

Caribbean Restaurant: Data Science for Decision Making

Clustering the Neighbourhoods of London and Toronto to select the perfect location for a Caribbean Restaurant

Introduction

In this Assignment, I would like to create a scenario, where I would like to compare between the cities of London and Toronto to decide which is the most ideal city to locate a Caribbean Restaurant. There are many varieties of foods of Latin origin but I would like to know specifically Caribbean food. Also with this project it will be possible to see which communities or neighborhoods frequently visit or reside the Latino community or people of other ethnic groups who like Latino food.

Business Problem

It is a challenge to establish a food business and it is more complex in a place where it may not consume as much. The Latino community continues to grow in these countries, which represents a long-term, prosperous business. My Project wants to establish a Caribbean food concept that fits the city's environment. Most of the Latin food options are more Mexican food oriented but not so much Caribbean food. In part, it is intended that the Latino residents of these cities have options where to eat or brings a gastronomic offer distant from those that already exist. My priority is to know which would be the city where my gastronomic offer could have the greatest acceptance. Using data science and machine learning and data visualization methods and tools will help me establish better decision-making.

Data Description

We require geographical location data for both London and Toronto. Postal codes in each city serve as a starting point. Using Postal codes we can find out the neighborhoods, boroughs, venues and their most popular venue categories specially food places.

London Data

To derive our solution, We scrape our data from https://en.wikipedia.org/wiki/List_of_areas_of_London

This wikipedia page has information about all the neighbourhoods, we limit it London.

1. borough : Name of Neighbourhood
2. town : Name of borough
3. post_code : Postal codes for London

This wikipedia page have limited information about the geographical locations. To solve this problem we use ArcGIS API

Toronto Data

To derive our solution, We scrape our data from https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M

This wikipedia page has information about all the neighbourhoods, we limit it Toronto.

1. borough : Name of Neighbourhood
2. town : Name of borough
3. post_code : Postal codes for Canada

This wikipedia page lacks information about the geographical locations. To solve this problem we use ArcGIS API

ArcGIS API

ArcGIS Online enables you to connect people, locations, and data using interactive maps. Work with smart, data-driven styles and intuitive analysis tools that deliver location intelligence. Share your insights with the world or specific groups.

More specifically, we use ArcGIS to get the geo locations of the neighbourhoods of London and Toronto. The following columns are added to our initial dataset which prepares our data.

1. latitude : Latitude for Neighbourhood
2. longitude : Longitude for Neighbourhood

Foursquare API Data

After finding the list of neighbourhoods, we then connect to the Foursquare API to gather information about venues inside each and every neighbourhood. For each neighbourhood, we have chosen the radius to be 500 meters.

The data retrieved from Foursquare contained information of venues within a specified distance of the longitude and latitude of the postcodes. The information obtained per venue as follows:

1. Neighbourhood : Name of the Neighbourhood
2. Neighbourhood Latitude : Latitude of the Neighbourhood
3. Neighbourhood Longitude : Longitude of the Neighbourhood
4. Venue : Name of the Venue
5. Venue Latitude : Latitude of Venue
6. Venue Longitude : Longitude of Venue
7. Venue Category : Category of Venue

Methodology

The approach taken here is to explore each of the cities individually, plot the map to show the neighbourhoods being considered and then build our model by clustering all of the similar neighbourhoods together and finally plot the new map with the clustered neighbourhoods. We draw insights and then compare and discuss our findings.

The libraries are imported in order to perform the analysis and visualization of clusters for each city:

```
The approach taken here is to explore each of the cities individually, plot the map to show the neighbourhoods being considered and then build our model by clustering all of the similar neighbourhoods together and finally plot the new map with the clustered neighbourhoods. We draw insights and then compare and discuss our findings.

In [1]: #We will be creating our model with the help of Python so we start off by importing all the required packages.
#Importing the required libraries for web scrapping
from bs4 import BeautifulSoup
#library to handle beautifulsoup
import requests
#library to handle data analysis
import pandas as pd
pd.set_option('display.max_columns', None)
pd.set_option('display.max_rows', None)
#library to handle JSON files
import json
#Importing numpy
print('numpy, pandas, .... imported...')
#Importing geopy
print('geopy installed...')
#convert an address into latitude and longitude values
from geopy.geocoding import Nominatim
print('Nominatim imported.')
#library to handle requests
import requests
print('requests imported...')
#Importing pandas to handle dataframes
from pandas.io.json import json_normalize
print('json_normalize imported.')
#Importing matplotlib and seaborn for visualizing the data
import matplotlib.pyplot as plt
import matplotlib.colors as colors
plt.style.use('fivethirtyeight')
# Import k-means from clustering stage
from sklearn.cluster import KMeans
print('KMeans imported...')
# install the Decoder
!pip install fclib
#Importing the encoder
import pcodeco
#Import time
import time
#Install folium
!pip -q install folium
print('folium imported...')
#Import folium for map rendering library
print('folium imported')
print('...done')

numpy, pandas, .... imported...
geopy installed...
Nominatim imported...
requests imported...
matplotlib imported...
json_normalize imported...
matplotlib.pyplot...
plt style use...
KMeans imported...
pcodeco imported...
folium installed...
folium imported...
...done
```

Collect Data

The data is collected using information available on publicly accessible and geographically referenced websites of both cities. This data is verified and sorted so that it can be processed for further analysis.

