Team Name: I'm Gonna Be (500 miles)
Team Members: Steven Hu, Alexa Cole, and Kayla Oates
Project Title: RoaData

1. **Problem:** What problem are we trying to solve? [0.25 point]

   Have you ever wanted to go on a road trip but wasn't sure of the stops? Often you'll have a start and end destination but just can't fill in the inbetween. Afterall, just going from one city to another there's countless potential stops to be made. That's where RoaData comes into play. Type in your start and desired end location and receive some of the top routes to take.

2. **Motivation:** Why is this a problem? [0.25 point]

   People waste time, money, and effort planning vague and inefficient road trips every year. We hope to create an efficient road trip planner that will streamline the process and make it easier for families and friends to relax.

3. **Features**: When do we know that we have solved the problem? [0.25 point]

   By selecting our starting and ending locations, the program should output different routes on a map with the potential cities they can stop along their way.

   When we've entered are starting and ending locations and have outputted a list of options of potential stops on our way on a map.

4. **Data**: (Public data set we will be using and the link to the public data set) **or** (Schema of randomly generated data - i.e. what are the different columns in our dataset and the respective datatypes). **Be sure to identify conceptually what the vertices and edges are for the data** [0.25 point]

   https://public.opendatasoft.com/explore/dataset/geonames-all-cities-with-a-population-1000/table/?disjunctive.cou_name_en&sort=name

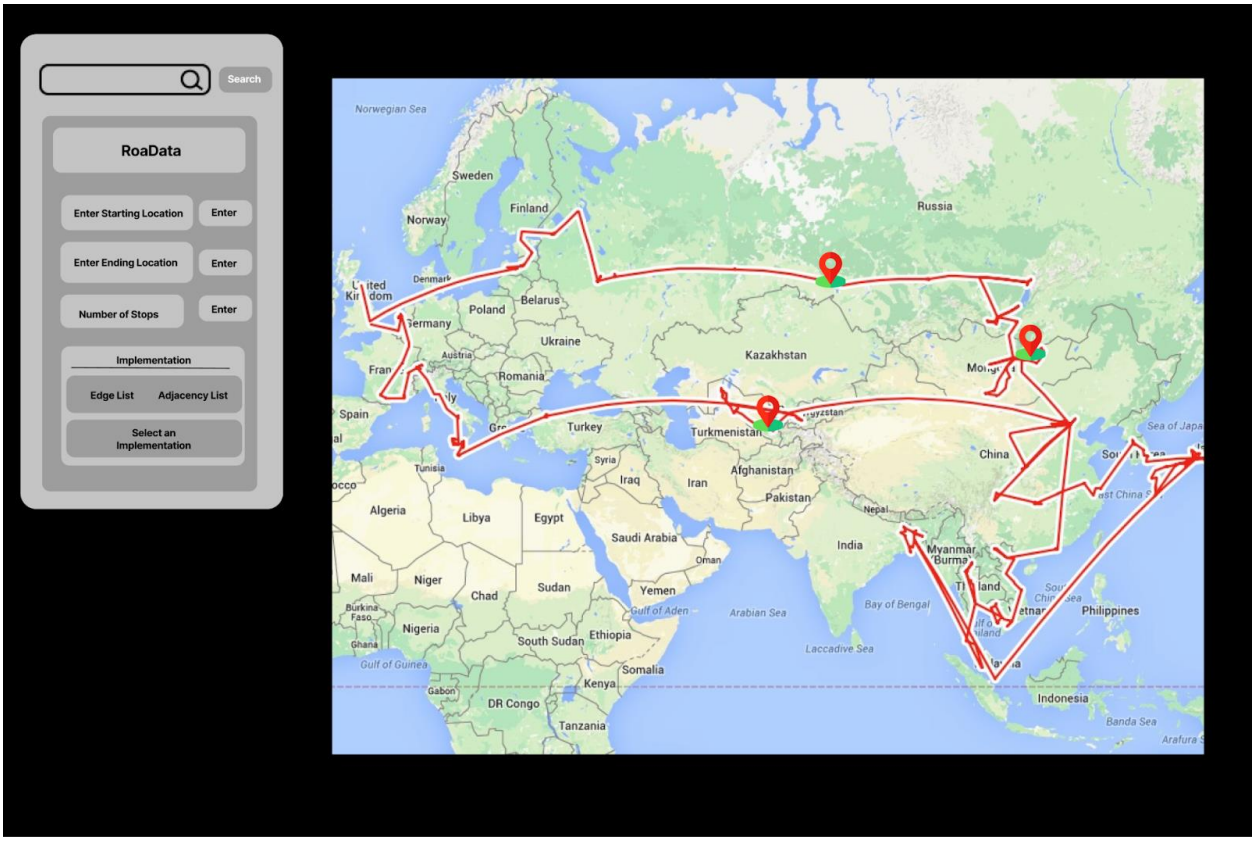
   (Link to the City Data, includes Name, Coordinates, Population,etc.)

   Our vertices would be the cities and the edges would be weighted and represent the distance between the locations.

5. **Tools:** Programming languages or any tools/frameworks we will be using [0.25 point]

   We will be using C++ as our programming language with Visual Studios as our IDE.

6. **Visuals**: Wireframes/Sketches of the interface or the menu driven program [0.25 points]



7. **Strategy**: Preliminary *graph algorithms* you may want to implement and how would you represent the graph [0.25 points]

   We would be using undirected edge lists and adjacency lists. The rows would list the countries and each column would list a city in that country along with the distance needed to travel to that city from their current location.

8. **Distribution of Responsibility and Roles:** Who is responsible for what? [0.25 points]

- One person - does the edge list implementation
- One person - does the adjacency list implementation
- One person - import the data from the CSV file and make the graphics.

References:
https://www.figma.com/team_invite/redeem/KLNopLc7zD5SAxkh81Hl9l