Finding a Better Place in Scarborough, Toronto

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- The purpose of this Project is to help people in exploring better facilities around their neighborhood. It will help people making smart and efficient decision on selecting great neighborhood out of numbers of other neighborhoods in Scarborough, Toronto.
- Lots of people are migrating to various states of Canada and needed lots of research for good housing prices and reupdated schools for their children. This project is for those people who are looking for better neighborhoods. For ease of accessing to Cafe, School, Super market, medical shops, grocery shops, mall, theatre, hospital, likeminded people, etc.
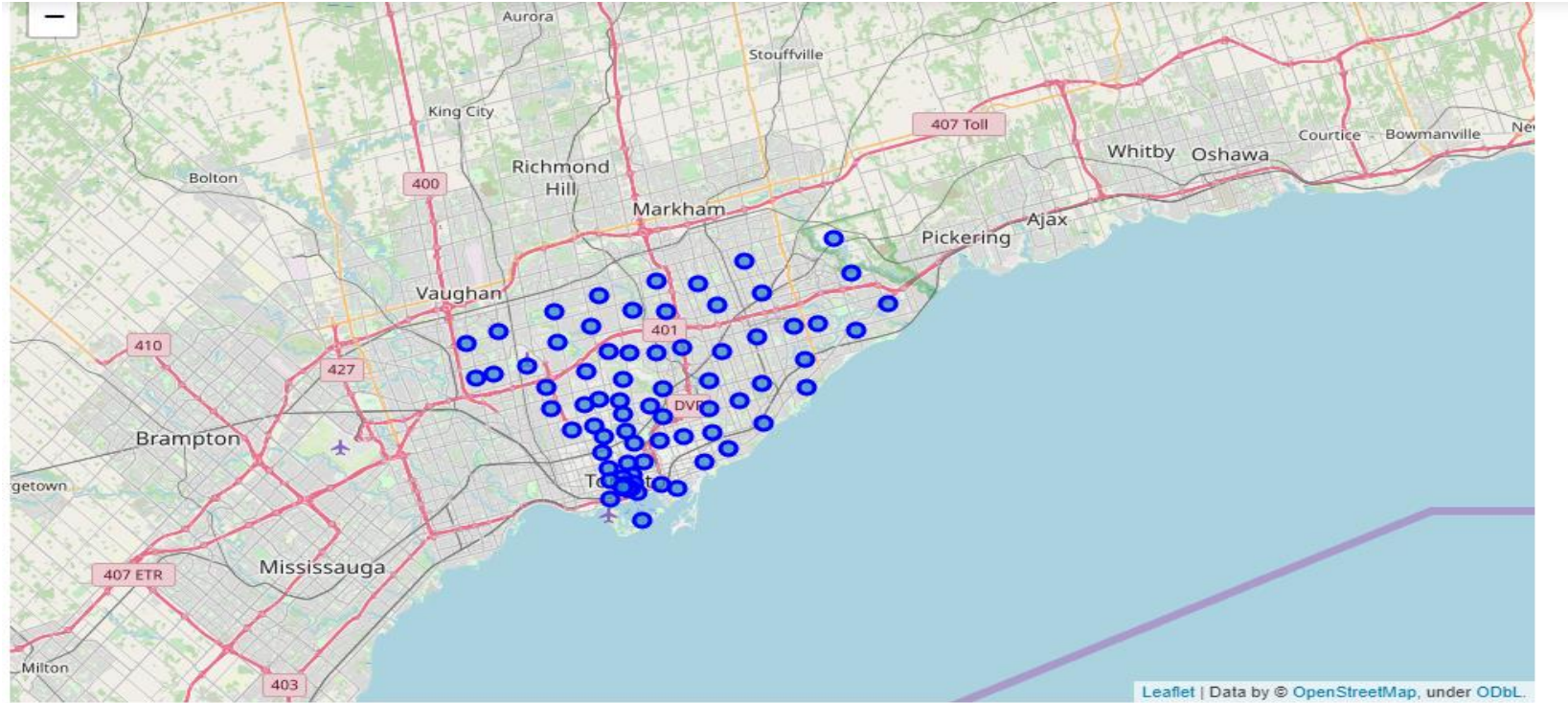
- This Project aim to create an analysis of features for a people migrating to Scarborough to search a best neighborhood as a comparative analysis between neighborhoods. The features include median housing price and better school according to ratings, crime rates of that particular area, road connectivity, weather conditions, good management for emergency, water resources both fresh and waste water and excrement conveyed in sewers and recreational facilities.