London Area

Data Collection

Let's start with establishing the connection to the page where we are going to extract the information.

```
In [2]: url_london = "https://en.wikipedia.org/wiki/List_of_areas_of_London"
wiki_london_url = requests.get(url_london)
wiki_london_url
```

Out[2]: <Response [200]>

```
In [3]: wiki_london_data = pd.read_html(wiki_london_url.text)
wiki_london_data
```

57	Bow
58	Bowes Park
59	Brentford
60	Brent Cross
61	Brent Park
62	Brimsdown
63	Brixton
64	Brockley
65	Bromley
66	Bromley (also Bromley-by-Bow)
67	Bromley Common
68	Brompton
69	Brondesbury
70	Brunswick Park
71	Bulls Cross
72	Burnt Oak
73	Burroughs, The
74	Camberwell
75	Cambridge Heath
76	Canary Wharf
77	Canary Wharf

After verifying the data we begin to structure the table by assigning based on its numerics

Toronto Area

Data Collection

```
In [51]: url = "https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada_N"
wiki_url = requests.get(url)
wiki_url
```

Out[51]: <Response [200]>

```
In [52]: wiki_data = pd.read_html(wiki_url.text)
wiki_data
```

	Postal Code	Borough \
0	M1A	Not assigned
1	M1A	Not assigned
2	M1A	North York
3	M1A	North York
4	M1A	Downtown Toronto
5	M1A	North York
6	M1A	Downtown Toronto
7	M1A	Not assigned
8	M1A	Etobicoke
9	M1B	Scarborough
10	M1B	Not assigned
11	M1B	North York
12	M1B	East York
13	M1B	Downtown Toronto
14	M1B	North York
15	M1B	Not assigned
16	M1B	Not assigned
17	M1B	Etobicoke
18	M1C	Scarborough
19	M1C	Not assigned

Data Processing

Parameters are established to measure each of the columns to be evaluated. The columns the town are changed to borough and the neighborhoods are filtered by the city we are analyzing London and Toronto. All characters and numbers are eliminated in order to have the information as clean as possible. This information is filtered so that we can standardize each of the processes we want to search in Foursquare API.

```
Data Processing

We must clean the data in order to begin to process the information and obtain results

In [5]: wiki_london_data.rename(columns=lambda x: x.strip().replace(" ", "_"), inplace=True)
wiki_london_data

Out[5]:
   0      1        2          3          4          5          6          7          8          9
14      Anney      Barnet[12]    BARNET, LONDON    EN5, NW7  020  TQ223395
15      Annes Grove      Enfield[12]    LONDON    N11, N14  020  TQ259195
16      Baham      Wandsworth[13]    LONDON    SW18  020  TQ285735
17      Bankside      Southwark[14]    LONDON    SE1  020  TQ205795
18      Barbican      City[14]    LONDON    EC1, EC2  020  TQ205818
19      Barking      Barking and Dagenham[14]    BARKING    IG21  020  TQ458040
20      Barkingside      Redbridge[15]    ELFORD    IG6  020  TQ445895
21      Barnet      Bexley[15]    BEXLEYHEATH    DA7  01322  TQ255755
22      Barnes      Richmond upon Thames[15]    LONDON    SW13  020  TQ225765
23      Barnes Cross      Bexley[16]    DARTFORD    DA1  01322  TQ255755
24      Barnet Gate      Barnet    LONDON, BARNET    NW7, EN5  020  TQ214960
25      Barnet (also Chipping Barnet, High Barnet)      Barnet[16]    EN5  020  TQ245866
...      ...      ...      ...      ...      ...      ...      ...      ...      ...
   29      ...      ...      ...      ...      ...      ...      ...      ...      ...

In [6]: df = wiki_london_data.drop( [ wiki_london_data.columns[0], wiki_london_data.columns[4], wiki_london_data.columns[5] ], axis=1 )
df.head()

Out[6]:
   London_borough  Post_town  Postcode_district
0      Bexley, Greenwich[7]    LONDON    SE2
1      Ealing, Hammersmith and Fulham[8]    W3, W4
2      Croydon[9]    CROYDON    CR0
3      Croydon[9]    CROYDON    CR0
4      Bexley    BEXLEY, SIDCUP    DA5, DA14

Being able to standardize tables and filter columns helps us to be more accurate in our results
```

