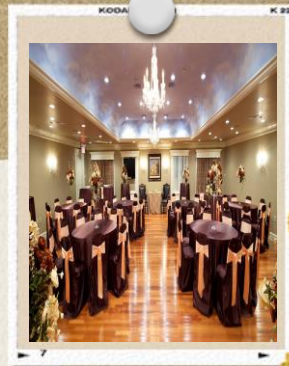


PANTONE 108 C

# Capstone Project

*Determining best spot to open a  
business venue*

*Harsh Vaishnav  
April 2021*





PANTONE 108 C

# *Business Problem*





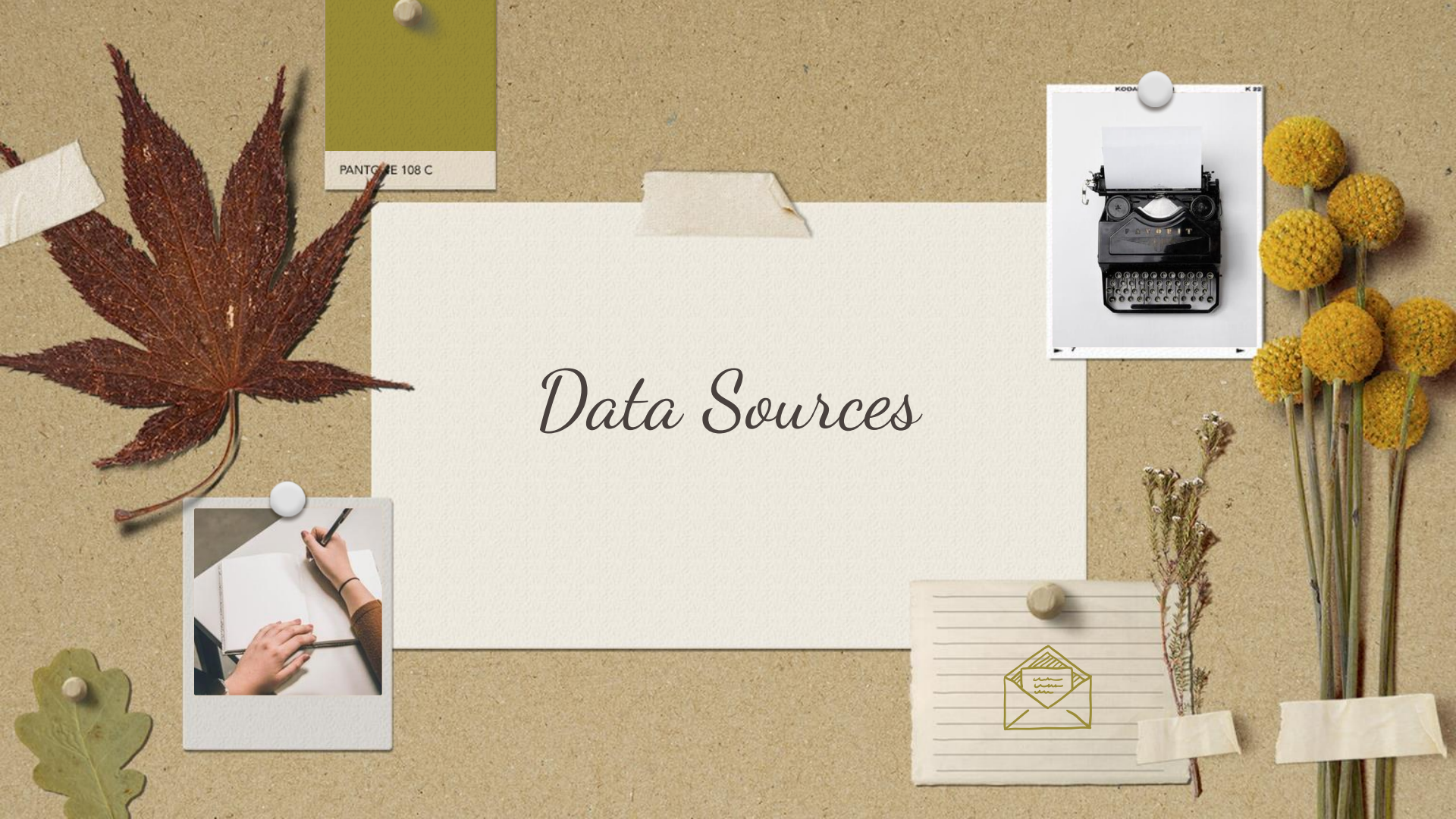
## *Business Problem*

- ✗ Determination of location to setup a business location is very important before setting up and implementing your business ideas.
- ✗ After the COVID-19 pandemic, the government of Toronto city is ready to invest in small-scale industry
- ✗ The objective is to determine a suitable place to open a business venue using data analysis.





# *Data Sources*





## *Data Sources*

### Data Requirement:

- X List of Postal Codes of city of Toronto
