Where to live:
Your guide when the company Relocated to Toronto
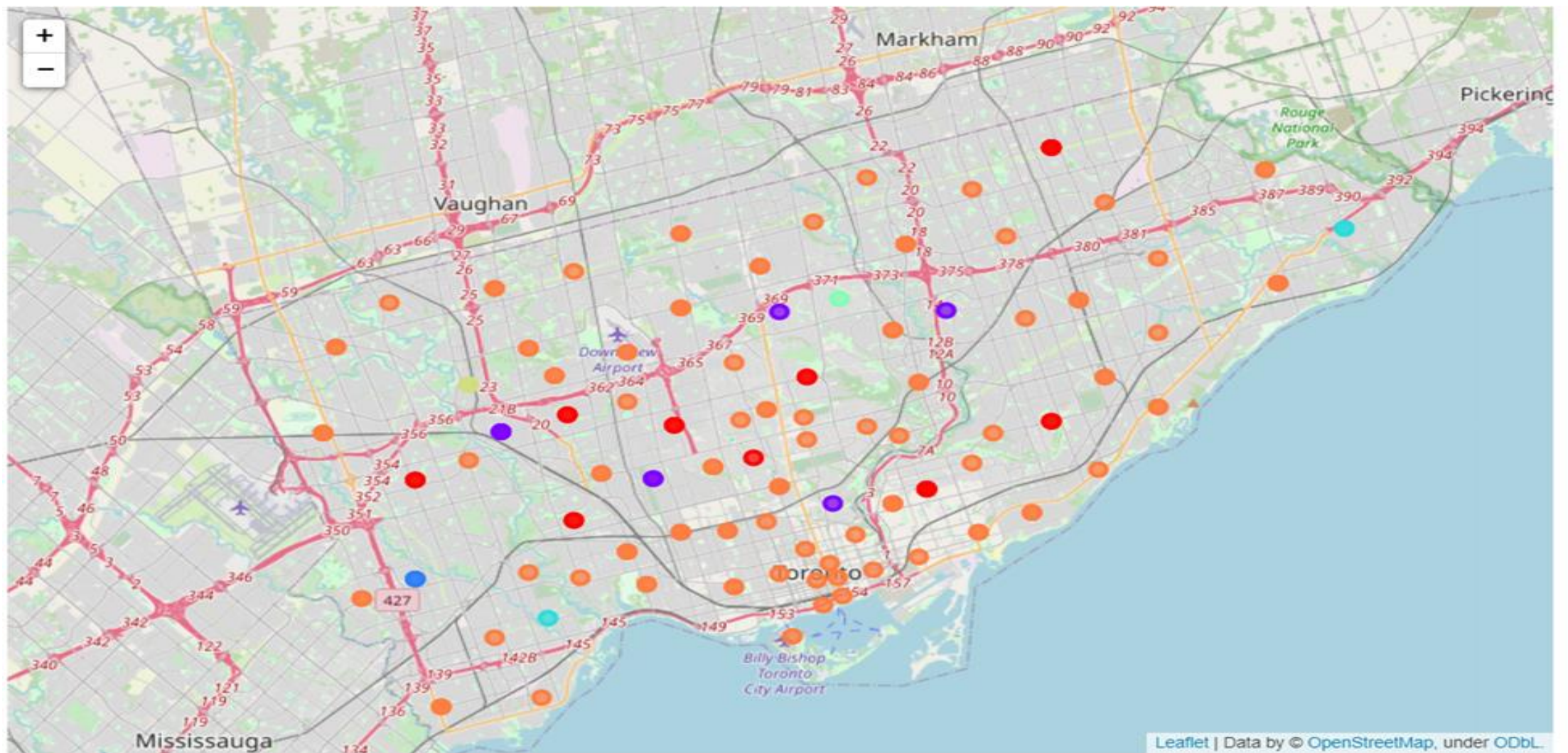
ACME CONSULTING COMPANY

December 2020

Introduction

- Your company has chosen ACME Consulting to help with relocation to Toronto, Ontario

- We were asked to identify neighborhoods in the city and surrounding areas into groups having similar amenities such as Parks, Shopping, Entertainment etc.

- Additionally, your company is safety oriented so has asked ACME to include crime statistics for the different neighborhoods.

- The amenities and crime statistics are ranked by commonality for each neighborhood in a group.
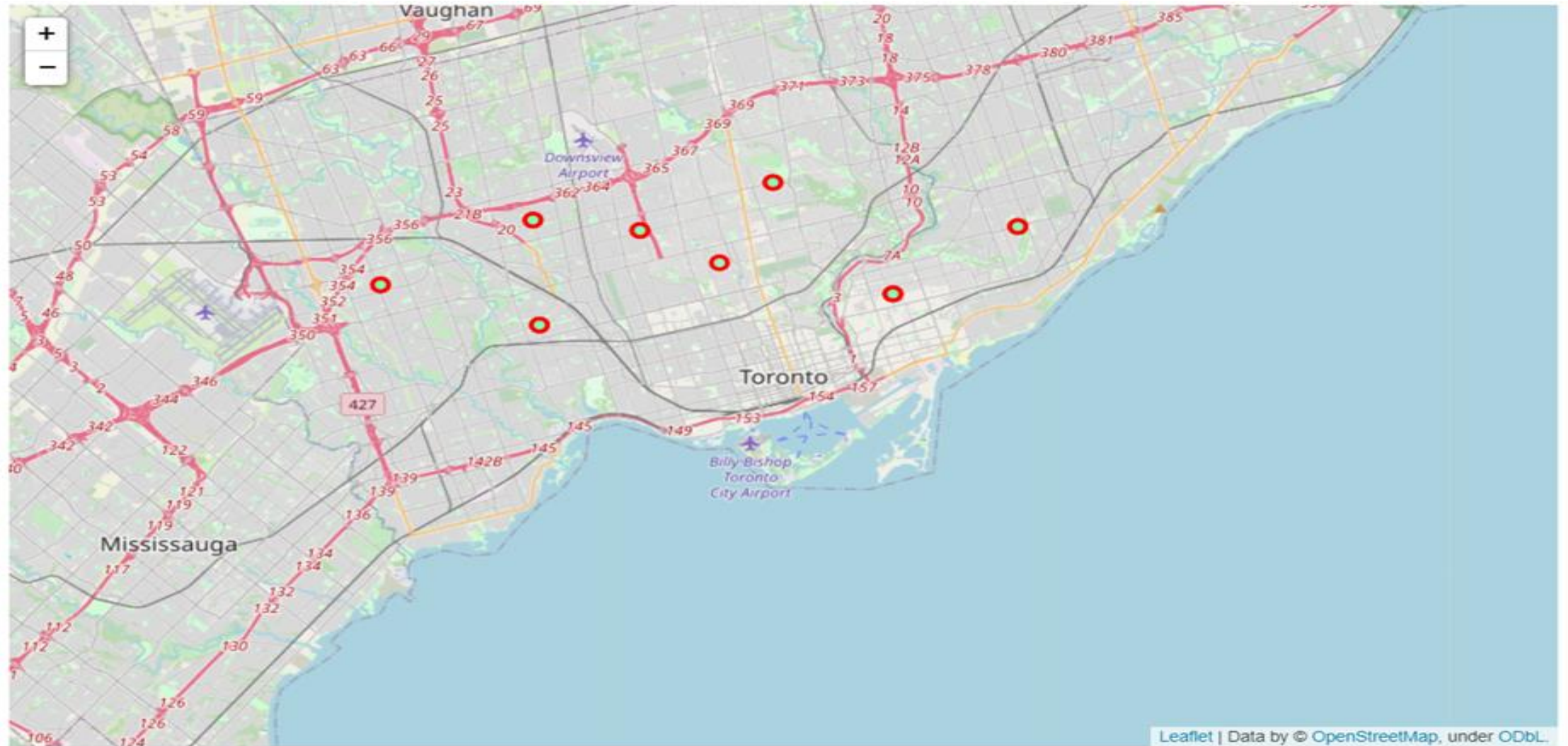
Neighborhood Types

