

Neighbourhood Recommendation in a Borough in Toronto

Why is neighbourhood analysis important?

- Safety and security concerns
- Availability of daily utilities for households
- Commute options availability for students and job holders
- Community noise ratio for families looking to settle down permanently etc

Data Collection

- Data is collected from the Wikipedia page where information about boroughs in Toronto is available along with the postal code and neighbourhood data.
- Data source :

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

Data Cleaning

- Data scrapping is done using the pandas library in python to extract required information in the structured format for the analysis.
- The structured data is the processed to filter out empty values and modified to fill empty cells with pre defined feature.

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Boroughs in Toronto

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

Name: Borough, dtype: int64

The data on the rights depicts that there are in a total of 10 boroughs in Toronto.

“North York” borough has 24 neighborhoods, “Scarborough” borough has 17 neighborhoods, and so on.

Hence there are in a total of 10 boroughs and 103 neighborhoods in Toronto

Boroughs of interest

- Scarborough
- North York

Neighbourhoods in Scarborough

Upper Rouge

Golden Mile, Clairlea, Oakridge

Scarborough Village

Cliffside, Cliffcrest, Scarborough Village West

Wexford, Maryvale

Birch Cliff, Cliffside West

Agincourt

Kennedy Park, Ionview, East Birchmount Park

Malvern, Rouge

Steeles West, L'Amoreaux West

Dorset Park, Wexford Heights, Scarborough Town Centre

Cedarbrae

Woburn

Guildwood, Morningside, West Hill

Milliken, Agincourt North, Steeles East, L'Amoreaux East

Clarks Corners, Tam O'Shanter, Sullivan

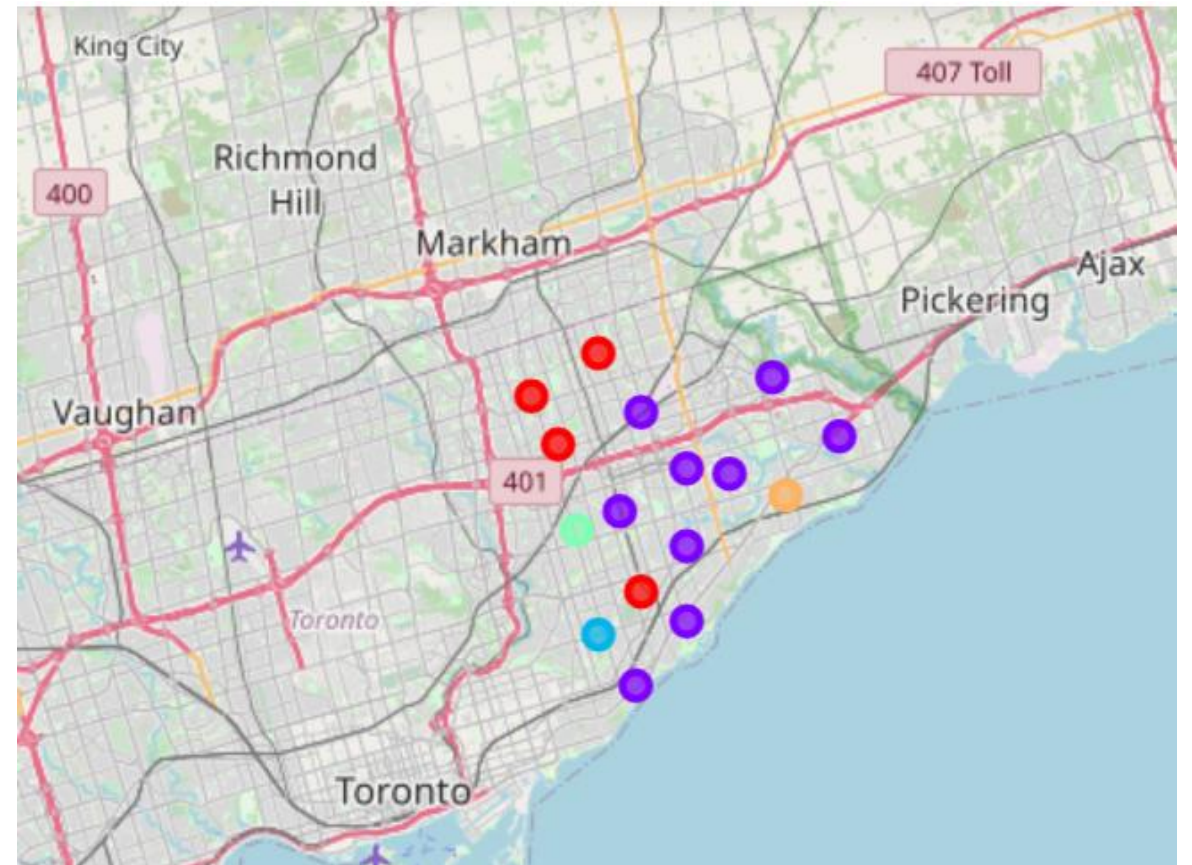
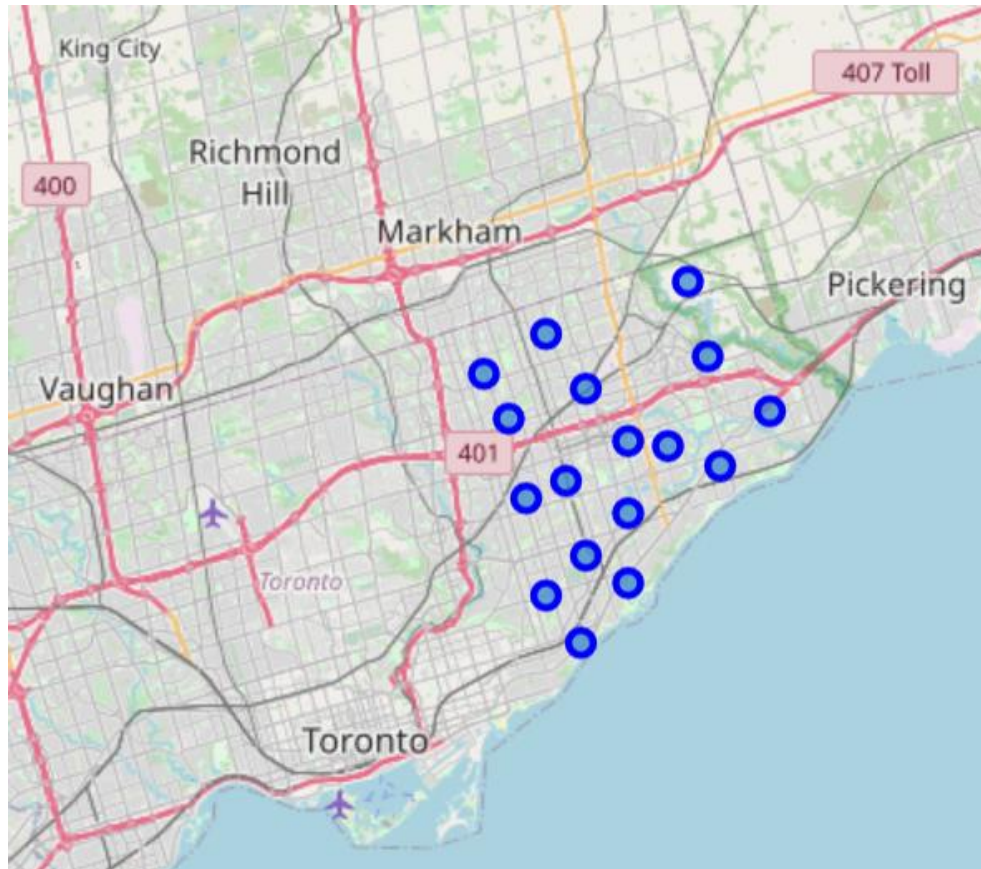
Rouge Hill, Port Union, Highland Creek