- X The Latitude and Longitude co-ordinates of the neighborhoods





# Data Sources

Data Sources:

- X Wikipedia
- X Geocoder library
- X Foursquare API





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# *Work Methodology*





## *Work Methodology*

- ✗ Extract Data from Wikipedia
- ✗ Get co-ordinates using Geocoder
- ✗ Use Foursquare API to get data of existing venues
- ✗ Group data using One-hot encoding
- ✗ Create a Data frame of neighborhoods to analyze
- ✗ Cluster Data using k-means clustering







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Results

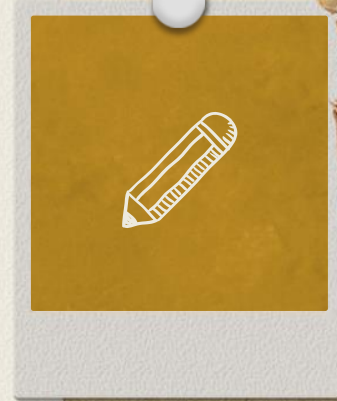




## Results

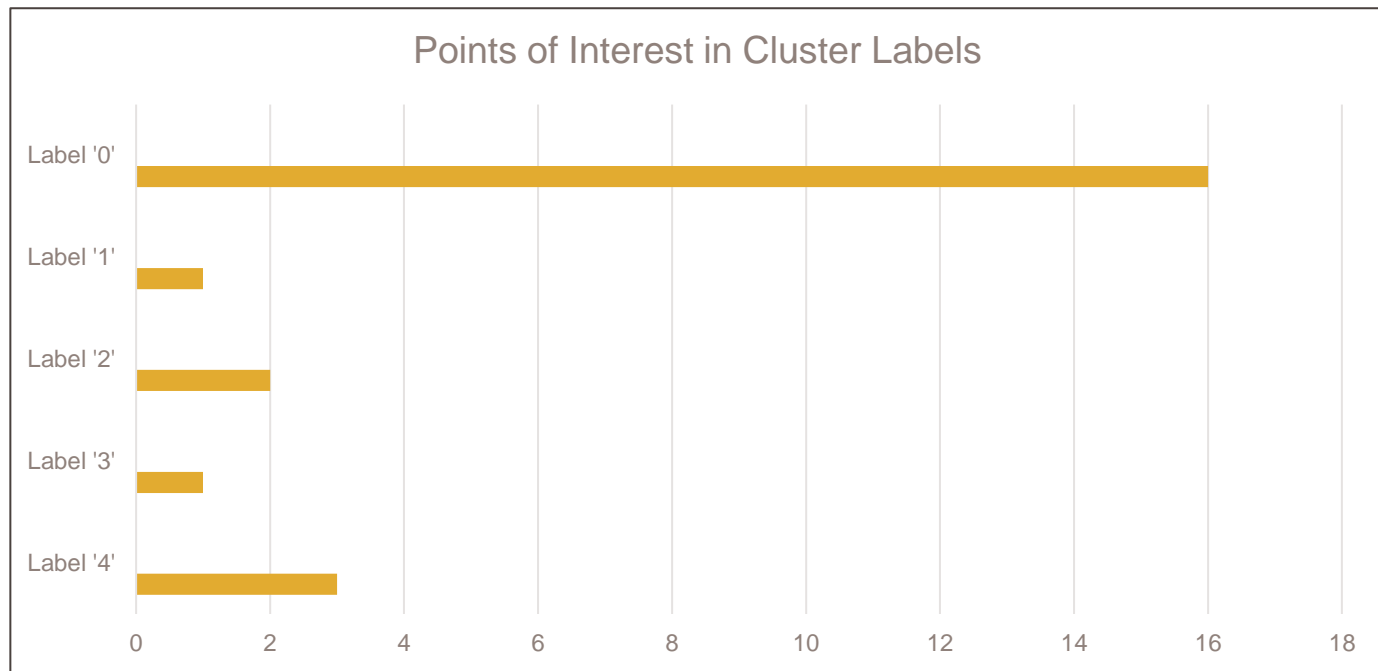
Table showing Cluster labels along with presence of clusters in that particular neighborhood

