



*Caribbean Flavors in Toronto*

# Toronto's Food Culture

- Food is a big deal in Toronto, a very big deal. If you are a foodie, Toronto should be a “must-visit” destination on your bucket list.
- New restaurants are constantly opening, and chefs continue to push culinary boundaries to come up with new and innovative ideas.



# Business Problem

- A business owner wants to open a Caribbean restaurant in Toronto. The owner knows that Toronto has a high number of Caribbean Immigrants scattered all over the city.
- What the owner ultimately wants to know the top 2 best locations in Toronto to open their restaurant.

# Data Source

- To develop a dataset for this problem we will be using files that will provide the list of neighborhoods in Toronto (via Wikipedia),
- -the Geographical location of the neighborhoods (via Geocoder package)
- Venue data pertaining to restaurants (via Foursquare).
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- Source 1: Toronto Neighborhoods via Wikipedia. It included the postal code, borough and the name of the neighborhoods present in Toronto.

	PostalCode	Borough	Neighborhood
0	M3A	North York	Parkwoods
1	M4A	North York	Victoria Village
2	M5A	Downtown Toronto	Regent Park, Harbourfront
3	M6A	North York	Lawrence Manor, Lawrence Heights
4	M7A	Downtown Toronto	Queen's Park, Ontario Provincial Government

# Source 2:

## Geographical Location data using Geocoder Package

	<b>Postal Code</b>	<b>Latitude</b>	<b>Longitude</b>
0	M1B	43.806686	-79.194353
1	M1C	43.784535	-79.160497
2	M1E	43.763573	-79.188711
3	M1G	43.770992	-79.216917
4	M1H	43.773136	-79.239476

# Source 3: Venue Data using Foursquare

	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	The Beaches	43.676357	-79.293031	Glen Manor Ravine	43.676821	-79.293942	Trail
1	The Beaches	43.676357	-79.293031	The Big Carrot Natural Food Market	43.678879	-79.297734	Health Food Store
2	The Beaches	43.676357	-79.293031	Grover Pub and Grub	43.679181	-79.297215	Pub

