

CAPSTONE PROJECT - THE BATTLE OF NEIGHBORHOODS

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Introduction/Business Problem

Toronto is the provincial capital of Ontario, Canada. It is the most populous city in Canada and the 4th in North America. With large amount of population, stores beside streets are good businesses. Coffee as a daily habits for most of the people, operating a coffee shop is a good idea but the question is where to operate it.

- The main question:
 - *which neighborhood in Toronto has more population and is best for stores owners to operate.*
- If I want to open a coffee shop, it is important for me to find a place with more customers that my daily sales will be large in order to increase the profit.

Data Collection

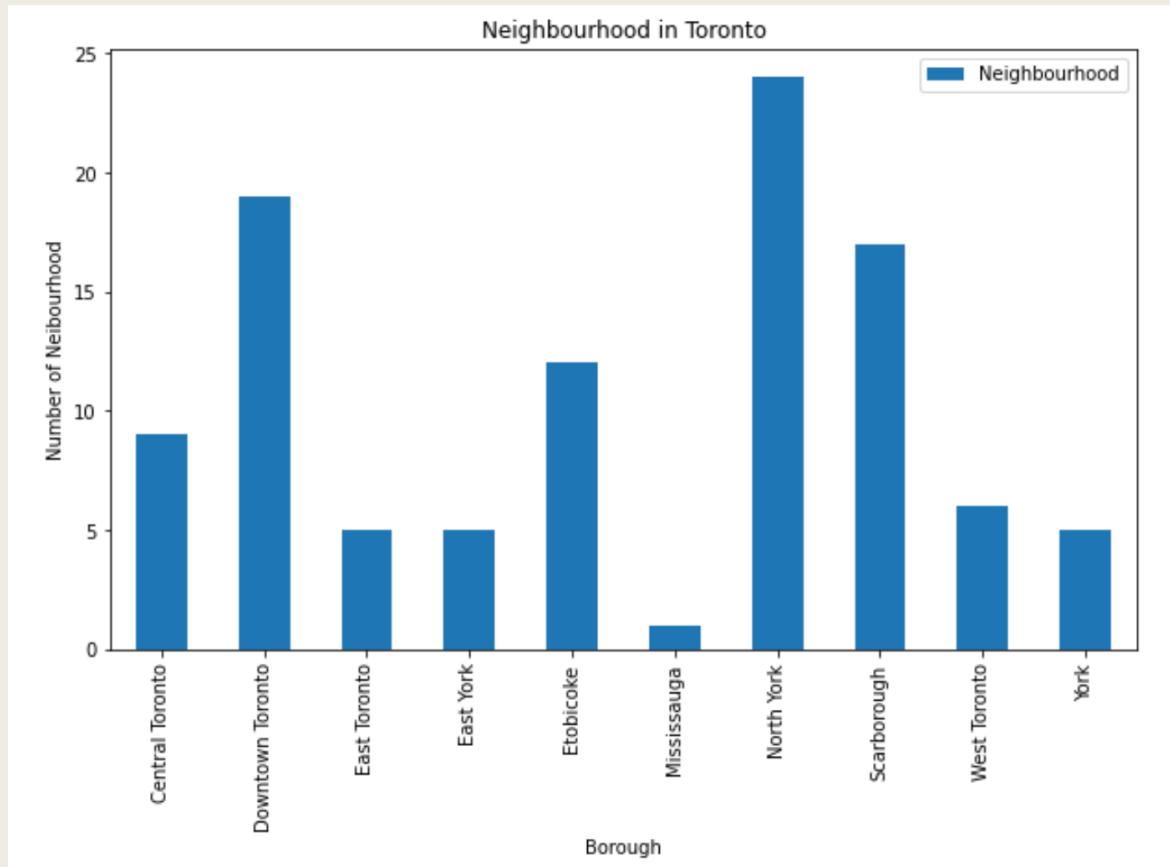
- The data using to solve the problem and execute the idea:
 - *collected from Wikipedia*
 - *provides the neighborhoods' name and the postal code (clustering different neighborhoods)*
 - *location of different boroughs*
 - *numbers of neighborhoods in each borough*
- Segmenting and clustering neighborhoods in Toronto:
 - *data visualization*
 - *identify the most suitable neighborhoods to operate a coffee shop with large customer population.*

