

Air Route Project Reflection

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Project Reflection

This project was a tedious one, however, it was also very interesting and ultimately rewarding. It required many hours of pre-planning in order to even figure out how to process the input files we were given into a form that could be used for the task at hand. This task was made even more difficult due to the inconsistencies in the files which necessitated a more flexible approach to processing them. After doing this, there was the small task of building a search algorithm that could traverse this very large route state space and return actions that could be used to determine the path someone could take.

The first big thing that I have gained from this project is that the importance of a plan before writing any code has become so much more apparent to me. For this assignment I tried to decide how to format the input files and took some time to come up with an efficient way of doing that. This meant I spent less time writing code. However, later down the line, I realised that some of my assumptions were not as well thought through as I thought and it led to multiple revisions of my work.

I also learned about new variations of some data structures that have unique features. The `unordered_set` stores information without allowing duplicates just like a normal set. However, it does not maintain the insertion order that it was provided with, thus giving it an edge over a normal set for certain tasks. I also learnt about the vector which allows users to store and retrieve information in a list-type structure. It is in fact, similar to the `ArrayList` data structure in Java.

I believe this project has moved me closer towards the programmer I want to be and for that I am grateful. There were many lessons learned that will be applied in future projects and assignments.