Battle of Neighbourhoods

Description of Problem

The difficulty we are managing is that if we somehow happened to open up a store in a territory one would need to choose various components. One of those variables is the nearby rivalry. If one somehow managed to open up a store for model a food store in a territory where there are as of now 25+ stores present then the opening up of another store probably won't have an extraordinary effect. There is another approach to look at this which is that from the size of the current market you can judge how large a specific industry is in that showcase. For instance, in the event that you have an alternate thought or approach for your thought, you can procure bigger benefits on the off chance that you enter a district where food interests a bigger number of individuals.

Description of Data

I will utilize the New York information gave by Capstone in a previous task, what's more, the Toronto information acquired from foursquare so as to reach upon a specific end.

Methodology

I will utilize the foursquare database so as to discover the regions of enthusiasm for Manhattan also, Toronto and in the wake of acquiring those zones of intrigue, I will perform group examination so as to portion the zones of intrigue. After the grouping, we can concentrate on insight regarding the premiums and market size for singular urban communities and are their any markets that are missing in one and which could be abused. Is any market as of now soaked with the end goal that abusing that any further probably won't give out a sensible benefit.

Results

We played out a bunching on the areas of Manhattan and Toronto and dependent on the bunching we played out some examination on the outcomes we got. To keep the examination basic we have constrained the quantity of bunch to 5 and from the start have printed out the size of individual bunches. Which can be seen below:

```
The size of cluster 0 of Toronto is 27
The size of cluster 0 of Manhattan is 19
The size of cluster 1 of Toronto is 8
The size of cluster 1 of Manhattan is 9
The size of cluster 2 of Toronto is 2
The size of cluster 2 of Manhattan is 1
The size of cluster 3 of Toronto is 1
The size of cluster 3 of Manhattan is 10
The size of cluster 4 of Toronto is 1
The size of cluster 4 of Manhattan is 1
```

We can see that group 0 of both Manhattan and Toronto are the predominant ones. So we further investigate these prevailing groups.

```
[92] clstr0_tr = tr_clstr.loc[tr_clstr["Cluster Labels"]==0].reset_index(drop=True)
     clstr0_tr.head(27)
```

	Borough	Neighborhood	Latitude	Longitude	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue
0	Downtown Toronto	Regent Park, Harbourfront	43.654260	-79.360636	0	Coffee Shop	Bakery	Park	Pub	Restaurant
1	Downtown Toronto	Queen's Park, Ontario Provincial Government	43.662301	-79.389494	0	Coffee Shop	Sushi Restaurant	Yoga Studio	Bank	Beer Bar
2	Downtown Toronto	Garden District, Ryerson	43.657162	-79.378937	0	Clothing Store	Coffee Shop	Bubble Tea Shop	Café	Japanese Restaurant
3	Downtown Toronto	St. James Town	43.651494	-79.375418	0	Café	Coffee Shop	Cocktail Bar	American Restaurant	Gastropub
4	Downtown Toronto	Berczy Park	43.644771	-79.373306	0	Coffee Shop	Cocktail Bar	Bakery	Café	Cheese Shop
5	Downtown Toronto	Central Bay Street	43.657952	-79.387383	0	Coffee Shop	Café	Italian Restaurant	Japanese Restaurant	Sandwich Place

(Cluster 0 of Toronto)

```
clstr0_ny = ny_clstr.loc[ny_clstr["Cluster Labels"]==0].reset_index(drop=True)
clstr0_ny.head(19)
```

	Borough	Neighborhood	Latitude	Longitude	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue
0	Manhattan	Chinatown	40.715618	-73.994279	0	Chinese Restaurant	Bakery	Cocktail Bar	Bubble Tea Shop	Coffee Shop
1	Manhattan	Central Harlem	40.815976	-73.943211	0	African Restaurant	Seafood Restaurant	Gym / Fitness Center	American Restaurant	Bar
2	Manhattan	Upper East Side	40.775639	-73.960508	0	Italian Restaurant	Coffee Shop	Gym / Fitness Center	Bakery	Yoga Studio
3	Manhattan	Yorkville	40.775930	-73.947118	0	Coffee Shop	Gym	Italian Restaurant	Bar	Sushi Restaurant
4	Manhattan	Lenox Hill	40.768113	-73.958860	0	Coffee Shop	Pizza Place	Italian Restaurant	Sushi Restaurant	Café
5	Manhattan	Upper West Side	40.787658	-73.977059	0	Bar	Italian Restaurant	Dessert Shop	Wine Bar	Indian Restaurant
6	Manhattan	Lincoln Square	40.773529	-73.985338	0	Plaza	Italian Restaurant	Café	Gym / Fitness Center	Theater

(Cluster 0 of Manhattan)

We notice that both the bunches are in reality quite comparable in the way that at both places the most widely recognized scene is commonly a food outlet yet the overall distinction we can see is that the most visited places in Toronto for group 0 has dominant part food outlets and in that to the most widely recognized one is either a Cafe or a Coffee shop. Be that as it may, in instance of Manhattan it additionally has Gyms, Spas and Yoga diligent inside the group, and Coffeehouses albeit still present are not as prevailing as if there should arise an occurrence of Toronto.

Therefore, we can assume that cluster 0 of Manhattan might be near a residential area whereas cluster 0 of Toronto might be near the workplace.

Subsequent to investigating the bunches we go over the perception that group 0 in Toronto furthermore, bunch 3 in Manhattan, by and large, contain zones identified with food outlets. Thus, on the off chance that one was to settle on where the opposition is as of now high or where one could discover a more decision we could utilize this data. So we think about the size of the groups and arrive at the decision that Toronto has a

considerably more tight rivalry if one somehow managed to open up a store there when contrasted with Manhattan which just has around 10 zones where food is the fundamental thing of fascination.

Conclusions

At long last, I might want to infer that while the examination of both the areas isn't that exact we can get an overall thought of the various societies of both the urban communities for instance Manhattan has 331 classes of settings while Toronto has just 237. Furthermore, we have restricted the all-out settings to 100 and have characterized a span of 500, so we can reason that the commercial center of Manhattan is considerably more assorted than that of Toronto. We saw that the groups of Manhattan had somewhat more uniform dispersion when contrasted and Toronto as Toronto was awkward.