- Introduction

My final report would be to find the best neighbourhood to live in Toronto. This is targeted to help those who want to move to Toronto to find the best place to live.

- Data

In this project, I have included the Crime data from the Toronto Police and used Foursquare to explore and find the most common venues in each Neighbourhood.

- Methodology

To begin with, I first downloaded the Crime data in 2018 from Toronto Police Website and used excel functions to merge it with another spreadsheet provided during the Week 3 assignment, which is the GPS Coordinates of Neighbourhoods in Toronto according to PostalCodes.
I imported the data to the notebook with Pandas and did the first elimination: eliminate those neighbourhoods with a Crime rate greater than 2% (Total 2018 Crime/Population). I then made a map of these Neighbourhoods for better illustration.

I then used the Foursquare API to explore each Neighbourhoods. To find out what is the top 5 most common venues with a radius of 500m to each Neighbourhoods.

Lastly, I clustered the Neighbourhoods into 5 clusters.

- Result

The 128 neighbourhoods(excluding those that are too "dangerous"), were clustered into 5 clusters.
Cluster 1 have many Coffee Shop, Restaurant, Pub, Health Food Store,…
Cluster 2 have more Fast Food Restaurant, Women's store, Dim Sum Restaurant, Farmers Market, …
Cluster 3 includes the most neighbourhood which cover a variety of venues.
Cluster 4 all have Park and Playground as there 1st or 2nd most common venues.
Cluster 5 contains the most common venues of Bank, Fast Food Restaurant, …

- Discussion

From the result section, I would recommend families to choose neighbourhoods in Cluster 4, since they all have a lot of Parks and Playground for kids to play with.

For those who prefer convenience, I would recommend them to choose neighbourhoods in Cluster 3, since they covers the most varieties of venues and they are more close to the centre.

- Conclusion

The discussion above are just examples of possible choices. For those who are interested, they can find the full lists in the notebook to find their ultimate choice of neighbourhoods.

- Reference

http://data.torontopolice.on.ca/datasets/neighbourhood-crime-rates-boundary-file-?selectedAttribute=Total_2018