

The background features abstract, overlapping geometric shapes in various shades of blue, ranging from light sky blue to deep navy blue. These shapes are primarily located on the left and right sides of the slide, framing the central text area.

Battle of the Neighborhoods

Neighborhood of Toronto City, Canada

In the Borough of Scarborough

Problem Statement

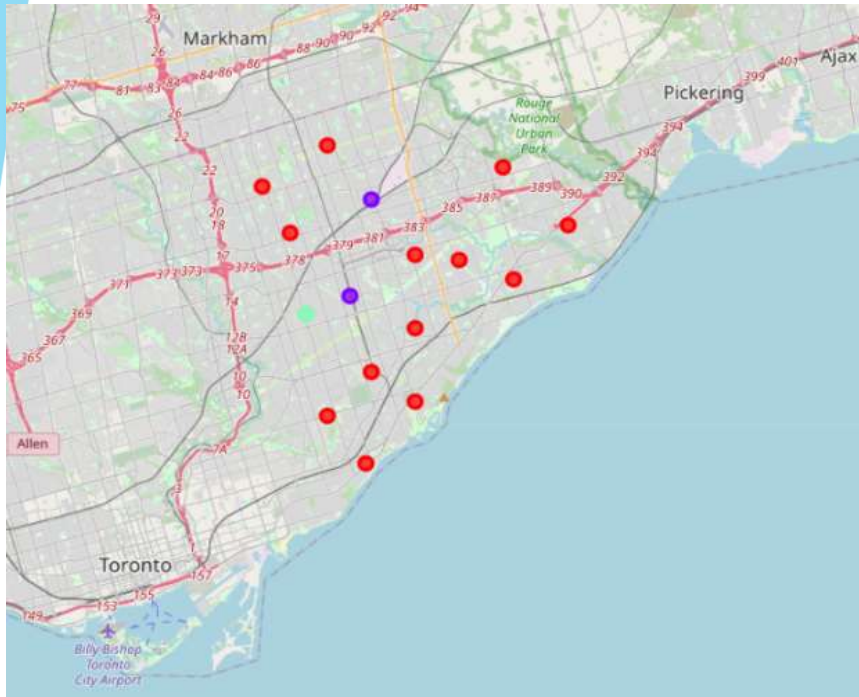
To provide consultancy to a Hong Kong family in order to facilitate their migration decisions. Two objectives to achieve as part of the consultancy are :

1. To settle into a neighborhood where optimum living standards can be achieved; and
2. The family also intends to run their own retail business/store once they settle-in and has asked for a search into the existing nature of business being conducted around the chosen neighborhoods.

Objectives

1. Collect the Top 10 Most Common Venues using Foursquare
2. Apply k-means clustering algorithm on neighborhoods' distinct venues and categories
3. Identify and recommend which neighborhood the family should settle-in and types of business they should conduct.

Map of Scarborough, Toronto



City of Toronto, Scarborough Borough
Using K-Means to cluster neighborhoods
and thereafter using the clusters to
identify Top Ten Common Venues in the
neighborhoods.

Toronto 10 Boroughs 103 Neighborhoods

Scarborough 83 Distinct Venues 56 Categories

The geographical coordinate of Toronto, Canada are 43.6534817, -79.3839347

The geographical coordinate of Scarborough, CA are 43.773077, -79.257774.

Comparison Amongst the Neighborhoods in Scarborough

1. Scarborough has 83 Distinct Venues and 56 Categories
2. Most common amenities are :
 - Entertainment outlets
 - Grocery stores and Malls
 - Fast food chains
 - International Restaurants
 - Gyms and Coffee Shops
3. 2 out of 3 clusters analysed are outliers with fewer amenities.

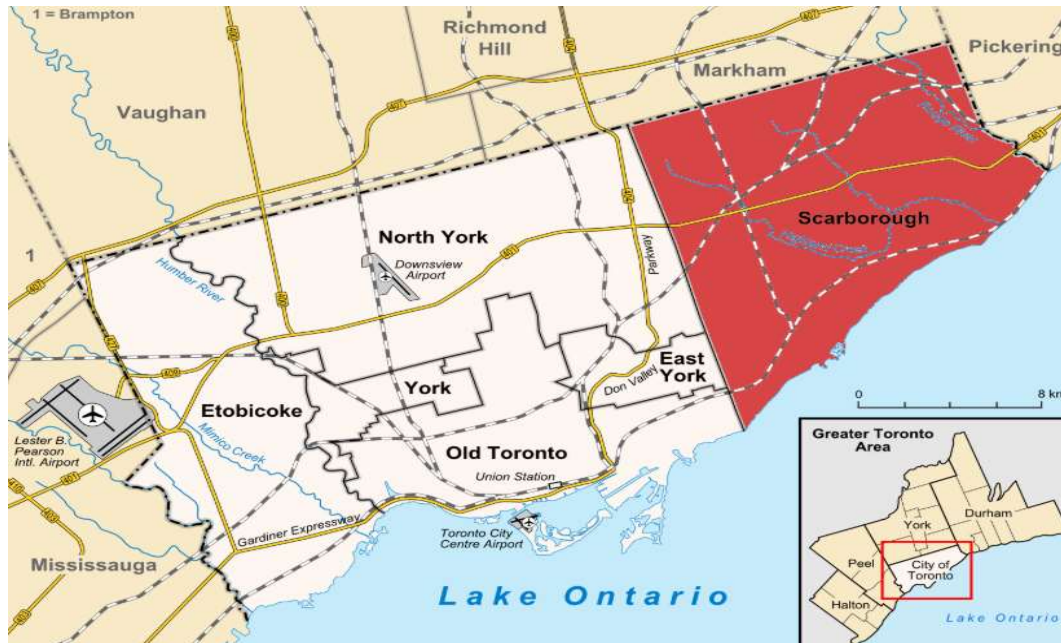
Conclusions

Based on the Top 10 Most Common Venues using Foursquare and k-means clustering algorithms, we recommend that the Hong Kong family :

