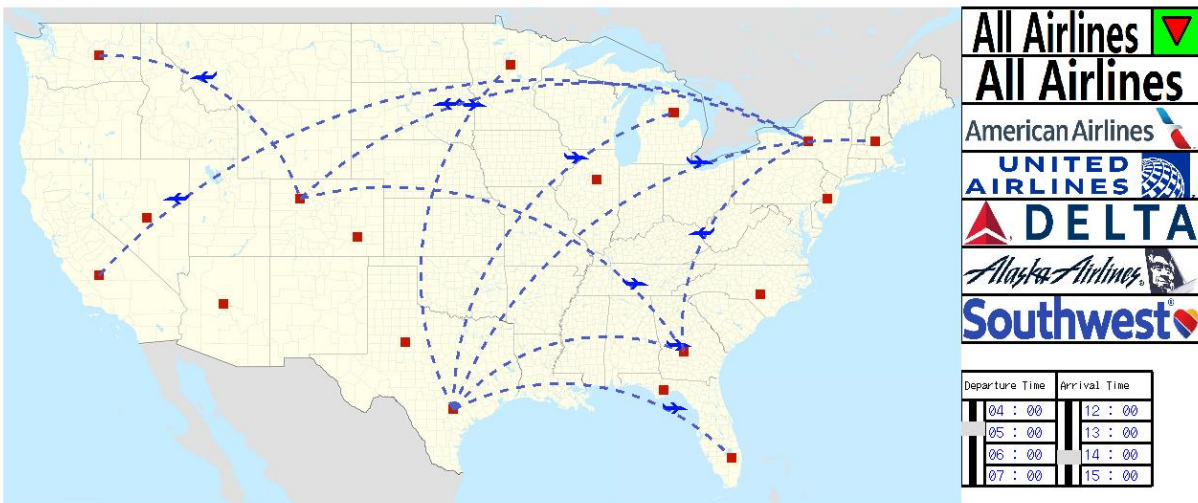Friday, Nov 27, 2018:
Team Name: Mandarin Orange

Alpha-Version Code Documentation

Discuss how the two requirements, a graphical display and user interactions, can be achieved in the final product.

This product is a Graphical User Interface (GUI) that displays airline flight information among major US cities in a nice and organized way. The basic components of this product include a map, cities and GUI part. Just like picture 1 shows below.

picture 1

Basic functions:

• 1. Map with some major cities on it
• 2. GUI: time bar (let user choose which time the flight information they want)
• 3. GUI: Information searching/sorting (let user search airline companies)
• 4. Airlines and flights corresponding with current time
• 5. Zoom in/out Feature
• 6. Animation to show all the flight in 24 hours

The GUI that allows the user to choose to view flights from specific airlines, time slots and destinations. The program visualizes the flight information as lines between two cities with a little airplane on the line to show the amount of distance it has traveled. The user is able to search for airline name, arrival and departure time and current flight status to find specific flights. The user is also able to select a major city and find all the connecting flights to this city. By adjusting the time, the user can also see all the airplanes that are in the sky at the selected time. The user is able to interact with GUI in many ways. The user is able to search airline name by choosing it from a drop down menu. The user can also pick a certain time of the day using a

scroll bar. Evenmore, the user can pick a certain city by clicking its location on a map. Finally, the user is able to pan and zoom the map using mouse.

In addition to the searching and visualization functionality, this program can also display the airline traffic in a 24-hour time period. With this, the user is able to see the the amount of airline flights in all cities during an a day in a animation and get a better understanding of the airline traffic in US at different time and location in a day.

This product will enables the user to check the available airlines at a specific time during the 24 hours of a designated date. Throughout the squeezed display animation of the trajectories of the entire flights, the user will get an overview regarding to the speed and the timescale of each flight. The trajectory of each flight can be picked by the user to show its detailed information.