Name: Neighborhood, dtype: int64

Neighbourhoods in North York

Downsview
Don Mills
Parkwoods
Glencairn
Hillcrest Village
York Mills, Silver Hills
Willowdale, Newtonbrook
Fairview, Henry Farm, Oriole
Northwood Park, York University
Humber Summit
Bayview Village
York Mills West
Victoria Village
Bathurst Manor, Wilson Heights, Downsview North
Lawrence Manor, Lawrence Heights
Humberlea, Emery
Bedford Park, Lawrence Manor East
Willowdale, Willowdale East
Willowdale, Willowdale West
North Park, Maple Leaf Park, Upwood Park
Name: Neighborhood, dtype: int64

Scarborough Neighbourhood Analysis



Scarborough Neighbourhood Characteristics

	Neighborhood	Cluster Labels	1st Most Common Venue
38	Kennedy Park, Ionview, East Birchmount Park	0.0	Coffee Shop
82	Clarks Corners, Tam O'Shanter, Sullivan	0.0	Intersection
85	Milliken, Agincourt North, Steeles East, L'Amo...	0.0	Chinese Restaurant
90	Steeles West, L'Amoreaux West	0.0	Chinese Restaurant

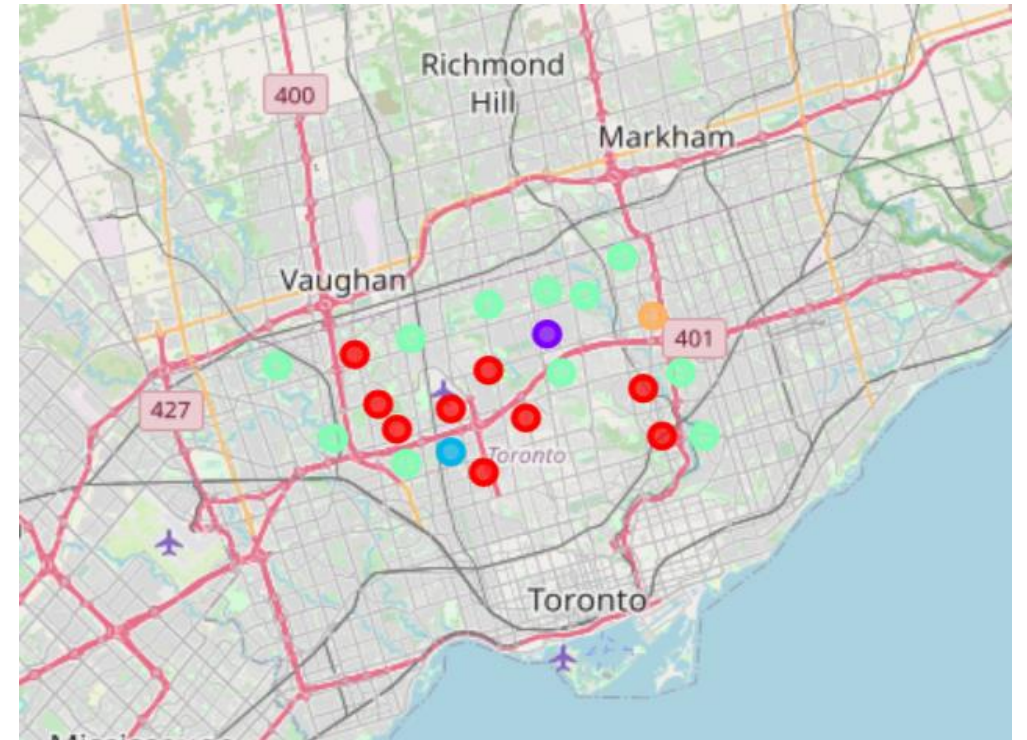
	Neighborhood	Cluster Labels	1st Most Common Venue
6	Malvern, Rouge	1.0	Coffee Shop
12	Rouge Hill, Port Union, Highland Creek	1.0	Breakfast Spot
22	Woburn	1.0	Coffee Shop
26	Cedarbrae	1.0	Indian Restaurant
32	Scarborough Village	1.0	Ice Cream Shop
51	Cliffside, Cliffcrest, Scarborough Village West	1.0	Wings Joint
58	Birch Cliff, Cliffside West	1.0	Park
65	Dorset Park, Wexford Heights, Scarborough Town...	1.0	Indian Restaurant
78	Agincourt	1.0	Clothing Store

	Neighborhood	Cluster Labels	1st Most Common Venue
44	Golden Mile, Clairlea, Oakridge	2.0	Intersection

	Neighborhood	Cluster Labels	1st Most Common Venue
71	Wexford, Maryvale	3.0	Burger Joint

	Neighborhood	Cluster Labels	1st Most Common Venue
18	Guildwood, Morningside, West Hill	4.0	Park

North York Neighbourhood analysis



North York Neighbourhood Characteristics

	Neighborhood	Cluster Labels	1st Most Common Venue
7	Don Mills	0.0	Japanese Restaurant
10	Glencairn	0.0	Pizza Place
13	Don Mills	0.0	Japanese Restaurant
28	Bathurst Manor, Wilson Heights, Downsview North	0.0	Bank
40	Downsview	0.0	Grocery Store
46	Downsview	0.0	Grocery Store
53	Downsview	0.0	Grocery Store
55	Bedford Park, Lawrence Manor East	0.0	Coffee Shop
60	Downsview	0.0	Grocery Store

	Neighborhood	Cluster Labels	1st Most Common Venue
59	Willowdale, Willowdale East	1.0	Coffee Shop
	Neighborhood	Cluster Labels	1st Most Common Venue
3	Lawrence Manor, Lawrence Heights	2.0	Clothing Store
	Neighborhood	Cluster Labels	1st Most Common Venue
33	Fairview, Henry Farm, Oriole	4.0	Clothing Store

	Neighborhood	Cluster Labels	1st Most Common Venue
0	Parkwoods	3.0	Park
1	Victoria Village	3.0	Sporting Goods Shop
27	Hillcrest Village	3.0	Chinese Restaurant
34	Northwood Park, York University	3.0	Caribbean Restaurant
39	Bayview Village	3.0	Bank
49	North Park, Maple Leaf Park, Upwood Park	3.0	Home Service
50	Humber Summit	3.0	Pizza Place
52	Willowdale, Newtonbrook	3.0	Park
57	Humberlea, Emery	3.0	Park
66	York Mills West	3.0	Park
72	Willowdale, Willowdale West	3.0	Park

Conclusion and future directions

- Neighbourhood analysis amazingly helps an individual or a team to choose the right location for living based on personal or business needs.
- As future work one can analyse all the neighbourhoods of the each borough in Toronto and mine the data to extract most salient features of each of the neighbourhood or groups of neighbourhoods in order to build a recommender system based on the selection criteria.

Thank
You