

Clustering & Comparing The Neighbourhoods In New York & Toronto



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- New York and Toronto are financial capitals of US and Canada
- Both are huge, diverse and cosmopolitan cities.
- Two higher GDP cities in the world
- People move between these two cities due to
 - finding jobs
 - Starting new business
 - Travelling
 - Shopping



Motivation

- Suppose a person wants to move from New York to Toronto for a job or start a new business. This person does not know anything about Toronto and he would like to move into a similar place where he lives now in New York
- Can we make a system that can help us find him similarities between two cities?



Objectives

- Develop a system that will be able to show similarities in terms of neighborhoods in order to support user to find similar places in new city.
- Comparison similarities and differences between neighborhoods of new york and Toronto

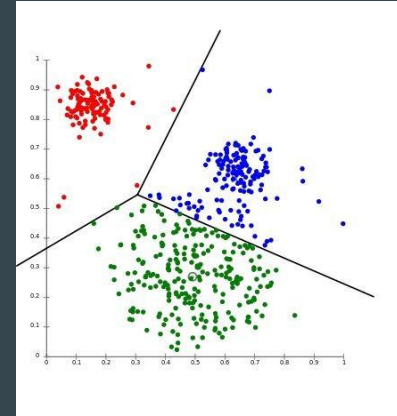


Approach

- Neighborhoods are downloaded from web
- Venues are requested using foursquare API
- One hot encoding used to categorize venues
- K-means algorithm used to find similar clusters
- Elbow method used for find optimum K

