

Neighborhood Final Project

Introduction/Business Problem

- ❖ Toronto is a diversified and multi-culture city. There are lots of business potentials regarding different culture background and traditions. In order to open a new business successfully, we need to explore the neighborhood and have some insight about the target area and people.

Data

- ❖ I use the Wikipedia page of Canada's postal code list to create a Toronto neighborhood dataframe. Then use the latitude and longitude of given borough or neighborhood to explore the most common venues in Foursquare API.

Methodology

- ❖ Scrape a Wikipedia page to get the postcode, borough and neighborhood of Toronto.
- ❖ Merge with coordinates.

Out[60]: (103, 5)

	PostalCode	Borough	Neighbourhood	Latitude	Longitude
0	M1B	Scarborough	Rouge,Malvern	43.806686	-79.194353
1	M1C	Scarborough	Highland Creek,Rouge Hill,Port Union	43.784535	-79.160497
2	M1E	Scarborough	Guildwood,Morningside,West Hill	43.763573	-79.188711
3	M1G	Scarborough	Woburn	43.770992	-79.216917
4	M1H	Scarborough	Cedarbrae	43.773136	-79.239476

Methodology

- ❖ Create a Toronto map using Folium.



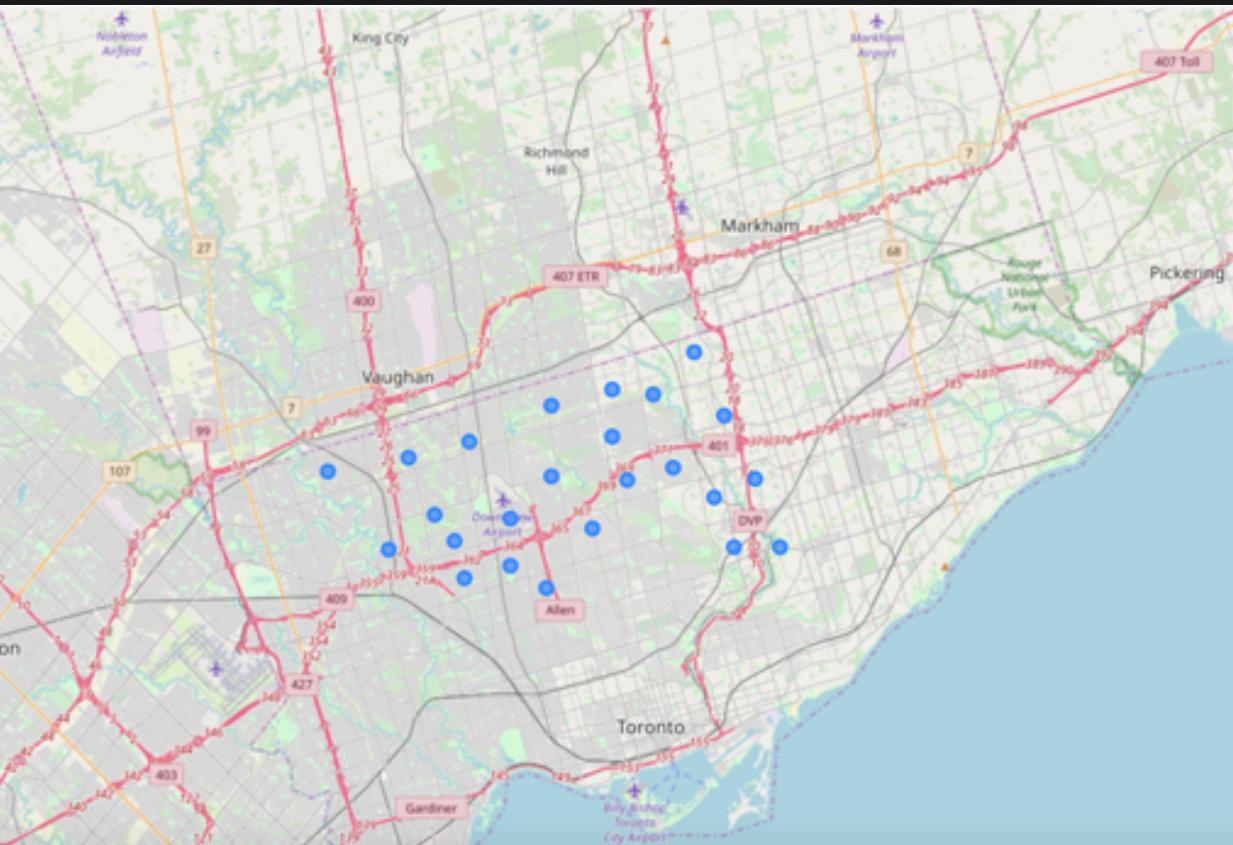
Methodology

- ❖ Focus on North York borough and create a map using Folium.



