

KICK- START YOUR BUSINESS @ TORONTO



IBM CAPSTONE PROJECT

IMPORTANCE

- ❖ Starting a new business in a place is not an easy task.
- ❖ It involves many questions that needs to be answered before setting up business
- ❖ Most important of all is what business one should start in a particular place to gain max business

HOW TO SOLVE.....???

- ❖ If a business has to work in a area either it should have brand value or it should be something which is not very common in that area but available in neighbouring places
- ❖ Selecting a least common thing is one of the best idea to start a successful business.

DATA

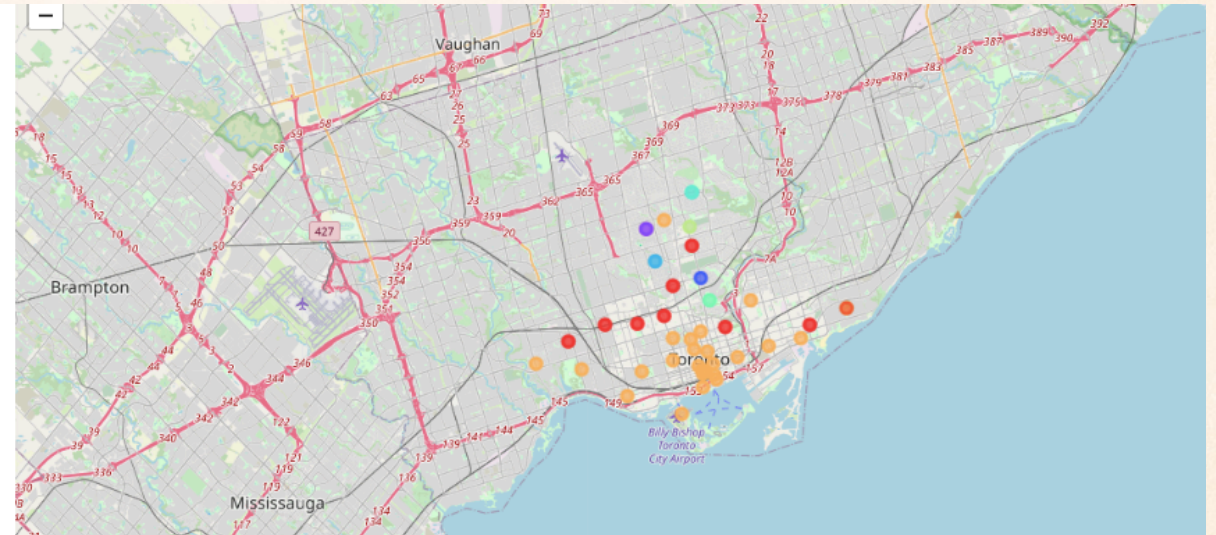
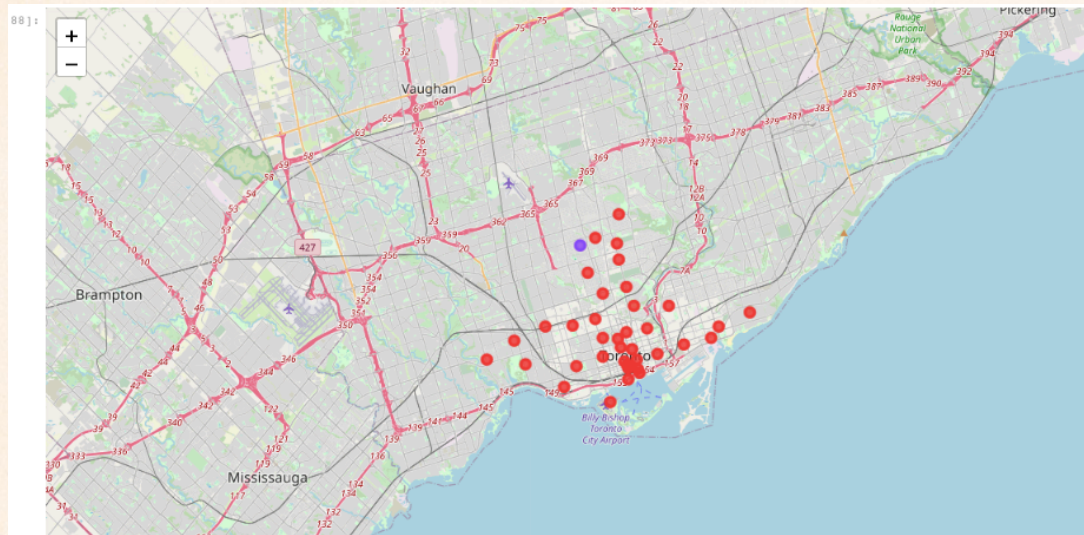
1. Toronto data with its neighbouring places
2. Longitude and latitude values of each neighbouring places
3. Population distribution data of Toronto

