Analyze the neighbourhoods of Toronto and Scurborough

Introduction:

- My Friend is working in Canada and has her home in the city of Toronto.
- She loves her neighbourhood because of all the great amenities and venues
 - ▶ Good Schools, Pharmacies, parks, food Joints, grocery stores
- Need to relocate to Scarborough for the new job
 - Dream job and good career prospects
- Need to understand the new place before she decides the move.
- She wants to explore the neighbourhoods that are closer to the new job and has similar amenities which she has now.

Data Acquisition:

- Get Pincode and neighbourhood information for Toronto and Scarborough from the Wikipedia site
 - "https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M"
- Enrich the neighbourhood information with Latitude and longitude information through geocoder data set. http://cocl.us/Geospatial_data
- Use Foursquare data on venue categories, top tips, location data, ratings Fousquare API

Data Cleansing & Analysis:

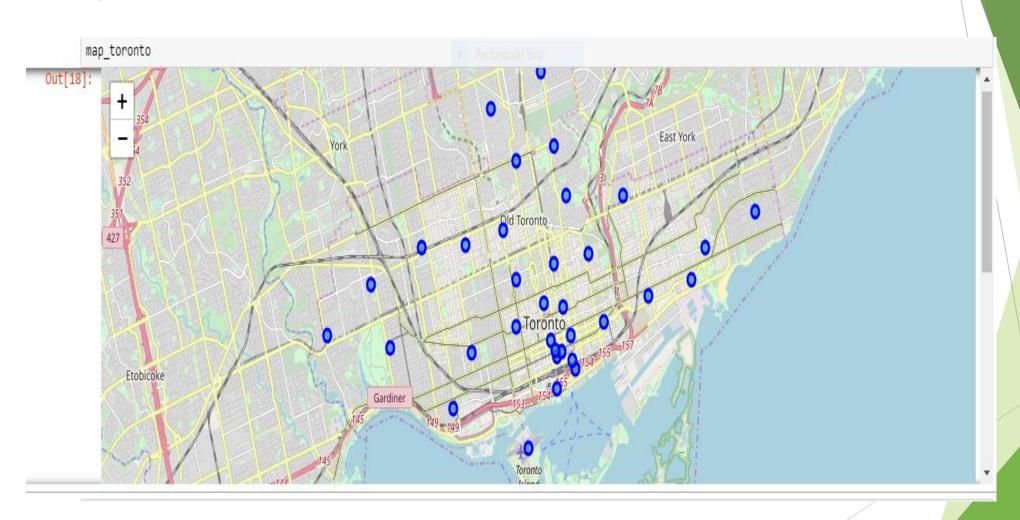
- ► The basic requirement is to get the data about neighbourhood of both the cities and get the venue and rating information
- Scrap the Wikipedia page read the Post Code table for Canada and convert into data frame
- Cleanse the data to ignore Not Assigned values and logically combine the rows to get the distinct information.
- Filter the data for the Borough of Toronto and Scarborough
- Read the Geocoder data to get the geographical coordinates information and join the two data sets

Data Sets:

	Postal Code	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

	Postal Code	Borough	Neighbourhood	Latitude	Longitude
37	M4E	East Toronto	The Beaches	43.676357	-79.293031
41	M4K	East Toronto	The Danforth West, Riverdale	43.679557	-79.352188
42	M4L	East Toronto	The Beaches West, India Bazaar	43.668999	-79.315572
43	M4M	East Toronto	Studio District	43.659526	-79.340923
44	M4N	Central Toronto	Lawrence Park	43.728020	-79.388790

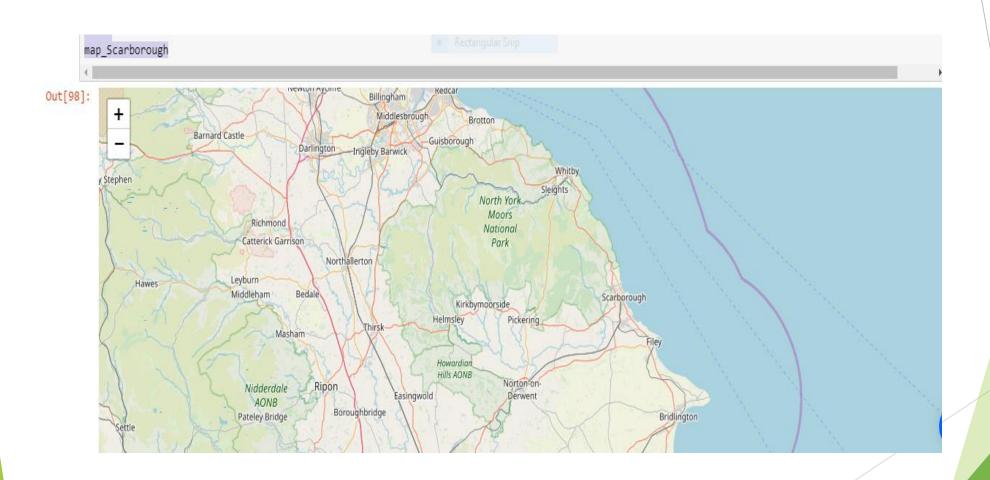
Maps:



