

Coursera Capstone

IBM Applied Data Science Capstone

Opening a store in Toronto, Canada



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Business problem:

- You must answer these questions:
 - What kind store/shop you want to open?
 - Where is your competitors?
 - What kind of products did your competitors sell?
 - What strength and weakness do they have?
 - What is surrounding stores/shops?
 - Where do you open a store/shop?
 - What kind of customer do you want to serve?
- When you have answered all of this question, You must find out where your store/shop should be located.

Method:

Step 1: Get list of neighborhoods of Toronto.

Step 2: Get location of each neighborhood.

Step 3: Using Foursquare to get top 5 venues that in a radius of 500 meters

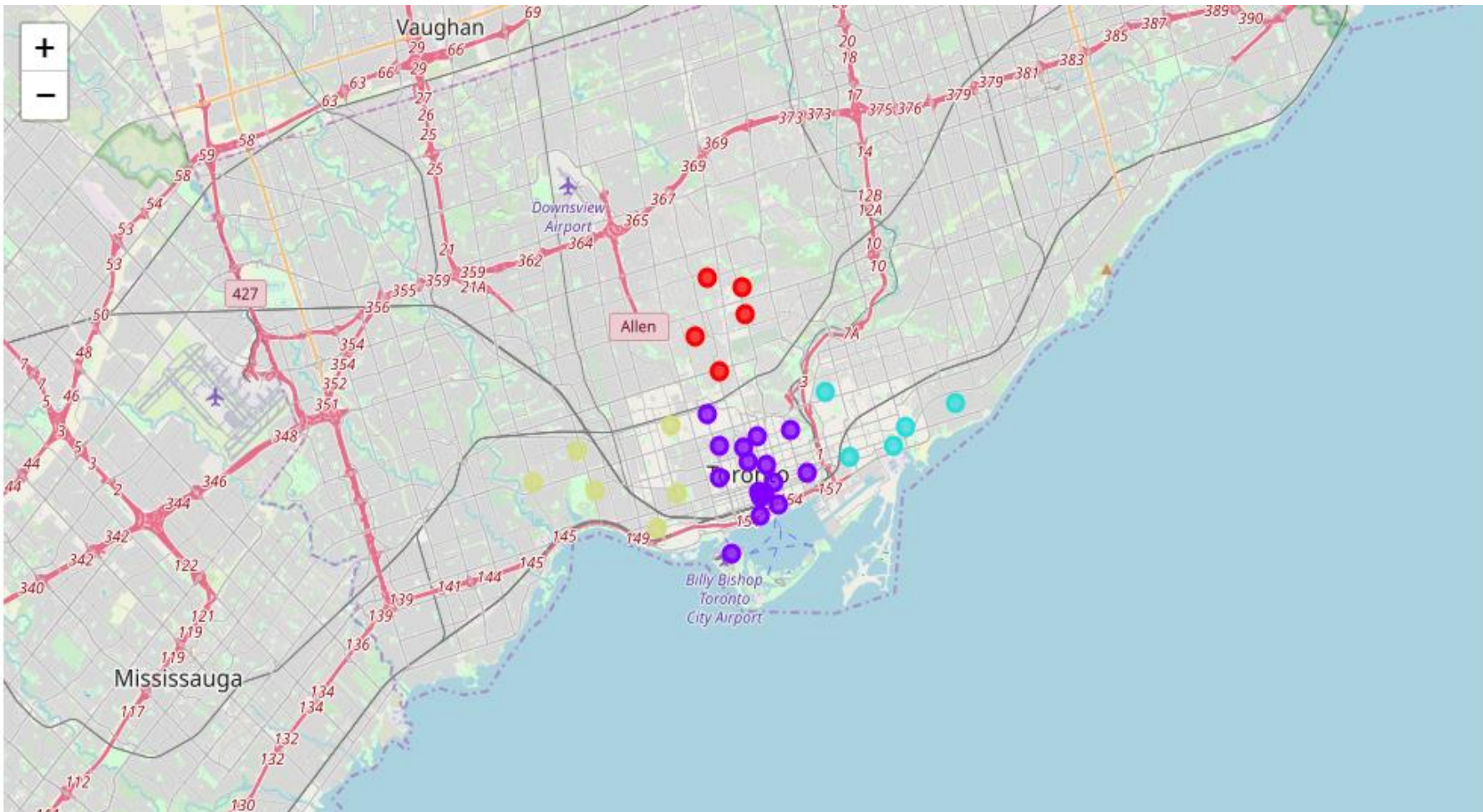
Step 4: Check how many venues for each neighborhood and unique category.

Step 5: Analysis each neighborhood (Taking the mean of the frequency occurrence of each venue category.)

Step 6: Using K-mean to clustering data to 3 cluster base on latitude and longitude.

Results:

The result from the K-mean clustering show that we can categorize neighborhood into 4 cluster base on the latitude and longitude:



Conclusion:

In general, Toronto is the best place for my brother to open a furniture shop due to it has a very small quantity of furniture shops. Beside that, the price of hiring a place to open a store in this area should be considered but I would not like to mention it on this Notebook.

- ▶ **On the left area of Toronto (Cluster 3):** I would like to recommend him to avoid opening the furniture store on the left Toronto due to it already has 2 furniture stores. On these areas, I would recommend him to open a coffee shop instead.
- ▶ **On the center area of Toronto (Cluster 0):** I would like him not to open the coffee shop in here due to most of the coffee shops were located in here. Beside that, opening a furniture store is the great idea in this area.
- ▶ **On the above area of Toronto (Cluster 2):** I would like him should consider the furniture shop in here due to it has no furniture store in this area.
- ▶ **On the right area of Toronto (Cluster 1):** I would like him should consider the furniture shop in here due to it has no furniture store in this area.