STUDY IN NEW YORK UNIVERSITY

For IBM Data Science final assignment

Final assignment for IBM Data Science

Introduction

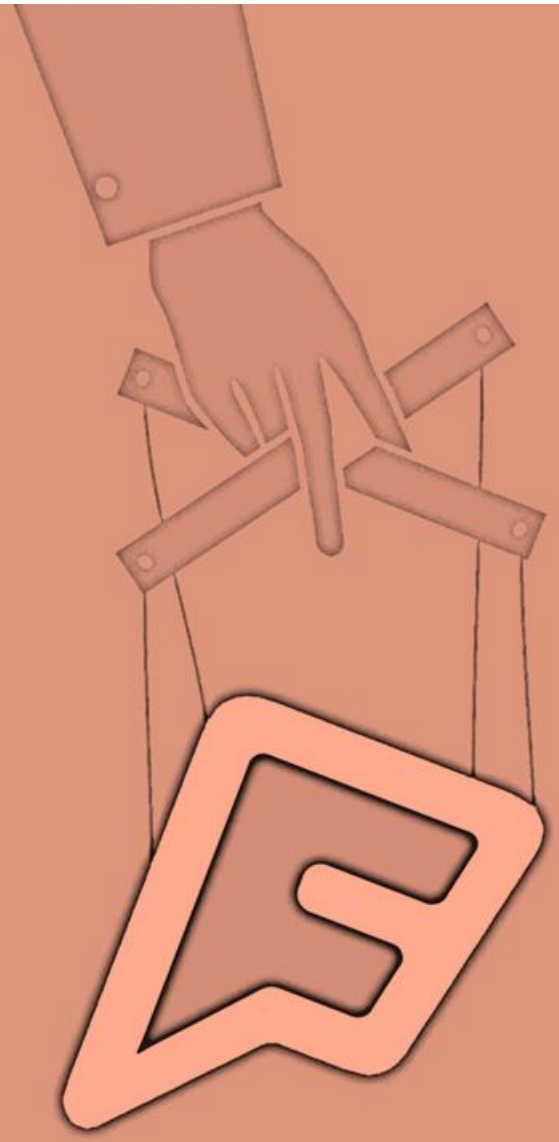
I will study at New York University next year, so I use the project to find a better place to live.

Who can benefit from the project?

