

Capstone Project - The Battle of Neighbourhoods

Introduction

For the report, the problem that I'm going to focus on is to get the best neighbourhood for a person who is looking to transfer to Toronto. There are many parameters that one may look up to while deciding which neighbourhood they will want to move into, ranging from the availability of grocery stores or supermarkets in the neighbourhood to their most preferred type of restaurants. In this section, I will be analysing the region of Toronto on which neighbourhood will best suite for a person who is moving from India.

Business Problem

Many migrants or travellers who come to a new country in the purposes of work often don't think hard on choosing on which neighbourhood of that city is best suited for them. They mostly apply to stay in a neighbourhood on the basis of first come first serve basis where the individual is happy to select the first offer that comes to their hand. But the after effects of this decision affects the daily livelihood or lifestyle of that individual, if they are hard adapters to the new environment. Taking an example of an Indian who is transferred to Toronto for his work goes to stay in the neighbourhood where local amenities is not suited to his liking, i.e., unavailability of grocery or convenience stores, lack of Indian cuisine restaurants in the locality. They will find it hard to adapting in such a neighbourhood.

Possible Solution

With the help of the Foursquare Api, I will analyse each neighbourhood in Toronto depending on 3 variables,

- Restaurant
- Grocery Store
- HealthCare facility

Using these variables, we will be able to determine which neighbourhood is best suited for our targeted traveller/migrant. Hence for an Indian traveller we will look into which neighbourhood has the highest number of Indian restaurants or grocery store.

Data

When we pass in the search query to the foursquare api, we get a json result from it. Using this json result we will see what we can use, so that we are able to find our solution.

```
{'id': '4b4f6095f964a520eb0327e3',
```

```
  'name': 'Etobicoke General Hospital',
```

```
  'location': {'address': '101 Humber College Blvd',
```

```
    'crossStreet': 'at Hwy 27',
```

```
'lat': 43.72986348754193,  
'lng': -79.59835052490234,  
'labeledLatLngs': [{'label': 'display',  
  'lat': 43.72986348754193,  
  'lng': -79.59835052490234}],  
'distance': 9761,  
'postalCode': 'M9V 1R8',  
'cc': 'CA',  
'city': 'Toronto',  
'state': 'ON',  
'country': 'Canada',  
'formattedAddress': ['101 Humber College Blvd (at Hwy 27)',  
  'Toronto ON M9V 1R8',  
  'Canada']],  
'categories': [{'id': '4bf58dd8d48988d196941735',  
  'name': 'Hospital',  
  'pluralName': 'Hospitals',  
  'shortName': 'Hospital',  
  'icon': {'prefix': 'https://ss3.4sqi.net/img/categories_v2/building/medical_',  
    'suffix': '.png'},  
  'primary': True}],  
'referralId': 'v-1572186646',  
'hasPerk': False}
```

The highlighted portion of the JSON is the parts which will be used in the primary analysis of the Geospatial data from Foursquare.

The data I'll be using is the already existing one where we scrapped from the Wikipedia page.