Coursera Capstone Report

Introduction:

Everywhere people are starting new businesses with the hope they exceed. What if there was a way for someone to actually research the area they were looking to start a new business to better their odds of success. Using data that is open and widely available has allowed many people the opportunity to see where people are eating, staying, living. Foursquare is one of those open data sets that can be used to help a interested party looking to start a new business. In this report we look at not just any business but someone who is looking to start a new Chinese restaurant in the Washington DC area. With this data, we can help determine if this venture would be a good one to start and where specifically they should be looking in DC to get the most out of their investment.

Dataset:

Upon opening the foursquare website you are given a change to search and choose an area. “Find the best places to eat, drink, shop or visit in any city in the world. Access over 75 million short tips from local experts”. This is the statement you see when you access the foursquare webpage. Foursquare is an application that allows users to search and discover services. Based on a users location, this application can suggest recommendations, give tips, ratings, all the tools needed to pick a good place to visit. This application can help or hurt a business based on user reviews and ratings as well as the location of the business. In order to access this data, I will be using the Foursquare API ‘https://api.foursquare.com/v2/venues/’.

Methodology:

For this project, I will be using Foursquare API data. Python packages for data analysis as well and finally folium for visualizing the data onto maps. Specifically the foursquare data endpoints I used were search, trending, explore and suggest completion. Using the search API, I was able to see throughout Washington DC where there were other Chinese restaurants, thus allowing the ability to see which area in the district might already have to much competition or very little competition. After establishing which area in the district might be a good place to do additional analysis, using the trending API we could see what is trending in the area and how much of a attraction that area is to people. Continuing to use the explore API, we are able to gather what attractions are specifically in the area we are looking. This allows us to see if the area is more a business district, food district or industrial district. What is currently established in the area could make a huge impact on what people we would be catering to. Finally the suggest completion API allows us to see where the closest Chinese establishments are. This just allows another layer into determining who the competition is and what kind of people are in the area.

Results:

After conducting the analysis of the API calls there was a specific area in Washington D.C that was untouched by Chinese restaurants, Foggy Bottom. Although the area does have various other businesses, restaurants, and office buildings there was no real Chinese food establishment as far as foursquare data provides. This would be an ideal area to look at investing in starting a new Chinese restaurant.

Discussion:

Some obvious observations made was the fact there was no Chinese restaurants within the foursquare data set around Foggy Bottom but there are other eating establishments, the question being why? It’s a busy enough location, metro access, and in the heart of DC so is there a reason why no other Chinese restaurant is near that specific area? My recommendation would be to go out in person and survey survey the people in the area. Would they be interested in a Chinese food establishment? If possible look up the history of the area and see if there had been restaurants there in the past that have failed. History could very well impact the present.

Conclusion:

Was there an area in DC that looked promising to establish a new Chinese food restaurant? Using Foursquare API data, I was able to see what was around the DC area; where there were Chinese restaurants already established and decide upon an area that could be of possible interest. Foggy Bottom is a location in the heart of DC with business, entertainment and other food venues around but seems to be missing a decent Chinese food place for people to come and eat. With some additional look at the history of the area, our analysis helps show that if you were looking to start a new restaurant this would be the area to do it.