1. Introduction

1.1. Description & Discussion of the background

In this project we will try to find an optimal location for a restaurant in London, UK. The restaurant type will be target as Chinese restaurant. So this report will be targeted to stakeholders interested in opening an Chinese restaurant in London, UK.

Since there are lots of restaurants in London, we will try to find a location that will be less competitors, particularly not have too much Chinese restaurant. We'll also try to detect this location as close to city center as possible, based on that the first 2 conditions are met.

We will use data science to analyze and find out some good neighborhoods based on above criteria, and describe the benefits of each area, so that the stakeholders can chose the most optimized location based on their interests.

2. Data Description.

Based on definition of our problem, factors that will influence our decision are:

1. Number of existing restaurants in the neighborhood. (any type of restaurant)
2. Number of and distance to Chinese restaurants in the neighborhood, if any.
3. Distance of neighborhood from city center

We decided to use regularly spaced grid of locations, centered around city center, to define our neighborhoods.

Following data source will be needed to extract/generate the required information:

1. Centers of candidate areas will be generated algorithmically and approximate of centers of those areas will be obtained using **Google Maps API** reverse geocoding.
2. Number of restaurant and their type and location in every neighborhood will be obtained using **Foursquare API**
3. Coordinate of London center will be obtained using **Google Maps API** geocoding of well known London location.

3. Methodology and Analysis

4. Result

5. Discussion

6. Conclusion