

Battle of Neighborhoods

Italian Restaurant in Toronto

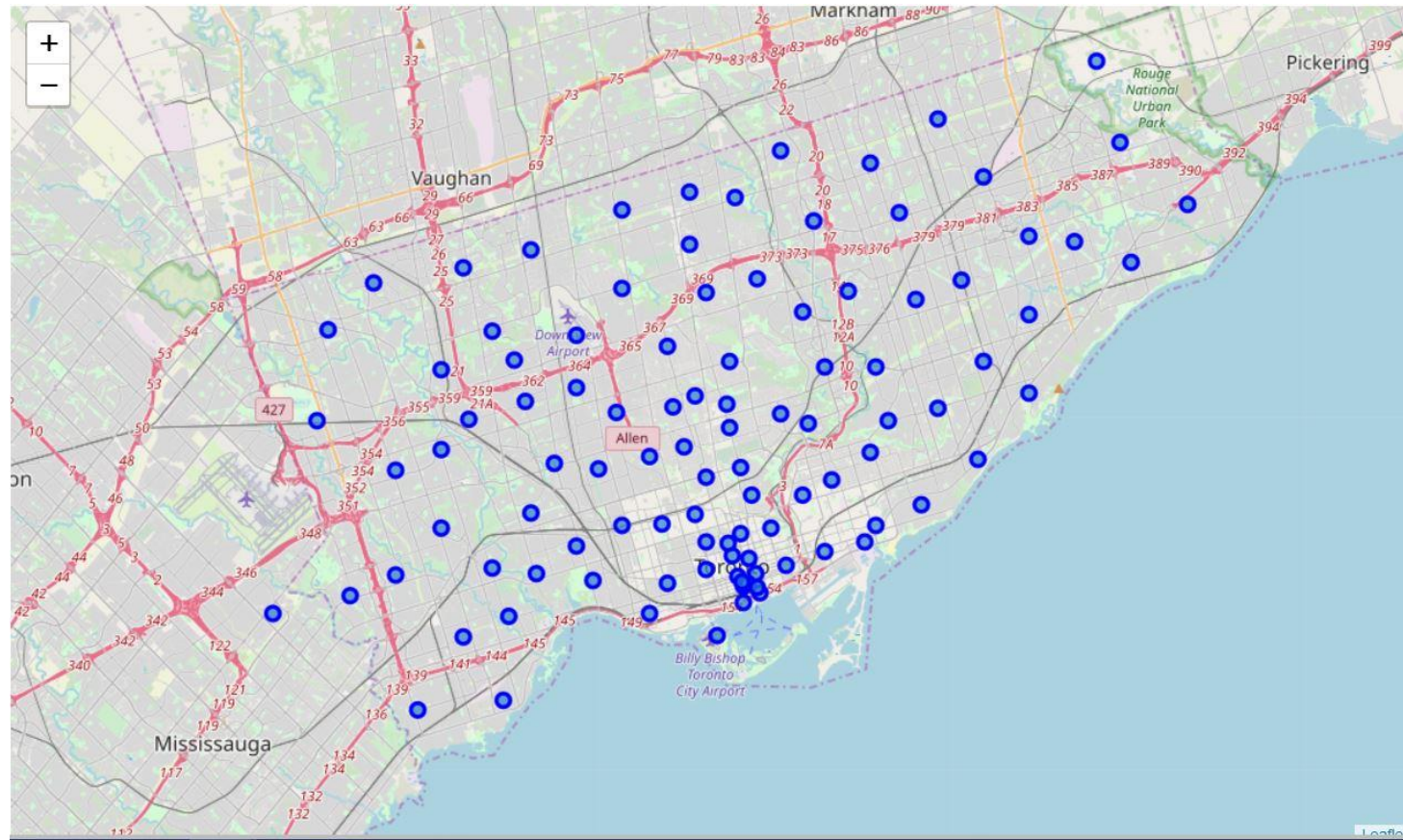
Business Problem

- Toronto is a cosmopolitan city
- It has a lot of restaurants catering to different cuisines
- How to find a suitable location for setting up an Italian Restaurant in Toronto

Data Acquisition and Cleaning

- Toronto related neighborhood data extracted from Wikipedia
- Neighborhood coordinates data obtained from cocl.us
- Pandas library is used in cleaning the data.