Data Processing

```
[53]: wiki_data = wiki_data[0]
wiki_data
df = wiki_data[wiki_data["Borough"] != "Not assigned"]
df = df.groupby(['Postal Code']).head()
df

Out[53]:
   Postal Code  Borough  Neighbourhood
2      M3A  North York  Parkwoods
3      M4A  North York  Victoria Village
4      M5A  Downtown Toronto  Regent Park, Harbourfront
5      M6A  North York  Lawrence Manor, Lawrence Heights
6      M7A  Downtown Toronto  Queen's Park, Ontario Provincial Government
8      M9A  Etobicoke  Islington Avenue, Humber Valley Village
9      M1B  Scarborough  Malvern, Rouge
11     M3B  North York  Don Mills
12     M4B  East York  Parkview Hill, Woodbine Gardens
13     M5B  Downtown Toronto  Garden District, Ryerson
14     M6B  North York  Glencalvin
```

Geolocation Process

The geolocation of each borough was achieved for the city of London using the ArcGIS API, which has a very complete library of precise coordinates of each London neighborhood. While for Toronto I used the same data as for the last lab, the document : "https://cocl.us/Geospatial_data" ,contains complete information on postal codes, cities and can be used to identify the latitudes and longitudes of the boroughs of Toronto.

Geolocations of the London Neighbourhoods

ArcGIS API

It's provide a modern and easy to use Pythonic library to perform GIS visualization and analysis, spatial data management and GIS system administration tasks that can run both interactively, and using scripts

```
In [13]: pip install arcgis
Requirement already satisfied: arcgis in /opt/conda/envs/Python-3.7-main/lib/python3.7/site-packages (1.6.0)
Note: you may need to restart the kernel to use updated packages.

In [14]: from arcgis.geocoding import geocode
from arcgis.gis import GIS
gis = GIS()

/opt/conda/envs/Python-3.7-main/lib/python3.7/site-packages/arcgis/features/_data/gendataset/utils.py:16: FutureWarning: The pandas.datetime class is deprecated and will be removed from pandas in a future version. Import from datetime module instead.
pd.datetime,
```

We create a function with which we can set the required properties for the geolocation of London

Longitude

Extracting the longitude from our previously collected coordinates

```
In [21]: lng_uk = coordinates_lating_uk.apply(lambda x: x.split(',')[-1])

Out[21]: 0    -0.12127000000000018
1    -0.2674599999999991
4    -0.0865999999999281
7    -0.1246299999999932
9    -0.05602999999999339
10   -0.1294999999999298
12   -0.1294999999999298
14   -0.245199999999942
15   -0.1294999999999298
16   -0.1083999999999494
17   -0.0966799999999931
18   -0.1294999999999298
22   -0.2416299999999242
24   -0.0864999999999114
26   -0.1620999999999717
27   -0.1620999999999717
28   -0.0560299999999339
30   0.2152805000000075223
31   -0.1294999999999298
34   -0.1083999999999494

In [22]: london_merged = pd.concat([df1.lat_uk.astype(float), lng_uk.astype(float)], axis=1)
london_merged.columns= ['borough','town', 'post code', 'latitude','longitude']
```

Latitude

Extracting the latitude from our previously collected coordinates

```
In [19]: coordinates_latitude_uk

Out[19]: 0      51.492430000000076, -0.12127000000000018
1      51.513200000000055, -0.2674599999999991
6      51.51200000000006, -0.08659999999994031
7      51.51200000000006, -0.1246299999999932
9      51.41090000000008, -0.0560299999999339
10     51.523610000000076, -0.2451999999999426
12     51.523610000000076, -0.1294999999999298
14     51.615680000000054, -0.2451999999999542
15     51.634290000000008, -0.1363639999999627
16     51.634290000000008, -0.1363639999999627
17     51.49996000000004, -0.0964799999999591
18     51.49996000000004, -0.0964799999999591
19     51.47469000000007, -0.2416299999999242
22     51.47469000000007, -0.2416299999999242
24     51.615680000000054, -0.2451999999999542
24     51.615680000000054, -0.2451999999999542
24     51.615680000000054, -0.1620999999999717
27     51.514920000000058, -0.1620999999999717
29     51.514920000000058, -0.1620999999999717
30     51.509130000000003, 0.0152805000000075233
34     51.489440000000064, -0.26193999999992457
34     51.489440000000064, -0.1363639999999627
```

```
[56]: data = pd.read_csv("https://cocl.us/Geospatial_data")
```

```
data
```

	Postal Code	Latitude	Longitude
0	M1B	43.806686	-79.194353
1	M1C	43.784535	-79.160497
2	M1E	43.703673	-79.168711
3	M1G	43.770992	-79.216917
4	M1H	43.773136	-79.230476
5	M1J	43.744734	-79.239476
6	M1K	43.727929	-79.262029
7	M1L	43.711112	-79.264577
8	M1M	43.716516	-79.239476
9	M1N	43.092657	-79.264648
10	M1P	43.767410	-79.273304

```
[58]: address = 'Toronto, Ontario'
geolocator = Nominatim(user_agent="toronto_explorer")
location = geolocator.geocode(address)
latitude = location.latitude
longitude = location.longitude
print('The coordinates of Toronto are {}, {}'.format(latitude, longitude))
```

The coordinates of Toronto are 43.6534817, -79.3839347.

