

Grace Portelance
Grace.portelance
Lab 4 README

Implementing the algorithm was pretty straightforward—once I determined exactly how all the data I needed was to be represented, I was able to mimic the pseudocode. I did have some issue with helper methods to insert and extractmin—while I needed to repair the heap for both, it seemed that I needed to do it in different directions. I ended up using a bubbleup and a bubbledown method, which may be a bit more code than I needed.

The second part of Dijkstras took much more time, as I kept getting mixed up with my to's and from's and my series of arrays. The last portion I tried to use arraylists, because of their adjustable size, but I switched a few to arrays as I kept getting bugs with the arraylists.

I also did the extra credit.

Essentially, the changes I made were to have my first decrease key call decrease the first vertex to startTime, not 0.

Then, I used the given layover formula, the key of the vertex I was iterating over, and the startTime (pulled from the flights array) of each edge I iterated over.

My final decrease key was then the decreased to the weight of the edge+ the layover.