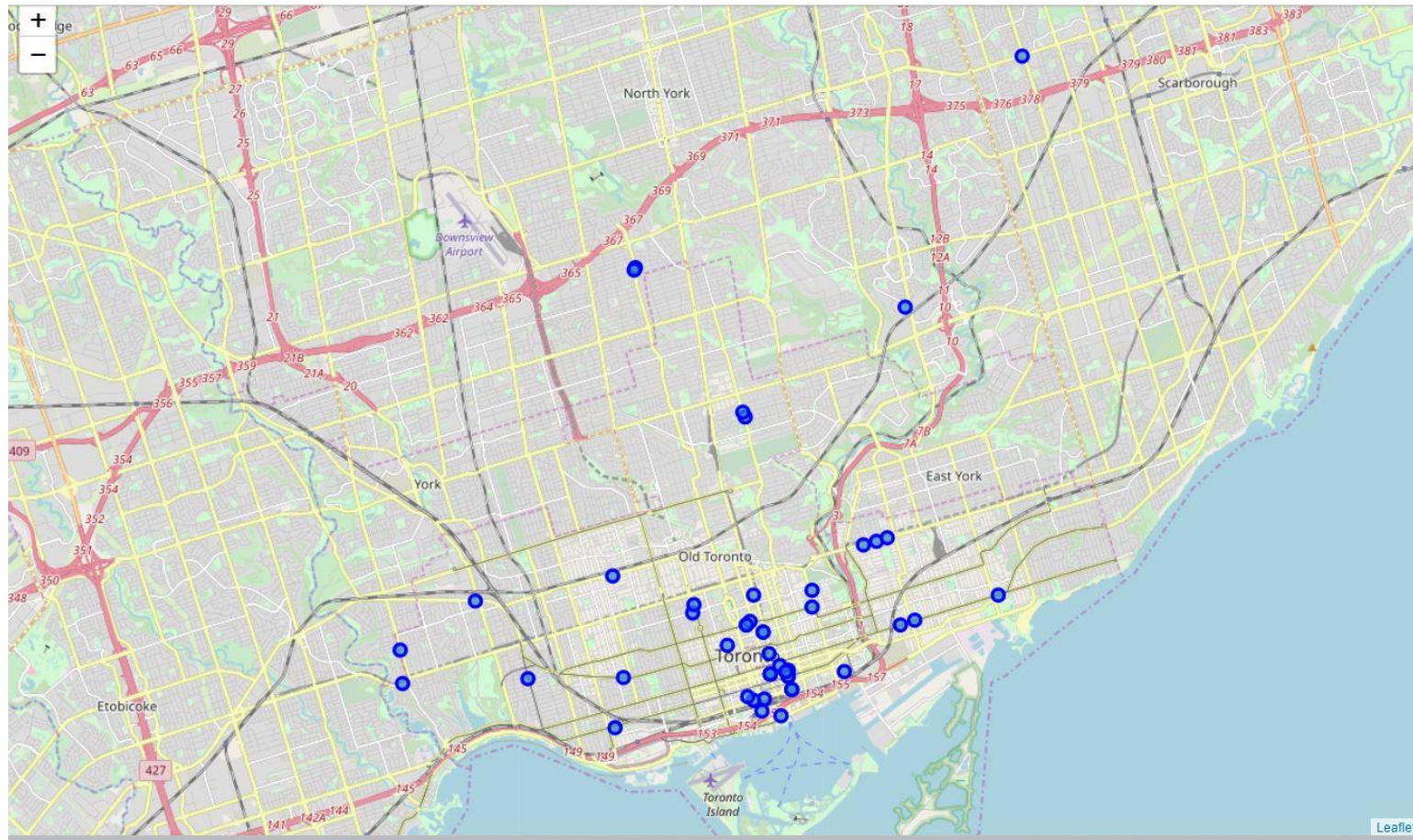
Neighborhoods in Toronto Map



Foursquare API

- Foursquare API is used in exploring the neighborhoods of Toronto
- Locations of the Italian Restaurants are found out.
- There are a total of 49 Italian restaurant in Toronto

