The Battle of Neighborhoods

BY: Mohamed Ashraf Gaber

Introduction

- The purpose of this project is to recommend places for people who are traveling too much and need to know what is the best place to go and visit.

The Problem

- The problem is that we want to get all places in Toronto and arrange them so when anyone wants to visit the city we easily give him the best places including coffee shops, restaurants, hotels, etc.

The Data

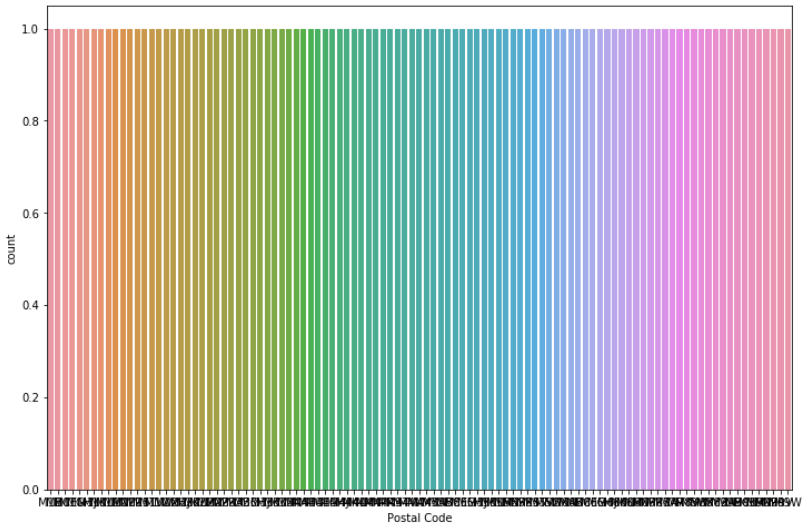
- First: (List of postal codes of Canada: M) From Wikipedia. This is a list of postal codes in Canada where the first letter is M. Postal codes beginning with M are located within the city of Toronto in the province of Ontario. Only the first three characters are listed, corresponding to the Forward Sortation Area.

- Second: this is a link to a CSV file that has the geographical coordinates of each postal code

Data Visualization

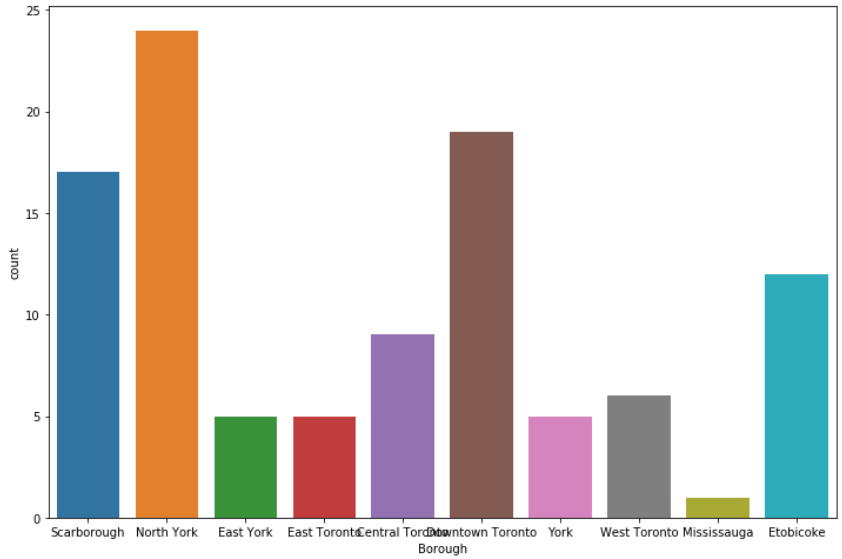
- This visualize for Postal Code:-
- After seeing it we will notice that there is a lot of Postal Code.

```
In [10]: plt.figure(figsize=(12, 8))
         sns.countplot('Postal Code', data=df)
Out[10]: <matplotlib.axes._subplots.AxesSubplot at 0x1abee955f08>
```