Foursquare API

Once we have the geographic coordinates we proceed to enter the Foursquare API account to make our searches. What we are looking for is a general profile by categories of all the services offered by the cities. The services are filtered by the most common uses of the cities and tables are created to define the most common categories in both cities.

```
In [27]: CLIENT_ID = '18F14RHW232K1DEJYNEZN2JGXBD0N2L2RAAHIDCEEDVLEHPDADM'
CLIENT_SECRET = 'CGWF1HF13FP0B1CCBRJV24NSRGJH1T1QJC5B4P0UZ345KA2B'
VERSION = '20180605'

In [28]: LIMIT = 100

def getNearbyVenues(names, latitudes, longitudes, radius=500):
    venues_list = []
    for name, lat, lng in zip(names, latitudes, longitudes):
        print(name)

        # create the API request URL
        url = 'https://api.foursquare.com/v2/venues/explore?client_id={}&client_secret={}&v={}&l={}&ll={}&radius={}'.format(
            CLIENT_ID,
            CLIENT_SECRET,
            VERSION,
            lat,
            lng,
            radius,
            )

    return pd.DataFrame(venues_list, num_top_venues):
    row_categories = row.iloc[1:]
    row_categories_sorted = row_categories.sort_values(ascending=False)
    return row_categories_sorted.index.values[0:num_top_venues]

In [30]: num_top_venues = 10
indicators = ['st', 'nd', 'rd']

# create columns according to number of top venues
columns = ['Neighborhood', 'Most Common Venue']
for ind in np.arange(num_top_venues):
    try:
        columns.append('{}th Most Common Venue'.format(ind+1), indicators[ind])
    except:
        columns.append('1th Most Common Venue'.format(ind+1))

In [31]: # create a new dataframe for London
neighborhoods_venues_sorted_london = pd.DataFrame(columns=columns)
neighborhoods_venues_sorted_london['Neighborhood'] = London_grouped['Neighbourhood']

for ind in np.arange(London_grouped.shape[0]):
    neighborhoods_venues_sorted_london.loc[ind, 1:] = return_most_common_venues(London_grouped, lond, ind, num_top_venues)
neighborhoods_venues_sorted_london.head()

Out[31]: Neighborhood 1st Most Common Venue 2nd Most Common Venue 3rd Most Common Venue 4th Most Common Venue 5th Most Common Venue 6th Most Common Venue 7th Most Common Venue 8th Most Common Venue 9th Most Common Venue 10th Most Common Venue
0 Brixton, Camden Coffee Shop Cafe Grocery Store Bus Stop Pub Italian Restaurant Supermarket Pharmacy Turkish Restaurant Gym / Fitness Center
1 Brixton, Camden Bus Stop Macro Store Gym / Fitness Center Supermarket Clothing Store Hardware Store Yoga Studio Filipino Restaurant Exhibit Fast food Restaurant
2 Brixton, Camden Supermarket Historic Site Platform Convenience Store Train Station Coffee Shop Girl's Corner Construction & Landscaping Bus Stop Park
3 Bexley, Greenwich Construction & Landscaping Park Convenience Store Bus Stop Historic Site Daycare Golf Course Flower Shop Food & Drink Shop Food Court
4 Bexley, Greenwich Supermarket Platform Convenience Store Train Station Historic Site Yoga Studio Exhibit Filipino Restaurant Farmers Market

Out[39]: Neighborhood 1st Most Common Venue 2nd Most Common Venue 3rd Most Common Venue 4th Most Common Venue 5th Most Common Venue 6th Most Common Venue 7th Most Common Venue 8th Most Common Venue 9th Most Common Venue 10th Most Common Venue
0 Brixton, Camden Coffee Shop Cafe Grocery Store Bus Stop Pub Italian Restaurant Supermarket Pharmacy Turkish Restaurant Gym / Fitness Center
1 Brixton, Camden Bus Stop Macro Store Gym / Fitness Center Supermarket Clothing Store Hardware Store Yoga Studio Filipino Restaurant Exhibit Fast food Restaurant
2 Brixton, Camden Supermarket Historic Site Platform Convenience Store Train Station Coffee Shop Girl's Corner Construction & Landscaping Bus Stop Park
3 Bexley, Greenwich Construction & Landscaping Park Convenience Store Bus Stop Historic Site Daycare Golf Course Flower Shop Food & Drink Shop Food Court
4 Bexley, Greenwich Supermarket Platform Convenience Store Train Station Historic Site Yoga Studio Exhibit Filipino Restaurant Farmers Market

Out[43]: Borough town post_code latitude longitude Cluster_Labels 1st Most Common Venue 2nd Most Common Venue 3rd Most Common Venue 4th Most Common Venue 5th Most Common Venue 6th Most Common Venue 7th Most Common Venue 8th Most Common Venue 9th Most Common Venue 10th Most Common Venue
0 Bexley, Greenwich, LONDON SE2 5T4046 51.3127 4 Supermarket Coffee Shop Platform Convenience Store Train Station Historic Site Yoga Studio Exhibit Filipino Restaurant Farmers Market
1 Ealing, Hammersmith and Fulham, LONDON W3, W4 5T1504 51.92746 5 Grocery Store Indian Restaurant Hotel Train Station Park Breakfast Spot Fish & Chip Shop Exhibit Filipino Restaurant Farmers Market
2 Ealing, Hammersmith and Fulham, LONDON W3, W4 5T1504 51.92746 1 Coffee Shop Hotel Gym / Fitness Center Italian Restaurant Pub Sandwich Place Restaurant Wine Bar Gastro Bar
3 Westminster, LONDON WC2 5T1501 -0.11969 1 Coffee Shop Hotel Gym / Fitness Center Italian Restaurant Pub Sandwich Place Italian Restaurant Theater House Bar Restaurant Burger Joint
4 Bromley, London, SE6 5T4009 -0.09683 5 Supermarket Convenience Store Fast Food Restaurant Hotel Grocery Store Park Bistro Gastro Bar Sandwich Place Golf Course

In [44]: London_data_noNaN = London_data.dropna(subset=['Cluster_Labels'])

In [45]: def getNearbyVenues(names, latitudes, longitudes, radius=500):
    venues_list = []
    for name, lat, lng in zip(names, latitudes, longitudes):
        print(name)

        # create the API request URL
        url = 'https://api.foursquare.com/v2/venues/explore?client_id={}&client_secret={}&v={}&l={}&ll={}&radius={}'.format(
            CLIENT_ID,
            CLIENT_SECRET,
            VERSION,
            lat,
            lng,
            radius,
            )

    # make the GET request
    results = requests.get(url).json()["response"]["groups"][0]["items"]

    # return only relevant information for each nearby venue
    venues_list.append({
        "name",
        "lat",
        "lng",
        v["venue"]['name'],
        v["venue"]['categories'][0]['name'] for v in results})

nearby_venues = pd.DataFrame([item for venue in venues_list in venues_list for item in venue])
nearby_venues.columns = ['Neighbourhood',
                        'Neighbourhood Latitude',
                        'Neighbourhood Longitude',
                        'Venue',
                        'Venue Category']

return(nearby_venues)
```