*Figure 5: Venue data pulled from Foursquare explore API/*

# Data Exploration

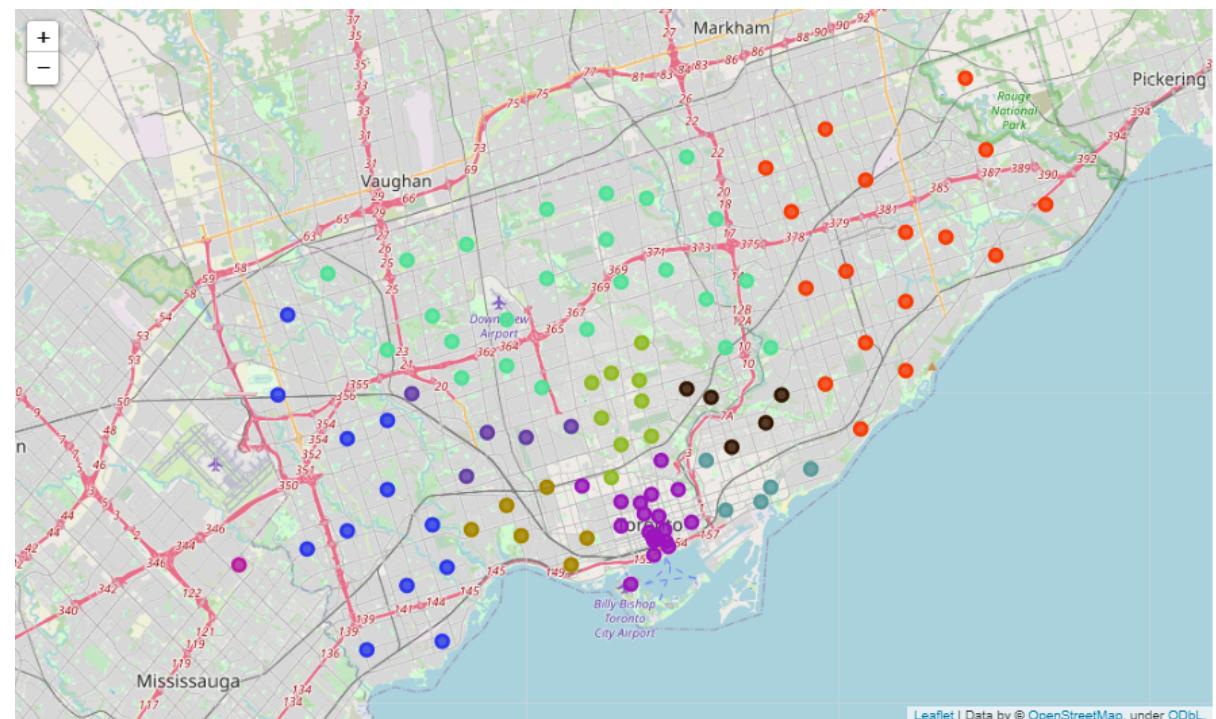
## Code

```
map_toronto = folium.Map(location=[lat_toronto, lon_toronto], zoom_start=10.5)

# add markers to map
for lat, lng, borough, neighborhood in zip(df_toronto['Latitude'],
                                             df_toronto['Longitude'],
                                             df_toronto['Borough'],
                                             df_toronto['Neighborhood']):
    label_text = borough + ' - ' + neighborhood
    label = folium.Popup(label_text)
    folium.CircleMarker(
        [lat, lng],
        radius=5,
        popup=label,
        color=borough_color[borough],
        fill_color=borough_color[borough],
        fill_opacity=0.8).add_to(map_toronto)

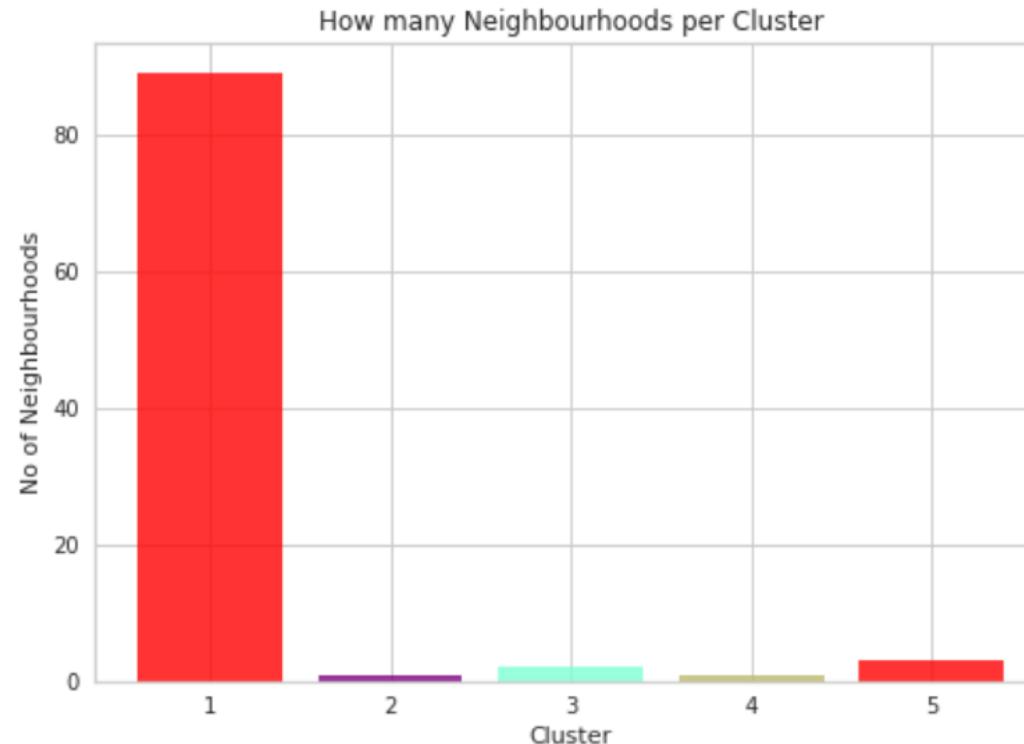
map_toronto
```

We then created a map using Folium and colour-coded each Neighborhood depending on what Borough it was located in.

