

#### WEEK 1 (Nov,15-Nov,21)

This week we hosted our first meeting about this final projects. We finished the team contract. And decided that we will work through the MarcoSoft team platform. We had quite a few ideas about that we want to do, from playing music while walking through the maze, the minefield game, and... But when checking for the data sets, we decided on focus on social platform's and write a program trying to find out the person you might know. And we also choose a backup plan about first finding which airport the traveler will get on and get off the flight, based on the latitude and longitude provided, then we will find the shortest path between those two airports.

#### WEEK2(Nov,22-Nov29)

Thanksgiving break.

#### WEEK3(Nov30-Dec5)

Schedule the mid-point check with the TA and start working on the coding part of the final project. We had a brief talk on how we are going to approach our goal. After looking into the first idea more, we found that what we want to do may be out of our range a little bit. So, we decided to switch to the backup plan, airports. Our focus of this week is to create the airport distribution graph. First create a vector for the airports containing the airport name, its longitude and altitude from the dataset. And then taking the altitude and longitude from the vector we created and convert those on to a rectangular shape map (a dot representing each airport), which will be our base graph. Later we will add the shortest route between those two airports on there.

#### WEEK4(Dec6-Dec11)

In this week we will be working on finishing the rest of the project. During the weekend we finished wrote the make file and made sure that we can read from the dataset. We had some trouble how to implement the make file, we didn't link the file in the make file document, but later was able to solve it. We then started working on improvement over the graph function and used get distance function to get the weight of each path. By using BFS we determine if there will be airplane route between two airports, because we used two datasets, we also need to compare the name to the airport ID then determine if there are route after we finished with that, we start to move on to the find shortest path function, which are the Dijkstra's algorithm and the Graphic Output of Graph, because we didn't cover the Graphic Output of Graph, we have to learn it ourselves, which was challenging, but we were able to manage it. We finished all the codes on Thursday, and on Friday we plan to finish all the writing part of this project and record the final presentation.