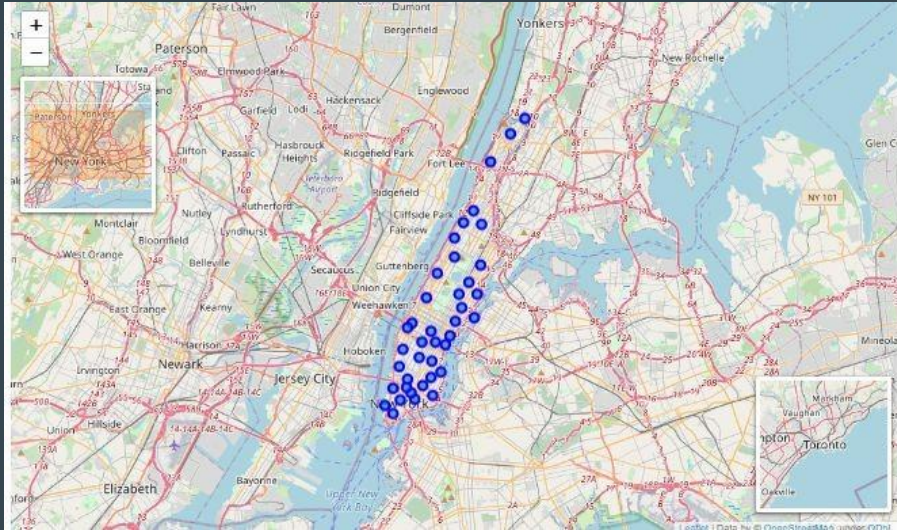


FOURSQUARE



Results

Geographical Location

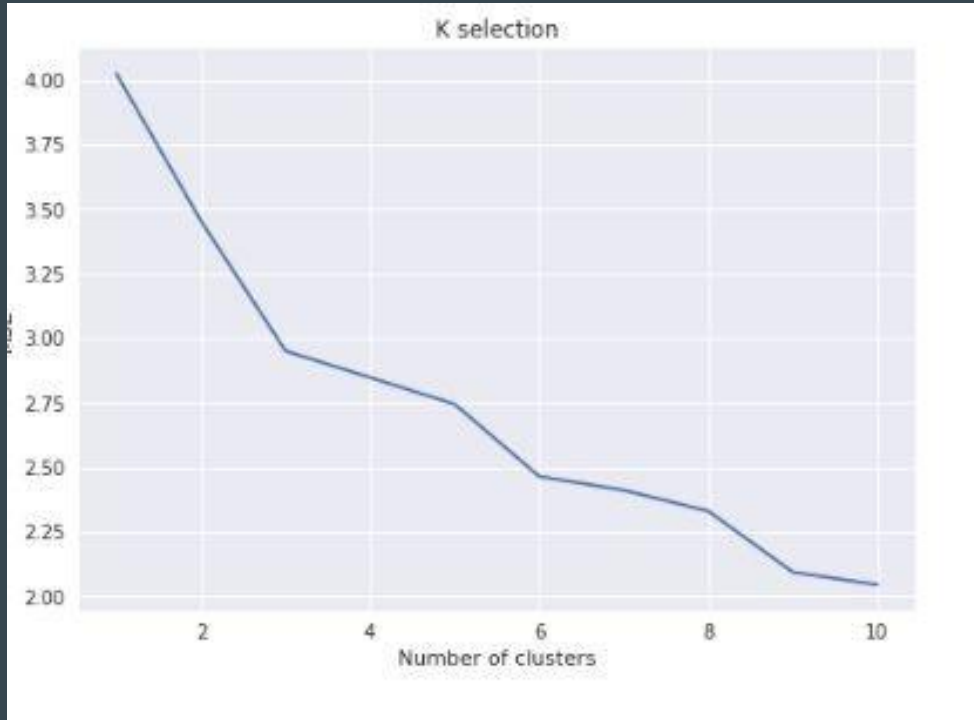


New York



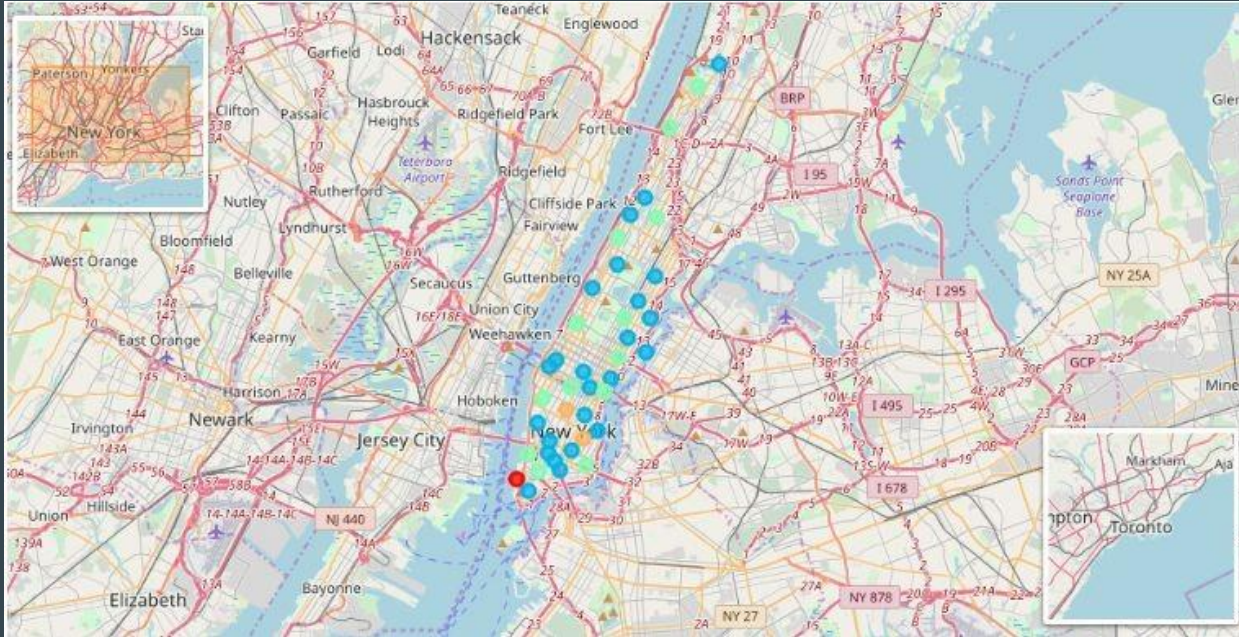
Toronto

Selection of K



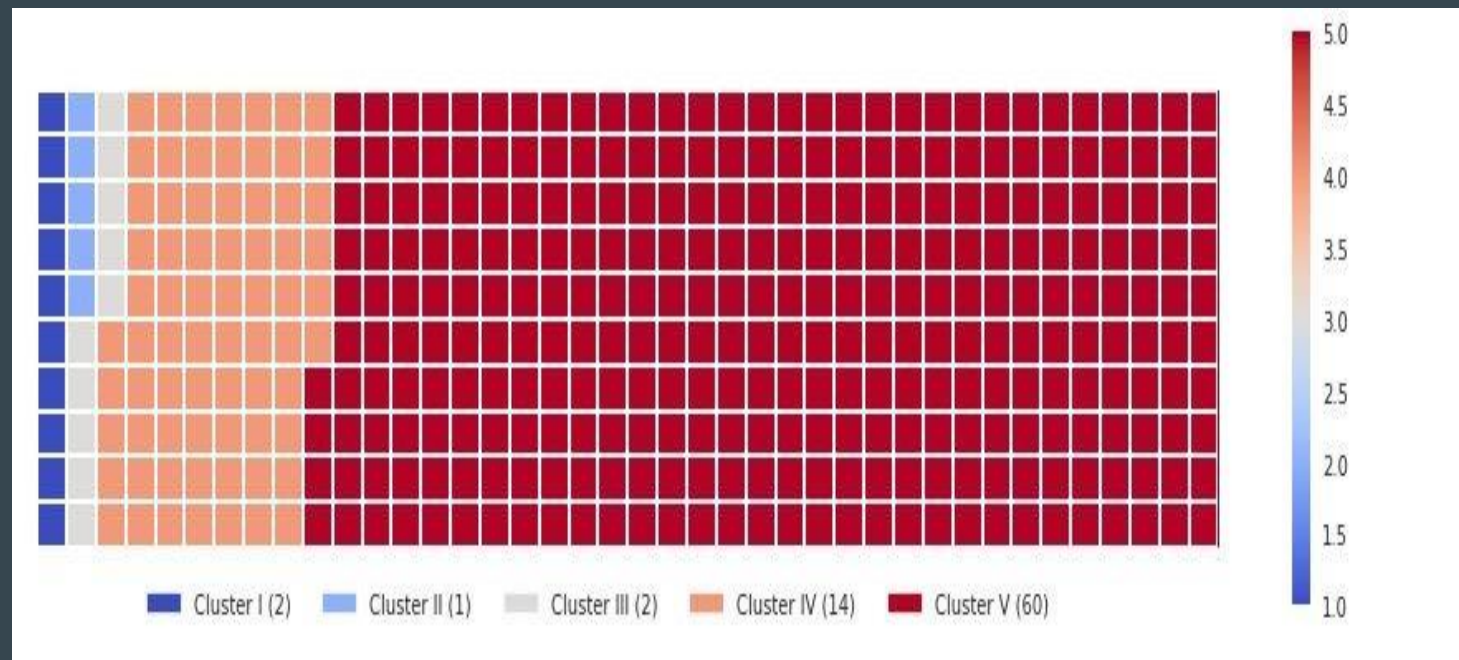
K=5 is
selected

Clustered Geographical Location

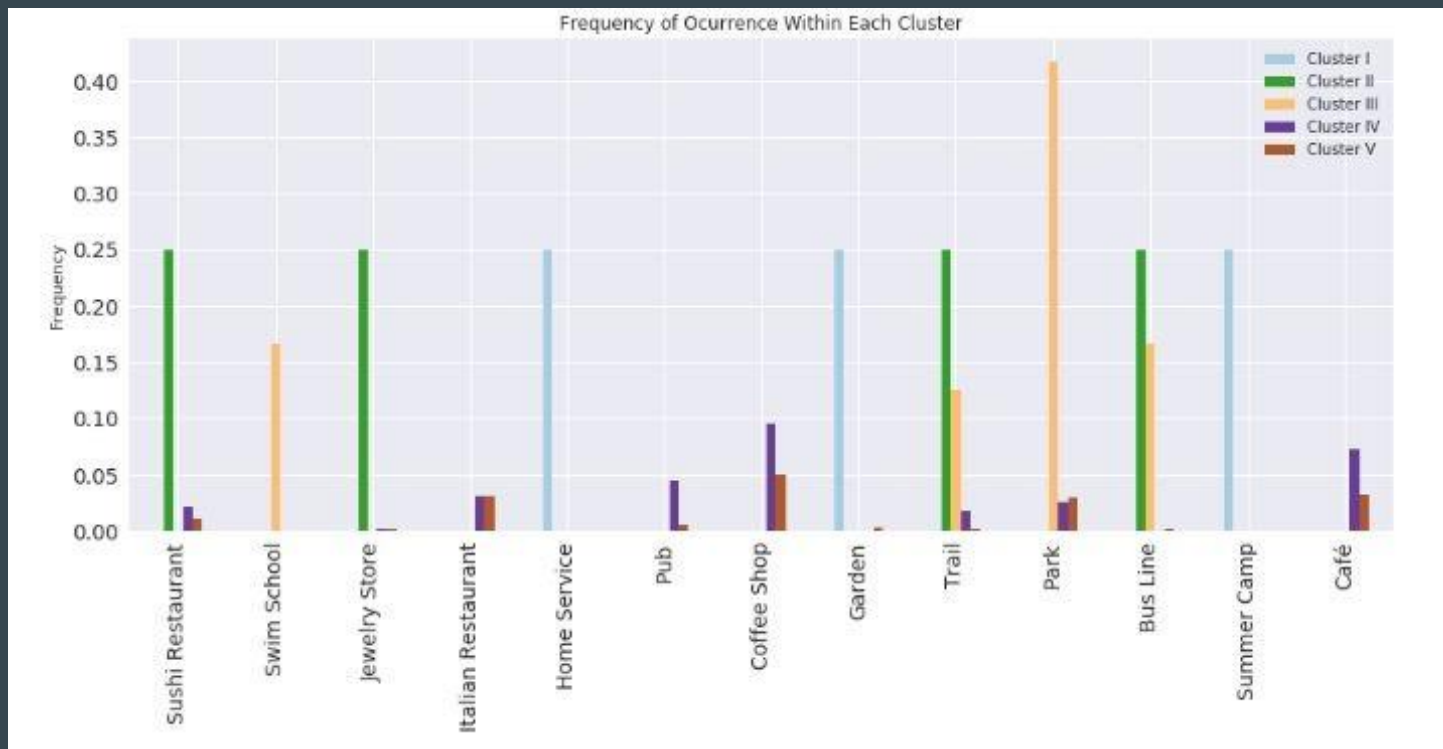


New York

Waffle Chart



Distribution of Neighbourhoods



Conclusion

- I: Neighborhoods that have around garden, Home services, Summer camp .
- II: Neighborhoods that have around sushi Restaurant, Jewellery store, Trail and Busline
- III: Neighborhoods that have around park, swim school.
- IV: Neighborhood that have around Cofe shops, pubs and cafes.
- V: Neighborhoods that have around Italian Restaurant.