The Battle of Neighborhood

Introduction

Opening a business in Toronto is a target of this project. To choose the business type and the location of the business, the location data and characteristic of each region should be investigated. To achieve this goal, the borough and area data would be imported from the Foursquare as we have some experience on that

Postcode	Borough	Neighbourhood	Borough
0	M1A	Not assigned	Not assigned
1	M2A	Not assigned	Not assigned
2	M3A	North York	Parkwoods
3	M4A	North York	Victoria Village
4	M5A	Downtown Toronto	Harbourfront
5	M6A	North York	Lawrence Heights
6	M6A	North York	Lawrence Manor
7	M7A	Downtown Toronto	Queen's Park
8	M8A	Not assigned	Not assigned
9	M9A	Queen's Park	Not assigned

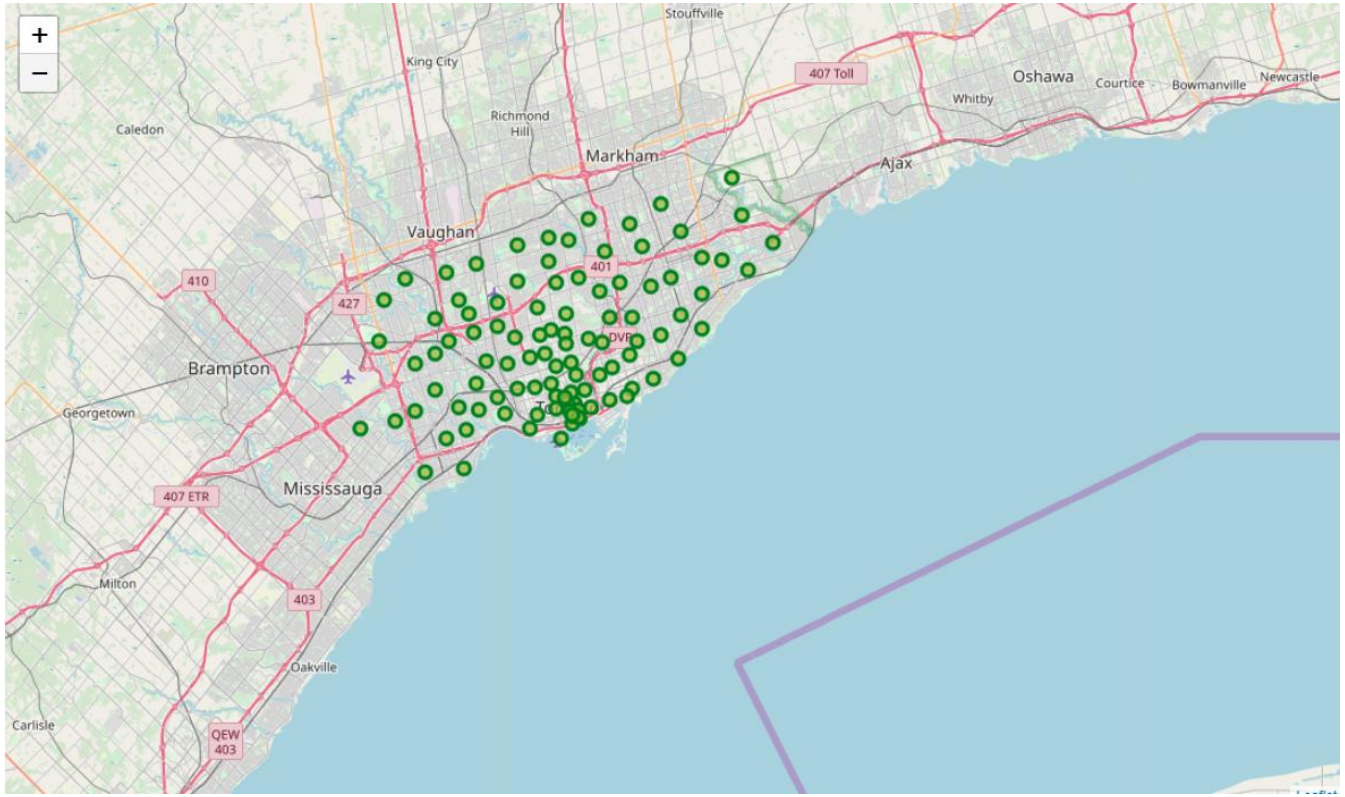
Data Acquisition

As we do for the previous project, the area/borough segmentation can be done according to the data in Wikipedia. Foursquare data will be added once needed to investigate the area venue information

