

The background features a complex network diagram with numerous nodes of varying sizes (dark blue, light blue, and grey) connected by thin grey lines. Several nodes are highlighted with larger concentric circles. The overall aesthetic is modern and tech-oriented.

# THE BATTLE OF NEIGHBOURHOODS TORONTO VS NEW YORK CITY

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Dr. Mawussey Segnon

# PROBLEM DEFINITION

- ❖ Understand the similarities and the dissimilarities of neighborhoods between Scarborough borough in Toronto and Queens borough in New York City
- ❖ Select the best neighborhood for a company to move its headquarters based on venues

# GOALS

- ❖ Use Foursquare to collect the neighbourhoods top
- ❖ Use unsupervised k-means clustering algorithm to form neighbourhood based on venue categories
- ❖ Identify and understand the similarities and the dissimilarities between Scarborough and Queens neighbourhoods to obtain insights into the neighbourhoods

# DATA ACQUISITION AND CLEANING

- Toronto Neighborhoods - [https://en.wikipedia.org/wiki/List\\_of\\_postal\\_codes\\_of\\_Canada:\\_M](https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M).
- Toronto Latitude and Longitude - [http://cocl.us/Geospatial\\_data](http://cocl.us/Geospatial_data)
- New York City neighborhoods - [https://geo.nyu.edu/catalog/nyu\\_2451\\_34572](https://geo.nyu.edu/catalog/nyu_2451_34572)
- New York City Latitude and Longitude = Python Geolibrar

# DATA ACQUISITION AND CLEANING

A screenshot of wikipedia webside



The screenshot shows the Wikipedia article titled "List of postal codes of Canada: M". The article text states: "This is a list of postal codes in Canada where the first letter is M. Postal codes beginning with M are located within the city of Toronto in the province of Ontario. Only the first three characters are listed, Canada Post provides a free postal code look-up tool on its website,<sup>[1]</sup> via its applications for such smartphones as the iPhone and BlackBerry,<sup>[2]</sup> and sells hard-copy directories and CD-ROMs. Many's match addresses and postal codes. Hard-copy directories can also be consulted in all post offices, and some libraries."

Below the text is a table titled "Toronto - 103 FSAs" with an "edit" link. The table has three columns: "Postal Code", "Borough", and "Neighbourhood".

Postal Code	Borough	Neighbourhood
M1A	Not assigned	
M2A	Not assigned	
M3A	North York	Parkwoods
M4A	North York	Victoria Village
M5A	Downtown Toronto	Regent Park, Harbourfront
M6A	North York	Lawrence Manor, Lawrence Heights
M7A	Downtown Toronto	Queen's Park, Ontario Provincial Government
M8A	Not assigned	
M9A	Etobicoke	Islington Avenue
M1B	Scarborough	Malvern, Rouge
M2B	Not assigned	
M3B	North York	Don Mills
M4B	East York	Parkview Hill, Woodbine Gardens

Result of web scraping and removing of not assign borough

	Postal Code	Borough	Neighbourhood
2	M3A	North York	Parkwoods
3	M4A	North York	Victoria Village
4	M5A	Downtown Toronto	Regent Park, Harbourfront

# DATA ACQUISITION AND CLEANING

## Geographical coordinates

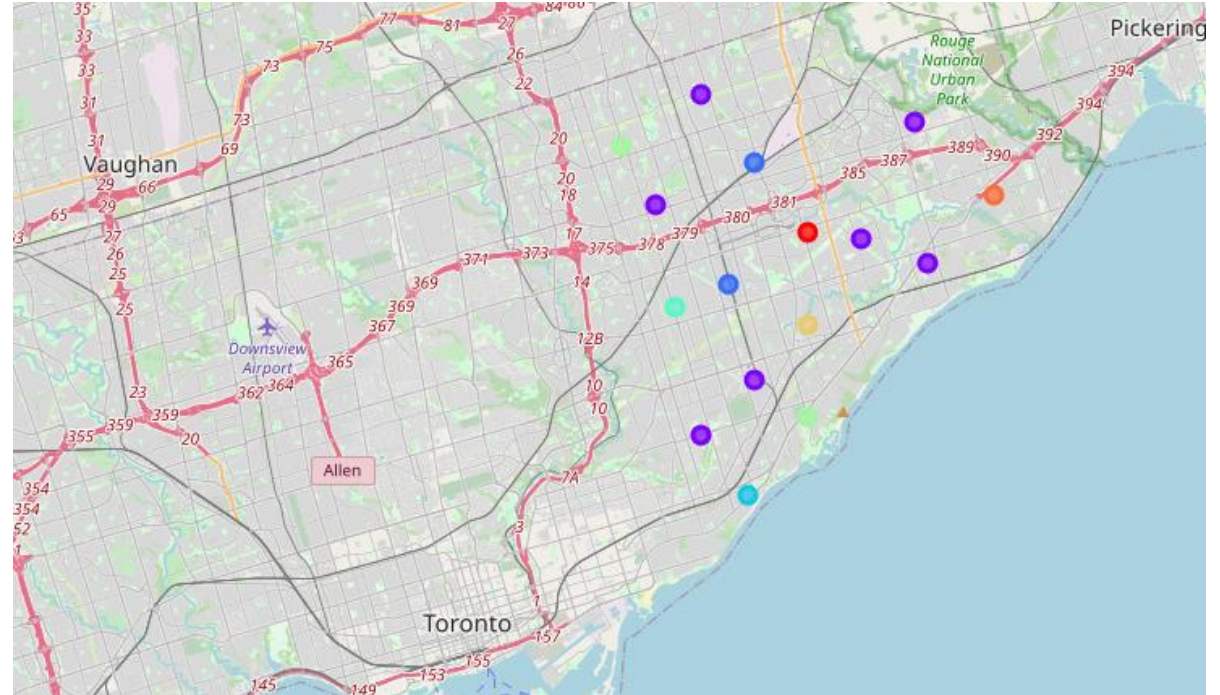
	Postal Code	Borough	Neighbourhood	Latitude	Longitude
0	M3A	North York	Parkwoods	43.753259	-79.329656
1	M4A	North York	Victoria Village	43.725882	-79.315572
2	M5A	Downtown Toronto	Regent Park, Harbourfront	43.654260	-79.360636
3	M6A	North York	Lawrence Manor, Lawrence Heights	43.718518	-79.464763
4	M7A	Downtown Toronto	Queen's Park, Ontario Provincial Government	43.662301	-79.389494