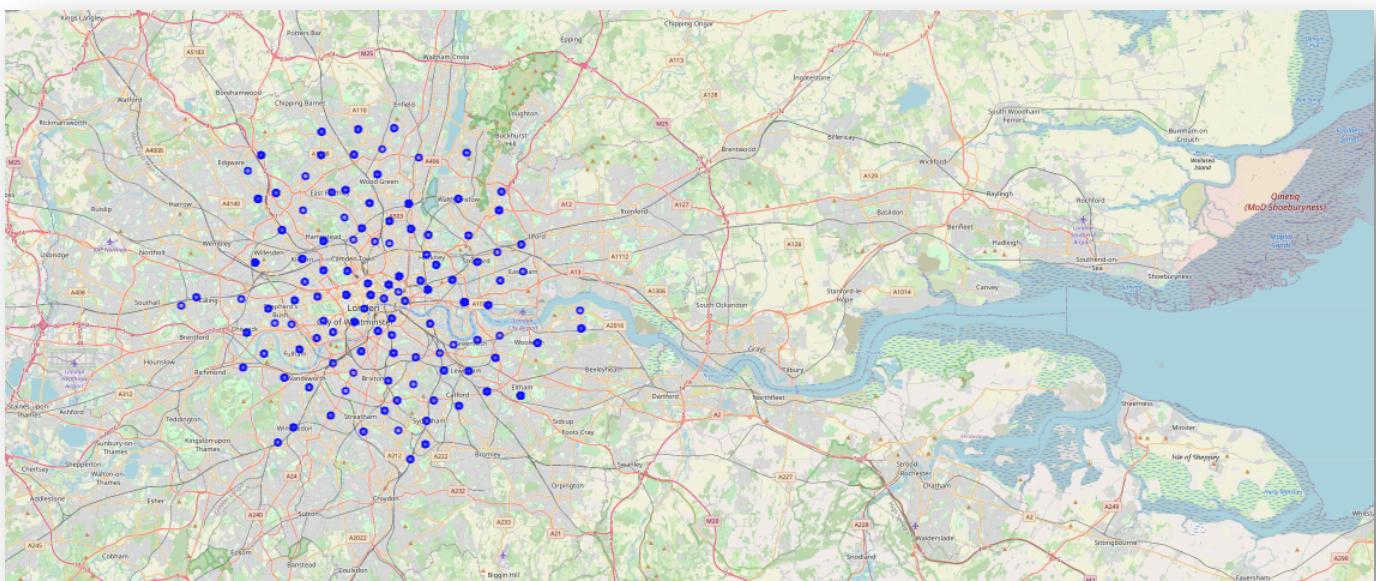
	Neighbourhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	Agincourt	Lounge	Latin American Restaurant	Breakfast Spot	Skating Rink	Yoga Studio	Electronics Store	Eastern European Restaurant	Drugstore	Donut Shop	Dog Run
1	Alderswood, Long Branch	Pizza Place	Gym	Pub	Coffee Shop	Sandwich Place	Skating Rink	Dance Studio	Department Store	Dessert Shop	Dim Sum Restaurant
2	Bathurst Manor, Wilson Heights, Downsview North	Coffee Shop	Bank	Pharmacy	Mobile Phone Shop	Shopping Mall	Diner	Sandwich Place	Deli / Bodega	Intersection	Supermarket
3	Bayview Village	Cafe	Chinese Restaurant	Bank	Japanese Restaurant	Yoga Studio	Escape Room	Electronics Store	Eastern European Restaurant	Drugstore	Donut Shop
4	Bedford Park, Lawrence Manor East	Coffee Shop	Sandwich Place	Italian Restaurant	Pizza Place	Pharmacy	Juice Bar	Butcher	Sushi Restaurant	Pub	Restaurant

