Battle of the neighbourhoods

Presentation

A new start-up company would like to open their offices in either NYC or Toronto. They would like to have a good look at 2 boroughs of these two cities, namely Etobicoke and Brooklyn. They would like to get some in depth information about the quality of life in the different neighbourhoods of Etobicoke and Brooklyn.

Some of the features that we would look at to compare the different neighbourhoods would be the number of accessibility to transport, shopping , cafés/restaurants, sports venues, childrens' facilities, etc

We will use the use Foursquare API to collect the top venues of these 2 locations, use K_means to cluster the neighbourhoods and then compare the similarities and dissimilarities of the different neighbourhoods of Etobicoke and Brooklyn. This will help us get the in-depth information we need to determine which neighbourhood will be the best fit for our clients to open their new offices.

Data

The data will be acquired via the following internet links that provide the postal codes, names of neighbourhoods and their geographical coordinates. We will use the Foursquare API to obtain information about the venues in these neighbourhoods so that we can do our analysis & comparison which will help us to reach a conclusion.

The NYC data will be obtained from the following link and we will use Python and it's Pandas library to obtain the info we need and put it to a data frame that we can use to obtain venues from the Foursquare API.

NYC data: https://geo.nyu.edu/catalog/nyu_2451_34572

The following 2 datasets are what we will be using to analyse information about Toronto neighbourhoods. First set provides information about the postal codes and names of the neighbourhoods. The second one contains the geographical coordinates of the neighbourhoods. For our analysis, we will join these 2 datasets with the help of Python to obtain the data frame that we can use for the Foursquare API.

Toronto location data: https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M
Toronto Geo coordinates: http://cocl.us/Geospatial_data