Battle of the Neighborhoods Report

1. Introduction

1.1 Background
A client wants to open a comic book store. However, they are torn between selecting two different cities (El Segundo, California and Hermosa Beach, California). Another factor in consideration is that the business would be a speciality store and must exist with some distance from its competition.

1.2 The Problem
When selecting a location to open a business there is a multitude of different factors to consider. This project aim to to determine on face value within of these cities is best to open a comic book store given the clients parameters.

2. Data

2.1 Data sources
The used to complete this project was collected from Foursquare using the location data of both cities. Another source came from Wikipedia to find basic information about the cities population and size. Multiple data libraries were used to manipulate the data to make them usable.

2.2 Data Cleaning
In order to make use of the data, it all had be to processed. The data extracted from Foursquare, had to be sorted and placed into four different columns. The columns were name, categories, lat, lng. Sorting the data into these categories were important because it also the data to be used to plot on maps easier.

The other bit of data that needed to be processed was the city information found on Wikipedia. To process the data it first hand to be collected using the BeautifulSoup package. Once the package was able to find the table that exist on the website they were placed inside a pandas dataframe.

3. Methodology

3.1 Plan to solve the problem
In order to address the client's problem I will first want to create a map of the two cities using the folium libraries. Once the maps are complete, I would then use the foursquare location data for the location of the venues inside of each city. I would compile that information into two Pandas dataframes. Each of the dataframe would allow me to manipulate the information so I would be able to narrow down the type of venues that are not necessarily important to answer the question. When I would be able to see if there is another comic book store within the given areas. Once I able to swift through the information and the categories of venues, I could make recommendations to answer his problem.

4. Results
By pulling the information from Foursquare of the venues in both Hermosa Beach and El Segundo we could see all the type of business within those specific coordinates. The results from the above work are as follows.
• Both El Segundo and Hermosa Beach, California have a similar amount of businesses.
• Each city are very diverse in terms of venue categories.
• Neither city has a comic book store which is good because that means both locations met one of the requirements posed by the client.
• The search of population size for each city yielded that Hermosa Beach had a higher population by nearly 3,000 people.

5. Discussion

While the two cities are very similar in terms of population and business venue categories, there are some difference that make them exceeding different. According the the city information pulled form Wikipedia, El Segundo is roughly 4x times larger than Hermosa Beach. Under normal situations for beach cities a larger city contain more people and a larger amount of the business to serve those people. However, El Segundo has 2 anomalies that make it larger without providing some of the benefits. The first folium map reveal that a large portion of the city is taken up by the Chevron Refinery and the Los Angeles Airport. While these places undoubtedly bring something to El Segundo, there are many unknowns that may impact these businesses. For example, noise pollution along side an increase of regular pollution only to name a few. Hermosa Beach while smaller it has not only a higher population but also more businesses within the city center. Having a diverse amount of the businesses in a single area can be conducive to not only grow but continue success.

6. Conclusion

This project was formed to answer the clients question on what city would be best to open a comic book store. Through the use of the Foursquare information along with population and size data from Wikipedia, I would recommend that the client stat his business in Hermosa Beach California. I came to this conclusion because Hermosa Beach not only has a higher population but they also have a much larger business center within the city. This larger business center would normally be a problem because of the increase amount of business in the area. However, due to the fact that the business the client wants to start is a speciality store and there is no other store in the area like it, the increase in people traffic could potentially help their business thrive. The client's business venture could symbiotical work with the other type of the businesses in the area.