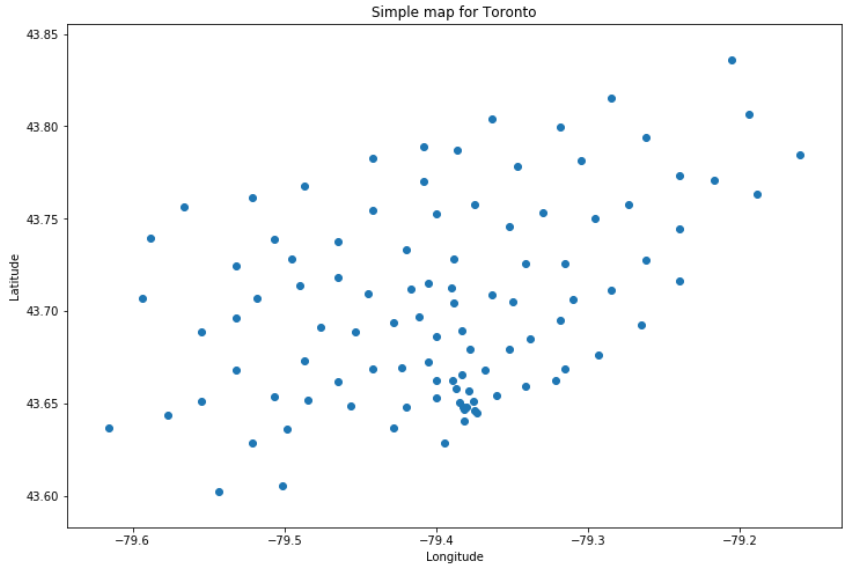
- This visualize for Borough:-
- And this is more clear and clean than Postal code.

```
In [11]: plt.figure(figsize=(12, 8))

         sns.countplot('Borough', data=df)

Out[11]: <matplotlib.axes._subplots.AxesSubplot at 0x1abeee3b948>
```



- And for last I made a simple map for Toronto by using the longitude and latitude columns:

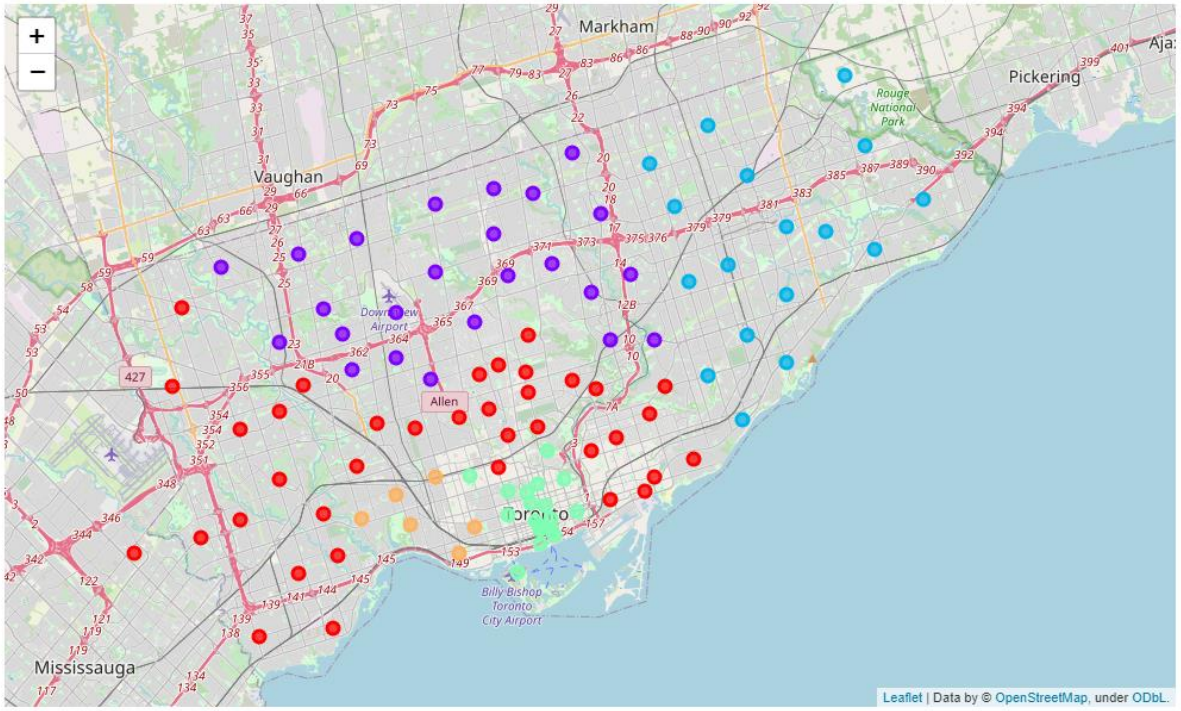
```
In [12]: plt.figure(figsize=(12, 8))

         plt.scatter(x='Longitude', y='Latitude', data=df)

         plt.xlabel('Longitude')
         plt.ylabel('Latitude')
         plt.title('Simple map for Toronto')

         plt.show()
```



Building the model

- Now I built the model and visualize the clear map for Toronto with the cluster on it.
- And this is the result:-

Out[16]:



Thank YOU ☺ <3