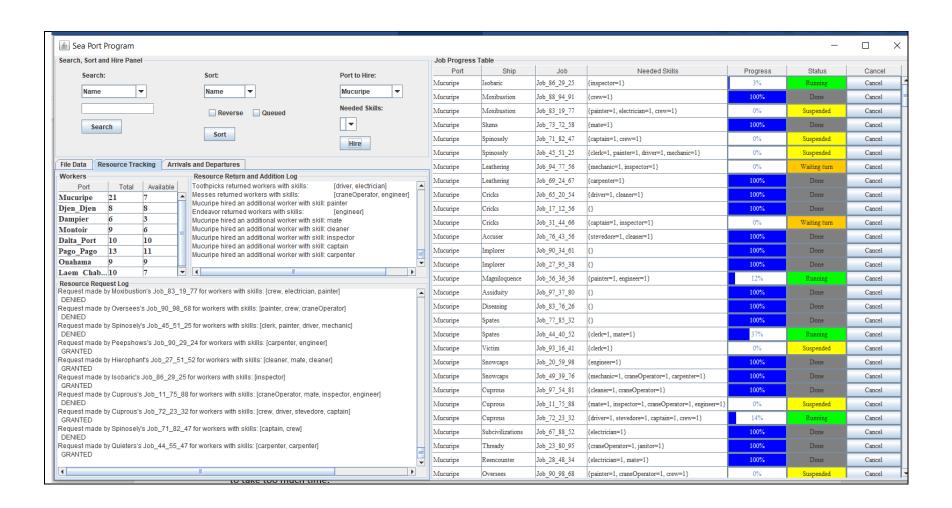


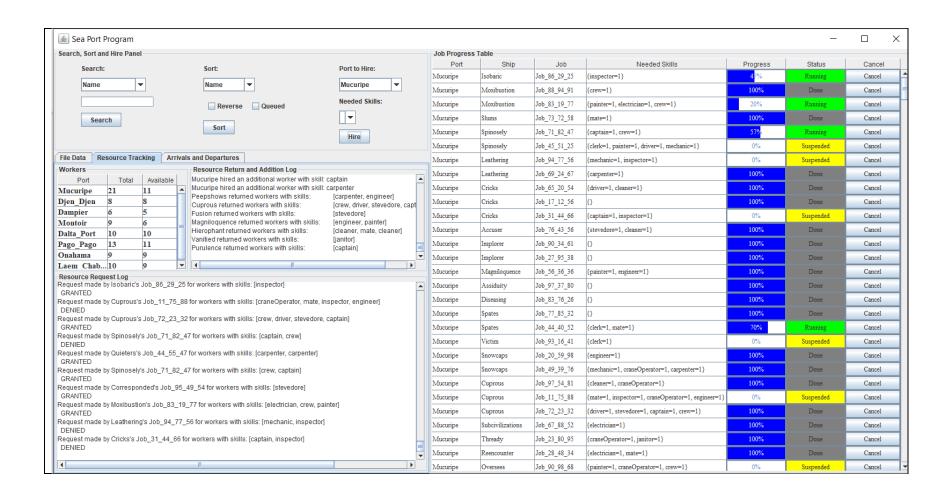


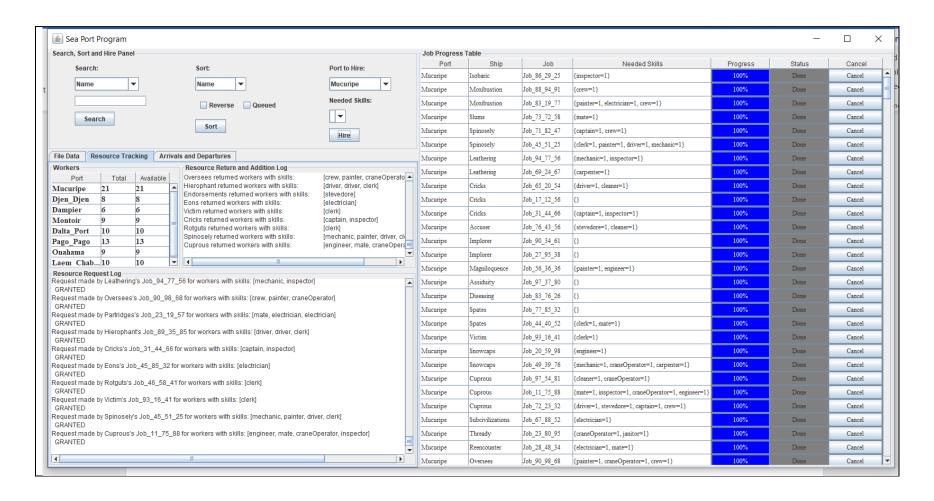












4. Lessons Learned

Number one lesson learned was to not bite off more than I can chew. I got a little overly excited and decided to try and make impossible jobs possible by allowing ports to "hire" new people with the needed skills. I mostly succeeded in this goal but I was coding until about 10 pm Sunday night trying to work out all of the kinks. Unfortunately working out the kinks cause other parts of the program to break. It was a bit of a fun nightmare. If I'd had another day or two I would have been able to make this program something I could be really proud of.

That isn't to say I am not proud of it as it is. I am, but the code isn't as clean or commented as I'd like and it's a little confusing and I know it isn't efficient. My goal on Sunday was just to make it WORK. So elegance kind of went out the window... I'll just make a day 2 patch or something that can't be graded.

I learned a lot of other things! I learned how to make custom table models, custom cell renderers, mouse listeners, hashmap foreach, etc. The best part of this project was the repetition involved. I really feel like I have a lot more if JSwings capabilities down.

I learned how complicated a big program can get and how easily it is to break in general and if you don't have a solid plan. I think I would have been better off if I had done some more preliminary sketching out of the necessary methods to implement the functionality I wanted. Next time. Thank you for the great course.