Maps:



Maps:



Toronto Venues and Ratings

	Borough	Cluster Labels	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
37	East Toronto	0	Neighborhood	Health Food Store	Other Great Outdoors	Trail	Pub	Dumpling Restaurant	Discount Store	Dog Run	Doner Restaurant	Donut Shop
41	East Toronto	0	Greek Restaurant	Coffee Shop	Ice Cream Shop	Italian Restaurant	Furniture / Home Store	Bookstore	Brewery	Bubble Tea Shop	Café	Restaurant
42	East Toronto	0	Park	Sandwich Place	Intersection	Ice Cream Shop	Brewery	Burrito Place	Liquor Store	Fast Food Restaurant	Fish & Chips Shop	Food & Drink Shop
43	East Toronto	0	Café	Coffee Shop	Italian Restaurant	Bakery	American Restaurant	Chinese Restaurant	Fish Market	Bookstore	Brewery	Seafood Restaurant
44	Central Toronto	0	Park	Lawyer	Bus Line	Swim School	Yoga Studio	Dog Run	Fast Food Restaurant	Farmers Market	Falafel Restaurant	Event Space
45	Central Toronto	0	Pizza Place	Gym	Breakfast Spot	Park	Convenience Store	Sandwich Place	Hotel	Clothing Store	Food & Drink Shop	Dumpling Restaurant
46	Central Toronto	0	Clothing Store	Sporting Goods Shop	Coffee Shop	Yoga Studio	Dessert Shop	Spa	Burger Joint	Mexican Restaurant	Salon / Barbershop	Café

Scarborough Venues and Ratings:

	Postal Code	Borough	Neighbourhood	Latitude	Longitude	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
0	M1B	Scarborough	Rouge, Malvern	43.806686	-79.194353	Fast Food Restaurant	Vietnamese Restaurant	College Stadium	Hakka Restaurant	Grocery Store	General Entertainment	Gaming Cafe	Furniture / Home Store	Fried Chicken Joint
1	M1C	Scarborough	Highland Creek, Rouge Hill, Port Union	43.784535	-79.160497	Bar	Vietnamese Restaurant	College Stadium	Hakka Restaurant	Grocery Store	General Entertainment	Gaming Cafe	Furniture / Home Store	Fried Chicken Joint
2	M1E	Scarborough	Guildwood, Morningside, West Hill	43.763573	-79.188711	Intersection	Breakfast Spot	Rental Car Location	Electronics Store	Pizza Place	Medical Center	Mexican Restaurant	College Stadium	General Entertainment
3	M1G	Scarborough	Woburn	43.770992	-79.216917	Coffee Shop	Korean Restaurant	Vietnamese Restaurant	Convenience Store	Hakka Restaurant	Grocery Store	General Entertainment	Gaming Cafe	Furniture / Home Store
4	M1H	Scarborough	Cedarbrae	43.773136	-79.239476	Thai Restaurant	Athletics & Sports	Bakery	Bank	Hakka Restaurant	Fried Chicken Joint	Caribbean Restaurant	Vietnamese Restaurant	Department Store
5	M1J	Scarborough	Scarborough Village	43.744734	-79.239476	Playground	Vietnamese Restaurant	College Stadium	Hakka Restaurant	Grocery Store	General Entertainment	Gaming Cafe	Furniture / Home Store	Fried Chicken Joint
6	M1K	Scarborough	East Birchmount Park, Ionview,	43.727929	-79.262029	Coffee Shoo	Bus Station	Discount Store	Department Store	Convenience Store	Hobby Shop	Breakfast Spot	Athletics & Sports	Hakka Restaurant

Conclusion and Recommendation:

- Neighbourhoods in both the cities are alike with little plus and minuses in terms of preferences based on data
- Both the cities has similar neighbourhoods still recommendations and top ratings may differ
- preference should be made in the order of priority and checked if the criteria is met
- Further analysis is needed on that if school rating is the no 1 criteria.