- ACME Consulting has analyzed each neighborhood's amenities and crime statistics and divided the neighborhoods into seven groups labeled:

    - Foodie and Nightlife
    - Outside Entertainment
    - Printers
    - Working Class
    - Martial Arts
    - Baseball
    - Downtown and Shopping

- The group names are based on the main amenities in each group.

- Maps for each group and a short description follows.
    - A few representative

- Further information on each neighborhood is found in ACME's report.
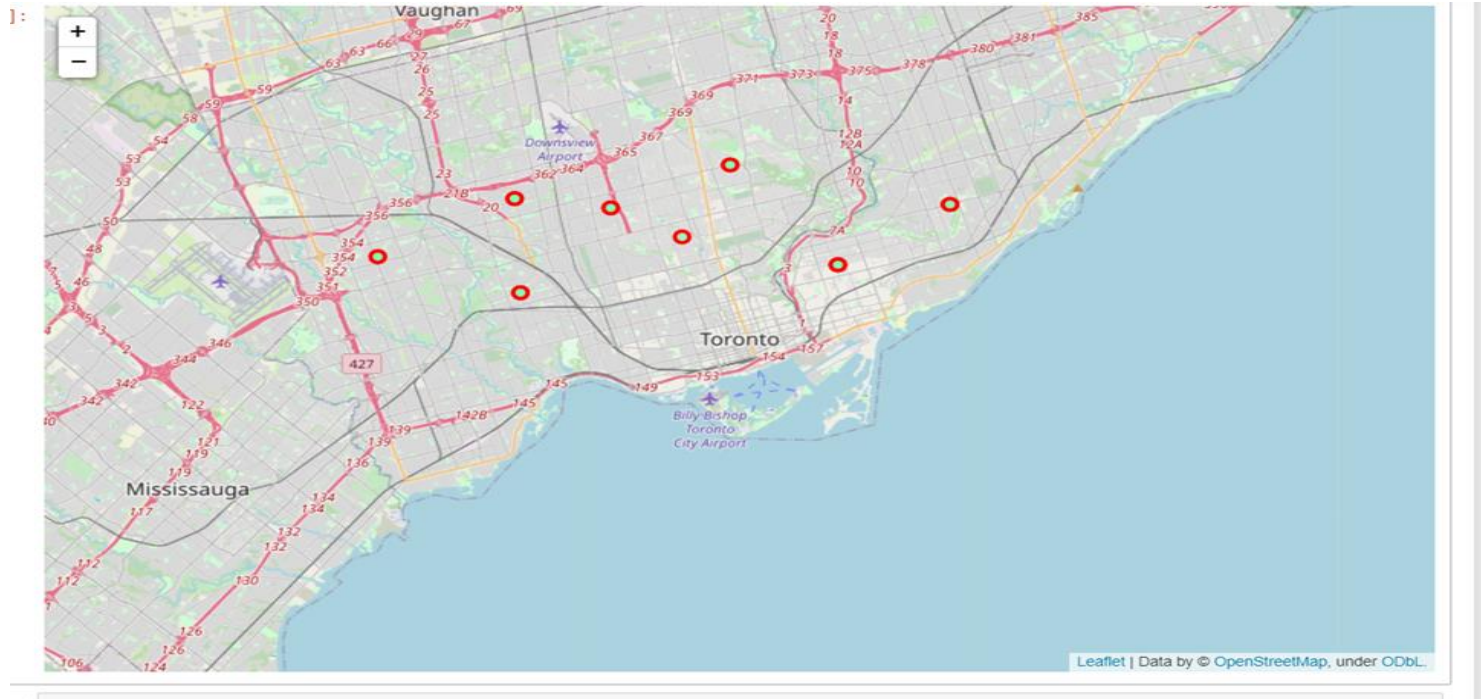
Toronto Neighborhoods

"Foodie and Nightlife" Neighborhoods
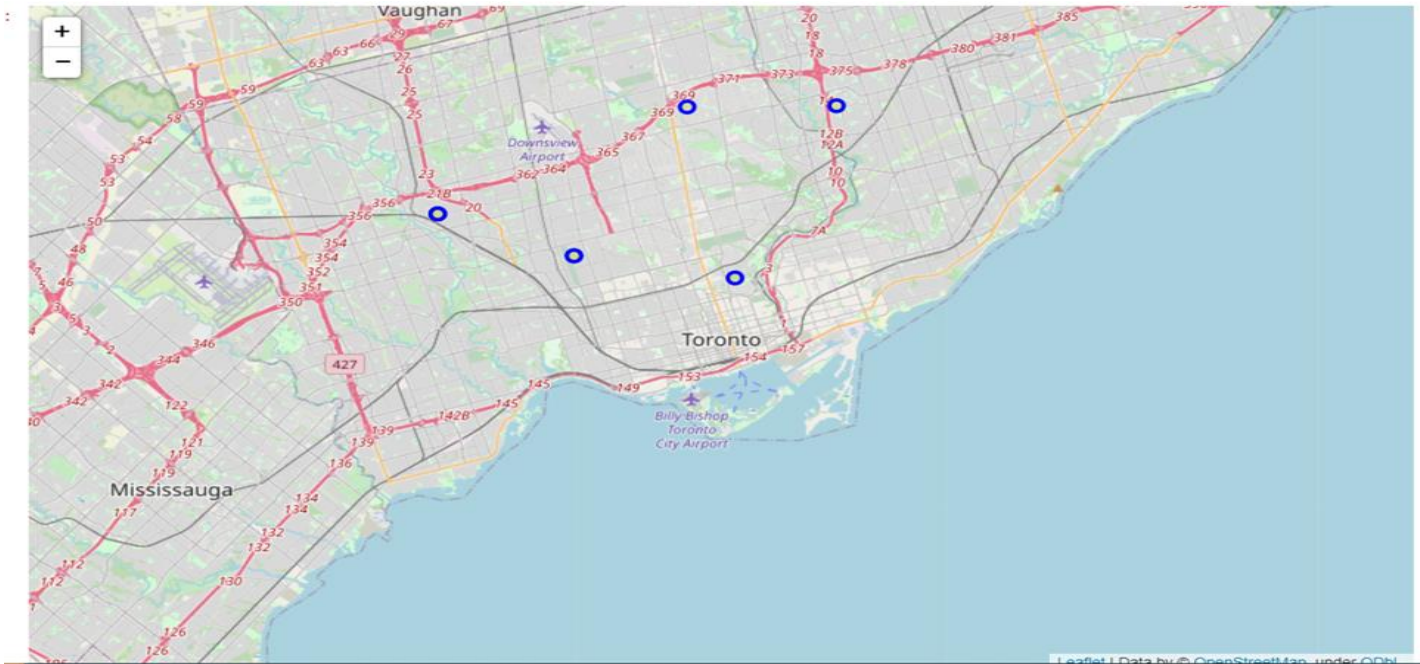
"Foodie and Nightlife" Neighborhoods

