

## **Individual project reflection paper**

Since I began working on this project, I've learned a lot of new modules, but the best part is that my research skills have increased because this project needed a lot of reading and study to complete. It was also a great chance to use what I had learned in class, and it helped me improve my capacity for critical thinking and problem-solving. Additionally, I learned the importance of concentrating on the problem-solving algorithm and following it through to the solution because it significantly reduces the likelihood of making mistakes.

I first created a folder inside my project and named it Datasets. This folder contains all three CSV files provided; it helped me get the path to every CSV file to access it. My next move was to create four java classes: Airports, Airlines, Routes, and Management. Airports class was created for airports CSV file. It has constructor, setters, and getter methods that were generated from instances variables of the Airports class as provided in this CSV file. Airlines class was created for the airline CSV file. It has constructor, setters, and getter methods generated from instance variables of the Airlines class, as provided in this CSV file. Routes class was created for routes CSV file, and it has constructor, setters, and getter methods that were generated from instances variables of Routes class as provided in this CSV file. Management class is an abstract class that aims to provide a common method implementation for all the three classes mentioned above.

In Routes class, I used HashMap to store start city as key and the destination city was the values in this dictionary, and I also use I used HashMap in the Airports class where I made airport ID the keys and the values are the rest of attributes. In Airlines class, I used HashMap as well and airline ID was the key that refenced the rest of attributes as the value. The HashMap is storing all the dates from the corresponding CSV files. I later created main class where I am testing my code to get the desired output.