- It will help people to get awareness of the area and neighborhood before moving to a new city, state, country or place for their work or to start a new fresh life.

Neighborhood locations

	Postalcode	Borough	Neighborhood	Latitude	Longitude
0	M1B	Scarborough	Malvern / Rouge	43.648690	-79.385440
1	M1C	Scarborough	Rouge Hill / Port Union / Highland Creek	43.808626	-79.189913
2	M1E	Scarborough	Guildwood / Morningside / West Hill	43.785779	-79.157368
3	M1G	Scarborough	Woburn	43.765806	-79.185284
4	M1H	Scarborough	Cedarbrae	43.771545	-79.218135
5	M1J	Scarborough	Scarborough Village	43.768791	-79.238813
6	M1K	Scarborough	Kennedy Park / Ionview / East Birchmount Park	43.744203	-79.228725
7	M1L	Scarborough	Golden Mile / Clairlea / Oakridge	43.726881	-79.265694
8	M1M	Scarborough	Cliffside / Cliffcrest / Scarborough Village West	43.713340	-79.284942
9	M1N	Scarborough	Birch Cliff / Cliffside West	43.723538	-79.228353

Map of **Scarborough**

Places near by

```
Clothing Store        7
Coffee Shop           5
Restaurant            4
Gas Station           2
Sandwich Place        2
Cosmetics Shop        2
Tea Room              2
Pharmacy              2
Italian Restaurant    1
Steakhouse            1
Name: categories, dtype: int64
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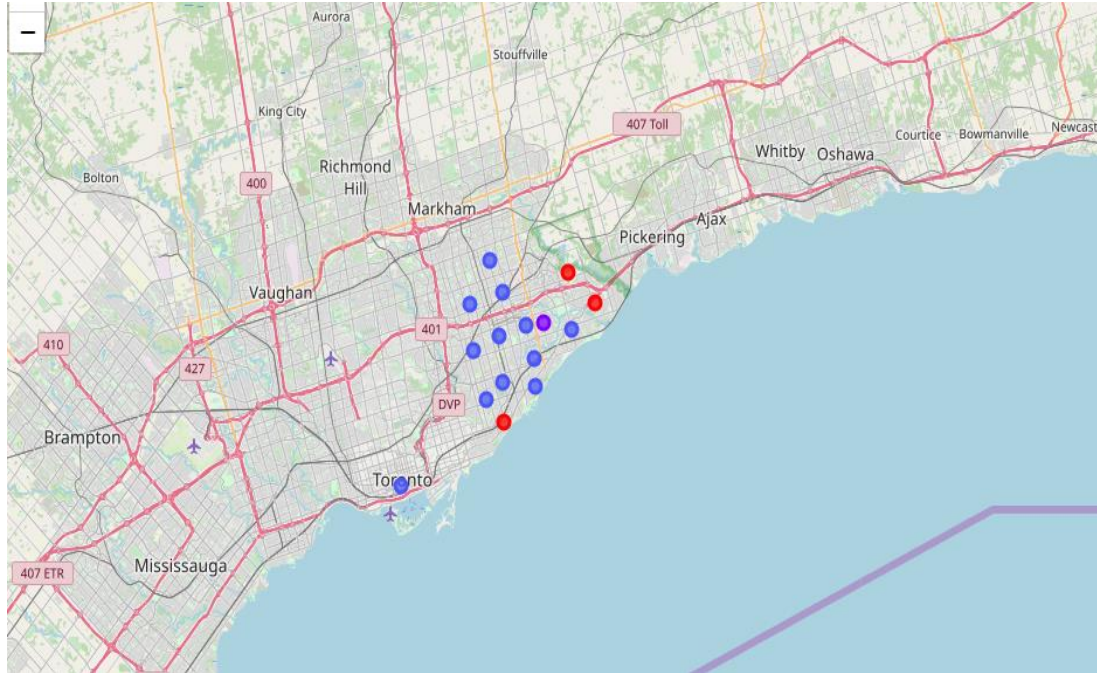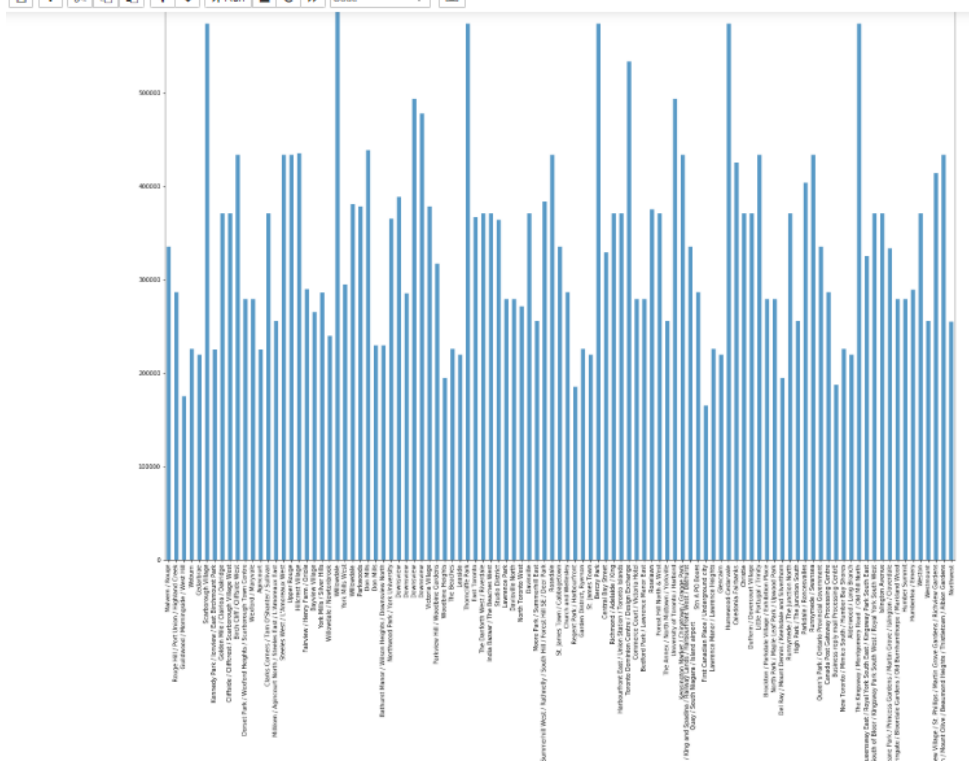
Mostly visited places