1. should endeavour to reside in Cluster_0 of Scarborough, where amenities are more readily available. This will allow them to pursue their optimum lifestyle.
2. In terms of retail business/store, based on information collated from “10 Most Common Venues”, there seems to be a lack of pharmacy and medical center around the neighborhoods. This is an area of business which the Hong Kong family may want to consider.

Appendixes

Location map of Toronto City and Scarborough



Appendixes

Comparative Analysis of 3 Clusters in Scarborough Neighborhoods

Cluster_0

	Borough	Longitude	Cluster Labels	1th Most Common Venue	2th Most Common Venue	3th 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	Scarborough	-79.194353	0	Fast Food Restaurant	Vietnamese Restaurant	Thrift / Vintage Store	Hakka Restaurant	Gym	Grocery Store	General Entertainment	Gas Station	Fried Chicken Joint	Farm
1	Scarborough	-79.160497	0	Bar	Vietnamese Restaurant	Convenience Store	Hakka Restaurant	Gym	Grocery Store	General Entertainment	Gas Station	Fried Chicken Joint	Fast Food Restaurant
2	Scarborough	-79.188711	0	Restaurant	Breakfast Spot	Medical Center	Electronics Store	Rental Car Location	Mexican Restaurant	Intersection	Bank	Fried Chicken Joint	Convenience Store
3	Scarborough	-79.216917	0	Coffee Shop	Korean Restaurant	Vietnamese Restaurant	Convenience Store	Gym	Grocery Store	General Entertainment	Gas Station	Fried Chicken Joint	Fast Food Restaurant
4	Scarborough	-79.239476	0	Hakka Restaurant	Thai Restaurant	Athletics & Sports	Bakery	Bank	Gas Station	Fried Chicken Joint	Caribbean Restaurant	Department Store	Gym
5	Scarborough	-79.239476	0	Playground	Vietnamese Restaurant	College Stadium	Gym	Grocery Store	General Entertainment	Gas Station	Fried Chicken Joint	Fast Food Restaurant	Farm
6	Scarborough	-79.262029	0	Hobby Shop	Department Store	Bus Station	Chinese Restaurant	Coffee Shop	Discount Store	Hakka Restaurant	Gym	Grocery Store	General Entertainment
7	Scarborough	-79.284577	0	Bus Line	Bakery	Ice Cream Shop	Metro Station	Bus Station	Park	Soccer Field	Bar	Department Store	Grocery Store
8	Scarborough	-79.239476	0	American Restaurant	Intersection	Motel	Convenience Store	Gym	Grocery Store	General Entertainment	Gas Station	Fried Chicken Joint	Fast Food Restaurant
9	Scarborough	-79.264848	0	College Stadium	General Entertainment	Skating Rink	Farm	Café	Vietnamese Restaurant	Gym	Grocery Store	Gas Station	Fried Chicken Joint
13	Scarborough	-79.304302	0	Pizza Place	Noodle House	Intersection	Chinese Restaurant	Fast Food Restaurant	Italian Restaurant	Fried Chicken Joint	Bank	Gas Station	Thai Restaurant
14	Scarborough	-79.284577	0	Park	Playground	Coffee Shop	Gym	Grocery Store	General Entertainment	Gas Station	Fried Chicken Joint	Fast Food Restaurant	Farm
15	Scarborough	-79.318389	0	Fast Food Restaurant	Chinese Restaurant	Noodle House	Pizza Place	Indian Restaurant	Coffee Shop	Gym	Pharmacy	Grocery Store	Breakfast Spot

Cluster_1

	Borough	Longitude	Cluster Labels	1th Most Common Venue	2th Most Common Venue	3th 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
10	Scarborough	-79.273304	1	Indian Restaurant	Vietnamese Restaurant	Thrift / Vintage Store	Brewery	Light Rail Station	Chinese Restaurant	Pet Store	Department Store	Grocery Store	General Entertainment
12	Scarborough	-79.262029	1	Skating Rink	Breakfast Spot	Latin American Restaurant	Lounge	Vietnamese Restaurant	Convenience Store	Grocery Store	General Entertainment	Gas Station	Fried Chicken Joint

Cluster_2

	Borough	Longitude	Cluster Labels	1th Most Common Venue	2th Most Common Venue	3th 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
11	Scarborough	-79.295849	2	Bakery	Smoke Shop	Breakfast Spot	Middle Eastern Restaurant	Vietnamese Restaurant	Convenience Store	Gym	Grocery Store	General Entertainment	Gas Station

Thank You.