THE BATTLE OF THE NEIGHBORHOOD

Where to place your vegan restaurant?

Business Problem

New York is huge and exciting.

Great opportunities and diversity.

I want to open up a vegan restaurant in Manhattan, but I’m unsure where to open it.

Data

- Data driven decisions are the best decisions.
- I’m using data from [https://geo.nyu.edu/catalog/nyu_2451_34572]
- In Manhattan, there’s 953 vegan restaurants.
- We also use Foursquare API

```
newyork_venues_vegan.shape
```

```
(953, 7)
```

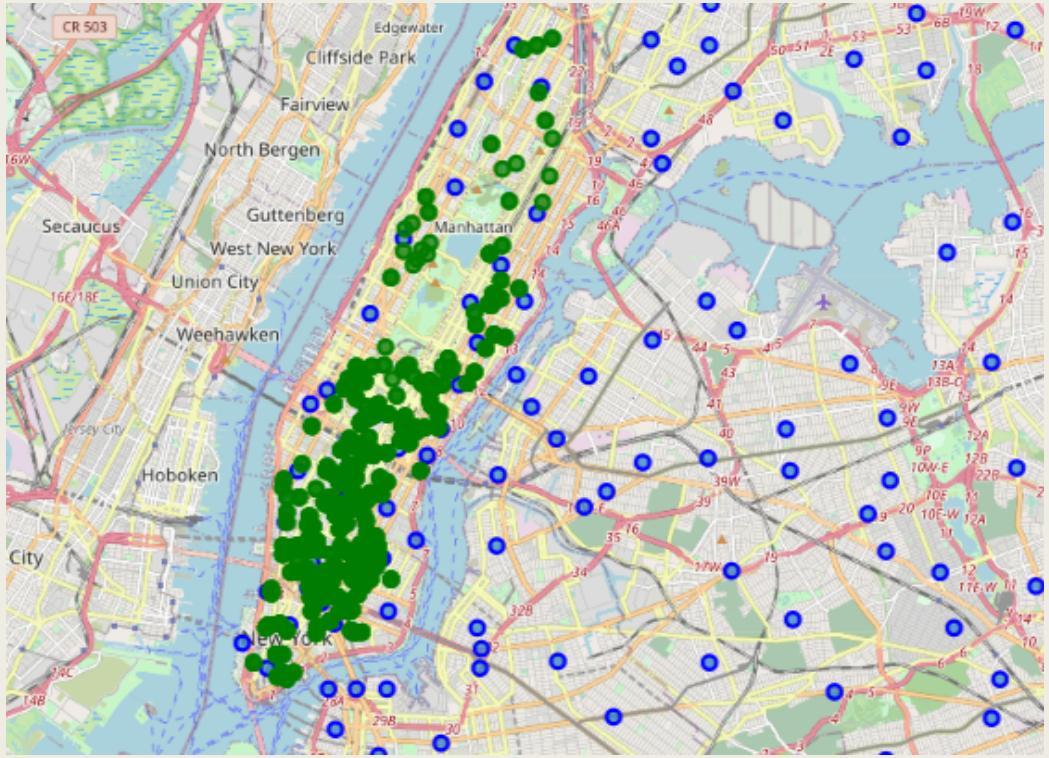
Methodology

- I’ve decided continue with learning from week 3 lab.

	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
click to scroll output; double click to hide			-73.910660	Kingsbridge-Riverdale Farmers' Market	40.879973	-73.907295	Vegetarian / Vegan Restaurant
1	Chinatown	40.715618	-73.994279	Jisu Vegetarian	40.716050	-73.995348	Vegetarian / Vegan Restaurant
2	Chinatown	40.715618	-73.994279	Petisco Vegano	40.714040	-73.988815	Vegetarian / Vegan Restaurant
3	Chinatown	40.715618	-73.994279	Orchard Grocer	40.717847	-73.990358	Vegetarian / Vegan Restaurant
4	Chinatown	40.715618	-73.994279	Beyond Sushi	40.722080	-73.996250	Vegetarian / Vegan Restaurant