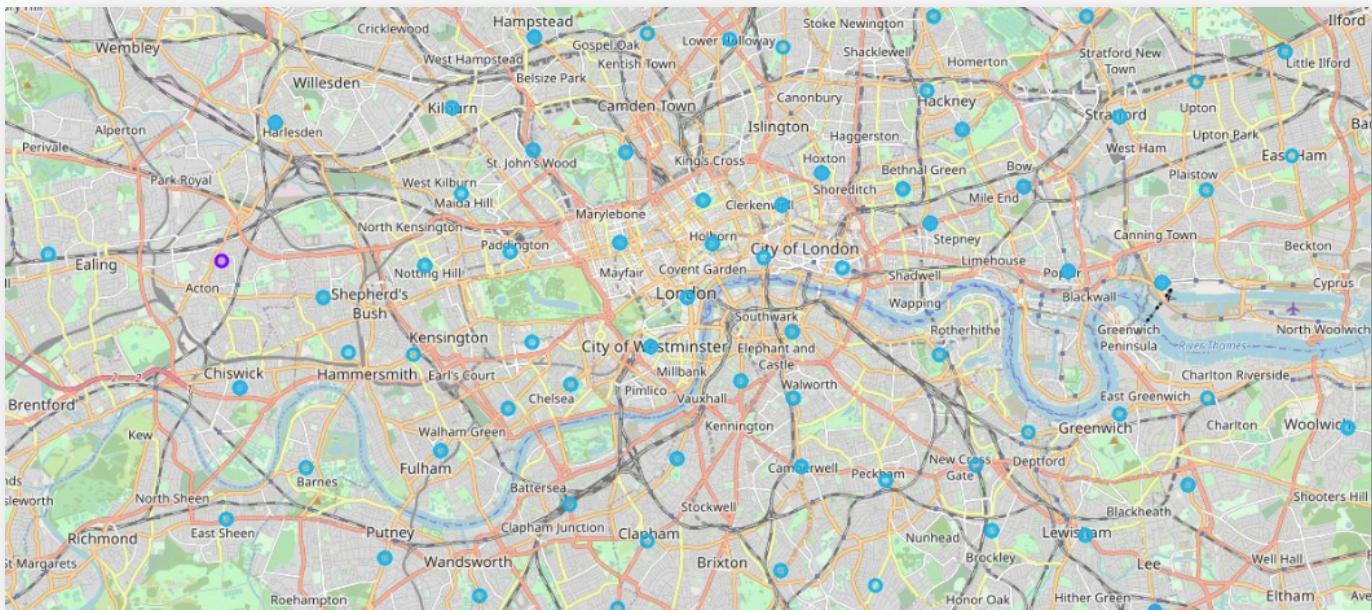
	Postal Code	Borough	Neighbourhood	Latitude	Longitude	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	M3A	North York	Parkwoods	43.753959	-79.329656	1.0	Park	Food & Drink Shop	Yoga Studio	Deli / Bodega	Electronics Store	Eastern European Restaurant	Drugstore	Donut Shop	Dog Run	Distribution Center
1	M4A	North York	Victoria Village	43.795882	-79.315572	0.0	French Restaurant	Hockey Arena	Pizza Place	Coffee Shop	Portuguese Restaurant	Intersection	Dance Studio	Deli / Bodega	Department Store	Dessert Shop
2	M5A	Downtown Toronto	Regent Park, Harbourfront	43.654260	-79.306036	0.0	Coffee Shop	Park	Bakery	Breakfast Spot	Café	Restaurant	Pub	Chocolate Shop	Performing Arts Venue	Yoga Studio
3	M6A	North York	Lawrence Manor, Lawrence Heights	43.718518	-79.404763	0.0	Clothing Store	Accessories Store	Coffee Shop	Furniture / Home Store	Carpet Store	Boutique	Vietnamese Restaurant	Department Store	Electronics Store	Eastern European Restaurant
4	M7A	Downtown Toronto	Queen's Park, Ontario Provincial Government	43.662301	-79.389494	0.0	Coffee Shop	Diner	Sushi Restaurant	Fried Chicken Joint	Italian Restaurant	Bar	Beer Bar	Smoothie Shop	Burrito Place	Sandwich Place

