

Week 1

This week, due to our break, we decided to refresh our knowledge on graphs. We rewatched lectures, as well as reading documentation and watching videos from external sources. We also went over the TA Notes which proved to be very helpful. Additionally, we all read about the technical specifics regarding the airport database. We felt that this was a very important step for us to take, because in order to be able to complete the problem we all must understand how the data that we are given can be manipulated and used in our favor.

Week 2

This week we wrote code to parse through the routes and airports data set. We had some difficulty in the airports data set, due to the fact that not every airport had an IATA identifier. This took us more time than expected to fix. We have now started to create a graph using an adjacency list and a map.

Week 3: Part 1 (First half of week 3)

This week we finished creating a graph using an adjacency list and a map. We used the implementation of creating the graph from lab_flow. We also were able to correctly implement Dijkstra's algorithm to find the shortest path between two airports. Using this algorithm, we were also able to create the Landmark Path Algorithm which found the shortest path between two airports through a third airport. We were able to determine that our algorithm works as expected by prompting the user to enter airport names. We are now starting to create test cases and write our code for BFS.

Week 3: Part 2 (Second half of week 3)

This week we finished implementing the BFS traversal on our graph. We utilized the pseudo code from lecture and TA notes for BFS to help us correctly implement the traversal. We were able to test it with certain graphs to ensure correctness of the traversal. We completed commenting on our code and writing all the test cases. We also had to finish writing the Results part of the report and create our video which took the most part of the time.