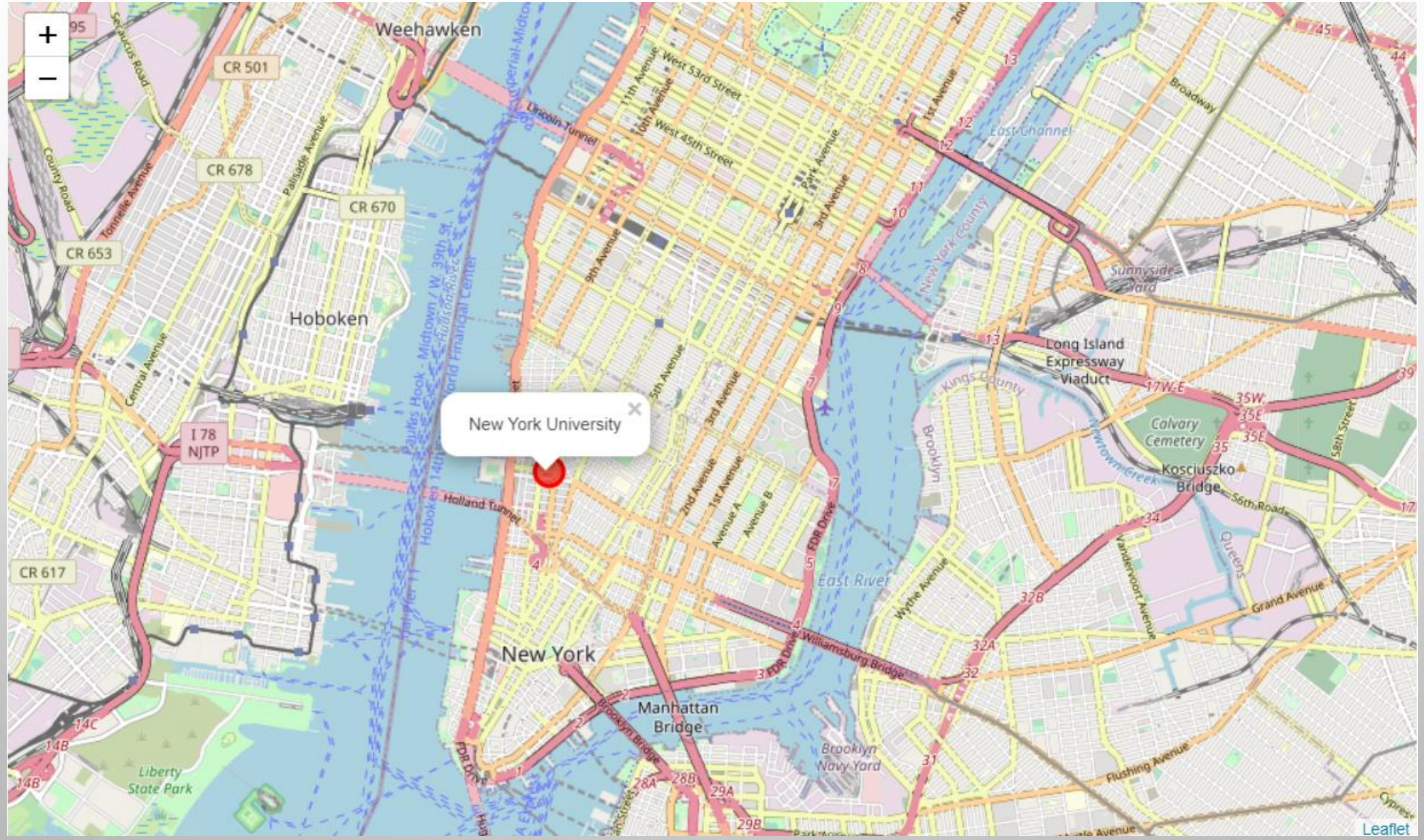
- Students
- Traveler
- Employer
- Any people who want to explore a specified place