Visualizations of Clusters Maps

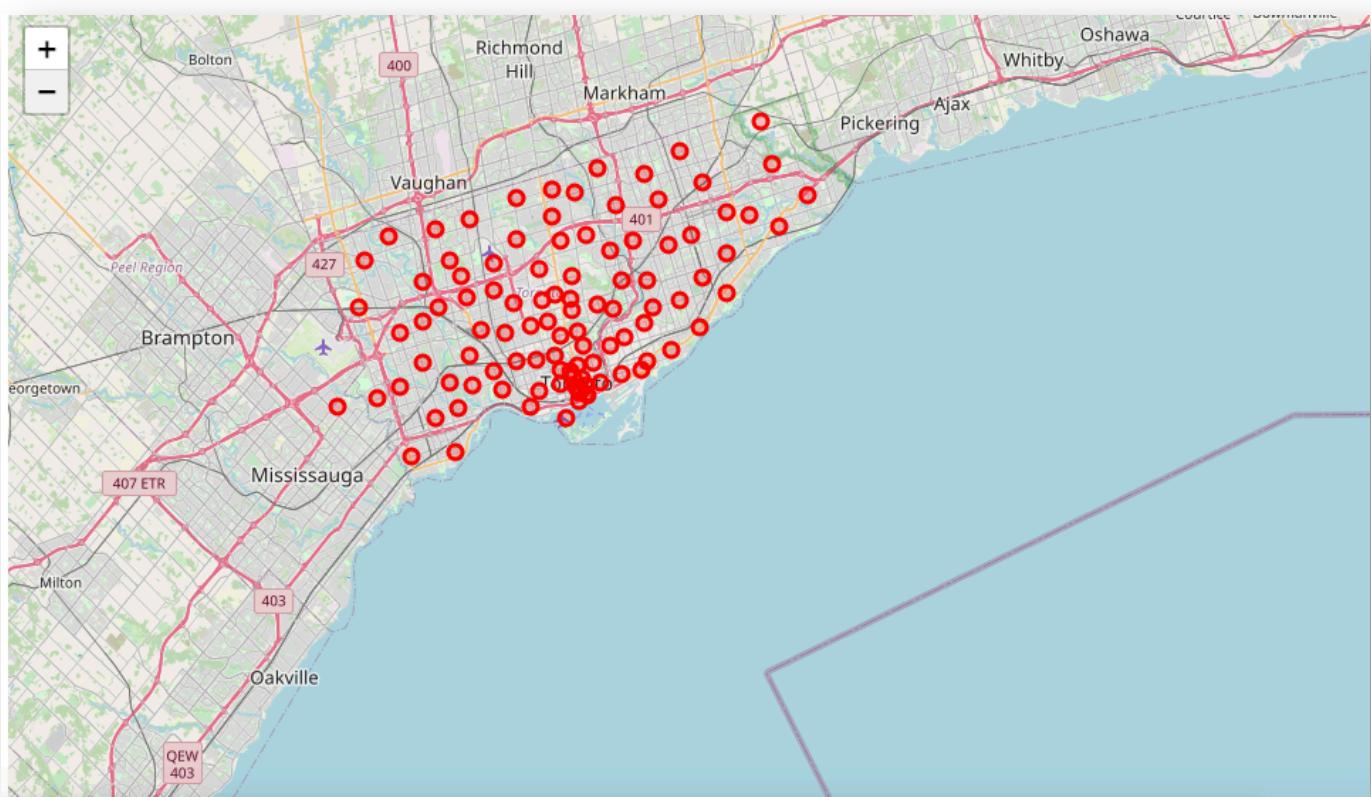
The following maps show the points that represent the service areas distributed in each of the boroughs analyzed.

