

Restaurant business recommendation in Toronto

1 Introduction

The idea of this project is to provide insights to investors who are interested in opening a new restaurant or purchase an existing restaurant in one of Toronto's suburbs. Traditionally, the investors would usually determine where to open or acquire a food business based on their own experience and judgement. However, with the support of this project, people can determine the best suburbs to set up the restaurant and potentially the best location and food types served in the restaurant. The result of the project can be used to inform the decision-making process of the investment, which would be data-driven.

2 Data Source

The data source of this project can be downloaded from the server of Foursquare and Wikipedia. First of all, we will download Toronto's neighbourhood and borough lists from Wikipedia. Then, the neighbourhood's latitude and longitude can be determined by using Python Geocoder.

Table 2.1. Toronto neighbourhood data

	Postal Code	Neighbourhood	Borough	Latitude	Longitude
0	M1B	Malvern, Rouge	Scarborough	43.8066863	-79.194353
1	M1C	Rouge Hill, Port Union, Highland Creek	Scarborough	43.7845351	-79.160497
2	M1E	Guildwood, Morningside, West Hill	Scarborough	43.7635726	-79.188712
3	M1G	Woburn	Scarborough	43.7709921	-79.216917
4	M1H	Cedarbrae	Scarborough	43.773136	-79.239476
5	M1J	Scarborough Village	Scarborough	43.7447342	-79.239476
6	M1K	Kennedy Park, Ionview, East Birchmount Park	Scarborough	43.7279292	-79.262029
7	M1L	Golden Mile, Clairlea, Oakridge	Scarborough	43.7111117	-79.284577
8	M1M	Cliffside, Cliffcrest, Scarborough Village West	Scarborough	43.716316	-79.239476
9	M1N	Birch Cliff, Cliffside West	Scarborough	43.692657	-79.264848
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For each neighbourhood, the venues which specifically corresponds to food category can be downloaded. Most importantly, the type of the food provided in each restaurant (or say venue) can be collected from this data, which would enable us to determine which food type is most popular in this suburb.

In addition, once we decide the suburb to set up the restaurant, we can also use clustering technique to further separate the suburb to different blocks, which would guide us to determine the location of the restaurant in the suburb. The selection of the block can be supported by the local renting cost, etc.

3 Methodology

4 Results and discussion

5 Conclusion