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40022024

CS313: Intermediate Computer Programming

Individual Portfolio

Cohort A

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This project tested my capabilities in reading files, mainly as it contained some of the most extensive files I have ever had to work with. Initially, I struggled to represent all the information, as I immediately thought of using a graph structure. However, I had little experience with this data structure, and I encountered many issues. Subsequently, with the help of consultations from friends and the faculty intern, I got a better understanding of the problem. I decided to use HashMaps instead since they presented a better time complexity regarding retrieval. However, I still used the underlying principles of a graph, namely the adjacency list. This is because I was still mapping each airport to a list containing all the routes it can get to, essentially applying the principles of a graph.

This project taught me a lot about data representation. It made me understand the value of getting a good way of storing information, and it also taught me the benefits of ensuring that methods have efficient time complexities.