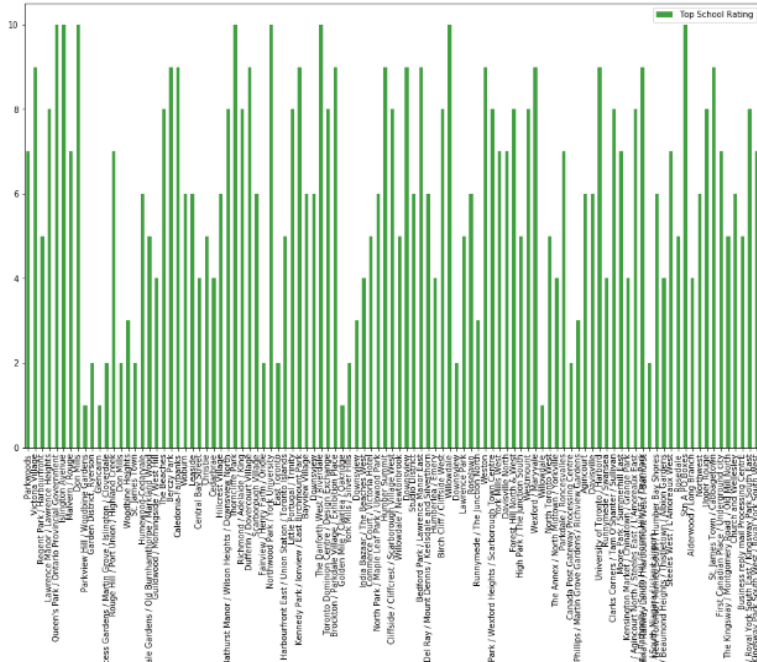|	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	Agincourt	Burger Joint	Pizza Place	Middle Eastern Restaurant	Coffee Shop	Smoke Shop	Breakfast Spot	Supermarket	Gas Station	Korean Restaurant	Bar
1	Alderwood / Long Branch	Pizza Place	Coffee Shop	Restaurant	Sandwich Place	Italian Restaurant	Cosmetics Shop	Pub	Pet Store	Pharmacy	Thai Restaurant
2	Bathurst Manor / Wilson Heights / Downsview North	Coffee Shop	Bank	Burger Joint	Cosmetics Shop	Ice Cream Shop	Pharmacy	Bus Stop	Butcher	Post Office	Sandwich Place
3	Bayview Village	Coffee Shop	Hotel	Café	Restaurant	Bar	Pizza Place	Italian Restaurant	Theater	Seafood Restaurant	Beer Bar
4	Bedford Park / Lawrence Manor East	Coffee Shop	Sandwich Place	Metro Station	Bakery	Thai Restaurant	Pizza Place	Bus Line	Mexican Restaurant	Middle Eastern Restaurant	Ethiopian Restaurant

Clusters

Map of clusters

Average Housing Price by Clusters in Scarborough

School Ratings by Clusters in Scarborough

Foursquare API:

This project have used Four-square API as its prime data gathering source as it has a database of millions of places, especially their places API which provides the ability to perform location search, location sharing and details about a business.

5. Discussion Section

Problem Which Tried to Solve:

The major purpose of this project, is to suggest a better neighborhood in a new city for the person who are shiffting there.