Data

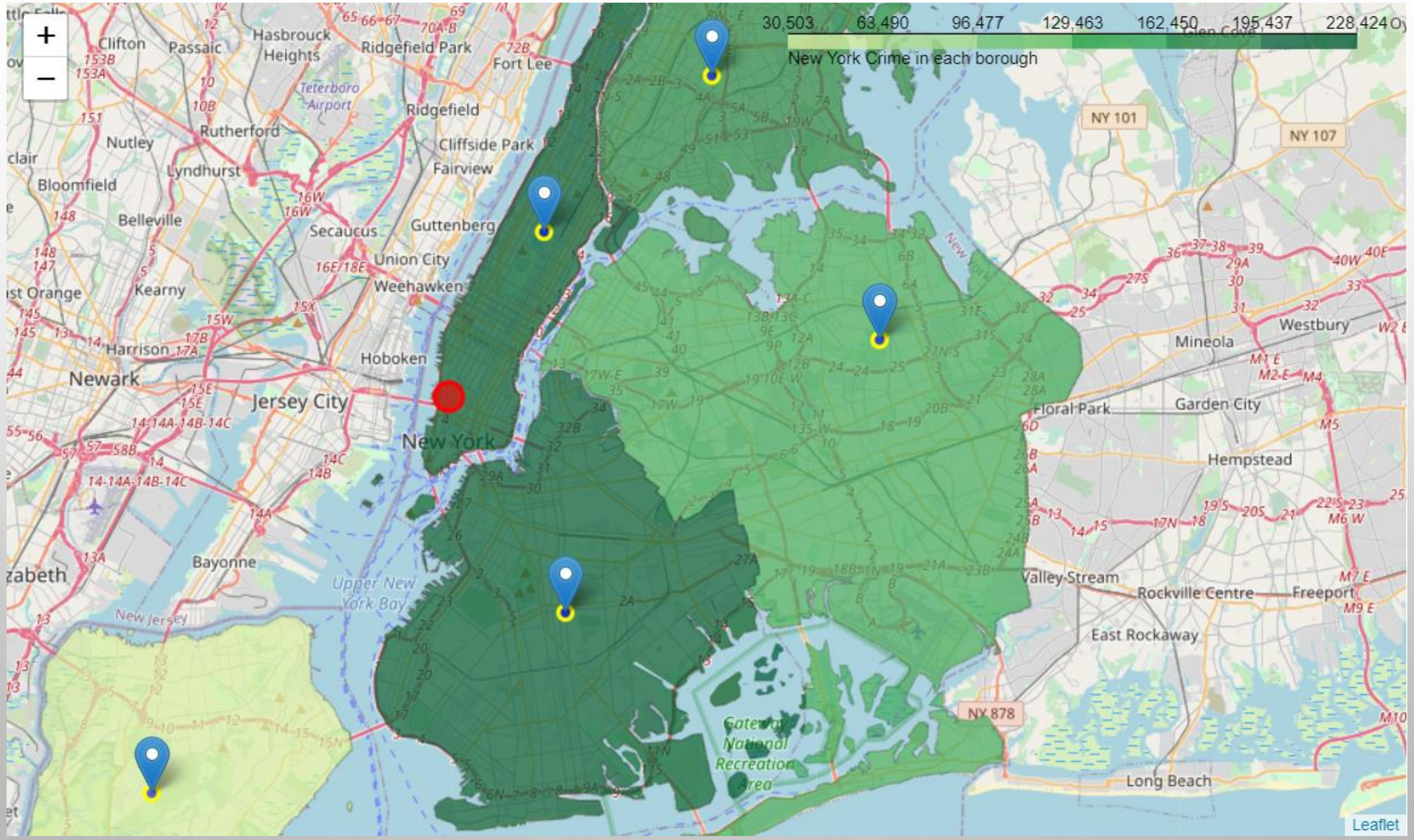
- Crime data
- Neighborhoods data
- Foursquare API to get food venues