Methodology

Vegan restaurants in Manhattan



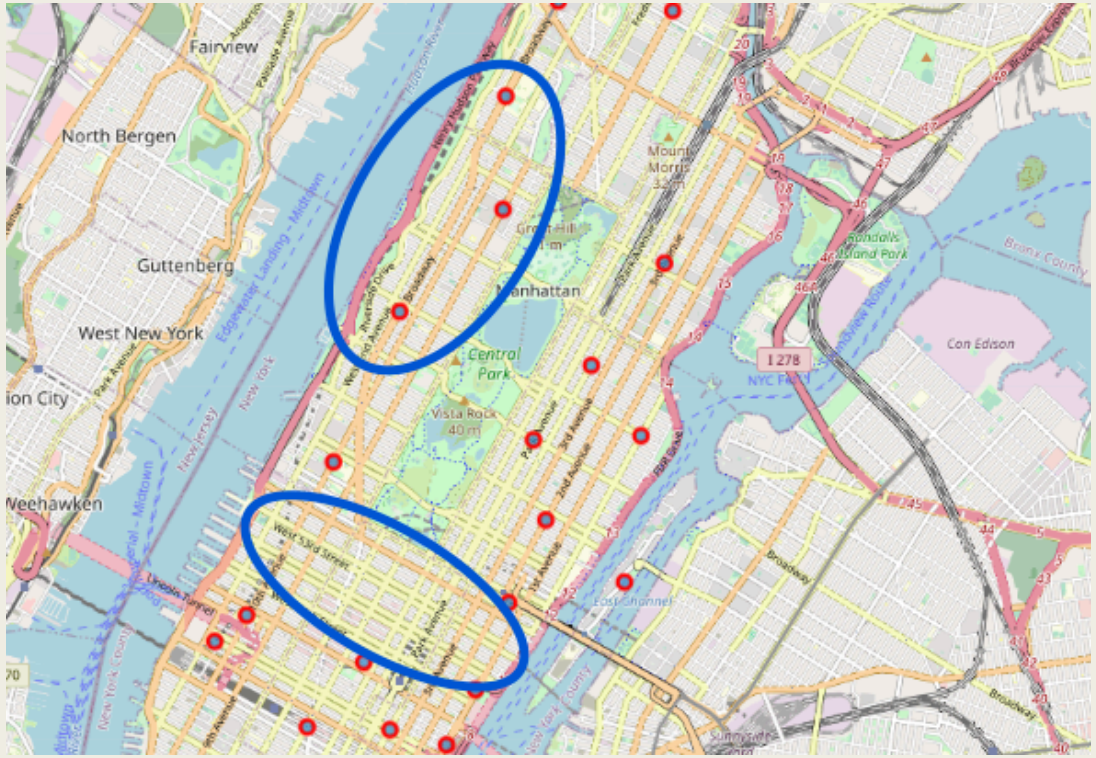
Methodology

This is grouped data that is used then in K-means clustering algorithm.

	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	Battery Park City	Vegetarian / Vegan Restaurant	Salad Place	Falafel Restaurant	Juice Bar	Burger Joint	Café	Food Truck	Eastern European Restaurant	Grocery Store	Gluten-free Restaurant
1	Carnegie Hill	Vegetarian / Vegan Restaurant	Grocery Store	Juice Bar	Ice Cream Shop	Gluten-free Restaurant	Food Truck	Fast Food Restaurant	Falafel Restaurant	Eastern European Restaurant	Dessert Shop
2	Central Harlem	Vegetarian / Vegan Restaurant	Market	Ice Cream Shop	Grocery Store	Gluten-free Restaurant	Food Truck	Fast Food Restaurant	Falafel Restaurant	Eastern European Restaurant	Dessert Shop
3	Chelsea	Vegetarian / Vegan Restaurant	Food Truck	Salad Place	Juice Bar	Café	Bakery	Burger Joint	New American Restaurant	Mexican Restaurant	Mediterranean Restaurant
4	Chinatown	Vegetarian / Vegan Restaurant	Juice Bar	Pizza Place	Mediterranean Restaurant	Food Truck	Japanese Restaurant	Dessert Shop	Latin American Restaurant	Deli / Bodega	Grocery Store

Result

I would chose either one of these two areas to open up a restaurant.



Limited data

Build on good methodology

A lot of competition in lower Manhattan.

Location chosen due to few other restaurants.

Discussion

Conclusion

Fun project.

A lot to learn and great foundation.

Goal 1: Grow Data Science skill in work.

Goal 2: Try using it on basketball stat.