Foodie and Nightlife Sample data				
Area	1st most common	2nd most common	3rd most common	4th most common
North York	Pub	Park	Japanese Restaurant	Bakery
North York	Pub	Park	Japanese Restaurant	Bakery
East York	Park	Intersection	Convenience Store	Assault
East York	Park	Intersection	Convenience Store	Assault

These neighborhoods are characterized by a wide variety of restaurants. For nightlife, there is a high concentration of pubs and breweries in these areas.

The crime in this area would be medium to low relative to the other neighborhood grouping.

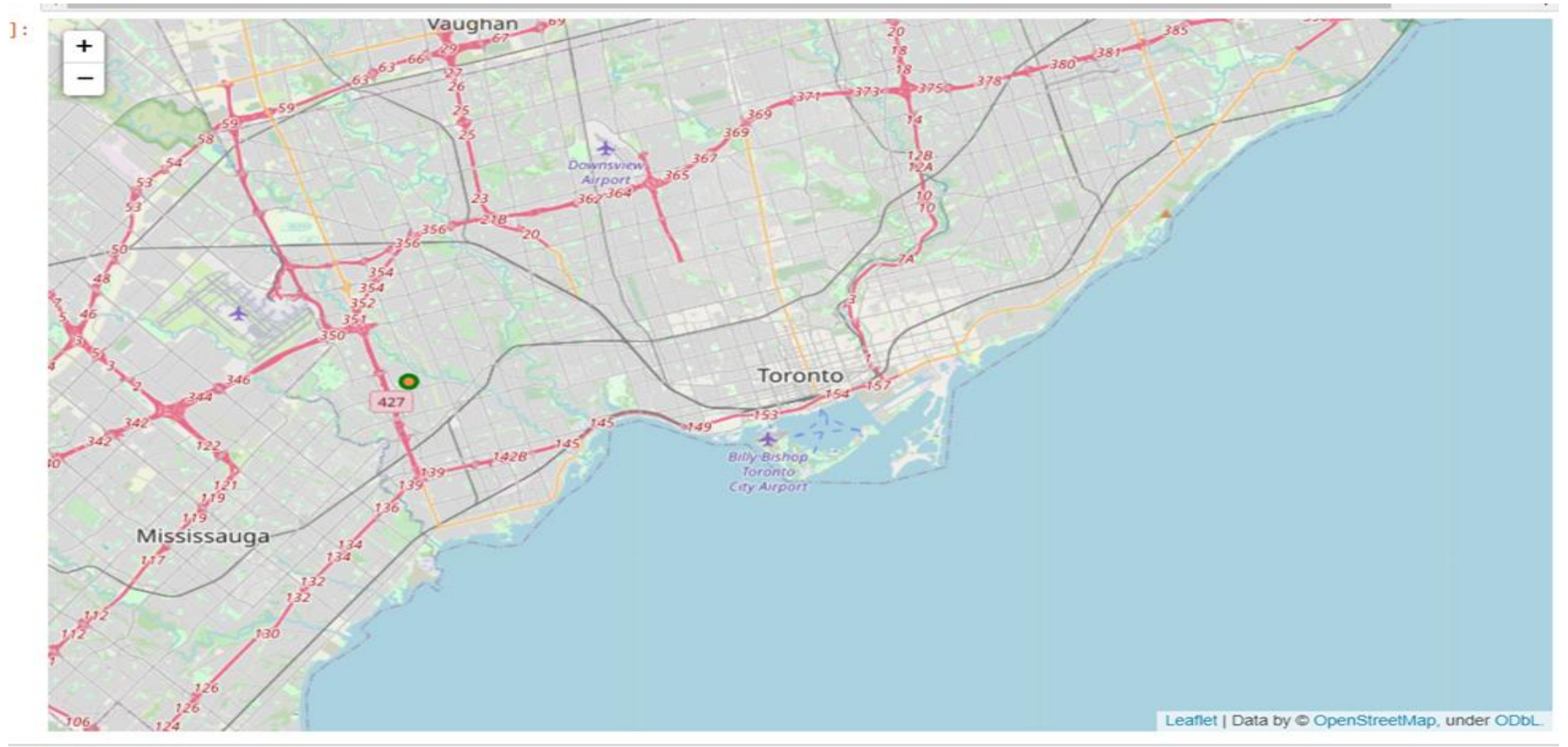# Outside Entertainment Neighborhoods

Outside Entertainment Neighborhoods

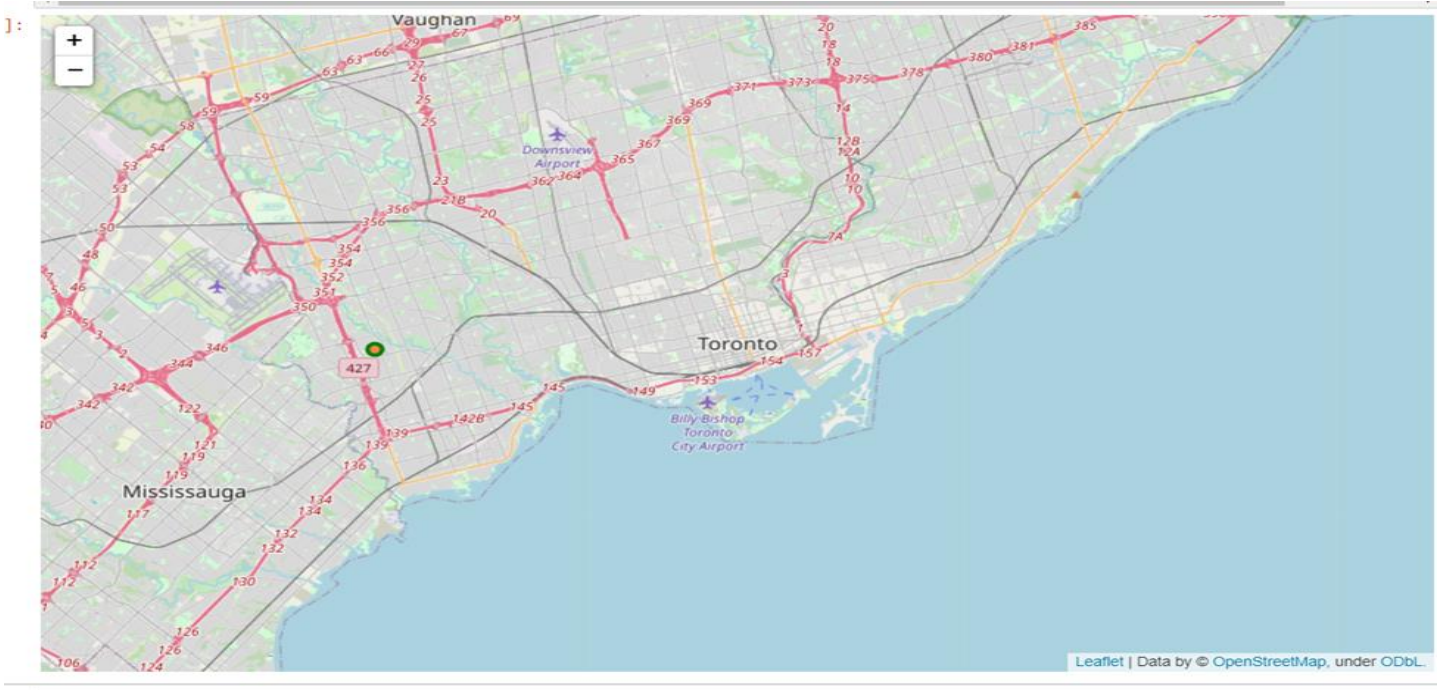| Outside Entertainment Sample data				