1. New York Map



2. Crime in each borough



3. Distance from University

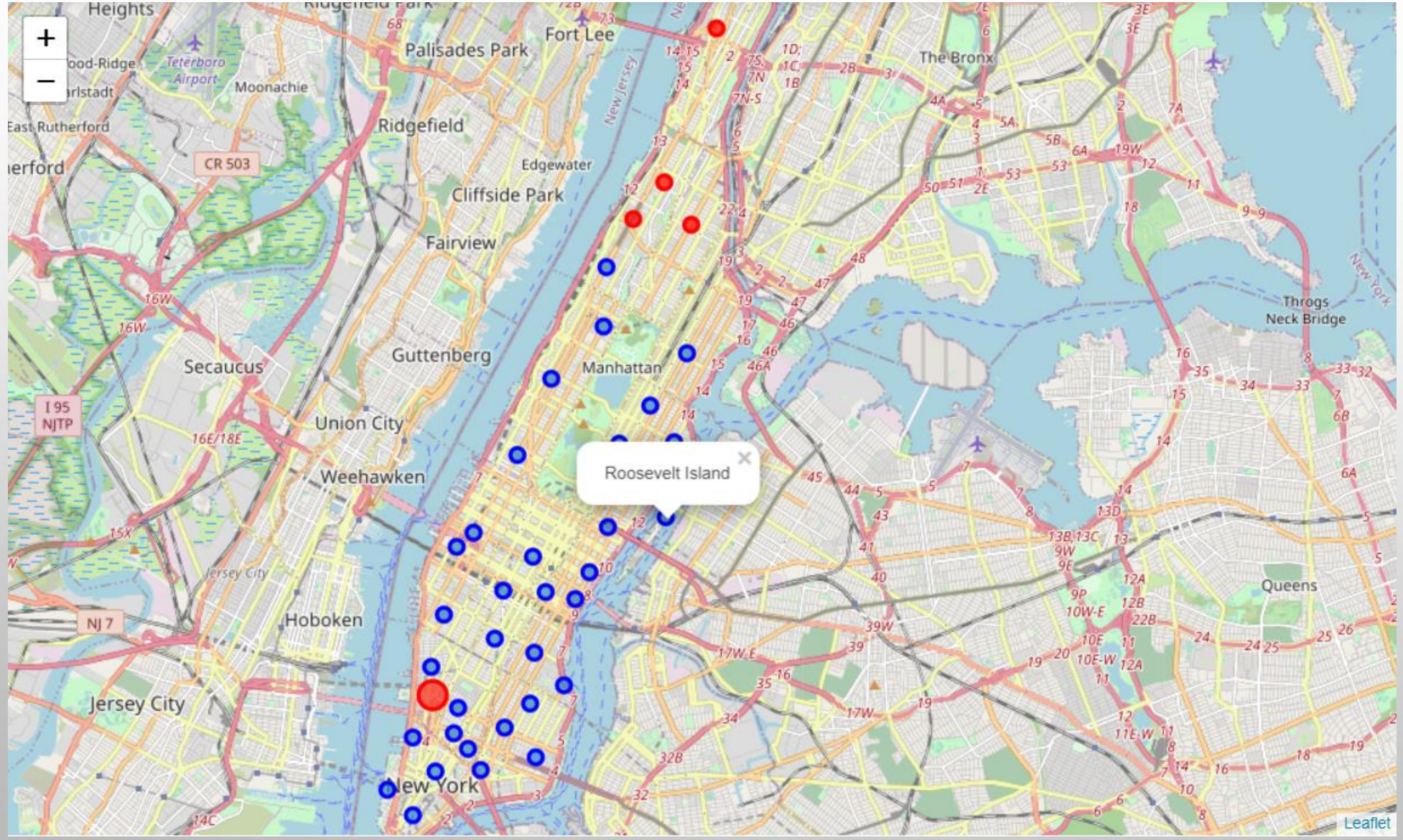
	Borough	Neighborhood	Latitude	Longitude	Distance to NYU(km)
0	Manhattan	Greenwich Village	40.726933	-73.999914	0.575227
1	Manhattan	West Village	40.734434	-74.006180	0.576233
2	Manhattan	Soho	40.722184	-74.000657	0.906546
3	Manhattan	Tribeca	40.721522	-74.010683	0.945405
4	Manhattan	Little Italy	40.719324	-73.997305	1.325842

