

Best place in Manhattan to set-up a food joint/restaurant

Daniel Alhassan

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Introduction

Background

- Abeledata Inc., a client wants to extend its foodjoint/restaurant business to other cities in the Manhattan, NY.
- As such she plans to open one of their restaurant businesses in a neighborhood in Manhattan, NY.
- However, there is a problem! As a profit making business Abeledata would want to open the foodjoint/restaurant business in particular location that will ensure she attracts a large pool of customers and subsequently make good sales.
- To ensure tests were independent, all strength determinations were carried out in a random order.

Goal

To determine where Abeledata Inc should locate or position their business in order to achieve her profit-making goal and a good customer base.

Data was used from the following sources

- From Foursquare API, we used data on venues of the food joints, shops, offices etc.
- From https://geo.nyu.edu/catalog/nyu_2451_34572 we obtained data on neighborhoods in NY including their latitude and longitude coordinates.

- For each vicinity in Manhattan we counted the number of offices, shops and services and food joints using the venue data from Foursquare.
- We thought these venue data might be good indicators of opening restaurant or any food joint.
- Since some indicators have more importance than others, we assigned weights to these categories. Again we thought that employees in offices will make good customers and a was a better indicator compared to shops and services in the area.
- A negative weight to the food joint group as this negatively affects our client's profit-making goal, positive weights to the shop & service group and office group as they make good customers; but a higher weight to the office group.

Results

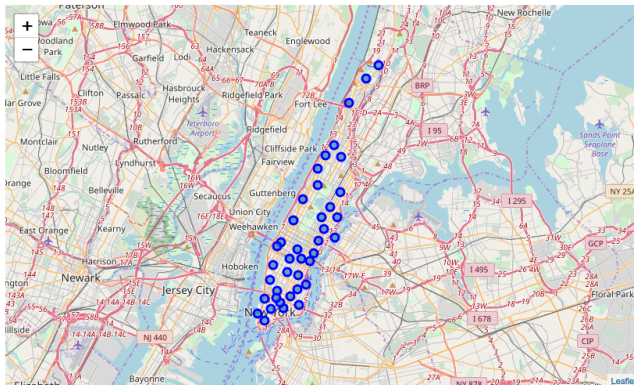


Figure 1: Manhattan Neighborhood with the blue circles representing the towns in the vicinity

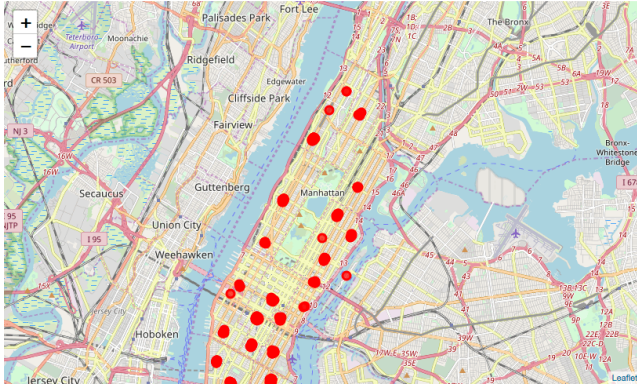


Figure 2: Manhattan Neighborhood with the red circles showing the food joints with 50 m radius in the vicinity

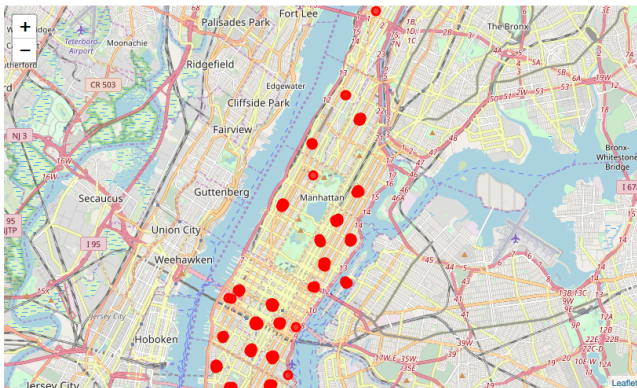


Figure 3: Manhattan Neighborhood with the red circles showing the shops & service centers within 50 m radius in the vicinity