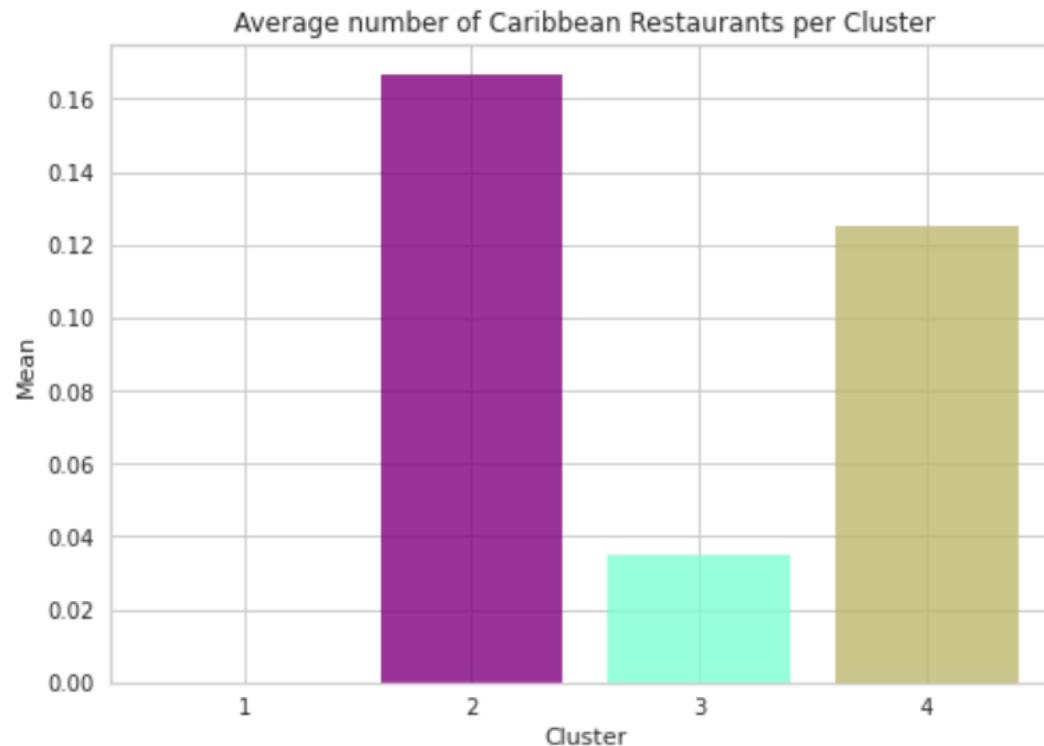


# Data Analysis

- We see that Cluster 1 has the most neighbourhoods (80) while cluster 2 and 4 has the least(1). Cluster 3 has 14 neighbourhoods and cluster 4 has only 8. Then we compared the average Caribbean Restaurants per cluster



- I merged the venue data with the table above creating a new table which would be the basis for analyzing new opportunities for opening a new Caribbean Restaurant in Toronto.



# Discussion

- Most of the Caribbean Restaurants are in cluster 2 represented by the purple clusters. This is probable because of the large number of neighbourhoods located in this cluster.
- In general there are not many Caribbean restaurants in Toronto.
- Looking at the nearby venues, the optimum place to put a new Caribbean Restaurant in the North York area as there are many Neighborhoods in the area but no Caribbean Restaurants, therefore, eliminating any competition.
- The second-best Neighborhoods that have a great opportunity would be Downtown Toronto since there are little to no Caribbean Restaurants.