

Toronto City Ice Cream Shop Choice

Introduction/Business Problem

Toronto is the capital city of the Canadian province of Ontario. With a recorded population of 2,731,571 in 2016, it is the most populous city in Canada and the fourth most populous city in North America. Toronto is an international centre of business, finance, arts, and culture, and is recognized as one of the most multicultural and cosmopolitan cities in the world.

Ice cream is a refreshing delight for everyone. There are some varieties like gelato or frozen yogurt. The problem that I want to solve is to find the best Ice Cream Shop and check out the possibilities to open an authentic Gelateria in Toronto.

Description of the data

I will use the Foursquare API to explore venues in Toronto City: data such as the venue name, ID, location, category of food (Ice Cream Shop etc.).

To build the code to scrape the following Wikipedia page, https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M,

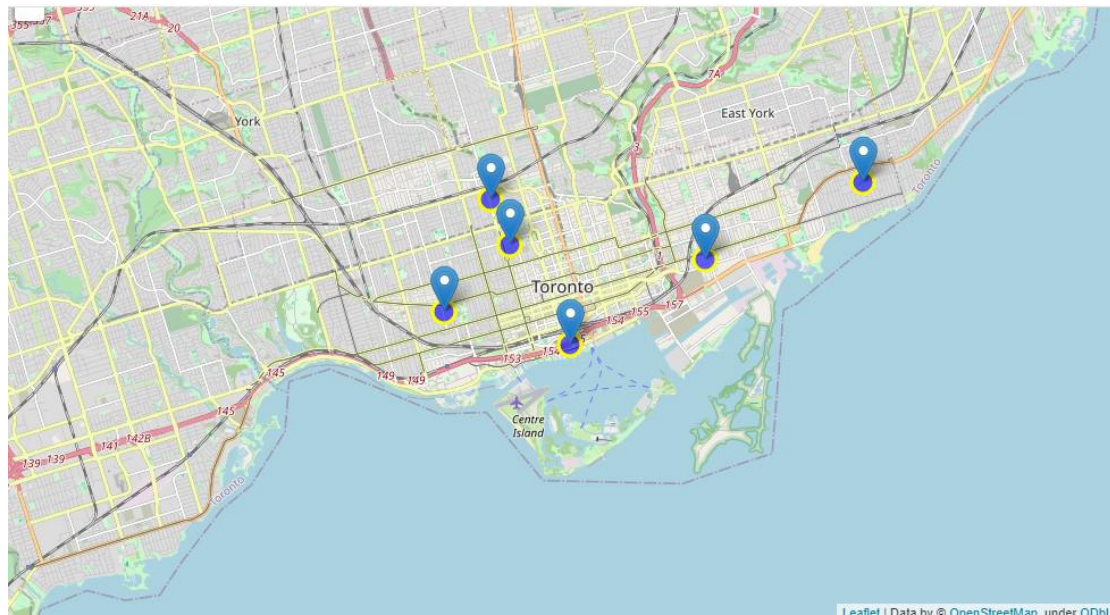
in order to obtain the data that is in the table of postal codes and to transform the data into a pandas dataframe.

Methodology

Master data which includes "Borough", "Neighborhood", "Latitude" and "Longitude" information of Toronto.

Python Folium library was used to visualize map of Toronto and its Boroughs. In order to get Latitude and Longitudes of Toronto, geopy and geocoder are used. The map below was obtained.

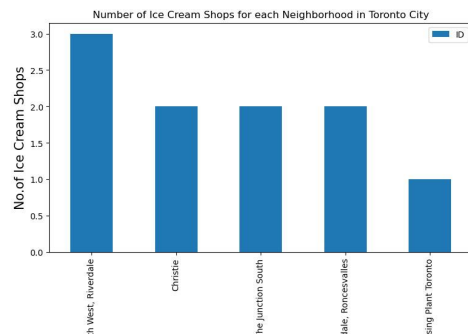
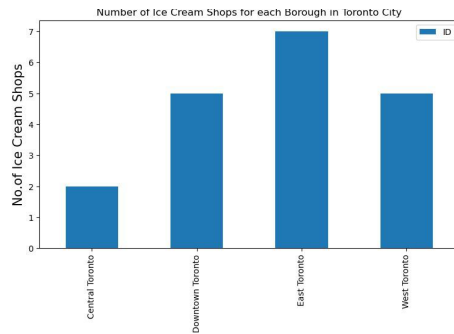
In order to explore and categorize places Foursquare API was used. Limit was set to 100 and Radius was set to 1000. Here is a head of the list venues name, category, latitude and longitude information from Foursquare API.



Results

There are only 19 Ice Creams Shops found in Toronto City.