Cluster Label	Total points of interest	Remarks (Presence of existing business ventures)
0	16	High presence
1	1	Low Presence
2	2	Low Presence
3	1	Low Presence
4	3	Moderate Presence



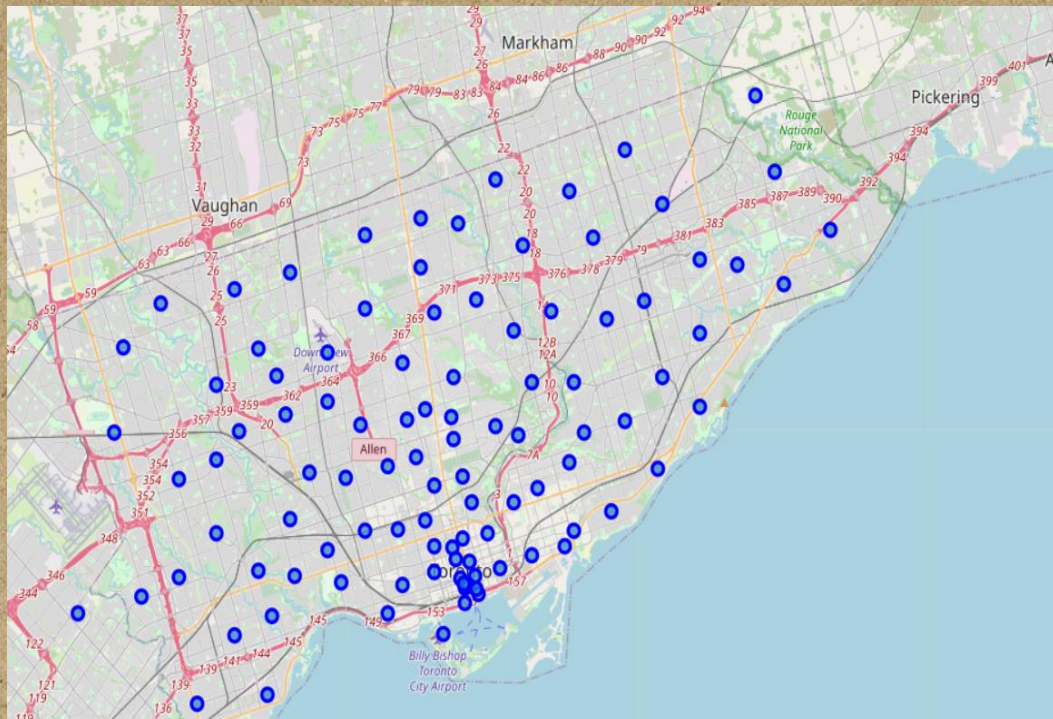


# Results





# Map of Toronto city with clusters









## *Discussion*

- ✗ Clusters 1,2 and 3 have high probability to setup a business venue.
- ✗ Cluster 0 and 4 have low probability and should be avoided.









## *Conclusion*

- ✗ **Solution of Business Problem** : Clusters 0 and 4 are highly recommended to open up a business venue.
- ✗ **For stakeholders** : Other factors should also be considered before opening up a business venture.







**Thank You**