**Yasmin Kamal-Deen Individual Project**

The problem was to find a flight route from one city to another. To solve this problem, I began by creating a number of classes. Each of these classes was designed to deal with three main components of the problem – airlines, airports, and routes.

The AirlineManager class performs functions such as returning the ICAO code for a given airline id and determining whether an airline is available to fly. The RouteFinder class performs functions such as creating graphs and finding routes. The FindAirport class performs functions such as getting airports in cities.

To find a route, we read from the input file to extract the start city and the destination city. I used a readFile method in. Special cases where either of the cities had commas present were taken care of. Next, we find the optimal path for the route. A search algorithm was used to find multiple paths. The optimal route was selected based on the shortest distance from the start city to the destination city. After, we write to the output file. Some different cases I addressed in my code were;

1. When the route required one flight,
2. When the route required multiple flights,
3. When flights cannot be found

Through this project I have learnt how to program in C++. I also gained experience in debugging in C++. Honestly, this project was very challenging for me. I had a difficult time understanding errors and tracking them. Even though my program has a lot of problems it was beneficial for me to understand C++.