Select neighborhoods within 10km from University

	Borough	Neighborhood	Latitude	Longitude	Distance to NYU(km)
0	Manhattan	Manhattanville	40.816934	-73.957385	10.574777
1	Manhattan	Central Harlem	40.815976	-73.943211	10.998178
2	Manhattan	Hamilton Heights	40.823604	-73.949688	11.513660
3	Manhattan	Washington Heights	40.851903	-73.936900	14.827319
4	Manhattan	Inwood	40.867684	-73.921210	16.967513
5	Manhattan	Marble Hill	40.876551	-73.910660	18.239554

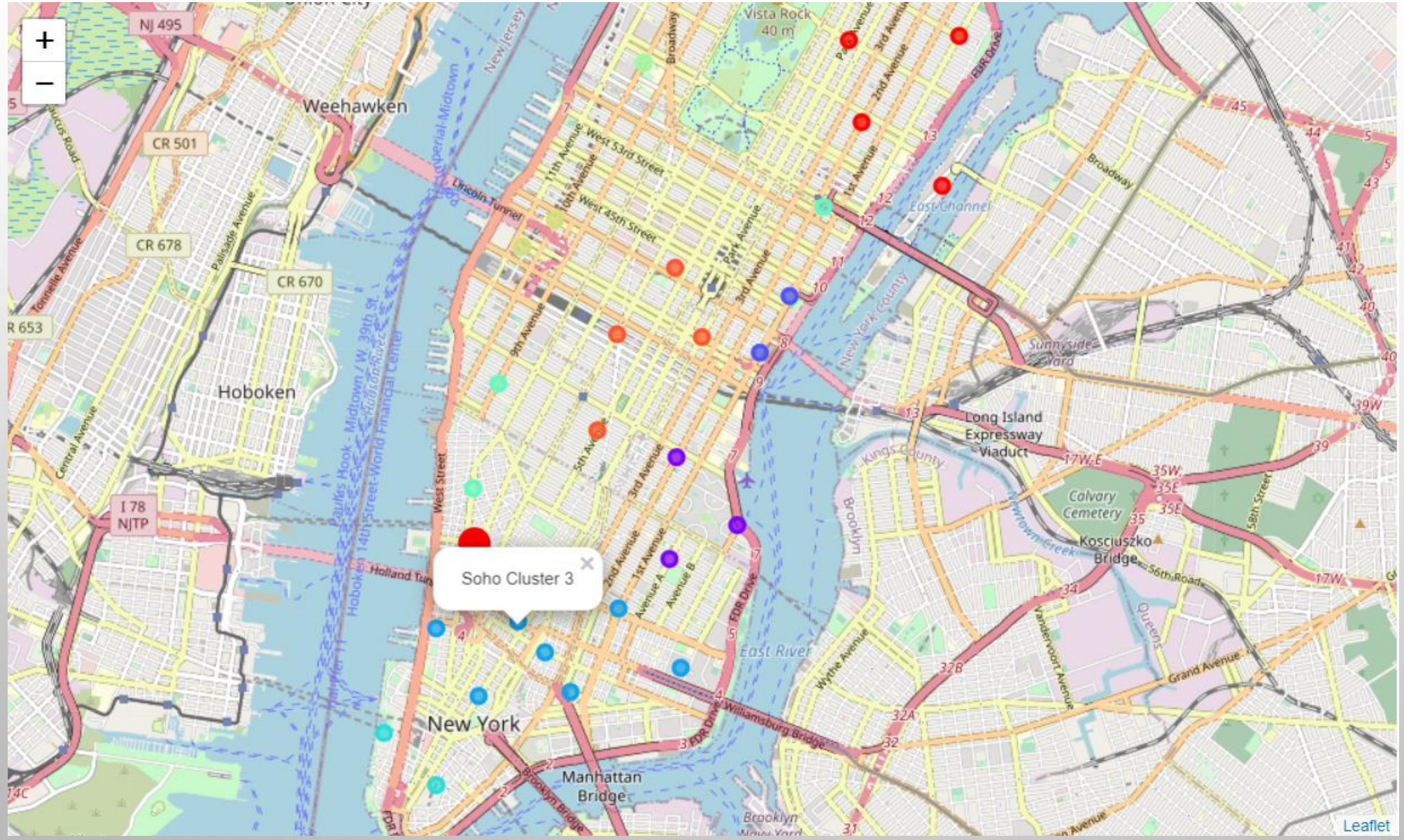
Neighborhoods that no loner considered with more than 10km to University

4. Visualization for neighborhoods



- Choosed(<10km)
- Refused(>10km)