Area	1st most common	2nd most common	3rd most common	4th most common
North York	Park	Food & Drink Shop	Robbery	Break and Enter
York	Park	Women's Store	Pool	Robbery
York	Park	Women's Store	Pool	Robbery
York	Park	Auto Theft	Assault	Break and Enter

The Outside Entertainment neighborhoods are characterized by having Parks as the most common feature. While parks are the most common feature, there are other types of entertainment including pools and video stores, and in some area "escape rooms".

The crime in this area would be medium to high relative to the other neighborhood groupings. The Acme Consulting company suggests carefully consider the crime in these areas before moving into these neighborhoods.
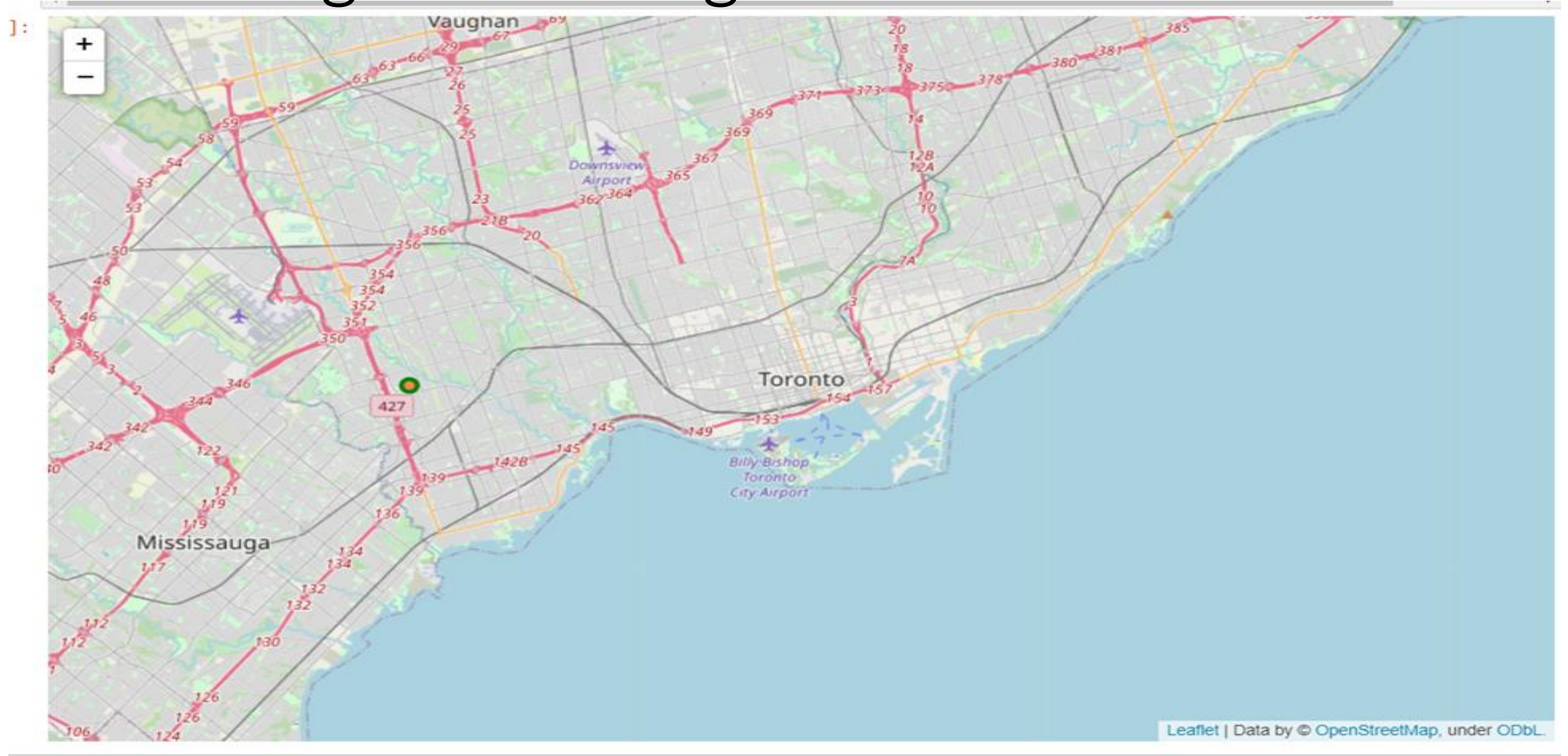
Printers Neighborhoods

