

Selecting the best  
neighborhood for  
life in New York

# Problem statement

The report target is to provide recommendation for best place for life in New York for a person, who doesn't live currently in New York. The following criteria are important for a customer:

- It should be a safe place
- There must be markets and parks
- Bakeries, pharmacies and gyms are preferable

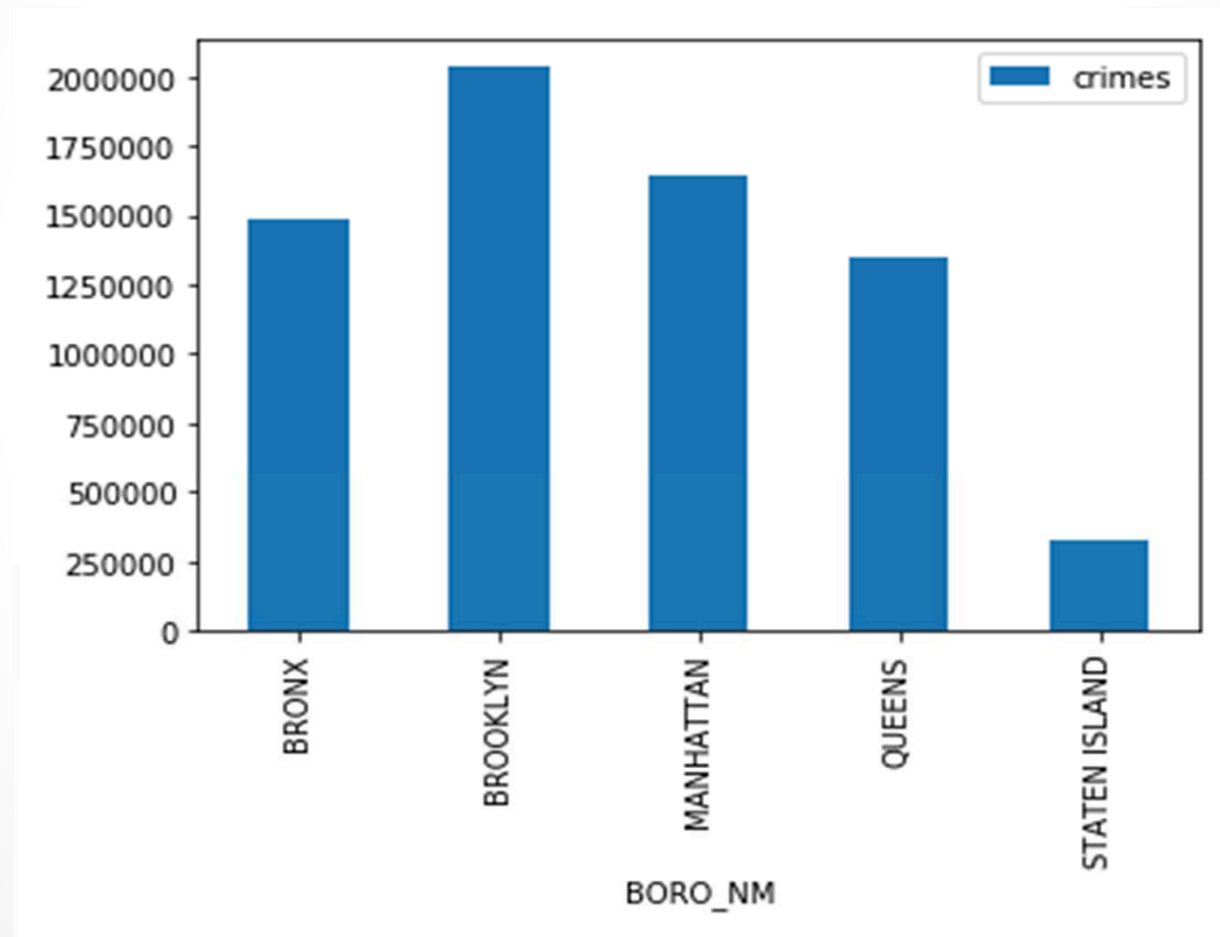
# Data sources

- New York crimes data will be obtained from official source:  
<https://data.cityofnewyork.us/api/views/qgea-i56i/rows.csv>.
- New York neighborhoods geo information will be downloaded from  
[https://cocl.us/new\\_york\\_dataset](https://cocl.us/new_york_dataset).
- Foursquare will be used to obtain information about venues in each neighborhood.

