

1. Introduction/Business Problem

In this new age of globalization & the opening of worldwide opportunities for any talented individual generates a new reality that is: that one person might work in different cities or even countries in their lifetime (For this example we will be using New York & Toronto). Let's say a person got a job offer from an international company with great growth opportunities in another city or other borough/neighborhood of his/her current city. That person would probably like to shift a location that resembles their current lifestyle and that implies that he/she will like to have coffee shops, gyms, libraries, malls or specialized stores. My goal is to find out what are borough/neighborhoods have similar services, amenities or store so that a person shifts within the city or from one city to another city her/his current way of life can be maintained as much as possible (If that person wishes it of course). The idea is that is that this will help them to know where they can live as similar as possible as where they currently live.

2 Data

2.1 New York Data

I'll be using the borough/neighborhood data of two cities. The first city would be New York and data of this can be downloaded from this [link](#) . This data would be *json* format and it can be transformed into *pandas dataframe*. I would take only those are important for me like borough, neighbourhood, latitude and longitude. For more information of this data you can visit this [site](#).

	Borough	Neighborhood	Latitude	Longitude
0	Bronx	Wakefield	40.894705	-73.847201
1	Bronx	Co-op City	40.874294	-73.829939
2	Bronx	Eastchester	40.887556	-73.827806
3	Bronx	Fieldston	40.895437	-73.905643
4	Bronx	Riverdale	40.890834	-73.912585

2.2 Toronto Data

The second city is Toronto which Postal Code, borough and neighborhood will be scrapped from [wikipedia page](#) There are some rows where “Not assigned” is written. the rows where borough is “Not assigned” (only) will be dropped. If neighborhood is 'Not assigned' but Borough is assigned, then I will make the corresponding borough as neighborhood. Merge the rows if Postal Code and Borough of two or more rows same and merged neighborhood will be separated by comma “,”. Latitude and longitude information can be downloaded from [here](#). Finally this data and Toronto data can be merged together. Once both data are ready, we'll use Foursquare API to get the venues near each neighborhood. To get the nearby venues data we must have Foursquare account and app which will give the credentials.

	Postal Code	Borough	Neighbourhood	Latitude	Longitude
0	M3A	North York	Parkwoods	43.753259	-79.329656
1	M4A	North York	Victoria Village	43.725882	-79.315572
2	M5A	Downtown Toronto	Regent Park, Harbourfront	43.654260	-79.360636
3	M6A	North York	Lawrence Manor, Lawrence Heights	43.718518	-79.464763
4	M7A	Downtown Toronto	Queen's Park, Ontario Provincial Government	43.662301	-79.389494
5	M9A	Etobicoke	Islington Avenue, Humber Valley Village	43.667856	-79.532242
6	M1B	Scarborough	Malvern, Rouge	43.806686	-79.194353
7	M3B	North York	Don Mills	43.745906	-79.352188
8	M4B	East York	Parkview Hill, Woodbine Gardens	43.706397	-79.309937
9	M5B	Downtown Toronto	Garden District, Ryerson	43.657162	-79.378937