The town lab was very difficult for me. At first, I was not able to understand graphs all too well. I had to rewatch the class videos many times and practice myself many times. I was able to do the roads and towns correctly, but picturing a graph in code was not very easy for me. I was finally able to create the graph by drawing a few in my notebook and doing each method by hand, then writing them.

I had the most trouble with Dijkstra’s algorithm, like many other people. I first spent about 6 hours writing Dijkstra’s using a bunch of maps, but it wasn’t working. It had an infinite loop. After speaking with the professor, I was able to follow pseudocode to write the algorithm. I ran into other issues such as thinking of the path as one way, but I realized with one of the tests that the source and destination of a road is not necessarily the order you need to take because you end up listing some instructions backwards. It was a simple fix though.

I also had some issues with sets not necessarily outputting in the same order that was added when doing tests. I remembered that sets are not necessarily ordered, so I had to use contains method on them to check if certain objects were inside of them. If not, it would keep changing the order using a String.equals method. In the end, I got everything working, with not a lot of time to spare.