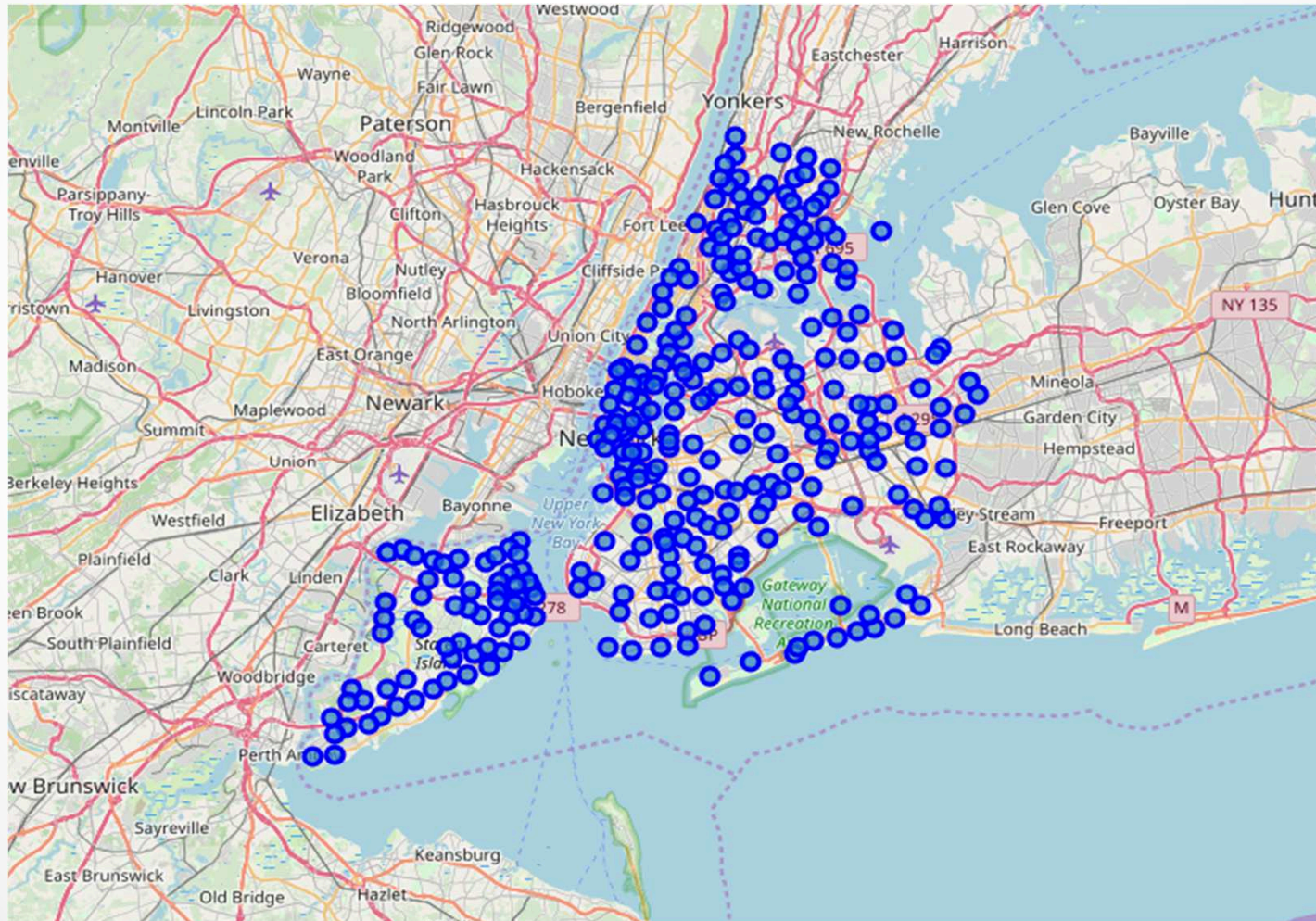
# Data usage

- Total crimes count per New York borough for safety criteria
- Neighborhoods coordinates for map visualizations
- Venues category for required venues frequencies analysis per borough

