Data Sources

The idea behind finding an attractive location for living is based on many factors depending on customer choice. One major requirement is the availability of venues nearby. Fourquare[1] has been used to explore this portion of the project.
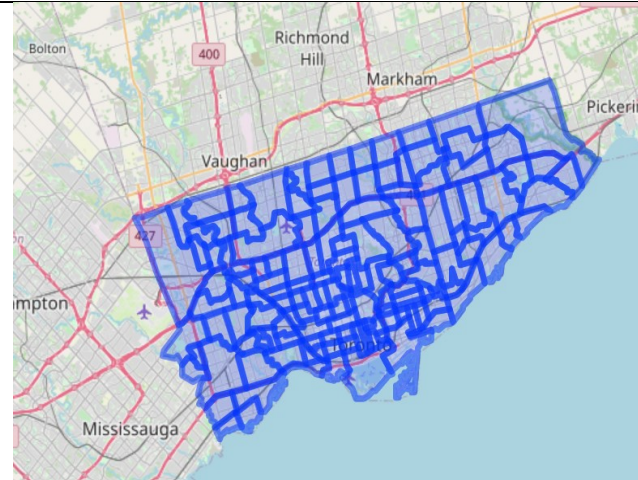
Foursquare data

Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
Wychwood	43.676919	-79.425515	Wychwood Barns	43.680028	-79.423810	Event Space
Wychwood	43.676919	-79.425515	Wychwood Barns Farmers' Market	43.680010	-79.423849	Farmers Market
Wychwood	43.676919	-79.425515	Hillcrest Park	43.676012	-79.424787	Park
Wychwood	43.676919	-79.425515	Wychwood Barns Community Gallery	43.679386	-79.424254	Art Gallery
Yonge-Eglinton	43.704689	-79.403590	North Toronto Memorial Community Centre	43.706098	-79.404337	Gym

The neighborhoods were categorized based on the number of top venues in the neighborhoods.

Instead of the boroughs data used in the assignments, this project uses the detailed boundaries of the neighborhoods in Toronto. A total of 140 neighborhoods have been explored[2]. This helps us explore the neighborhoods individually.

Toronto neighborhoods[2]	Processed location data		
	AREA_NAME	**LATITUDE**	**LONGITUDE**
	Wychwood	43.676919	-79.425515
	Yonge-Eglinton	43.704689	-79.403590
	Yonge-St.Clair	43.687859	-79.397871
	York University Heights	43.765736	-79.488883
	Yorkdale-Glen Park	43.714672	-79.457108
	...	...	...
	Kennedy Park	43.725556	-79.260382
	Kensington-Chinatown	43.653554	-79.397240
	Kingsview Village-The Westway	43.698993	-79.547863
	Kingsway South	43.653520	-79.510577
	L'Amoreaux	43.795716	-79.314084

Crime data[3] was obtained from openly available data sources. This included the numbers for different categories like theft, abuse, etc. for the last 5 years. The analysis in the study uses the average for each of these categories for the last 5 years. The data had to be processed for determining any missing data but was generally found to be very consistent.

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[1] https://foursquare.com/
[2] https://open.toronto.ca/dataset/neighbourhoods/
[3] https://www.toronto.ca/city-government/data-research-maps/neighbourhoods-communities/neighbourhood-profiles/

Crime data

Neighbourhood	Assault_AVG	AutoTheft_AVG	BreakandEnter_AVG	Homicide_AVG	Robbery_AVG
Yonge-St.Clair	31.0	4.3	23.3	0.0	5.7
York University Heights	333.2	106.3	113.2	0.8	75.8
Lansing-Westgate	70.7	23.7	38.8	1.7	14.7
Yorkdale-Glen Park	160.2	55.5	63.3	1.2	31.5
Stonegate-Queensway	83.2	28.7	52.8	0.0	20.7

A great source of data was found at 'Wellbeing Toronto'[4]. While this is essentially a website that maps all the data, this data can also be downloaded for analysis. Data was downloaded for a number of categories including the population spread amongst different ethnicity. The ones that were used in analysis are listed below. It must be noted here that given a customer is interested n knowing about the concentration of an ethnicity in an area, that can be easily determined using the data.

Wellbeing Data

Neighbourhood	Total Population	Healthy Food Index	Early Development Instrument (EDI)	Recent Immigrants	Average Family Income	Tenant Average Rent	Rented Dwellings	Owned Dwellings
West Humber-Clairville	33312.0	23.82	15.339233	2440.0	72820.0	945.0	3050.0	7075.0
Mount Olive-Silverstone-Jamestown	32954.0	37.57	19.534884	4720.0	57411.0	921.0	5070.0	4540.0
Thistletown-Beaumond Heights	10360.0	42.26	16.037736	720.0	70838.0	887.0	1145.0	2080.0
Rexdale-Kipling	10529.0	23.31	7.894737	625.0	69367.0	857.0	1935.0	2010.0
Elms-Old Rexdale	9456.0	24.71	9.782609	530.0	61196.0	966.0	1315.0	1910.0

This completes the data that was used in the study.

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[4]

http://map.toronto.ca/wellbeing/#eyJ0b3Itd2lkZ2V0LWNsYXNzYnJlYWsiOsSAcGVyY2VudE9wYWNpdHnElzcwfSwiY3VzxIJtYcSTYcSXxIBuZWlnaGJvdXJob29kc8S2fcSrxIHEg8SFxIfEicSLdGFixYXEmCLEo3RpdmVUxZBJZMSXxYnEhMWPYi1pbmRpY2HEgnLFhcWIxaTFpsWoxarFksSAxZjFq2lvbsSXMsSsc8WkZ2xlxLbErcS%2FxJPEn1RpbWXFnMSoxKzFlsaIxbIiN8aBxa7Fp8WpxIPFnHNBxaVXxLnEu3TFklvEgMSHxZ43MyLErHfGnGh0xJcxxKzEk8W0c2VQb8SOcsSlxKc6ZmFsxrHEq8ahxZ06IjE2xqYixqjEusaqxqzGrmXGsMayxrTEs8a3xJfGusa8Zca%2BIsaix4EzxqXGp8apxqs6xq0ixq%2FEm8axxrPGtceRxrnGu8a9LMa%2FxZ4zMseFx4fGnceKx6HHjMejx47HpsSmx5LHqceVx6vHl8eAIjM0x7DHncezx6LFq8e3x5DHuceox5THlseYyIA1yIPHiMeex6DIhsekx4%2FGtsiKx5PHqsesx5nHhMecyJLIhce1yIfHpciJxrjImse8yJzIgMaRyJ%2FHssefx4vHjcikyJjIpse7yI3HvzM4yJHIrciUyKLIlse4yLPIjMe9yI4zOci5x4nIrse0yLDIl8enyKfItcWeMcmFyJPIr8e2yLHJi8i0yYHHvzHJhMisyYbIu8mJyL7HusiMXcWHxYjGjWXGsca2yabFhsSsxK5yxoR0ScWlxpxTFqk3Fg8aAx4HFvG7FvsaAxYhhZ3NNYXDGgXrFgm3GrDPErHjEly04ODM3NzYzLjXKkTcyN8Ssxrg1NDEyOTMxLjI0ypAyODXFhw%3D%3D