Italian Restaurants in Toronto map

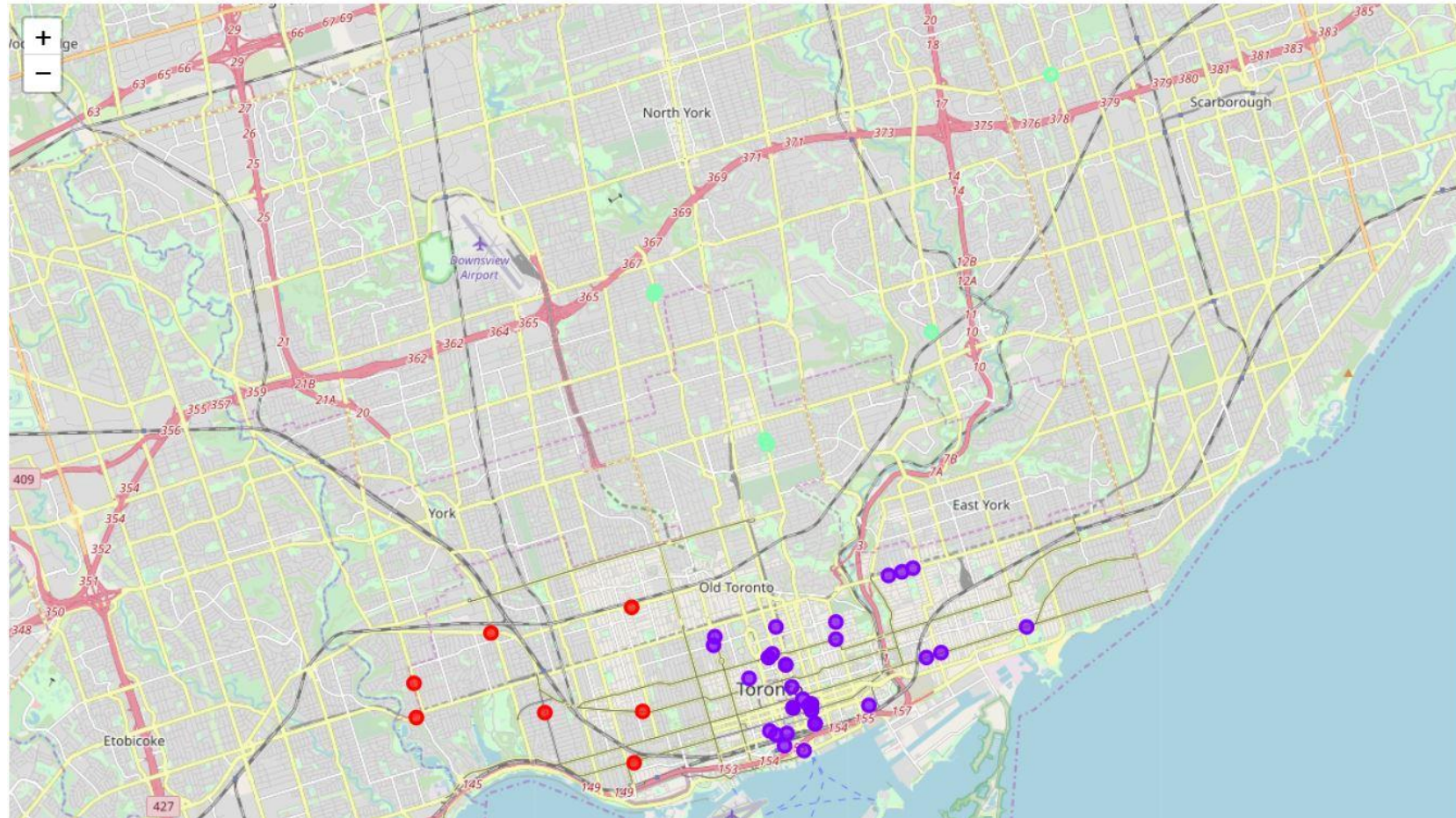


Clustering

- KMeans clustering is used to cluster the restaurants
- Latitudes and Longitudes of the restaurants are used as features
- They are divided into three clusters
- Cluster-0 has 7 Italian restaurants
- Cluster-1 has 29 Italian restaurants
- Cluster-2 has 6 Italian restaurants