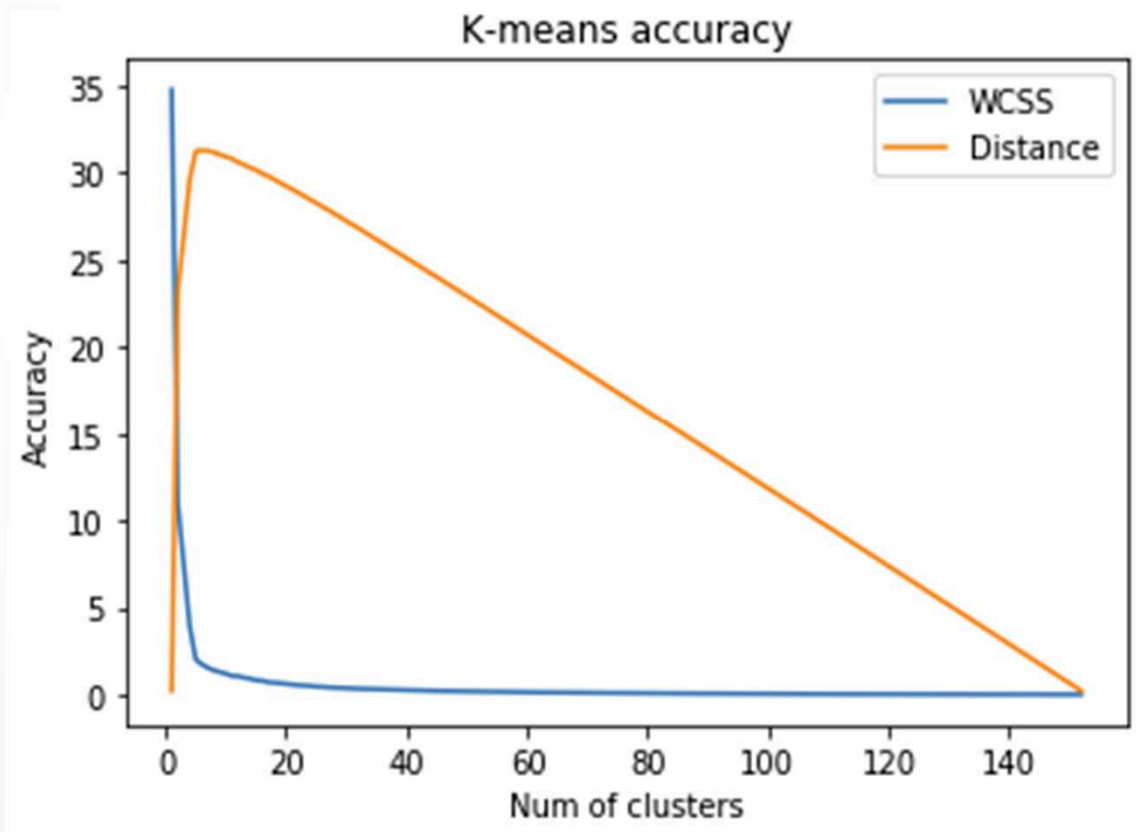
# Crimes per borough



# NY neighborhoods

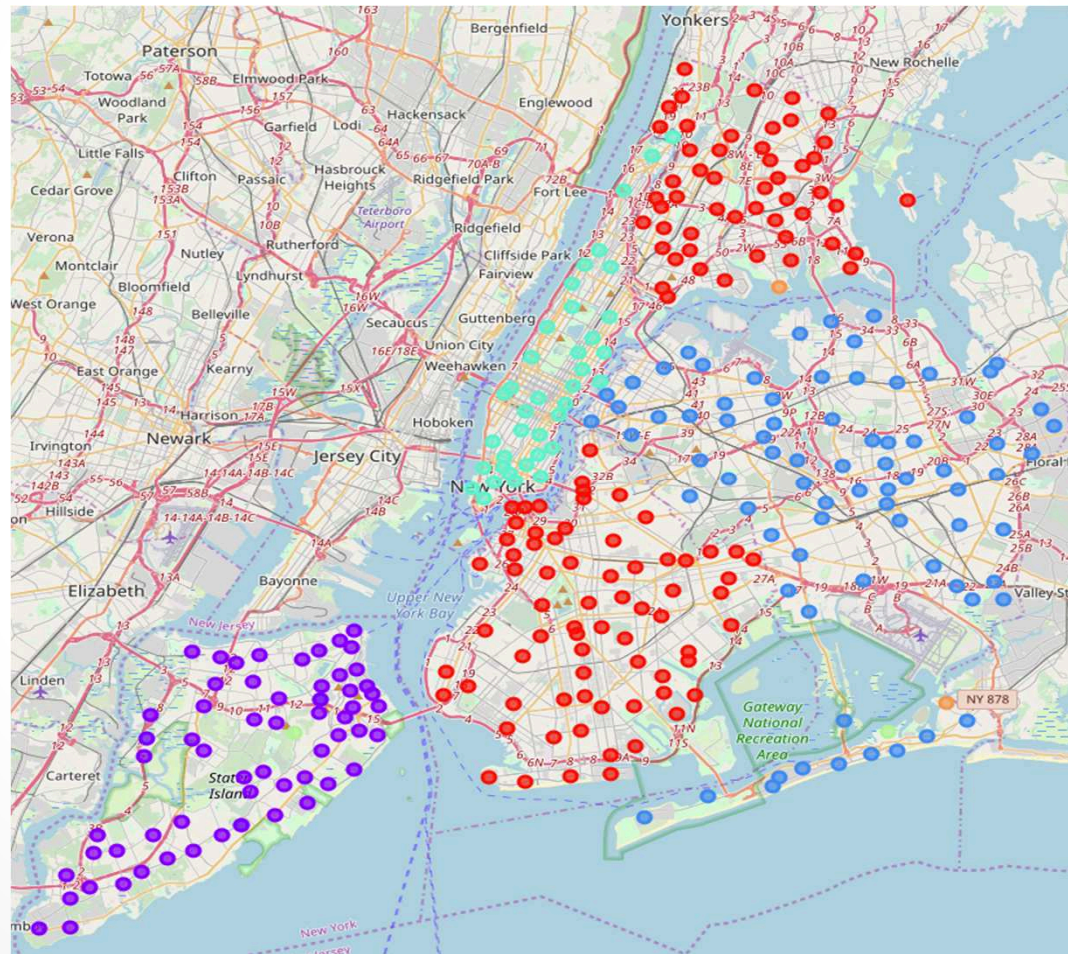


# Clusters number detection



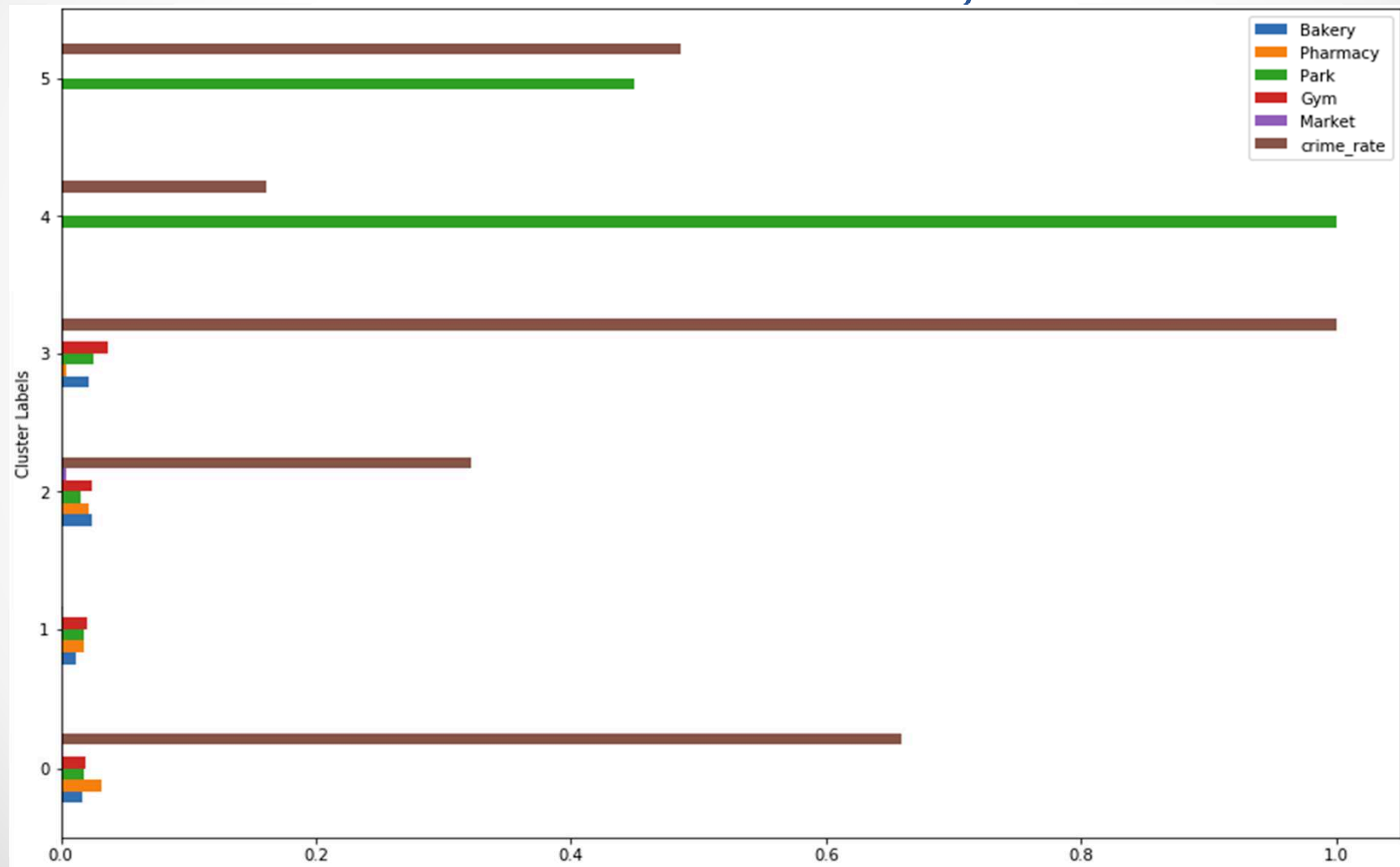


