

# Best Business choice in Toronto

## Introduction

Based on what I did in week 3 for segmenting and clustering neighbourhood in Toronto, I will then explore that which choice would be the best choice to operate businesses in Toronto. Toronto is one of the biggest city in Canada. The population and people's common venues (performances) are important factors for us to choose one business. Through python, I will decide which type of business is the most popular in Toronto.

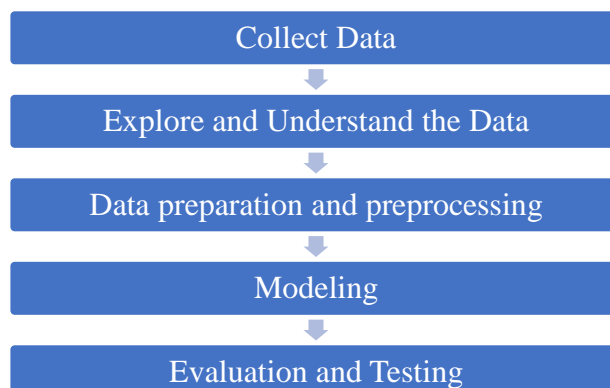
## Objectives

- Find the best business choice
- Which type of business is the most popular in Toronto

## Data Description

- Toronto neighborhood data
- Latitude and longitudes about each neighborhood in Toronto
- Postal code for each neighborhood in Toronto

## Methodology



### 1. web-scraping

When gathering the neighborhood data of Toronto, I used the Wikipedia data on web

pages, with the application of the BeautifulSoup python library.

## 2. K-Means Clustering

Machine learning algorithm is the best choice for this problem-solving. Out of this algorithm, k-Means clustering method was utilized to group similar datasets based on similar properties. In this case, I used 5 clusters to group these neighborhoods.

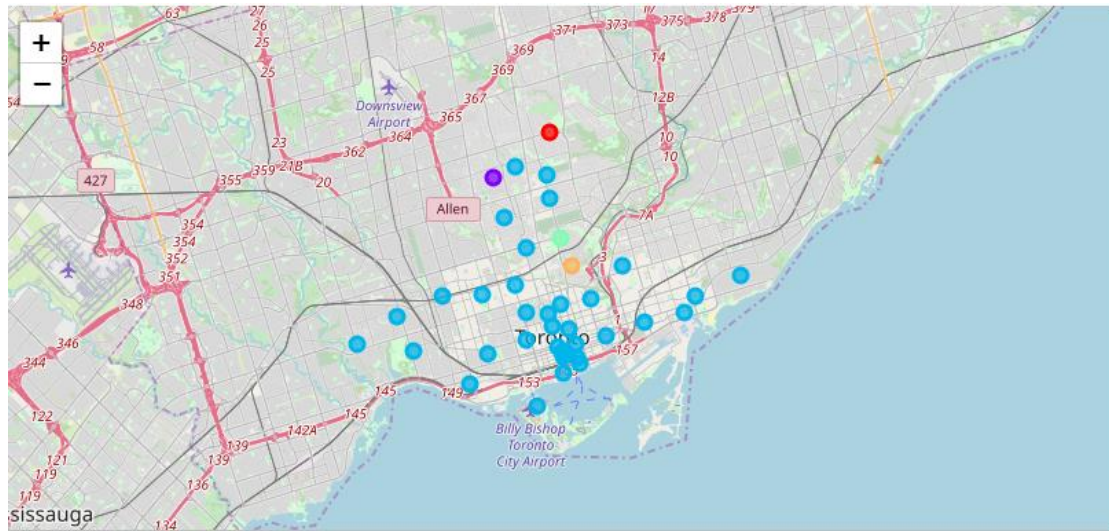


Figure 1: K-means result

Table 1: Most common venue

1st Most Common Venue	
Coffee Shop	16
Café	3
Sandwich Place	2
Bar	2
Park	1
Greek Restaurant	1
Pharmacy	1
Gift Shop	1
Light Rail Station	1
Japanese Restaurant	1
Airport Service	1
Neighborhood	1
Gym	1
Grocery Store	1
Thai Restaurant	1

As shown in the table, coffee shops tend to be the most common venue in Toronto, with

the total number of 16.

## **Conclusion**

Coffee shops will be the most popular venue in Toronto. If open a new business in Toronto, coffee shops will be the most prime choice.