	PostalCode	Borough	Neighborhood	ID	Name
0	M4E	East Toronto	The Beaches	4b37c839f964a5200e4625e3	Ed's Real Scoop
1	M4K	East Toronto	The Danforth West, Riverdale	57799e91498e189817c91ead	La Diperie
2	M4K	East Toronto	The Danforth West, Riverdale	4dc72844d22dafda2fc75e6	Dolce Gelato
3	M4K	East Toronto	The Danforth West, Riverdale	4ade4f8af964a520e27421e3	Dairy Queen
4	M4L	East Toronto	India Bazaar, The Beaches West	59172e0169e77b035cdb7bd	Brett's Ice Cream
5	M4M	East Toronto	Studio District	4ad7e958f964a520001021e3	Ed's Real Scoop
6	M4S	Central Toronto	Davisville	4c5f63213986e21eed23924f	Gelato Simply Italian
7	M4Y	Downtown Toronto	Church and Wellesley	4b746c9df964a520c1db2de3	Baskin-Robbins
8	M5J	Downtown Toronto	Harbourfront East, Union Station, Toronto Islands	5014414be4b05d9dc85cf8a1	Lick It Gelato
9	M5R	Central Toronto	The Annex, North Midtown, Yorkville	57802743498ec67ef8812d88	Eva's Original Chimneys
10	M5S	Downtown Toronto	University of Toronto, Harbord	57802743498ec67ef8812d88	Eva's Original Chimneys
11	M6G	Downtown Toronto	Christie	563ea190cd109ebcfa2690eb	Put A Cone On It
12	M6G	Downtown Toronto	Christie	4aeba2a9f964a5200ac421e3	Baskin-Robbins
13	M6J	West Toronto	Little Portugal, Trinity	537bd61f498e0dae73728800	Bang Bang Ice Cream & Bakery
14	M6P	West Toronto	High Park, The Junction South	4c672d35e1da1b8df95f9dc3	Ice Cream Junction
15	M6P	West Toronto	High Park, The Junction South	53b9f14c498e83df9095132c	Dairy Queen / Orange Julius
16	M6R	West Toronto	Parkdale, Roncesvalles	5337166e498e7ec9227d01a4	Ed's Real Scoop
17	M6R	West Toronto	Parkdale, Roncesvalles	53b9f14c498e83df9095132c	Dairy Queen / Orange Julius
18	M7Y	East Toronto	Business reply mail Processing Centre, South C...	59172e0169e77b035cdb7bd	Brett's Ice Cream



The Borough with more Ice Cream Shops is East Toronto, and the Neighborhood with more Ice Cream Shops is the Danforth West, Riverdale.

The Average Ratings of Neighborhoods and Boroughs are shown below.

			Neighborhood	Average Rating
9			Studio District	9.000000
7			Little Portugal, Trinity	8.900000
11			The Beaches	8.500000
4			Harbourfront East, Union Station, Toronto Islands	8.300000
10			The Annex, North Midtown, Yorkville	8.000000
13			University of Toronto, Harbord	8.000000
0			Business reply mail Processing Centre, South C...	7.800000
6			India Bazaar, The Beaches West	7.800000
12			The Danforth West, Riverdale	7.733333
5			High Park, The Junction South	7.650000
2			Church and Wellesley	7.600000
1			Christie	7.400000
8			Parkdale, Roncesvalles	7.350000
3			Davisville	7.000000

			Borough	Average Rating
2			East Toronto	8.042857
3			West Toronto	7.780000
1			Downtown Toronto	7.740000
0			Central Toronto	7.500000

The map we created shows only those with an Average Rating more than 8.

The Ice Cream Shop with maximum Likes and maximum Tips is Bang Bang Ice Cream & Bakery in Little Portugal, Trinity; the one with maximum Rating is Ed's Real Scoop in Studio City.

PostalCode	M6J	PostalCode	M4M	PostalCode	M6J
Borough	West Toronto	Borough	East Toronto	Borough	West Toronto
Neighborhood	Little Portugal, Trinity	Neighborhood	Studio District	Neighborhood	Little Portugal, Trinity
ID	537bd61f498e0dae73728800	ID	4ad7e958f964a520001021e3	ID	537bd61f498e0dae73728800
Name	Bang Bang Ice Cream & Bakery	Name	Ed's Real Scoop	Name	Bang Bang Ice Cream & Bakery
Likes	272	Likes	108	Likes	272
Rating	8.9	Rating	9	Rating	8.9
Tips	97	Tips	70	Tips	97
Name: 13, dtype: object		Name: 5, dtype: object		Name: 13, dtype: object	

Discussion and Conclusion

There are not many Ice Cream Shops in the city of Toronto, which has a population of approximately 2,700,000. Opening an authentic Gelateria and having success are considered possible, even if there are already some in the city.