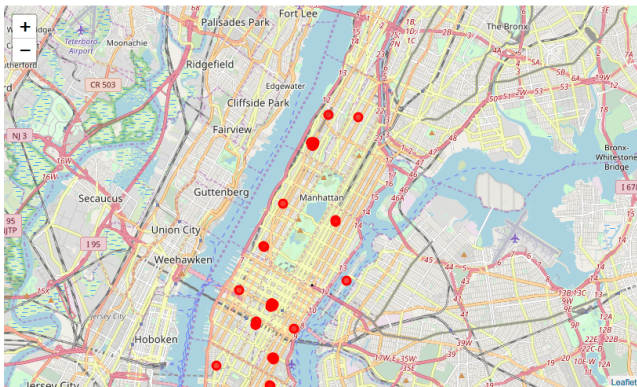


Figure 4: Manhattan Neighborhood with the red circles showing the offices within 50 m radius in the vicinity

Our team obtained a score for each neighborhood in Manhattan. The score was obtained this way:

- count the food joints, shops & services and offices in a particular neighborhood within a prespecified radius.
- Apply weights to each category and then add them up to obtain the score. A weight of -1 was applied to food joint group, weight of +1 was applied to shop & service group and lastly a weight of 2 applied to the office group.

We then ranked each of the neighborhoods in descending order based on the score. Below is the list of the top five neighborhoods.

	Borough	Neighborhood	Latitude	Longitude	Food Joints	Shops & Services	Office
0	Manhattan	Marble Hill	40.876551	-73.910660	0.0	0.0	0.0
1	Manhattan	Chinatown	40.715618	-73.994279	15.0	16.0	0.0
2	Manhattan	Washington Heights	40.851903	-73.936900	0.0	1.0	0.0
3	Manhattan	Inwood	40.867684	-73.921210	23.0	25.0	0.0
4	Manhattan	Hamilton Heights	40.823604	-73.949688	2.0	2.0	0.0
5	Manhattan	Manhattanville	40.816934	-73.957385	1.0	0.0	1.0
6	Manhattan	Central Harlem	40.815976	-73.943211	4.0	12.0	1.0
7	Manhattan	East Harlem	40.792249	-73.944182	5.0	17.0	0.0
8	Manhattan	Upper East Side	40.775639	-73.960508	1.0	6.0	0.0
9	Manhattan	Yorkville	40.775930	-73.947118	7.0	13.0	0.0
10	Manhattan	Lenox Hill	40.768113	-73.958860	12.0	19.0	0.0
11	Manhattan	Roosevelt Island	40.762160	-73.949168	1.0	7.0	1.0
12	Manhattan	Upper West Side	40.787658	-73.977059	12.0	26.0	1.0
13	Manhattan	Lincoln Square	40.773529	-73.985338	4.0	0.0	2.0
14	Manhattan	Clinton	40.759101	-73.996119	5.0	7.0	1.0
15	Manhattan	Midtown	40.754691	-73.981669	11.0	25.0	20.0
16	Manhattan	Murray Hill	40.748303	-73.978332	5.0	6.0	0.0
17	Manhattan	Chelsea	40.744035	-74.003116	9.0	8.0	0.0
18	Manhattan	Greenwich Village	40.726933	-73.999914	18.0	29.0	0.0
19	Manhattan	East Village	40.727847	-73.982226	22.0	20.0	2.0
20	Manhattan	Lower East Side	40.717807	-73.980890	0.0	1.0	0.0
21	Manhattan	Tribeca	40.721522	-74.010683	1.0	5.0	0.0
22	Manhattan	Little Italy	40.719324	-73.997305	46.0	37.0	2.0

Figure 5: Each vicinity and the counts for each type categories investigated

Conclusion

The best place for the food joint or restaurant is in ****Midtown**** of Manhattan!

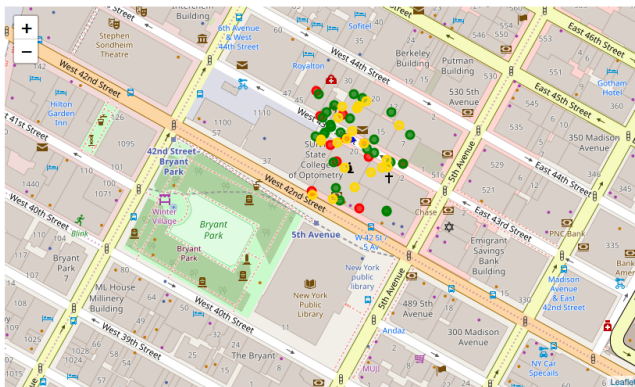


Figure 6: Each vicinity and the counts for each type categories investigated

Recommendation

- Future work will focus on a much more appropriate way to assign weights. As one can tell that weights suggested are subjective.
- Consider including more categories in addition to the three categories used here.