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C++ Project Reflection

The C++ project was as hard as I expected it to be (in actuality, even harder). I figured that this project would be more manageable due to certain factors such as the fact that many people taking ICP are now being introduced to C++, but I was seriously mistaken.

For my part, I opted to create the header and .cpp files for the Airport, Airline, and Route classes each. These classes contain the attributes of the Airport, Airline, and Route files, respectively, and return them using getter methods. I also opted to create the header and .cpp files for CreateObjects, which is for the creation of Airport, Airline, and Route objects, with a little help from Richard Quayson's user-defined exception handling functions from the Java project for dealing with the errors that occurred as a result of the extra commas in the .csv files. I used vectors for the first time during this file implementation, which was hard for me, especially since vectors had not been treated in class. I opted to use vectors instead of lists because vectors store elements in contiguous memory; each element only requires the space of the element type. A list, however, stores an element plus the pointer to the next element. I also created the header and .cpp files for the calculation of the haversine distance, although, to be fair, that one was relatively easy because it was just writing the haversine formula in code form.

One thing I am thankful for regarding the C++ project compared to the Java project is that the work was minimized for Richard and me because we got to work in pairs. I do not think I would have been able to go as far with this project without Richard, as evidenced by my individual Java project in which I could not get an optimal route. Regardless, I can assure myself that I would not love to venture more into C++ beyond the ICP course, as this project has discouraged me from doing so.