Scraping the data from the Wikipedia and creating neighborhood table

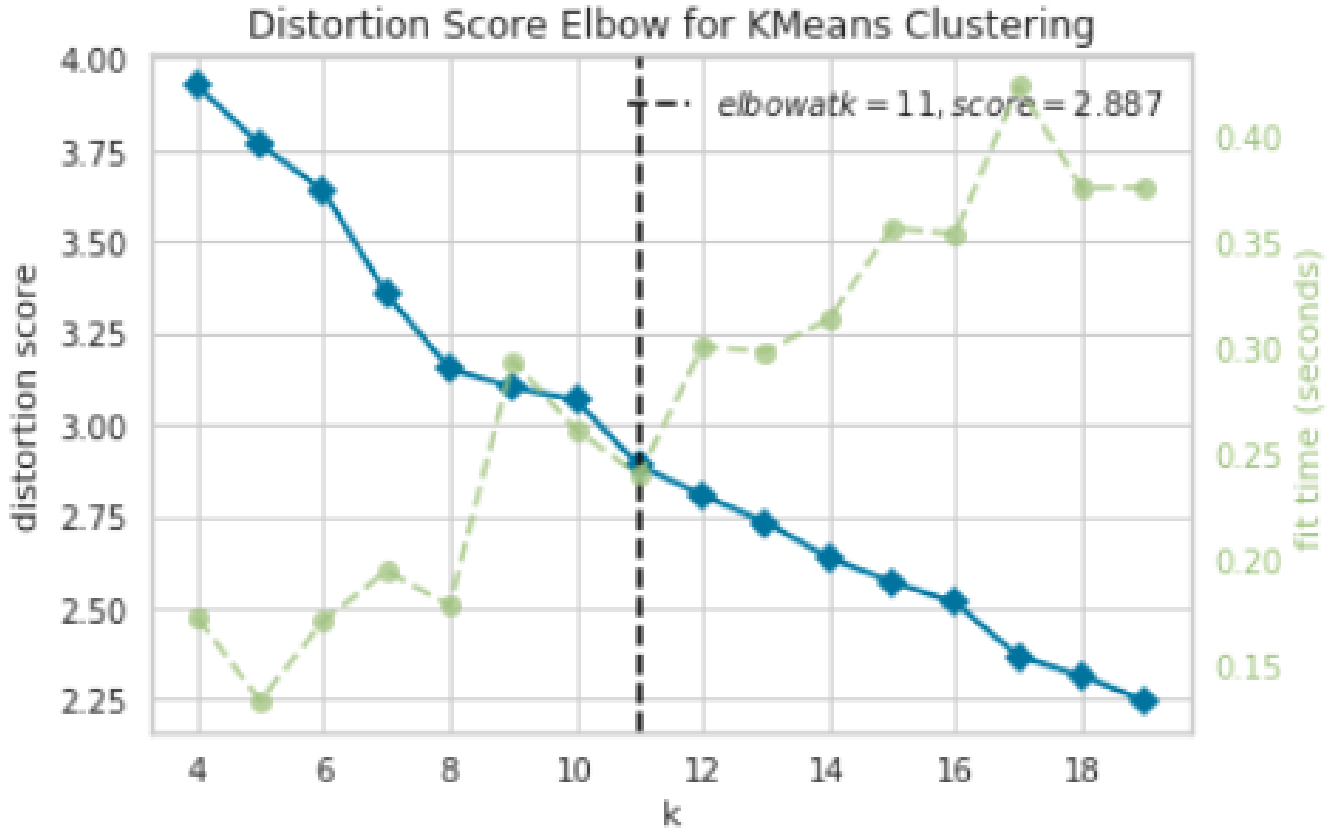
Using postal code data from Wikipedia, assign the neighborhood into postal code and borough