	Postal Code	Borough	Neighborhood	Latitude	Longitude	Population, 2016	Occupied dwellings
0	M5A	Toronto	Regent Park , Harbourfront	43.654260	-79.360636	41078.0	22333.0
1	M7A	Toronto	Queen's Park , Ontario Provincial Government	43.662301	-79.389494	10.0	5.0
2	M5B	Toronto	Garden District, Ryerson	43.657162	-79.378937	12785.0	7058.0
3	M5C	Toronto	St. James Town	43.651494	-79.375418	2951.0	1721.0
4	M4E	Toronto	The Beaches	43.676357	-79.293031	25044.0	10784.0

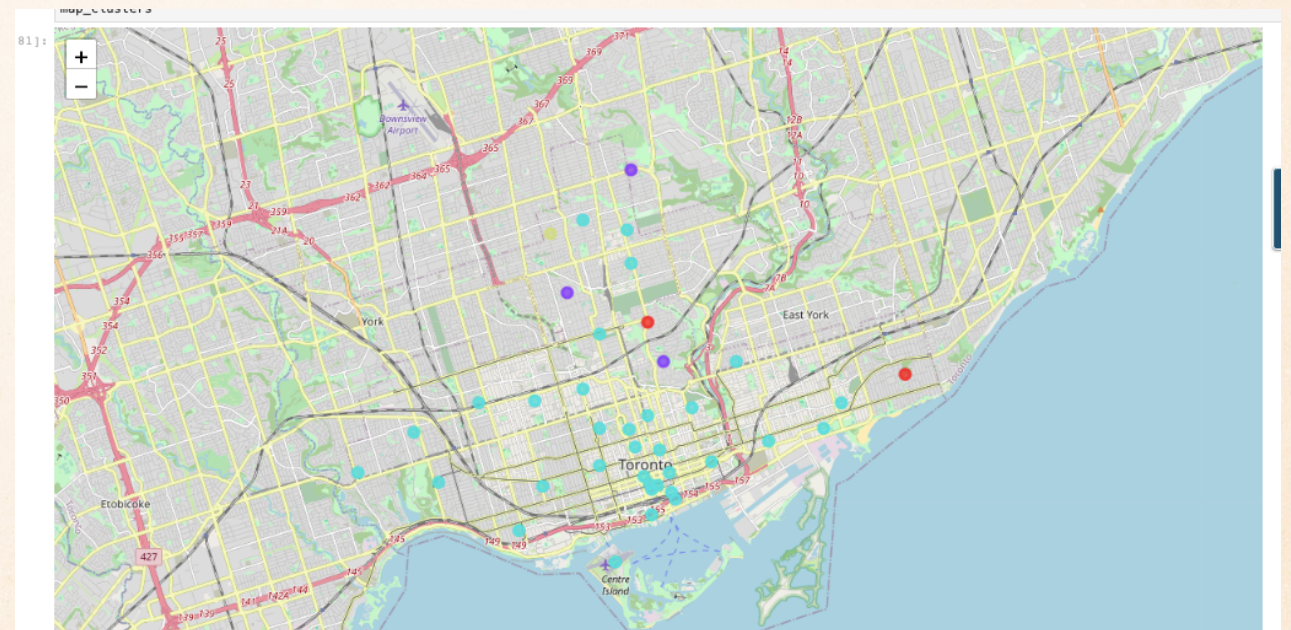
METHODOLOGY USED

- ❖ Using Fsquare API get all the venues along with venue types in the neighbouring places
- ❖ Find least common venues in each neighbouring place
- ❖ Use clustering to cluster the neighbours

