The Battle of Neighborhood – Capstone Project
Indian Restaurant analysis in Toronto

Introduction

Toronto is the largest city of Canada with the Greater Toronto population of over 6 million. It is ethnically very diverse city with various cultures with which come numerous cuisines including Chinese, Indian, Italian etc . Canada, in particular Toronto has a significant Indian population. The project is to analysis the neighborhoods of Toronto to find best places with Indian restaurants and potentially help find area where there are business opportunities to open an Indian restaurant.

Part of the project we will analyze and visualize major parts of Toronto with Indian restaurants.

We will try to get answers to following question

- Best places in Toronto to find good Indian restaurant.
- Areas having potential market for Indian restaurant.
- Neighborhood to stay with good Indian restaurant.

Also same project can be extended to analyze other cities and other type of restaurants / business int the city

Following are the potential Target Audience who can get benefited from the analysis

- People who are looking to move or stay during Visit to Toronto and would like to have insight into where to find good Indian restaurants or the areas that are completely not suited for their taste.
- For audience who are looking to open an Indian restaurant and keen to know where the potential scope areas are

More over the same project can be extended to other kind of business not necessarily Indian restaurants and it is it is easily extendable to other cities once we identify similar source data for those cities.

Data

      As we need to explore neighborhoods in the city of Toronto, the Toronto neighborhoods data is key for this project. Unfortunately, the data is for the Toronto neighborhood data is not widely available on the Internet in the structured format, hence we need to scrap it through an existing Wikipedia page exists that has all the information we need to explore and analyze the neighborhoods in Toronto.

https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M

We also need the coordinates of the neighborhood to obtain venu details of the neighborhood also to visualize the data in the map.

We use http://cocl.us/Geospatial_data for getting the latitude and longitude of the postal codes of the neighborhood

We rely extensively on Foursquare for collecting Venu data pertaining to Indian restaurant and also to collect rating of each of the Indian restaurant.

We will also use the Geospacial data for getting the boundaries of Borough to visualize data on the map

Neighborhood , with Postal code and Coordinates of each postal code. Neighborhoods of same postal codes are treated as single line item to avoid data sparsity

	Postcode	Borough	Neighbourhood	Latitude	Longitude
0	M1B	Scarborough	Rouge, Malvern	43.806686	-79.194353
1	M1C	Scarborough	Highland Creek, Rouge Hill, Port Union	43.784535	-79.160497
2	M1E	Scarborough	Guildwood, Morningside, West Hill	43.763573	-79.188711
3	M1G	Scarborough	Woburn	43.770992	-79.216917
4	M1H	Scarborough	Cedarbrae	43.773136	-79.239476

Gather (Indian) restaurants in each of the neighborhood (with predefined radius from coordinates of the Neighborhood/Postal code) . This is done using Foursquare

	Borough	Neighbourhood	ID	Name
13	East Toronto	The Beaches West, India Bazaar	4ae0c7a8f964a520638221e3	Udupi Palace
14	East Toronto	The Beaches West, India Bazaar	4afc9816f964a520312422e3	Motimahal
15	East Toronto	The Beaches West, India Bazaar	4bac30a2f964a52018ea3ae3	Bombay Chowpatty
16	East Toronto	The Beaches West, India Bazaar	4ad9052cf964a520301721e3	Regency Restaurant
17	East Toronto	The Beaches West, India Bazaar	4bbcc0efa0a0c9b60ebd1a0f	Haandi 2000
18	East Toronto	The Beaches West, India Bazaar	4d8d278a1d06b1f712942a3b	Gautama

The Above Restaurant Ids are then used to collect the restaurant ratings using venu details of Foursquare data.

	Borough	Neighbourhood	ID	Name	Likes	Rating	Tips
0	Central Toronto	Davisville	5169d445e4b07de190b5c3d6	Marigold Indian Bistro	11	7.9	11
1	Central Toronto	Davisville	4b7ccc72f964a520e3a52fe3	Banjara Indian Cuisine	24	6.7	19
2	Central Toronto	The Annex, North Midtown, Yorkville	4c62c59ce1621b8dd0332453	Roti Cuisine of India	39	8.6	18
3	Central Toronto	The Annex, North Midtown, Yorkville	4ad4c060f964a5204af720e3	The Host	31	7.4	13
4	Downtown Toronto	Cabbagetown, St. James Town	4c8c21fdf0ce236ab28e15ef	Butter Chicken Factory	19	8.5	10