Printers Neighborhoods

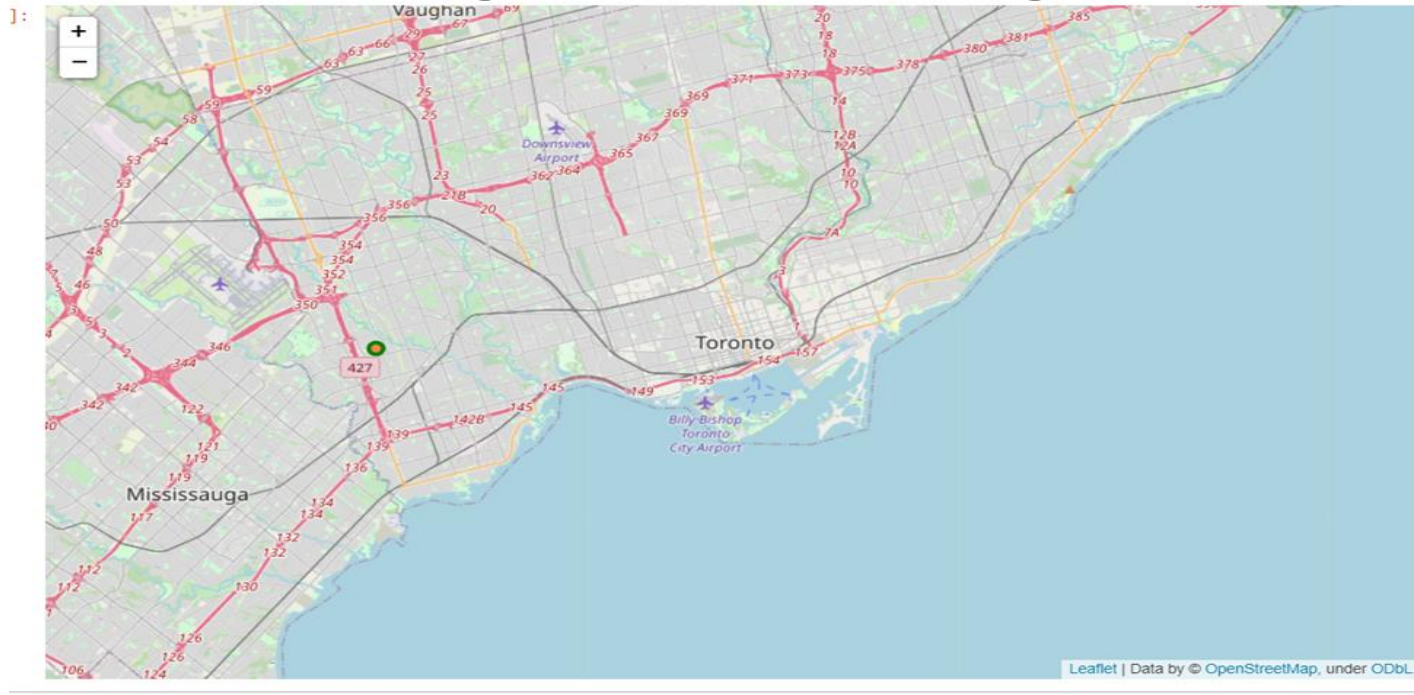| Printers Sample data				
Area	1st most common	2nd most common	3rd most common	4th most common
Etobicoke	Print Shop	Auto Theft	Robbery	Break and Enter
Etobicoke	Print Shop	Auto Theft	Theft Over $5000	Break and Enter

These neighborhoods are characterized Print shops and crime.

The crime in this area is relatively high compared to the other neighborhood groupings. The Acme Consulting company suggests carefully consider the crime in these areas before moving into these neighborhoods.

"Working Class" Neighborhoods
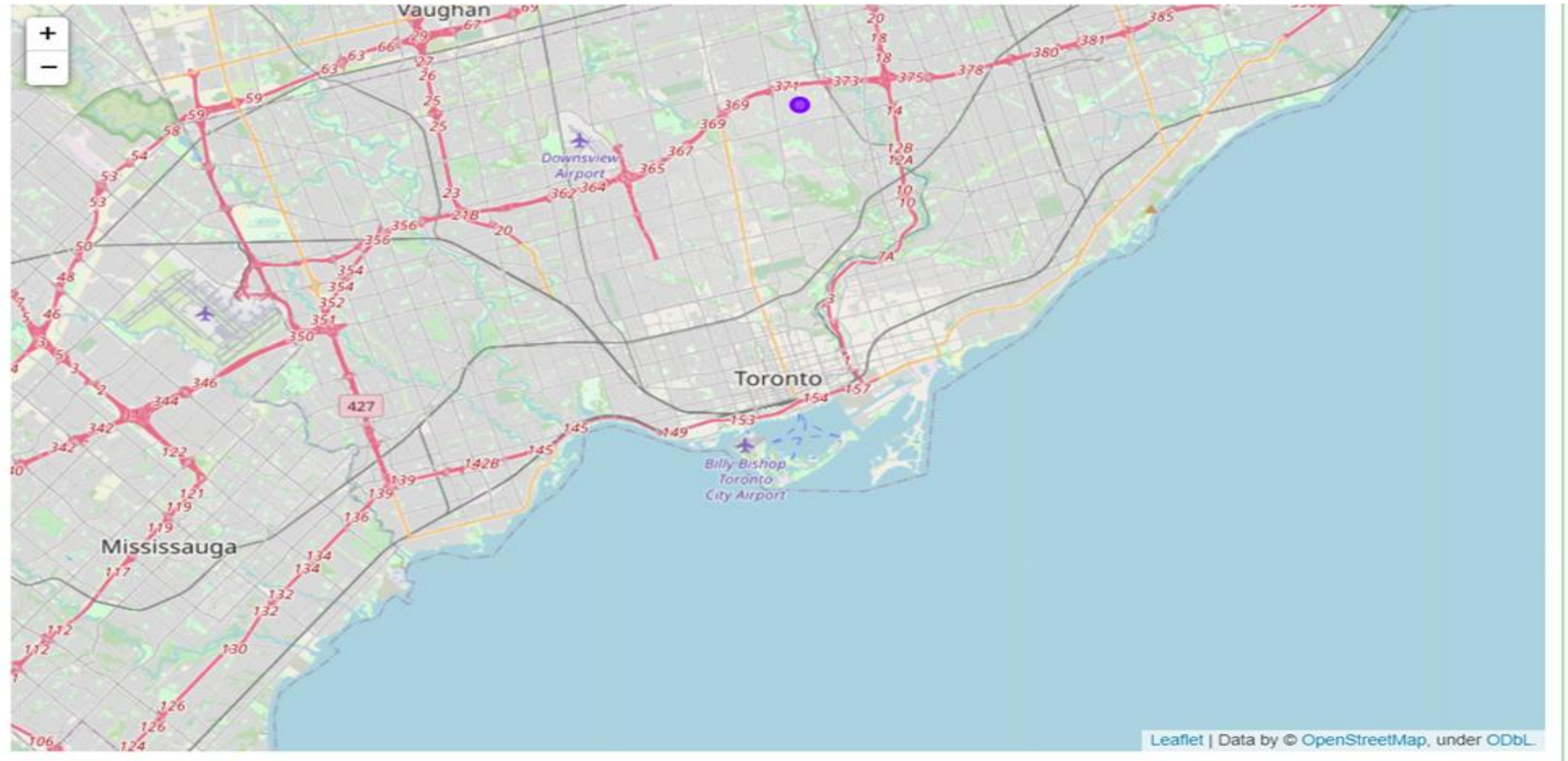
"Working Class" Neighborhoods

