A REPORT On Battle of Neighborhoods Of New York City

by
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The problem

- Grouping Different Neighborhoods of New York City into clusters of same type.
- This Can be used by people who would want set up new business for finding best location for them

DATA

NeighborHood Data

We get data of NYC Neighborhoods from here.
It is a JSON file. We extract the Neighborhood, Borough, Longitude and Latitude information from the file.

Categories

we get categories and subcategories that go into them from Foursquare

Venue list

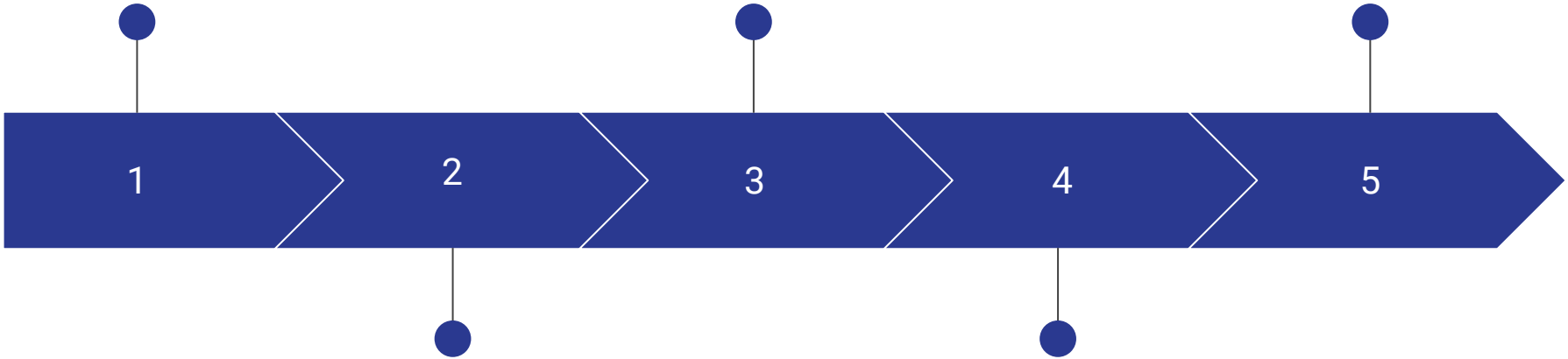
we get venues in the neighborhood from above latitude and longitude up to 1000 mt radius and Limit of 100 venues(that is max given by foursquare)

Methodology

Getting New York City Neighborhood Data

Get Venues nearby to neighborhood location

Use KMeans to Cluster the Neighborhoods

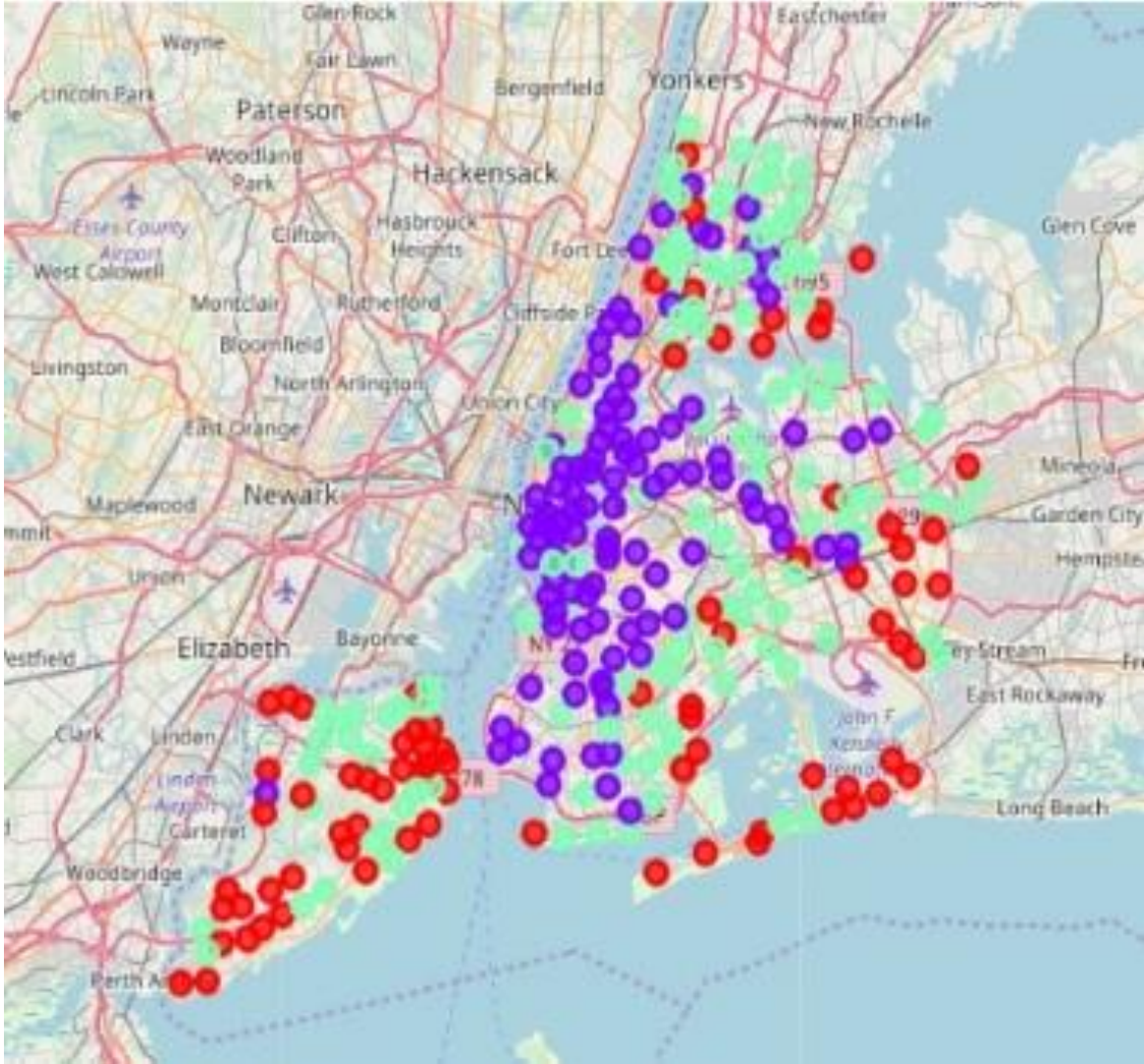


Get Categories and Sub Categories From Foursquare

PreProcess Data for Modelling

Resulting Cluster Map

Red - Cluster1
Violet - Cluster2
Green - Cluster3



Conclusion

We used Data analysis on New York City to get neighborhood types by using venues list from Foursquare API. The results show fine boundary between different clusters and also no of venues from the tables show decreasing order as we go away from violet to green to red. But there was a limitation as we get max 100 values for a query which could have give better insights