# Neighborhoods clustering





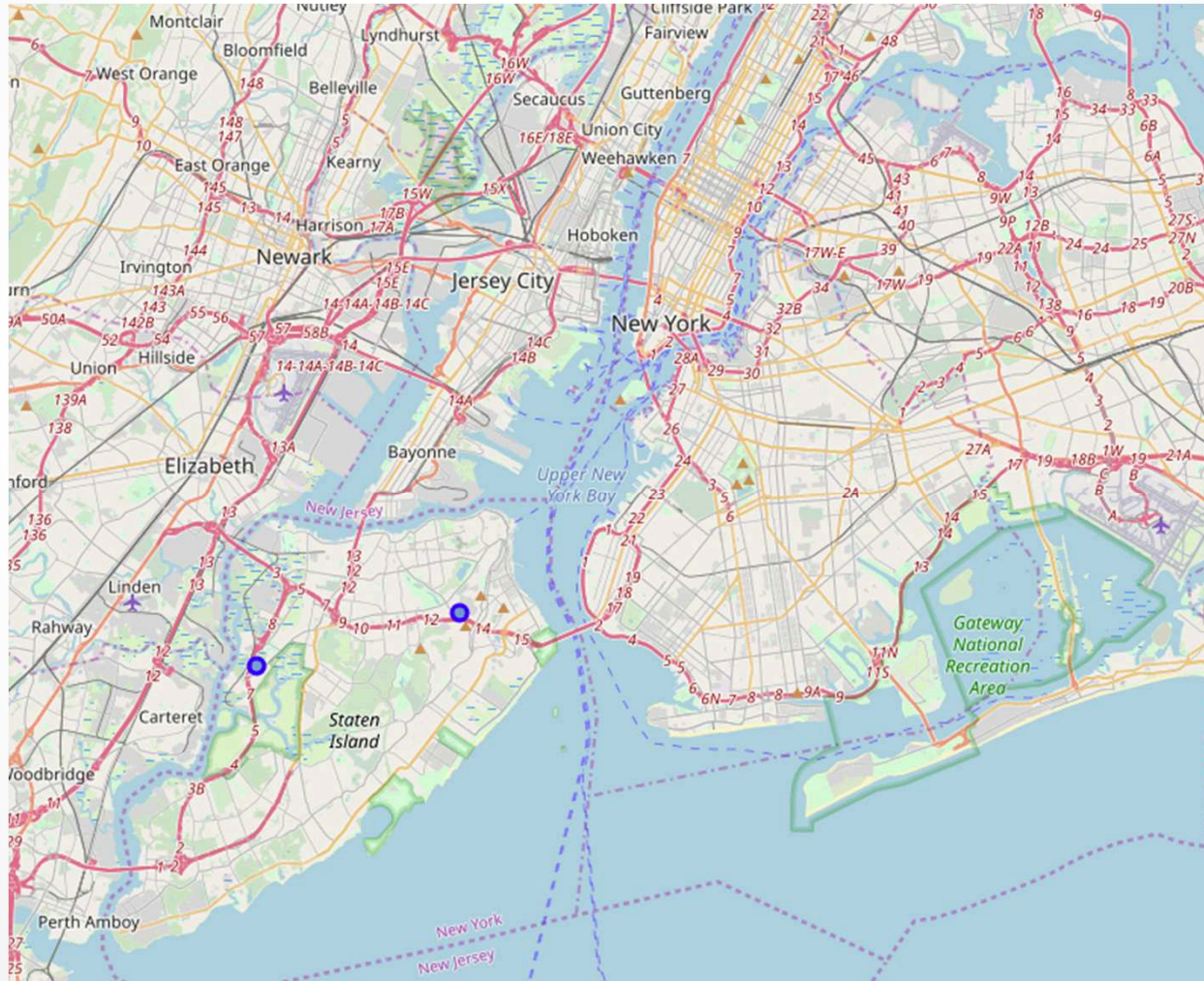
# Clusters analysis



# Final recommendations

	Borough	Neighborhood	Bakery	Pharmacy	Park	Gym	Market	crime_rate
51	Staten Island	Chelsea	0.056604	0.0	0.009434	0.009434	0.018868	0.0
266	Staten Island	Sunnyside	0.041667	0.0	0.020833	0.041667	0.020833	0.0

# Final recommendations



# Conclusion

- In this study New York neighborhoods were analyzed to find best match for customer's requirement for a place to live
- Official New York crime data and Forsquare API were used to combine data for an analysis
- Neighborhoods clustering was performed using K-means algorithm
- Two neighborhoods candidates may be offered to the customer as the result of this study.