Acquire data

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

- ✓ gather the data from the website
- ✓ form a data frame with postal code, boroughs and neighborhoods

Neighbourhood	
Borough	
Central Toronto	9
Downtown Toronto	19
East Toronto	5
East York	5
Etobicoke	12
Mississauga	1
North York	24
Scarborough	17
West Toronto	6
York	5



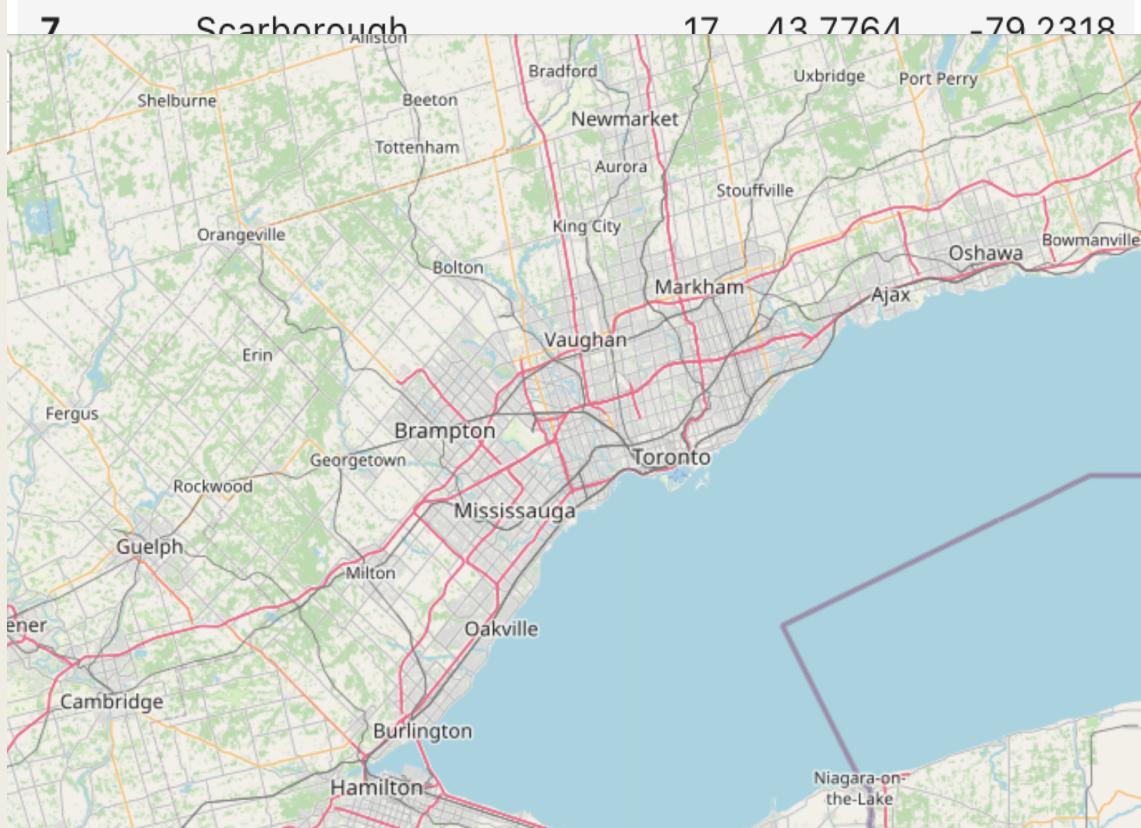
Clustering data with borough

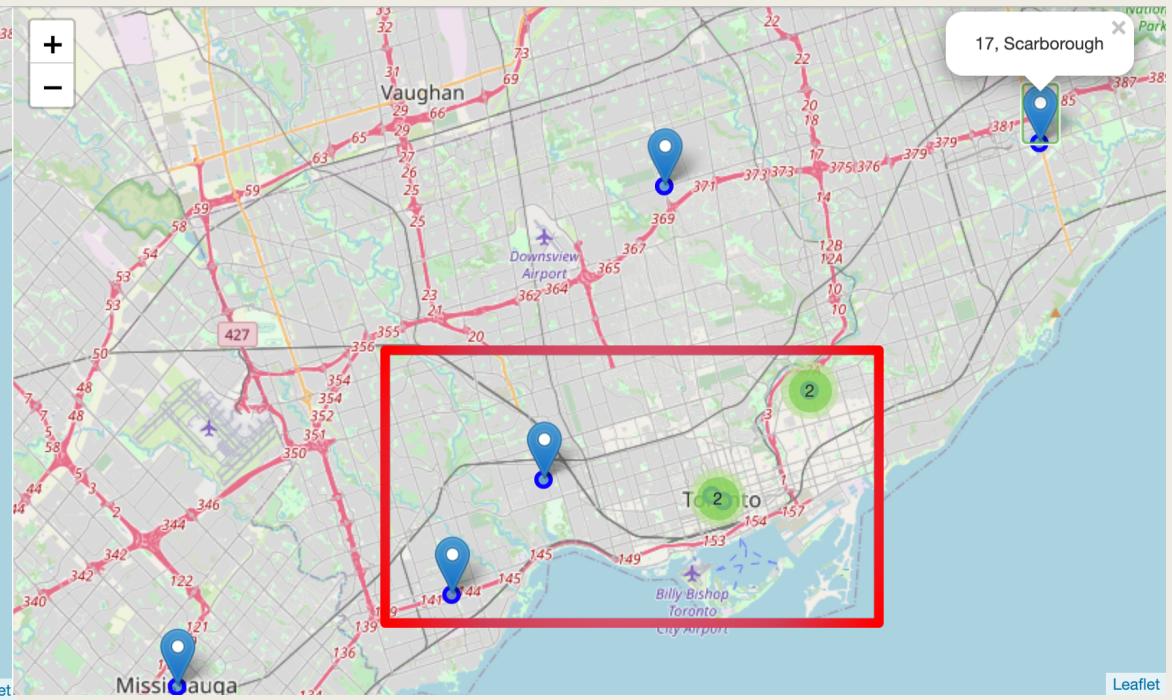
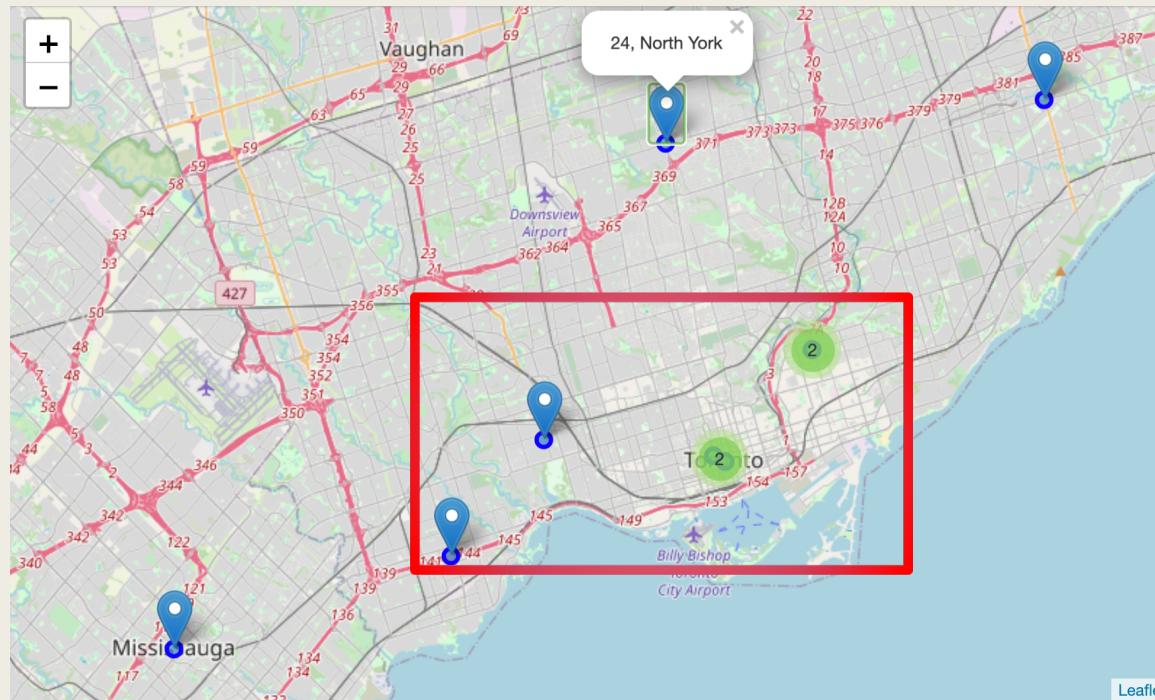
Count the number of neighborhoods in each borough

