



OFFICE LOCATION RECOMMENDATION

(BASED ON FOOD PLACES IN THE AREA)

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Finding an office in Manhattan, New York City based on most food places in the area

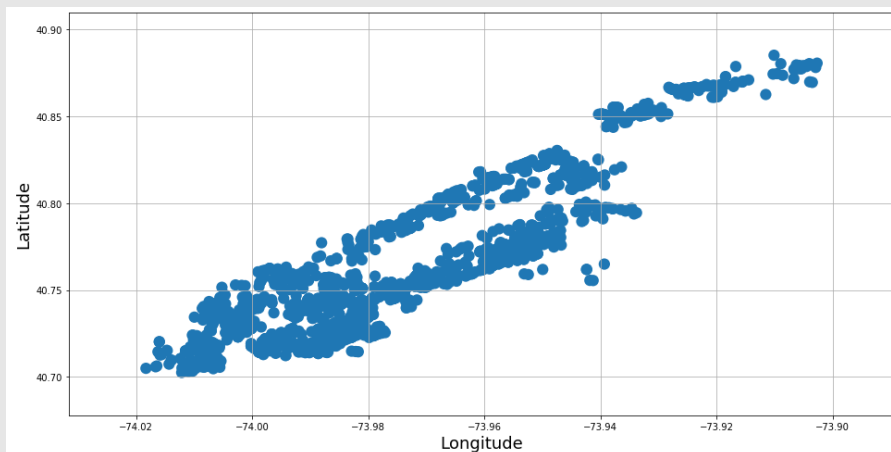
- Most densely populated of the five boroughs in New York City
- Described as the cultural, financial, media and entertainment capital of the world
- Any individual that would want to set up an office or would like to know which area in Manhattan has the most food places around would find this analysis useful.

Data Acquisition and Cleaning

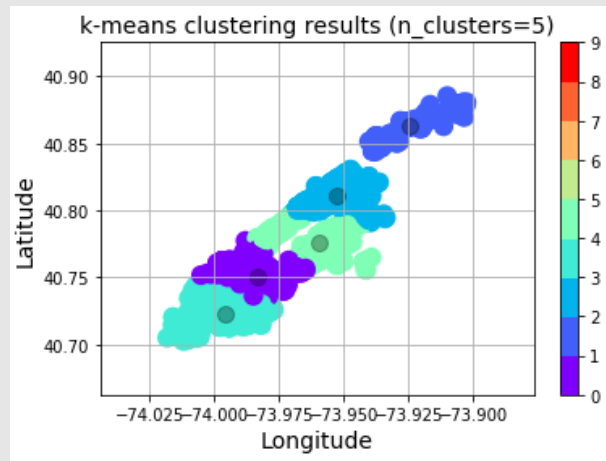
- New York Neighbourhoods Dataset : https://cocl.us/new_york_dataset.
- Foursquare API calls to get data about neighbourhoods in Manhattan.
- Cleaned food places dataset with name of venue, venue category, venue longitude and latitude in their neighbourhoods.

	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Summary	Venue Category	Distance	Venue Latitude	Venue Longitude
1	Marble Hill	40.876551	-73.91066	Arturo's	This spot is popular	Pizza Place	240	40.874412	-73.910271
2	Marble Hill	40.876551	-73.91066	Tibbett Diner	This spot is popular	Diner	452	40.880404	-73.908937
3	Marble Hill	40.876551	-73.91066	Sam's Pizza	This spot is popular	Pizza Place	516	40.879435	-73.905859
4	Marble Hill	40.876551	-73.91066	Starbucks	This spot is popular	Coffee Shop	441	40.877531	-73.905582
5	Marble Hill	40.876551	-73.91066	Estrellita Poblana V	This spot is popular	Mexican Restaurant	509	40.879687	-73.906257

Manhattan food places scatter plot



K-means clustering results (K=5)



Results

- Best cluster = cluster 3
- Second best = cluster 0
- Third best = cluster 4

Cluster Number	Number Of Food Places In Cluster	Cluster Center Longitude	Cluster Center Latitude
0	3	675	-73.983596
1	0	435	-73.924336
2	4	367	-73.952962
3	2	286	-73.996147
4	1	145	-73.959386

Conclusion

- Cluster 3 is the best place to open up an office/ find an apartment if the number of food places around the area is a concern to the individual
- Can improve analysis by taking into account of individual food preferences