

1 December 2020

By this point, our team has revisited our goals and refined them to ensure we have achievable targets by our deadline. Following this, we first created a functioning Makefile. This will allow us to run our executable, SAFECOVID, and include all of our necessary helper files, such as “person” that keeps track of where we start and how old the traveler is. Our graph is created in a similar fashion to “lab_ml” in our “safecovid” file, using a Graph and Edge class and reading lines from an input file. At the moment, our code is able to read input files, create a graph, generate a default Person, and run basic tests ensuring we can read and see our data.

9 December 2020

After this week, We have been able to implement a BFS Traversal of our graph. The purpose of this is to be able to generate the shortest path from one location to another, regardless of COVID rates. This will yield, in all cases, the quickest possible path, even though it might not be the most optimal. Also we added a Landmark function which reuses BFS traversal to get a path through a specific location. We added helper and getter functions for constructors, BFS, Landmark and variables. Some tests for BFS and Landmark were also added. We have also updated our Person class such that the age input will correctly modify the chance of catching COVID. A big update is adding “Doxygen-like” function descriptions, indicating what each function does as well as any inputs/outputs. This way,

anyone can see our code and understand our goals for everything. Variables have been renamed to be more specific and detailed. Finally, we are modifying our main file to implement a user interface to take in a starting location and destination to return the covid rate through that route.

11 December 2020

For the last time interval, we finished the files each person was assigned including the Dijkstra's algorithm and user interface. To test the functions and algorithms, we made test cases to confirm if it works correctly. To conclude our project, we created a powerpoint presentation that follows the rubric provided for the final project. It contains the goals we had when starting the project, the development procedures we took during the creation, and the deliverables available by the time of submission. Following the presentation, we wrote a final report describing the outcome of the project. Finally, we created a short video that describes the project using the presentation and submitted it to our git repository.