REFLECTION

My program reads in the source and destination city and country. Using the source city and country, it retrieves from a hashmap, the ArrayList of airport objects which it uses to conduct the search with the goal being the destination city and country. The search is done using a breadth first search algorithm with the nodes being made up of a state (source airport code), a parent (the node of its predecessors), an action (the route taken to current airport) and a path cost (the distance from one airport to the other). Once the goal is found, the solution path method returns an ordered ArrayList of routes leading from the start country to the destination. The result is then formatted and written to a file.

Through this project I have better understood the use of BufferedReader and BufferedWriter which allowed me to read and write when needed in my code. I also learned about hashmaps in java and became quite conversant with using it. For me, the assignment was extremely challenging. The number of errors that delayed my progress, and the number of rewrites to code have taught me a lot about the importance of foresight and collaboration in coding. A lot of what I’ve done was only possible because of the discussions I had with my peers and ideas we bounced off each other.

REFERENCES

Haversine formula to find distance between two points on a sphere - GeeksforGeeks. (2022). Retrieved 1 October 2022, from <https://www.geeksforgeeks.org/haversine-formula-to-find-distance-between-two-points-on-a-sphere/>