5. Clustering by food venues

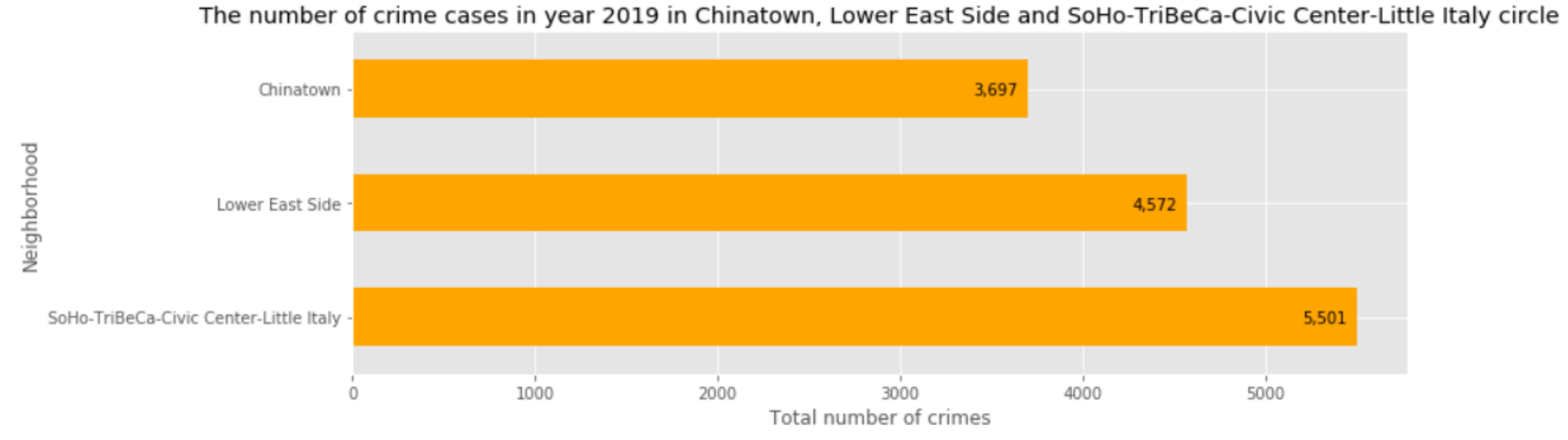


K-Means Algorithms

k = 10

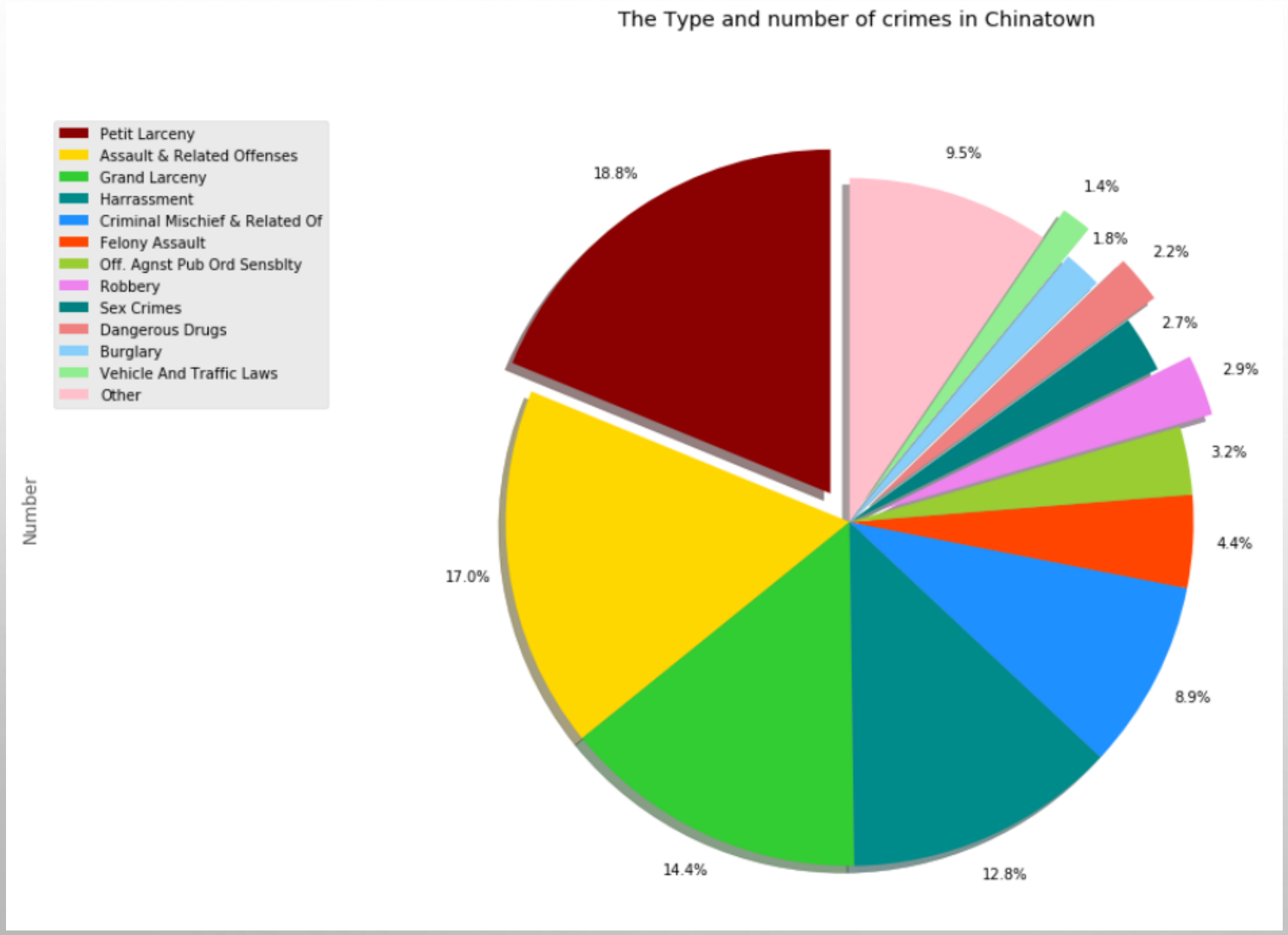
Choose cluster 3

6. Use crime data to decide



Choose Chinatown!

7. Crime categories in Chinatown



It is safe to live in

Chinatown