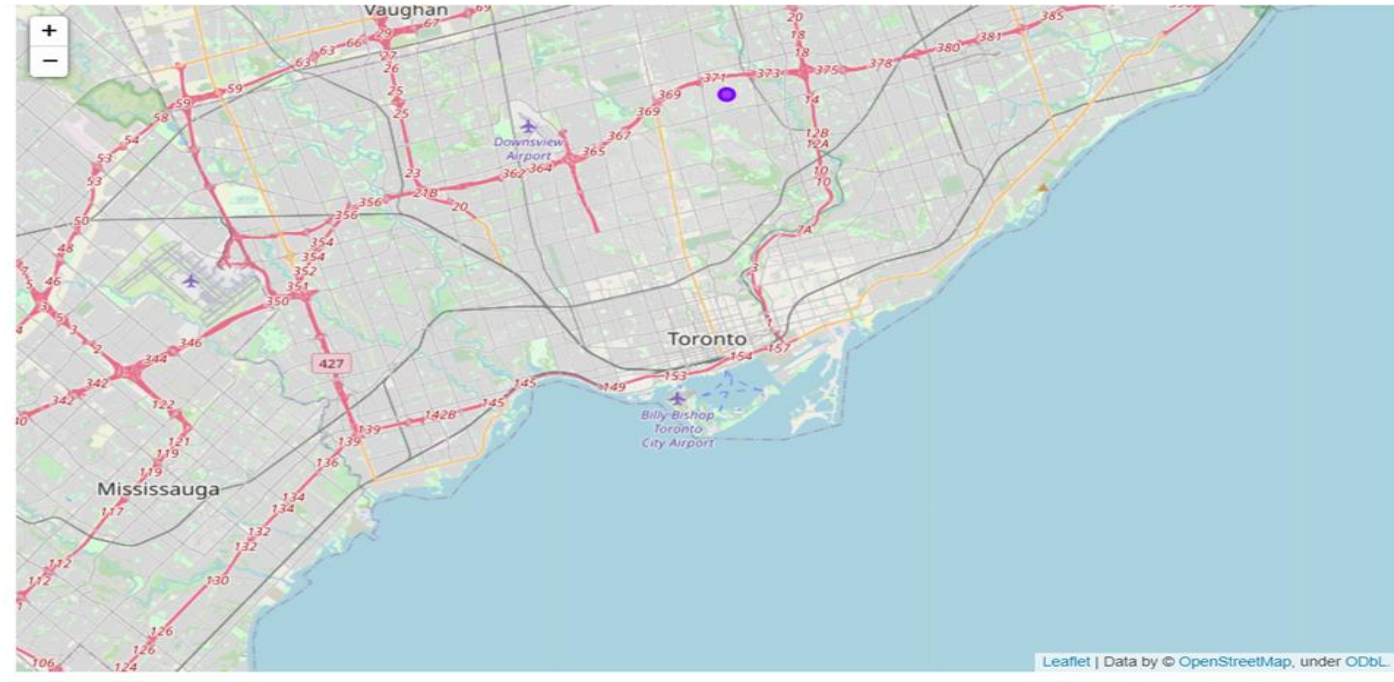| Working Class Sample data				
Area	1st most common	2nd most common	3rd most com	4th most common
Scarborough	Bar	Construction & Landscaping	Auto Theft	Break and Enter
Scarborough	Bar	Construction & Landscaping	Auto Theft	Break and Enter
Etobicoke	Construction & Landscaping	Baseball Field	Break and Enter	Auto Theft

The "Working Class" area is characterized by having Bars and Construction/Landscaping businesses. This area also has working class jobs at the distribution center.

The crime in this area would be medium to high relative to the other neighborhood groupings. The Acme Consulting company suggests carefully consider the crime in these areas before moving into these neighborhoods.

"Martial Arts" Neighborhoods
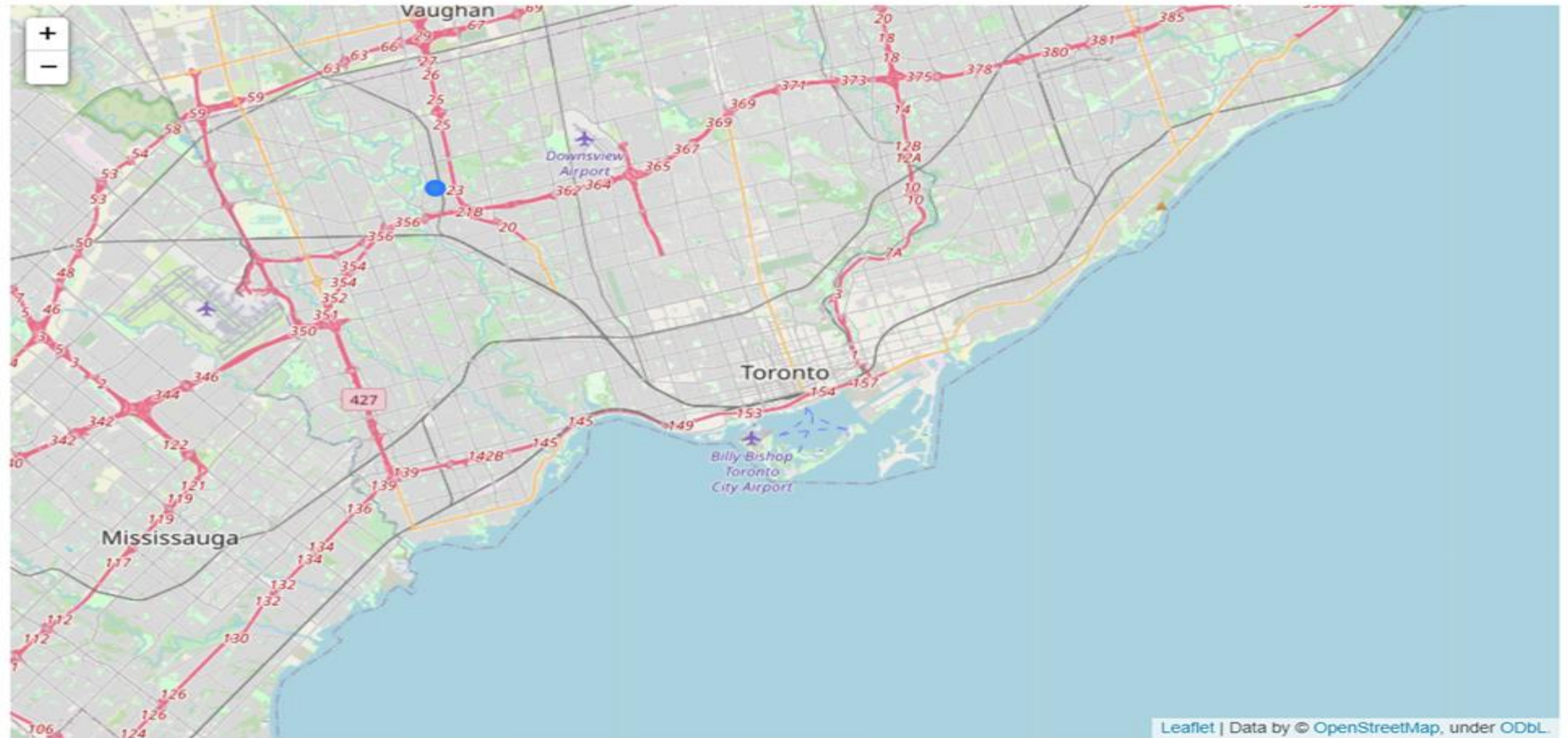
"Martial Arts" Neighborhoods

