Capstone Project: The Battle of Neighborhoods

As part of the final project, I have chosen to explore Hotels in the city of Toronto.

Introduction

Toronto is the provincial capital of Ontario. With a recorded population of 2,731,571 in 2016, it is the most populous city in Canada. Toronto is an international center of business, finance, arts, and culture, and is recognized as one of the most multicultural and cosmopolitan cities in the world. The diverse population of Toronto reflects its current and historical role as an important destination for immigrants to Canada. More than 50 percent of residents belong to a visible minority population group, and over 200 distinct ethnic origins are represented among its inhabitants. While the majority of Torontonians speak English as their primary language, over 160 languages are spoken in the city.

Toronto is a prominent center for music, theatre, motion picture production, and television production, and is home to the headquarters of Canada's major national broadcast networks and media outlets. Its economy is highly diversified with strengths in technology, design, financial services, life sciences, education, arts, fashion, aerospace, environmental innovation, food services, and tourism.

Toronto is one of Canada's leading tourism destinations. In 2017, the Toronto-area received 43.7 million tourists, of which 10.4 million were domestic visitors and 2.97 million were from the United States, spending a total of $8.84 billion. Toronto has an array of tourist attractions, and a rich cultural life.

Tourists always try to find a nice stay in any city. So as part of this project, we will list and visualize all major parts of Toronto City that has great Hotels.

Data

For this project we need the following data:

- Toronto City data that contains list Boroughs, Neighborhoods along with their latitude and longitude.
  - Data source 1: https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M
  - Data source 2: http://cocl.us/Geospatial_data
  - Description: This data set contains the required information, and we will use this data set to explore various neighborhoods of Toronto city.
- Hotels in each neighborhood of Toronto city.
  - Data source: Foursquare API
  - Description: By using this API we will get all the venues in each neighborhood. We can filter these venues to get only Hotels.

Approach

- Collect the Toronto city data from Data Source 1 & 2
- Using Foursquare API we will find all venues for each neighborhood.
- Filter out all venues that are Hotels.
- Find rating, tips and like count for each Hotel using Foursquare API.
- Using rating for each Hotel, we will sort that data.
- Visualize the Ranking of neighborhoods using folium library(python)

Questions that can be asked using the above-mentioned datasets

- What is best location in Toronto City for Hotel Stay?
- Which areas have potential Hotel Market?
- Which all areas lack Hotels?
- Which is the best place to stay if I prefer nice Hotel Stay?