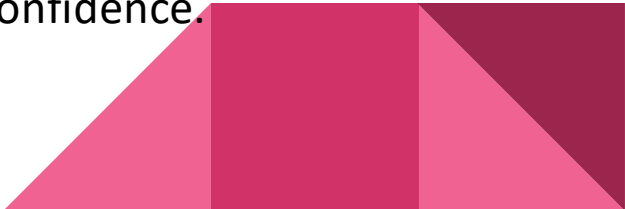
Social presence in society in terms of like minded people.

Connectivity to the airport, bus stand, city center, markets and other daily needs things nearby.

- Sorted list of house in terms of housing prices in a ascending or descending order
- Sorted list of schools in terms of location, fees, rating and reviews

Conclusion

• In this project, using k-means cluster algorithm I separated the neighborhood into 10(Ten) different clusters and for 103 different lattitude and logitude from dataset, which have very-similar neighborhoods around them. Using the charts above results presented to a particular neighborhood based on average house prices and school rating have been made.

• I feel rewarded with the efforts and believe this course with all the topics covered is well worthy of appreciation. This project has shown me a practical application to resolve a real situation that has impacting personal and financial impact using Data Science tools. The mapping with Folium is a very powerful technique to consolidate information and make the analysis and decision better with confidence.

Future Works

This project can be continued for making it more precise in terms to find best house in Scarborough. Best means on the basis of all required things(daily needs or things we need to live a better life) around and also in terms of cost effective.