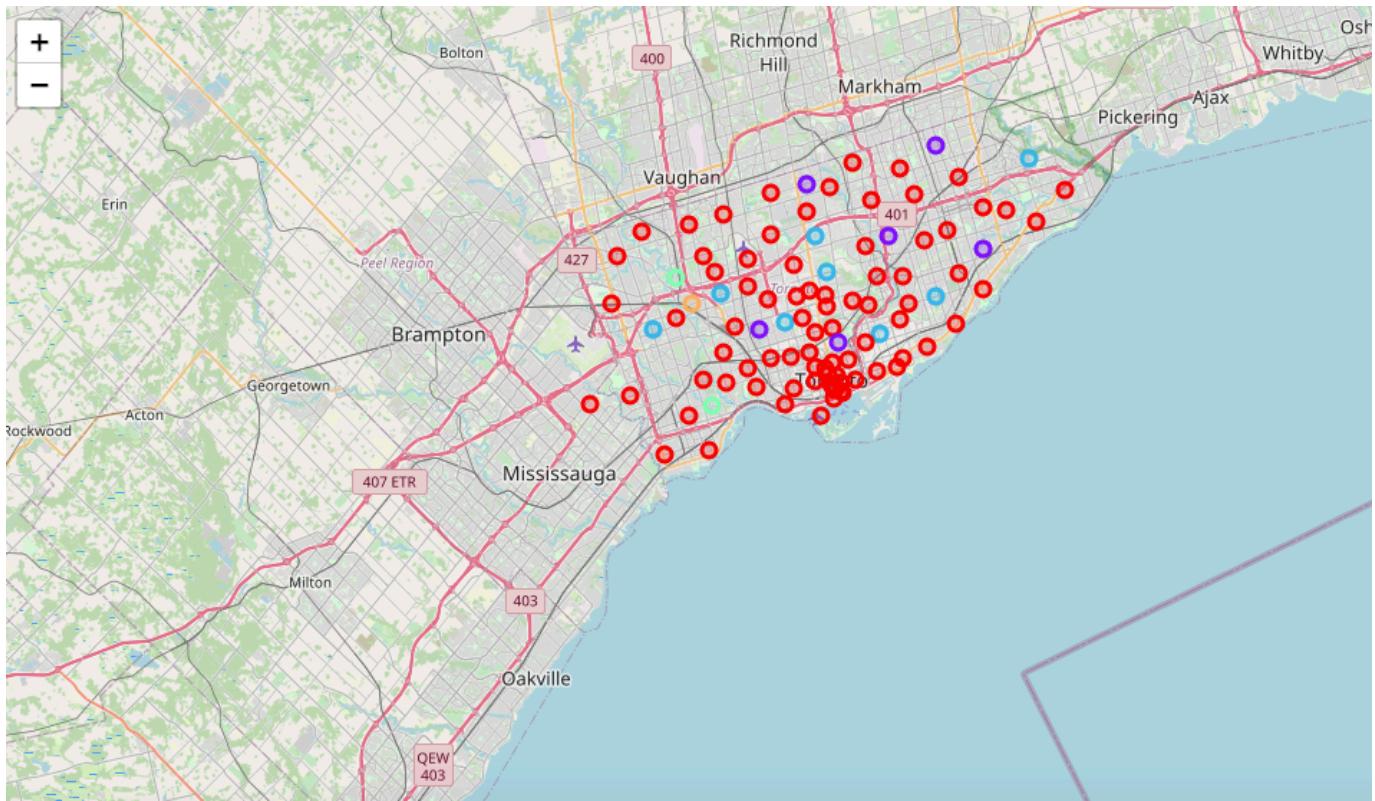
London Map





Toronto Map





Results and Discussion

The cities of London and Toronto are very diverse in all areas. Both cities concentrate most of their services in restaurants and coffee shops. In terms of supermarkets and department stores, there was a higher concentration in Toronto than in London. So based on the observed pattern we can articulate that London is a city more focused on historical tourism where most of its residents live within the city. London's transportation system encourages people to use trains, bicycles and buses more than their own cars. Toronto, on the other hand, is a city with a more complex mobility pattern where there is a flow of residents who travel out of the city to the downtown area to get their groceries or services. Toronto also has more versatility in terms of attractions so it also has international tourism but focuses even more on local tourism and providing services for its residents and visitors.

Particularly in our focus on restaurants, both cities have an interesting variety of gastronomic options. In London the international restaurants are mostly of Indian origin or Mediterranean food where only less than 10 Latin restaurants were found all within 5-8 miles of each other. Of the Latin restaurants in London only 1 specializes in Caribbean food. In Toronto there is a little more gastronomic offer than in London. Especially in the Caribbean food restaurants section I could identify about 7 restaurants, in particular 1 of Cuban origin. Therefore, the offer of Caribbean food consumption in Toronto is much more notable than in London.

Conclusion

Both cities are very attractive for starting a business. In London although there is not much offer of Latin restaurants, I could choose to become one of the few Caribbean restaurants, which would make me an exclusive restaurant. I would have to do a more in-depth market and demographic study to ensure that my business in London could work. While Toronto has more variety of food of Latin and Caribbean origin, I see more competition but a greater chance of acceptance of my gastronomic offer. In Toronto the market study would be more focused on what menu to implement in comparison to the other restaurants in the area that could attract customers.

So it would be wiser to start my business in Toronto, as it is a city where I can have more opportunity to generate income and establish myself more easily. However, I would never rule out in the future having a franchise of my business in London where I can grow the taste for Caribbean food in the residents and visitors.