1. North York has the most neighborhoods (24)
2. Downtown Toronto is the second borough with 19 neighborhoods
3. Scarborough is the third borough

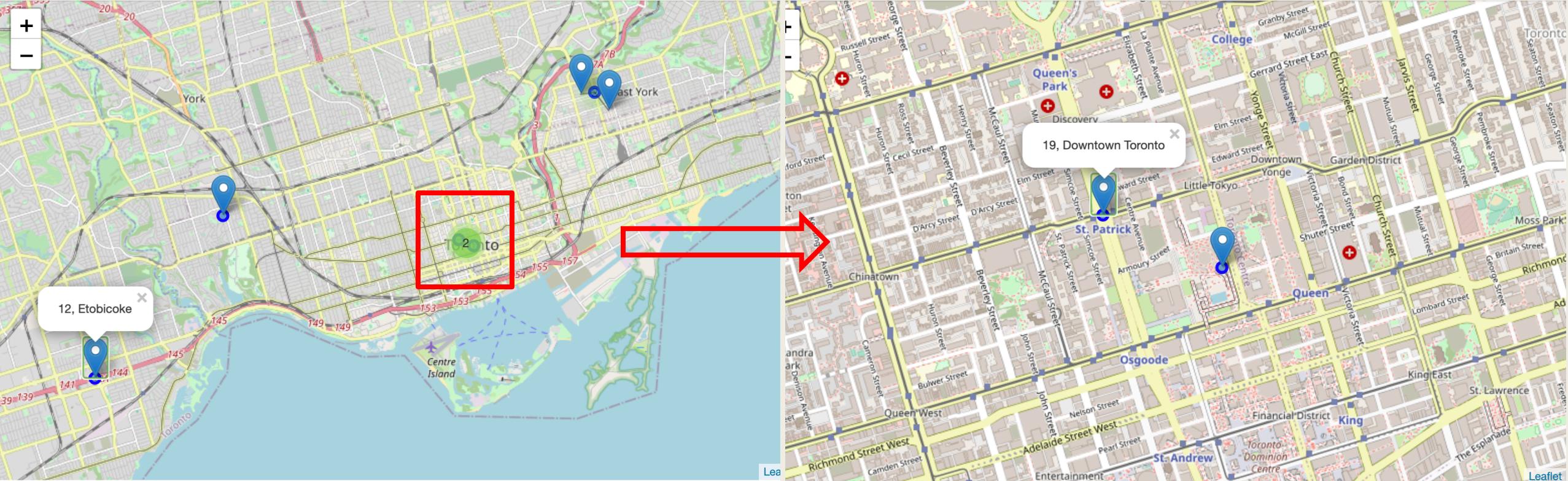
- ✓ insert the location of each
- ✓ help to determine boroughs on a map
- ✓ visualize the data

1	Downtown Toronto	19	43.6548	-79.3883
2	East Toronto	5	43.6912	-79.3417
3	East York	5	43.6912	-79.3417
4	Etobicoke	12	43.6205	-79.5132
5	Mississauga	1	43.5890	-79.6441
6	North York	24	43.7615	-79.4111





- Locate each borough on the map
- Even though North York and Scarborough have more neighborhoods, they are far away from other boroughs.