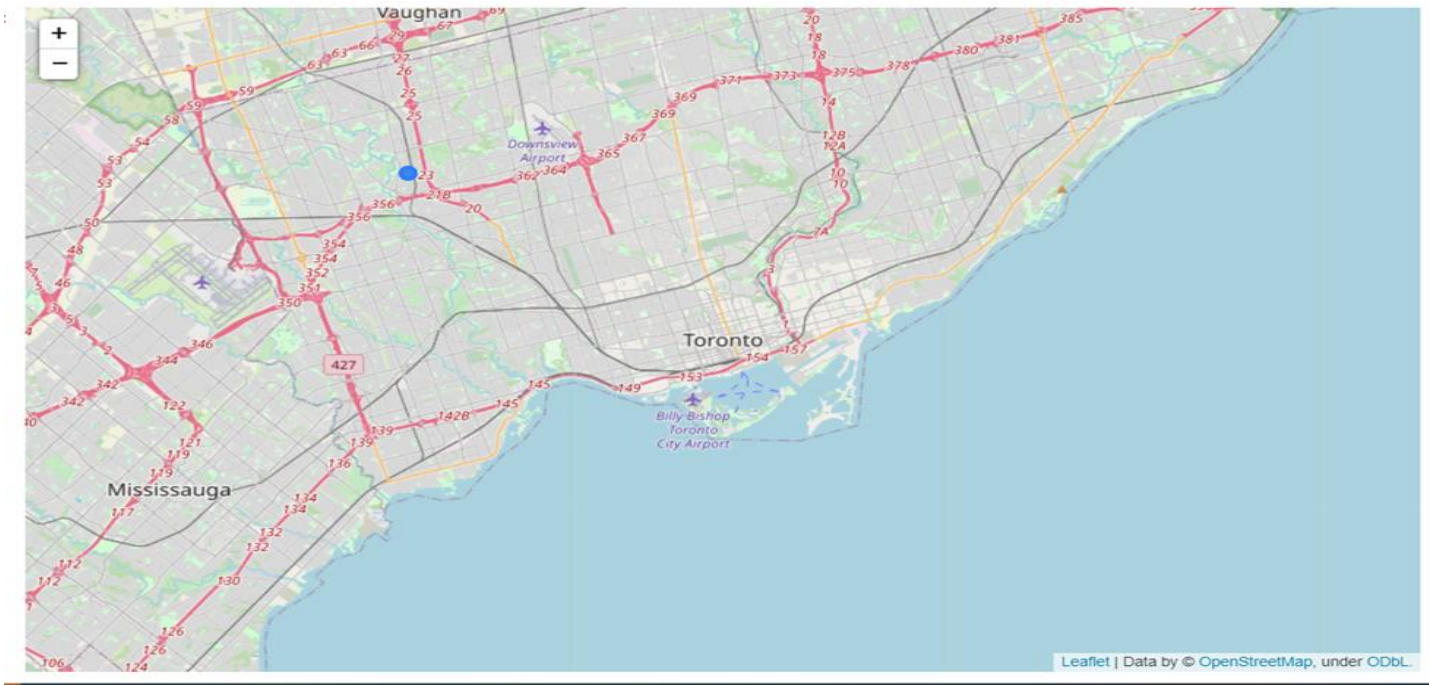| Martial Arts Sample data				
Area	**1st most common**	**2nd most common**	**3rd most common**	**4th most common**
North York	Martial Arts School	Break and Enter	Robbery	Theft Over $5000

The Martial Arts area is characterized by having a Martial Arts School.

The crime is high relative to the other neighborhood groupings. The Acme Consulting company suggests carefully consider the crime in these areas before moving into these neighborhoods.
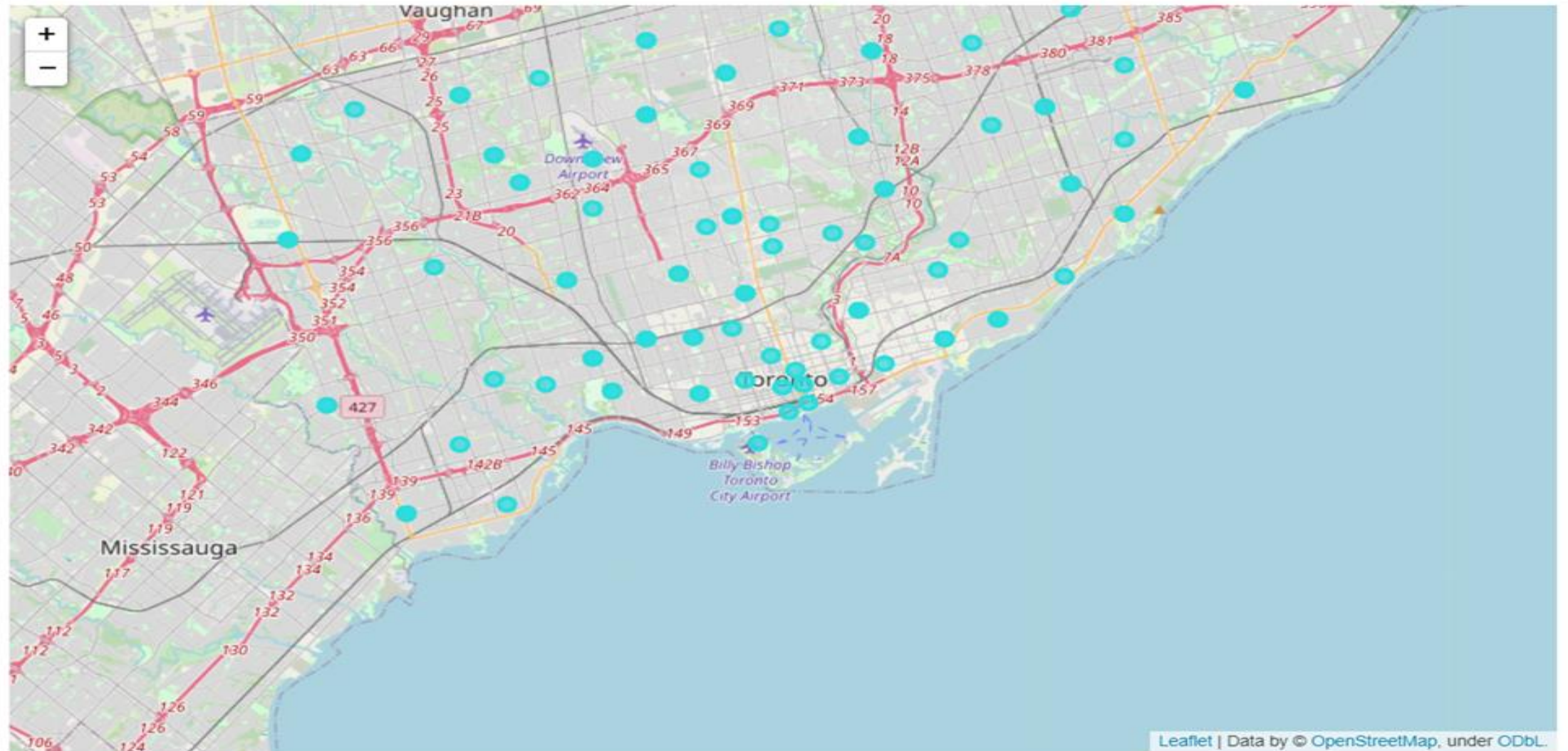
Baseball Neighborhoods