Visualization with Folium



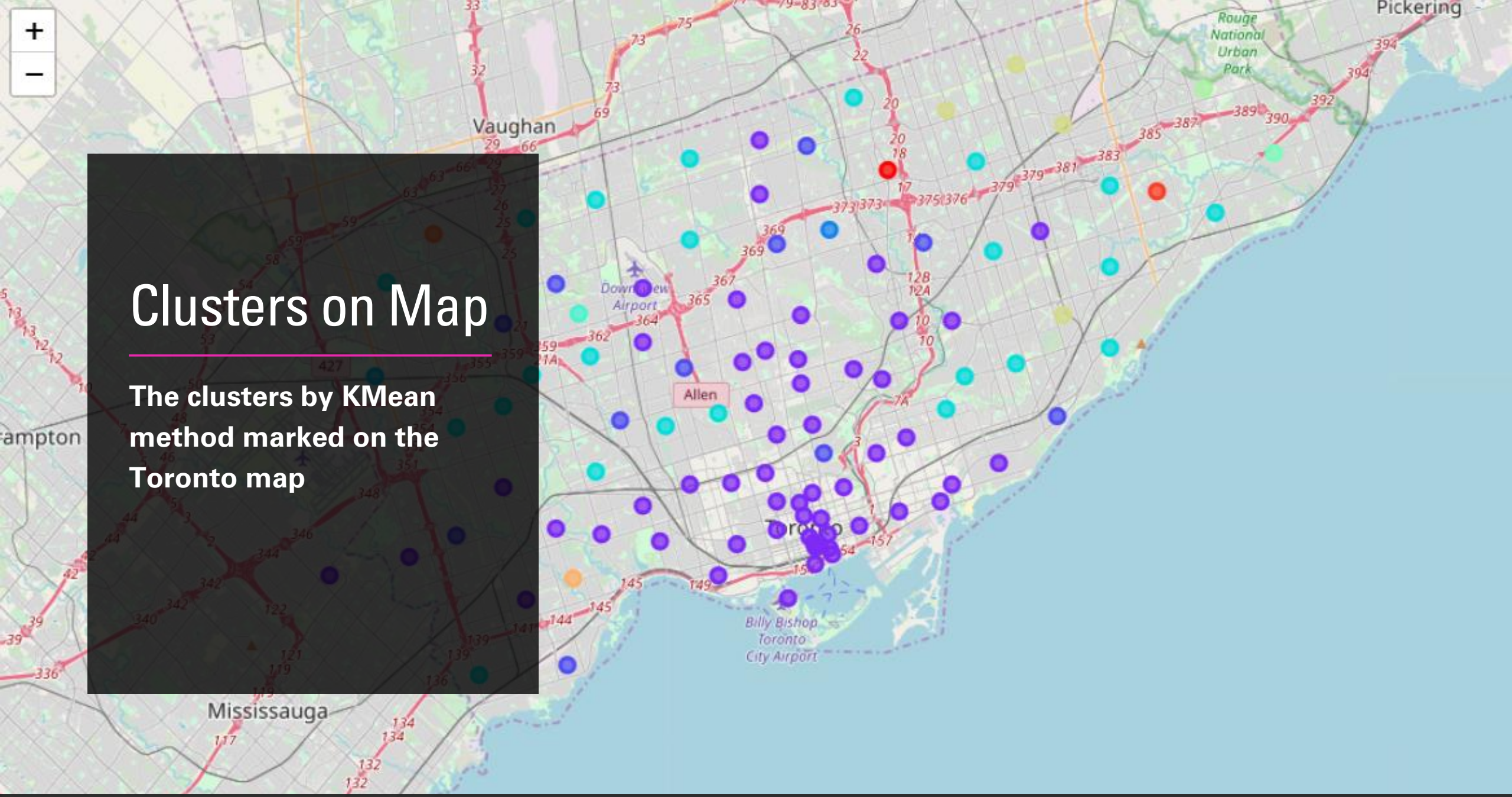
Neighborhood Data from Foursquare

	NEIGHBOURHOOD	1ST MOST COMMON VENUE	2ND MOST COMMON VENUE	3RD MOST COMMON VENUE	4TH MOST COMMON VENUE	5TH MOST COMMON VENUE	6TH MOST COMMON VENUE
0	Adelaide, King, Richmond	Café	Coffee Shop	Hotel	Theater	Restaurant	Sushi Restaurant
1	Agincourt	Chinese Restaurant	Shopping Mall	Caribbean Restaurant	Sandwich Place	Bakery	Shanghai Restaurant
2	Agincourt North, L'Amoreaux East, Milliken, St...	Chinese Restaurant	Bakery	Pizza Place	Noodle House	Park	Grocery Store
3	Albion Gardens, Beaumond Heights, Humbergate, ...	Pizza Place	Grocery Store	Bus Line	Fried Chicken Joint	Beer Store	Sandwich Place
4	Alderwood, Long Branch	Discount Store	Pharmacy	Pizza Place	Sandwich Place	Skating Rink	Donut Shop
5		Pizza Place	Coffee Shop	Ski Area	Bathurst Manor, Downsview North, Wilson Heights	Sushi Restaurant	Fried Chicken Joint



K Mean

Determine the best K value for the KMean Clustering method. Elbow method choose 11 as K



Clusters on Map

The clusters by KMean method marked on the Toronto map