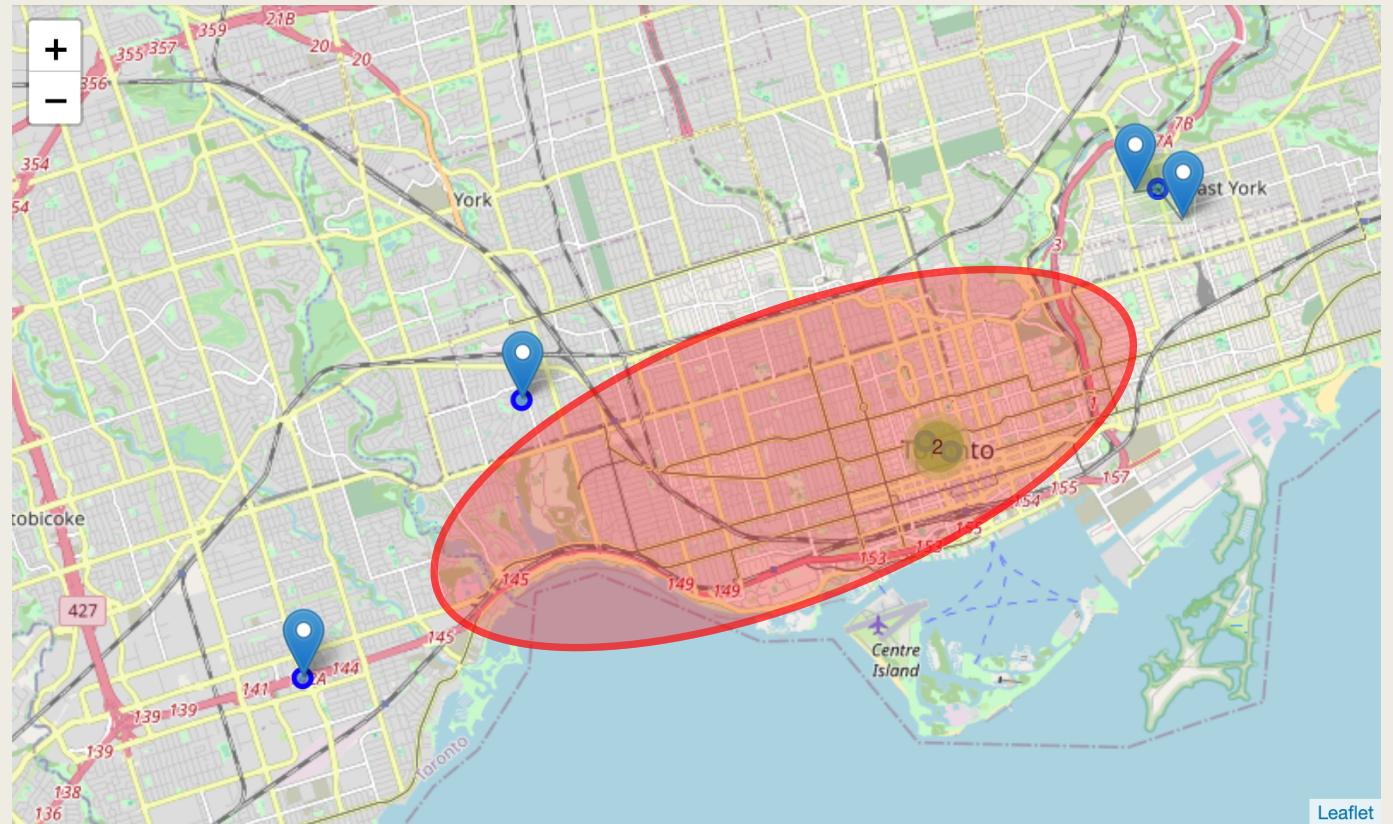


Take a closer look to the center area:

- 6 boroughs
- 19 neighborhoods in Downtown Toronto
- 12 neighborhoods in Etobicoke

Result

The central Toronto area near the lake has up to 6 neighborhoods with more than 56 neighborhoods near around. Hence, it is more suitable to operate a store near the central of Toronto.



Reference:

Introduction to Toronto: <https://en.wikipedia.org/wiki/Toronto>

Data collection: https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M

THANK YOU