Methodology

- ❖ Run k-means to cluster the neighborhood into 5 clusters and use the folium map to visualize the clusters.



Results

- ❖ Look at 5 clusters individually:

Cluster 1

Borough	Clusters	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	North York	0	Golf Course	Athletics & Sports	Pool	Mediterranean Restaurant	Dog Run	Women's Store	Empanada Restaurant	Convenience Store	Cosmetics Shop	Deli / Bodega
1	North York	0	Clothing Store	Coffee Shop	Fast Food Restaurant	Restaurant	Women's Store	Bakery	Gift Shop	Department Store	Cosmetics Shop	Japanese Restaurant
2	North York	0	Chinese Restaurant	Cafe	Bank	Japanese Restaurant	Women's Store	Event Space	Cosmetics Shop	Deli / Bodega	Department Store	Dim Sum Restaurant
3	North York	0	Ramen Restaurant	Coffee Shop	Sandwich Place	Shopping Mall	Cafe	Vietnamese Restaurant	Pharmacy	Bubble Tea Shop	Plaza	Ice Cream Shop
7	North York	0	Coffee Shop	Discount Store	Grocery Store	Pizza Place	Butcher	Pharmacy	Frozen Yogurt Shop	Diner	Golf Course	Gift Shop
8	North York	0	Park	Food & Drink Shop	Fast Food Restaurant	Women's Store	Empanada Restaurant	Convenience Store	Cosmetics Shop	Deli / Bodega	Department Store	Dim Sum Restaurant
9	North York	0	Gym / Fitness Center	Caribbean Restaurant	Cafe	Japanese Restaurant	Basketball Court	Women's Store	Event Space	Deli / Bodega	Department Store	Dim Sum Restaurant
10	North York	0	Gym	Asian Restaurant	Coffee Shop	Beer Store	Shopping Mall	Grocery Store	Fast Food Restaurant	Italian Restaurant	Japanese Restaurant	Discount Store
11	North York	0	Coffee Shop	Pharmacy	Bank	Pizza Place	Deli / Bodega	Diner	Bridal Shop	Restaurant	Sandwich Place	Supermarket
12	North York	0	Coffee Shop	Furniture / Home Store	Bar	Metro Station	Falafel Restaurant	Massage Studio	Women's Store	Electronics Store	Cosmetics Shop	Deli / Bodega
13	North York	0	Airport	Park	Other Repair Shop	Women's Store	Event Space	Cosmetics Shop	Deli / Bodega	Department Store	Dim Sum Restaurant	Diner
14	North York	0	Grocery Store	Park	Hotel	Bank	Event Space	Convenience Store	Cosmetics Shop	Deli / Bodega	Department Store	Dim Sum Restaurant
15	North York	0	Korean Restaurant	Home Service	Food Truck	Baseball Field	Falafel Restaurant	Cosmetics Shop	Deli / Bodega	Department Store	Dim Sum Restaurant	Diner
16	North York	0	Coffee Shop	Athletics & Sports	Liquor Store	Grocery Store	General Entertainment	Convenience Store	Cosmetics Shop	Deli / Bodega	Department Store	Dim Sum Restaurant

Results

Cluster 2

Borough	Clusters	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	
3	North York	1	Park	Women's Store	Comfort Food Restaurant	Convenience Store	Cosmetics Shop	Deli / Bodega	Department Store	Dim Sum Restaurant	Diner	Discount Store
6	North York	1	Park	Convenience Store	Bank	Women's Store	Event Space	Cosmetics Shop	Deli / Bodega	Department Store	Dim Sum Restaurant	Diner

Results

Cluster 3

Borough	Clusters	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	
4	North York	2	Piano Bar	Women's Store	Construction & Landscaping	Convenience Store	Cosmetics Shop	Deli / Bodega	Department Store	Dim Sum Restaurant	Diner	Discount Store

Results

Cluster 4

Borough	Clusters	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	
23	North York	3	Baseball Field	Women's Store	Falafel Restaurant	Convenience Store	Cosmetics Shop	Deli / Bodega	Department Store	Dim Sum Restaurant	Diner	Discount Store

Results

Cluster 5

Borough	Clusters	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	
22	North York	4	Pizza Place	Empanada Restaurant	Coffee Shop	Construction & Landscaping	Convenience Store	Cosmetics Shop	Deli / Bodega	Department Store	Dim Sum Restaurant	Diner