# Project Goals

Dataset

The dataset we are using for the project is OpenFlights

BFS

We'll use breadth-first search for a graphical representation of the flights. Our plan is to create a map of points for each airport, with lines designating whether or not an airplane is able to travel between two connected airports. We need BFS to accomplish this because we will be iterating through every airport, so some sort of searching algorithm is needed

Dijkstra's Algorithm

Given all the airports and flight routes, we will certainly need to decide the shortest path from one airport to another. In this scenario, Dijkstra's algorithm is a good fit for the demand. We can treat all airports as nodes, all the flight routes as directed connections between the nodes with the distance between two airports as the weight. Dijkstra's algorithm can then be applied smoothly.

Graphic output on World Map

We will use the PNG class with a map as a base picture. We will utilize the animation class to display the progression of our paths as a gif. Each airport will need to be mapped to a pixel coordinate. There may be a way to convert the latitude and longitude of each airport to a pixel coordinate, otherwise, we may have to manually map them.