Baseball Neighborhoods

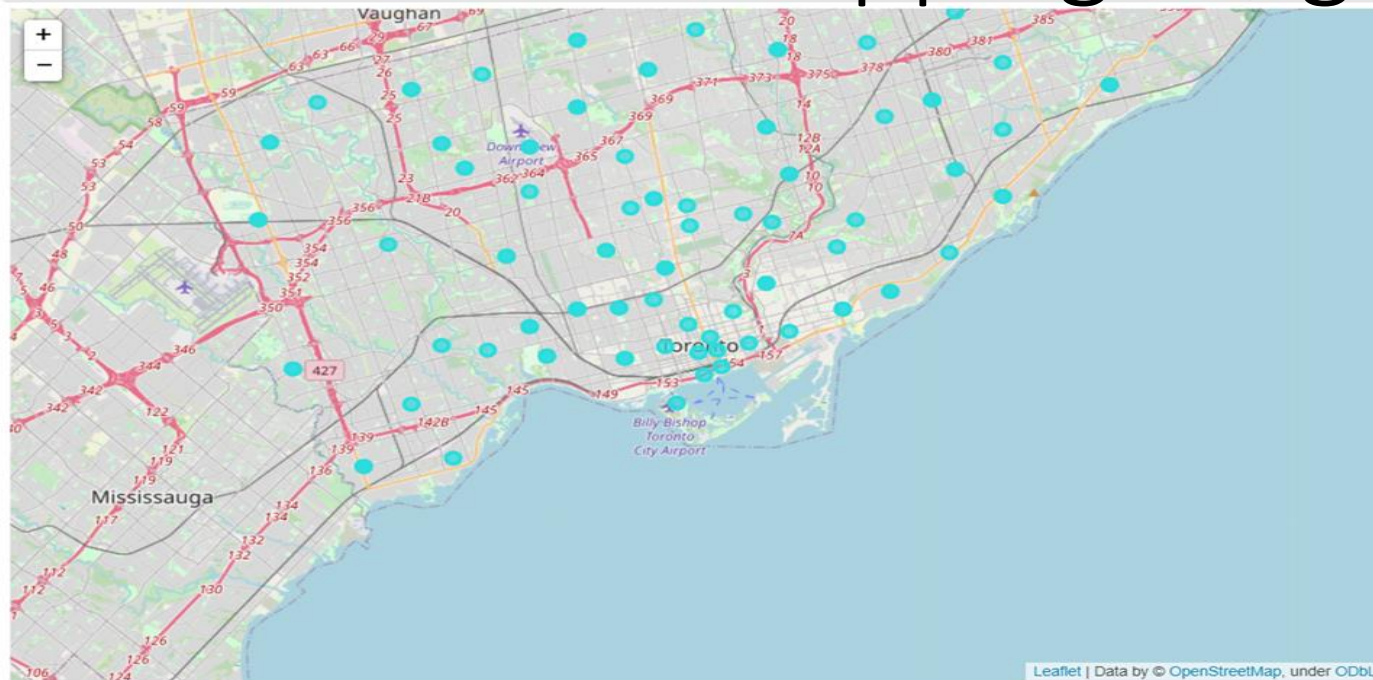| Baseball Sample data				
Area	**1st most common**	**2nd most common**	**3rd most common**	**4th most common**
North York	Baseball Field	Auto Theft	Assault	Robbery
North York	Baseball Field	Auto Theft	Theft Over $5000	Assault

As expected, the Baseball group has a baseball field.

Crime in the area is high but it is mainly economically motivated such as Auto Theft, Theft Over $5000, and Robbery. The Acme Consulting company suggests carefully consider the crime in these areas before moving into these neighborhoods.

Downtown & Shopping Neighborhoods

Downtown & Shopping Neighborhoods

Downtown & Shopping Sample data				
Area	**1ST most common**	**2nd most common**	**3rd most common**	**4th most common**
Downtown Toronto	Coffee Shop	Park	Bakery	Pub
North York	Clothing Store	Women's Store	Gift Shop	Vietnamese Restaurant
Downtown Toronto	Coffee Shop	Creperie	Beer Bar	Bar
Scarborough	Fast Food Restaurant	Assault	Auto Theft	Robbery

As the group name implies, this includes the Downtown Toronto area but also other similar areas. What distinguishes this group from the others is the wide variety of restaurants, entertainment, and places to go coupled with lower crime rates for most neighborhoods in the group.

The crime in these areas is the lowest relative to the other neighborhood groupings.

Summary

- The Toronto neighborhoods were divided into seven groups based on their amenities and crime statistics:
  - Foodie and Nightlife
  - Outside Entertainment
  - Printers
  - Working Class
  - Martial Arts
  - Baseball
  - Downtown and Shopping
- As part of the company being relocated to Toronto, you should review the different groups to identify which would be best suited to your lifestyle.

Appendix

Data Sources

- Local amenities were from Foursquare's Venue Data and using Toronto postal codes and within a radius of 500 meters (https://api.foursquare.com).

- 2019 Crime Data from the Toronto Police will be used (https://data.torontopolice.on.ca).

  - Toronto crime data is based on Neighborhood names and did not contain postal codes. Additionally, in many cases the neighborhood name was different than the one used by Foursquare.

  - The crime data set needed significant work to assign postal codes for neighborhoods. Those neighborhoods inconsistently named were researched using Zillow.com to determine a common postal code for the area.

- Foursquare's amenity data was joined with the Toronto Police data for use in clustering analysis.

Methodology

- K-means clustering analysis was performed on the combined amenity and crime data.

- Seven clusters were used in the analysis. Seven clusters provided a balance between having a reasonable number of members in each cluster while having variation between the clusters.

- For each cluster, a ranking was developed for each neighborhood in the cluster. Ranking was based how many times an amenity (venue) showed up in an area, for example: the most common could be a "Pub", the second most common a "Park", the third a "Japanese Restaurant. The 10 most common venues were listed for each area.