Clustered restaurants on map

Cluster-0: Red
Cluster-1: Purple
Cluster-2: Green

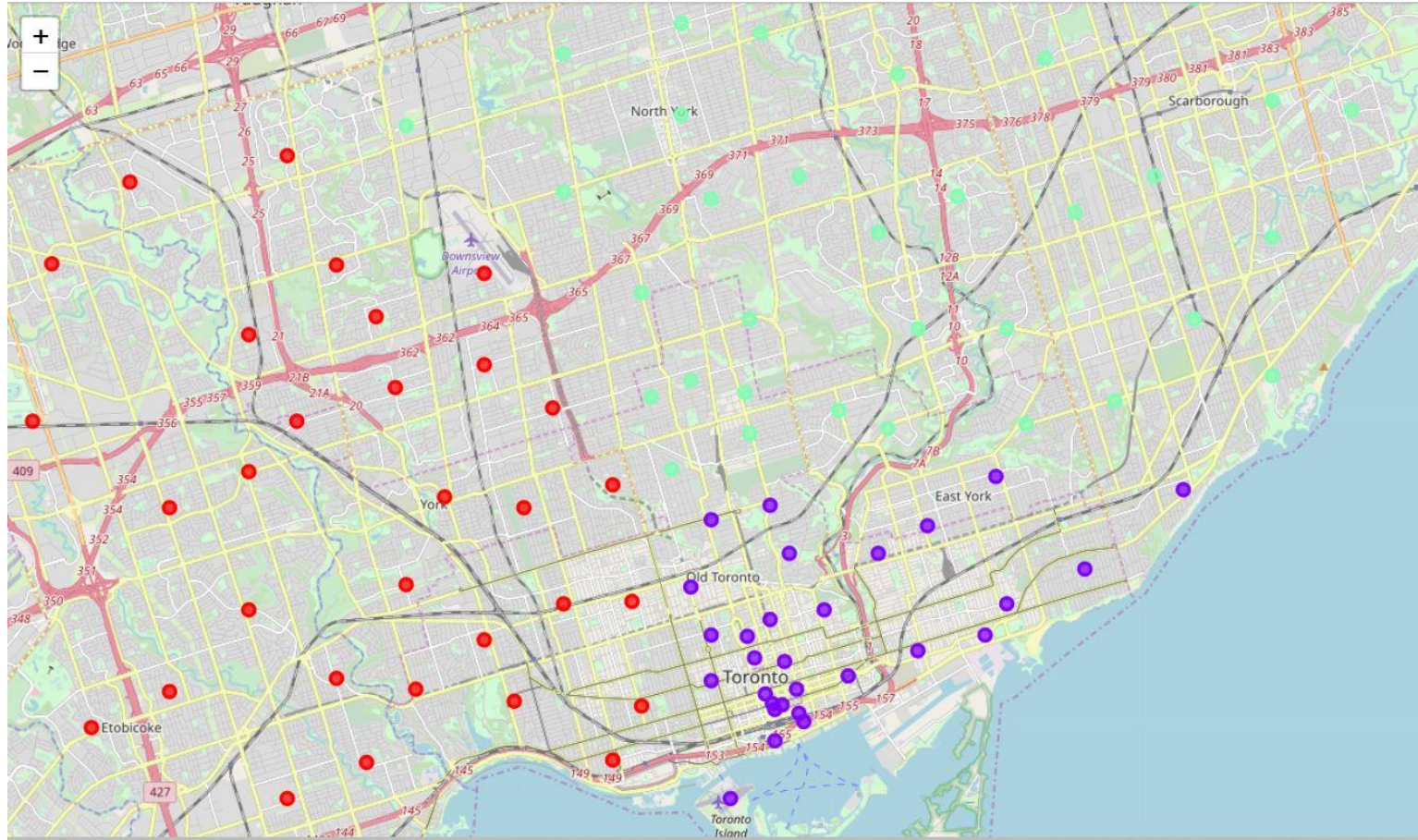


Sorting Neighborhood into clusters

- Using the clustering of the restaurants, the neighborhoods are sorted based on their coordinates
- Cluster-0 has 34 neighborhoods
- Cluster-1 has 29 neighborhoods
- Cluster-2 has 40 neighborhoods

Sorted neighborhoods on map

Cluster-0: Red
Cluster-1: Purple
Cluster-2: Green



Density of Italian restaurants

- Density is calculated based on the number of Italian restaurants and neighborhoods in a particular cluster
- Density of cluster-0 = 0.206
- Density of cluster-1 = 1
- Density of cluster-2 = 0.15
- It can be seen that cluster-2 has the least density

Decision

- Since cluster-2 has the least density of Italian restaurants, the neighborhoods belonging to that cluster can be suitable locations
- Hence, East of Toronto appears to be the most likely location to get a good business for a Italian Restaurant

Conclusion

- Toronto is a big city with many neighborhoods
- Neighborhoods are explored using Foursquare API to decide suitable location for an Italian Restaurant
- East of Toronto appears to be an appropriate location to get good business for an Italian Restaurant
- The procedure in this presentation can be used by anyone searching for good location to set up a restaurant in various places around the world.