## Foursquare API: Venue

	Neighbourhood	Neighbourhood Latitude	Neighbourhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Regent Park, Harbourfront	43.65426	-79.360636	Roselle Desserts	43.653447	-79.362017	Bakery
1	Regent Park, Harbourfront	43.65426	-79.360636	Tandem Coffee	43.653559	-79.361809	Coffee Shop
2	Regent Park, Harbourfront	43.65426	-79.360636	Cooper Koo Family YMCA	43.653249	-79.358008	Distribution Center
3	Regent Park, Harbourfront	43.65426	-79.360636	Body Blitz Spa East	43.654735	-79.359874	Spa
4	Regent Park, Harbourfront	43.65426	-79.360636	Impact Kitchen	43.656369	-79.356980	Restaurant

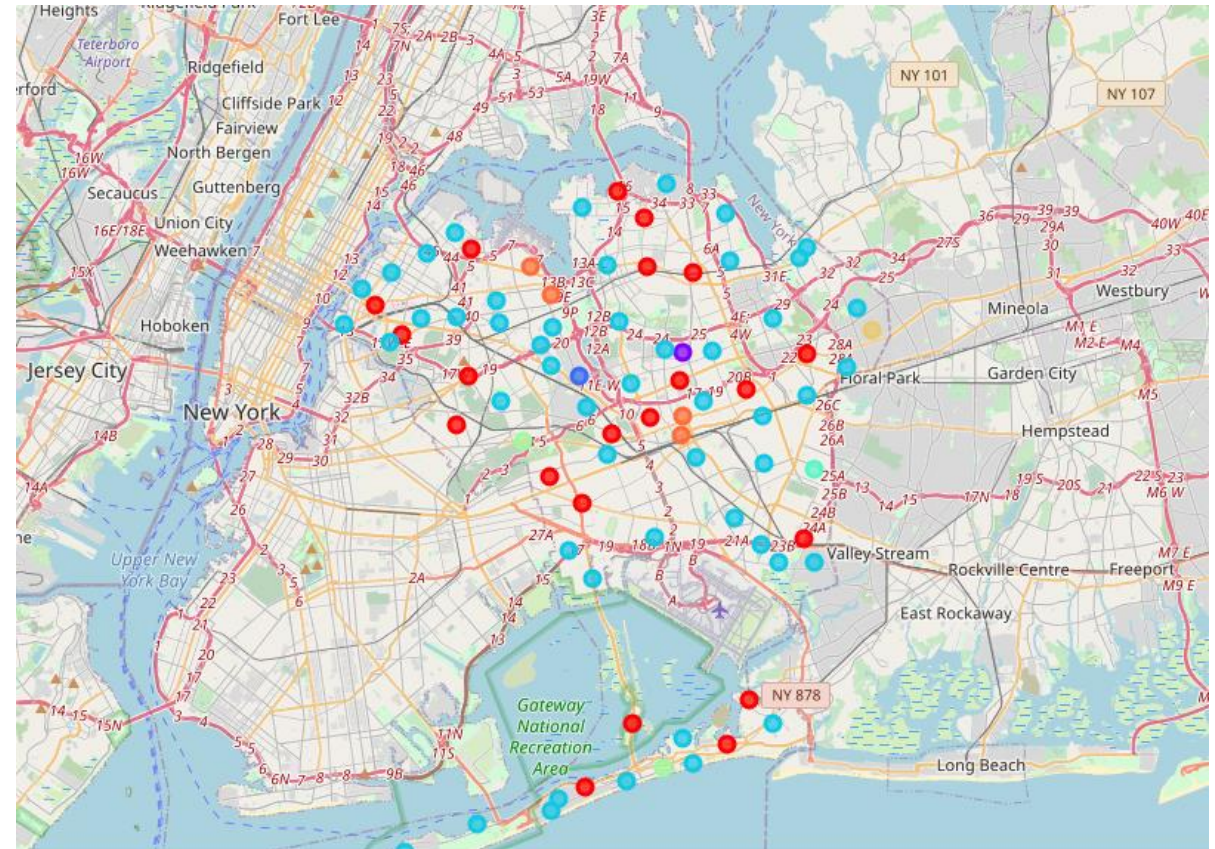
# MAP OF SCARBOROUGH IN TORONTO

Different neighbourhood clusters





## Different neighbourhood clusters





# NEIGHBOURHOODS COMPARISON: SCARBOROUGH VS QUEENS

- ❖ Scarborough has 79 distinct venues in 52 categories
- ❖ The most common venues in Scarborough are coffee shops, international restaurants, and skating rinks
- ❖ Queens has 1760 distinct venues in 269 categories
- ❖ The most common venues in Queens are bodegas, bakeries, coffee shops, and parks

# SUMMARY

Based on the quantity of venues and variety of venues, Queens is a better choice than Scarborough to relocate the headquarters of a company. Queens offer a greater amount of gyms, grocery stores, restaurants for individual and families of the employees.