Coursera Capstone Project — The Battle of Neighborhoods

Relocation Conundrum

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Introduction

In this world of globalization people often moves from one location to another due to various reasons. According to the 2016 Yearbook of Immigration Statistics, the United States admitted a total of 1.18 million legal immigrants (618k new arrivals, 565k status adjustments) in 2016. If we combine this number with internal migration in the country, then number would be even higher. When people move to a new location, they spend considerable amount of time in finding the place to live in the new city. They take help of their friends, relatives, colleagues etc. if they are already living in the destination city. But many of them still get disappointed and wants to change the rented home or apartment within a few months of relocation. It affects person on many other aspects such as school of their kids, their membership on gym and yoga centers. So, they spend time and money to know the neighborhood, which they would like once they relocate. Even, people take help of external agents to help them to find the good neighborhoods.

Problem Statement

There is an ABC global relocation consultant firm, who advises people for their relocation needs in worlds major metropolitan cities. They charge 50% of their fees to clients at the time of recommending the place before moving to the new location and next 50% after 3 months of relocation. Using past data, they found that only in 60% of cases they get remaining fees after three months of the relocation. They also noticed that if they recommend the place similar to the place where customer currently staying then probability of getting due fees increased to 95%.

Few days back, they got a client who is moving to New York from Toronto. He is currently staying at The Beaches West neighborhood in Toronto. He suggested that he likes The Beaches West and India Bazar neighborhoods of Toronto compared to other Neighborhoods. He also requested to recommend the neighborhoods in the borough which has low crime rates. Basically, his idea was to get a small list of neighborhoods which he can explore by himself and take a decision based on other factors such as cost, distance from his employer etc.

Data Requirements

For this project we need the following data:

- **New York City data that contains the list of Boroughs, Neighborhoods along with their latitude and longitude.**
  Data source: https://cocl.us/new_york_dataset
- **New York City crime data that contains list of all the reported crimes in year 2018 as per Boroughs**
  Data source: Downloaded the csv file from following location:
  https://data.cityofnewyork.us/Public-Safety/NYPD-Complaint-Data-Historic/qgea-i56i
- **2020 Projected population of different boroughs**
  Data source: Downloaded the csv file from following location:
  https://data.cityofnewyork.us/City-Government/2020-population/t8c6-3i7b
- **Toronto City data that contains the list Boroughs, Neighborhoods**
  Data source: https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M
- **Geospatial data for Toronto to get latitude and longitude of all Boroughs and Neighborhoods**
  Data source: https://cocl.us/Geospatial_data
- **Data source: Fousquare API**

- Description: By using Foursquare api we will can explore all the venues in each neighborhood.