

## Week 1:

In “util.h” and “util.cpp”, we write two functions this week to utilize for the future graph. The first function is “readEntry”, and it is used for reading data from different .dat file. We use a vector to contain the data, and push the data back every time we need it. The second function which is very helpful for our project is “getDistance”. This function converts inputs that contain two latitude and longitude and return the distance between two points. We plan to use this function to change latitude and longitude in the data file to actual distance. In this case, it would be easier to compare.

Making use of the readEntry function in “util.cpp”, we developed “airlines.cpp”, “airports.cpp”, “planes.cpp”, and “routes.cpp” to convert the respective .dat files into maps. The values of the maps can be accessed through the “getXXID” function. Lastly, we used “airlineFlow.cpp” to turn all the maps and vectors into graphs.