

## Homework 4 Proposal

For our extension, we wanted to consider the real world application of Uber and the costs of each ride. In order to implement this, we will utilize the Singleton design pattern to collect and analyze data from our project's code. Singleton is a creational design pattern that makes sure a class only has one instance, all while providing a global access point to this instance. This means that, in our case, the different routes can access the instance. So, we can have the three routes access the instance and import position data into a csv file. Then, we can test and assign a monetary value to each of the three routes after analyzing the data in the csv file. Along with this, we can test each of the routes multiple times to collect a substantial amount of data to analyze. The cost will be measured by distance. For instance, the different distances from point A to point B using the three different routes. This will allow us to see which routes result in the smallest cost and which result in the highest.