K MEANS CLUSTERING

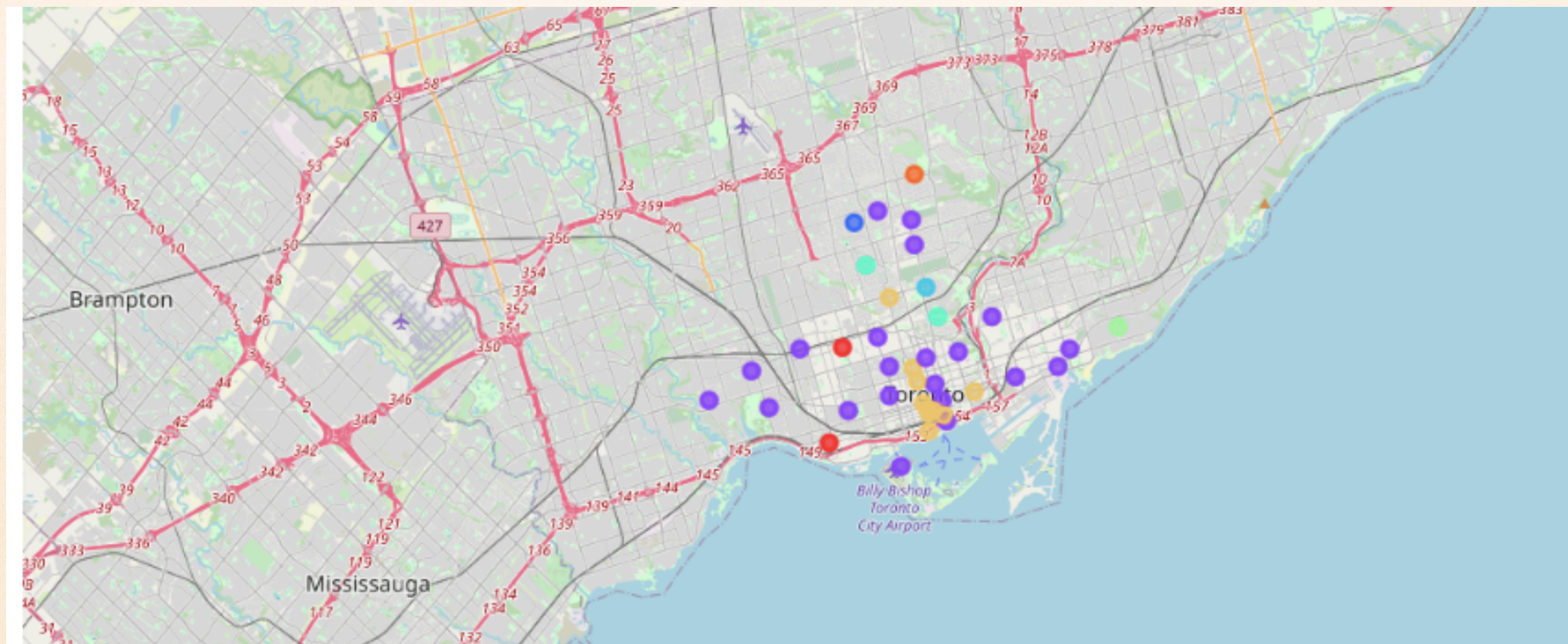


For different values of
K we run same
algorithm to get best
clustering

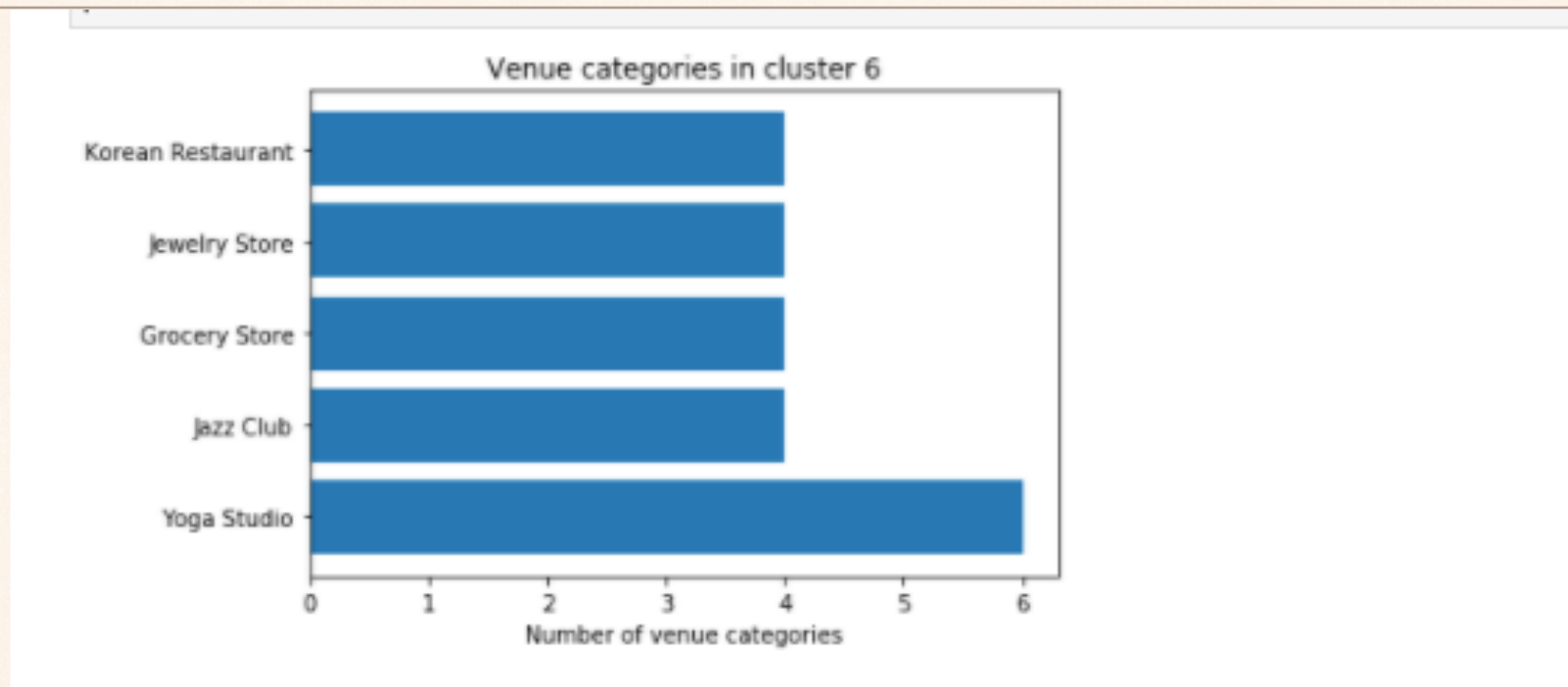


FOR $K = 8$

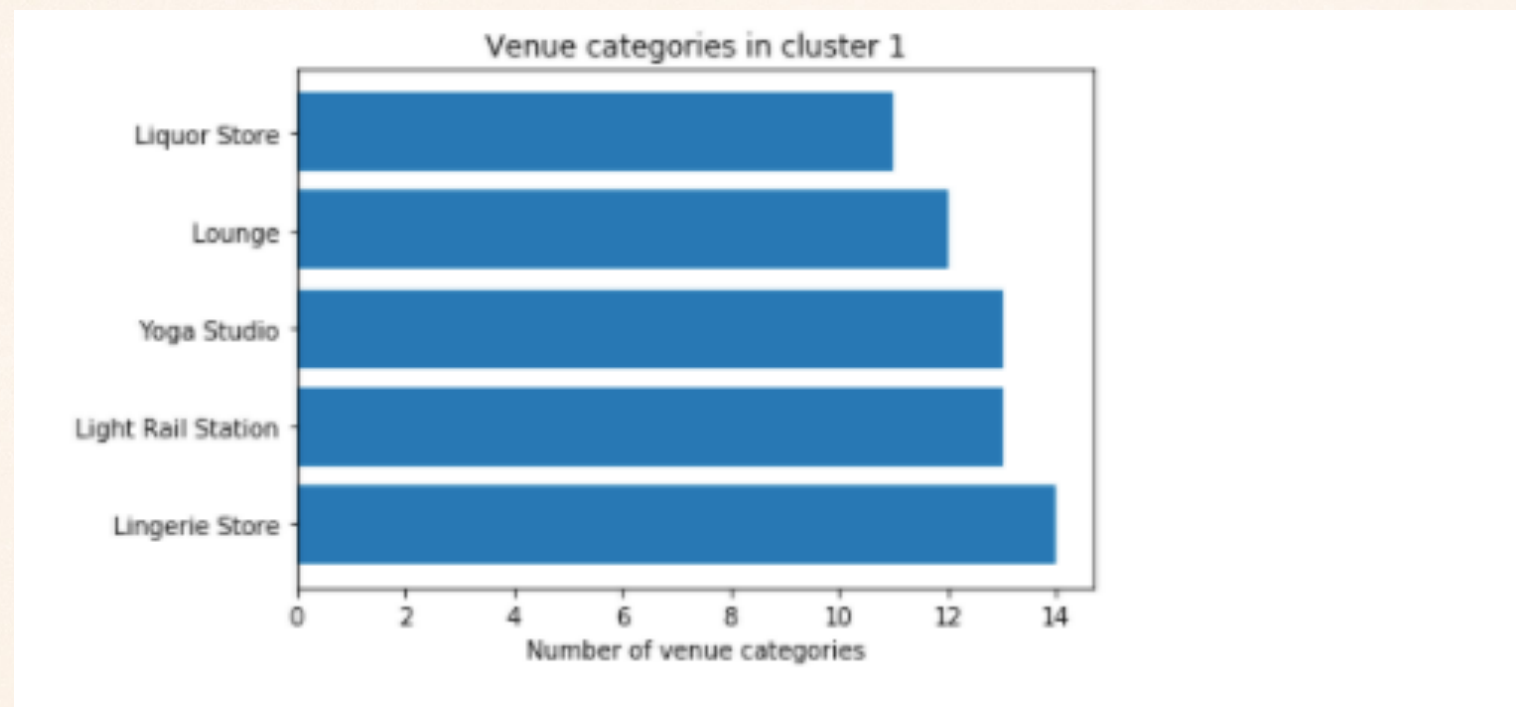
For this value we found best clustering as shown in map
Cluster 6 and 1 have more no of neighbours in them



RESULT



- ❖ Cluster 6 shows Yoga studio is the least common venue among the neighbours in has



- ❖ Cluster 1 shows that Lingerie store as the least common venue among its neighbours and Yoga studio as the second least common (Light Rail Station is not an business entity)

We can recommend that yoga studio is the best business option that the investors can choose to start in Toronto among all the options available

CONCLUSION

- ❖ There are lot more scope for evolution of this model by adding new data such as income , expenditure of people in that area
- ❖ Adding other factors which decides the success of business can make the model better