

## Opening a Restaurant in New York City

### **Introduction:**

A business owner who would like to start a restaurant in New York City will need to assess the demographics of the various locations within New York City. As a business owner, he/she will need to consider a few factors before deciding on a final location. Some of the factors he/she might consider would be:

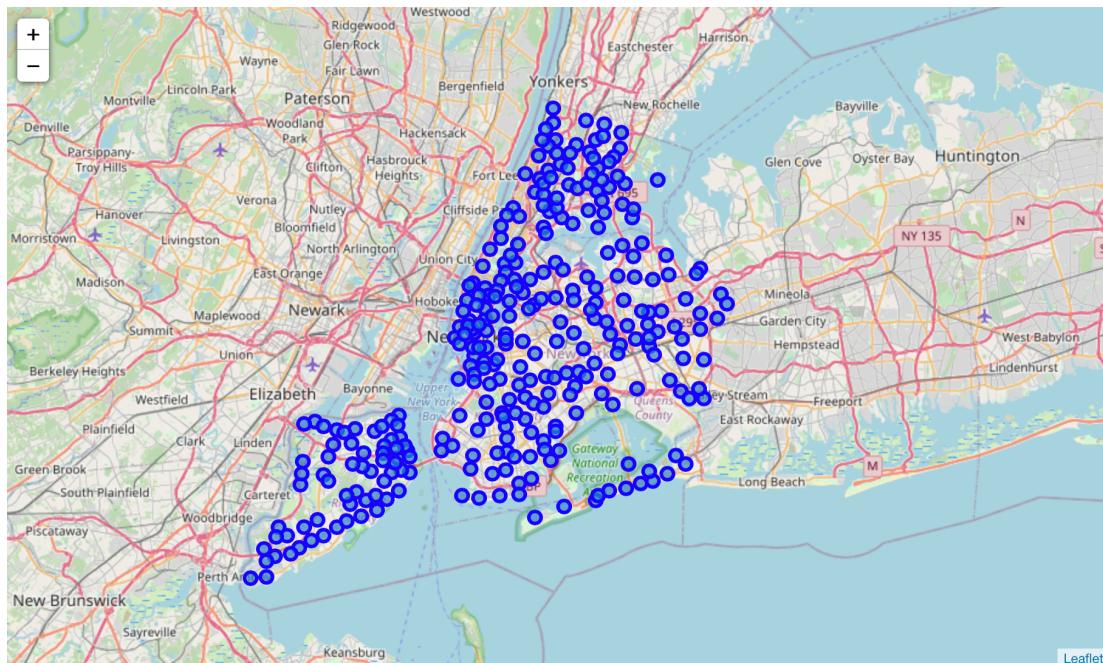
- 1) How close to the city centre
- 2) Who are the target audience and what kind of restaurant will be suited to the target audience
- 3) What are the property prices like around the area
- 4) Proximity to nearby amenities and human traffic

### **Data:**

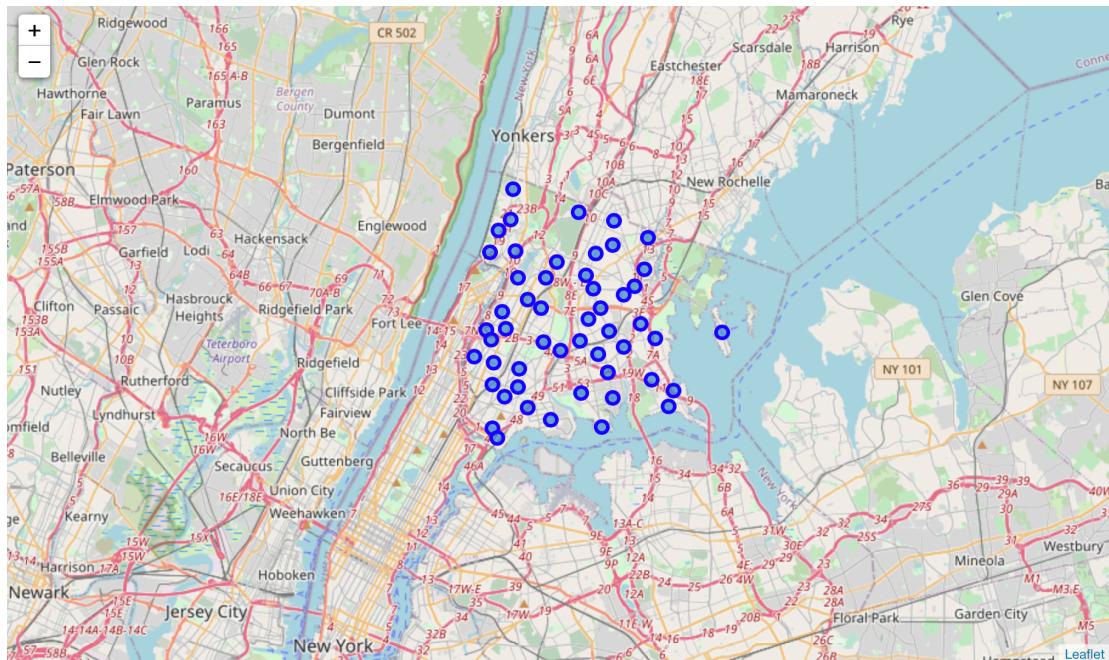
The primary data that we would be using would be the Four Square location API and the folium map to generate clusters for analysis.

### **Methodology:**

First we download the location data of the various neighbourhoods in New York City. And then we use the Folium Map to visualise the various neighbourhoods in the map.



As a business owner who is price conscious, he/she will probably prefer to choose a location that is slightly away from the city, but close enough to tap on the human traffic in the city area. Hence, the Bronx neighbourhood was chosen. Specifically near the University area.



Then we used the Four Square API to classify the venue category and the top 10 most popular venues to go to in each neighbourhood.

Using the K means method of clustering, and selecting an optimum value of K which is 9, the Bronx neighbourhood is classified into 9 clusters.

Since the owner is targeting University students, he will compare the venue categories within the same cluster that University heights is in and see what kind of restaurant should he be opening.

[ 127 ]:	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
5	Kingsbridge	Pizza Place	Bar	Supermarket	Latin American Restaurant	Sandwich Place	Mexican Restaurant	Deli / Bodega	Spanish Restaurant	Bakery	Pharmacy
7	Norwood	Pizza Place	Park	Bank	Pharmacy	Mexican Restaurant	Bus Station	Chinese Restaurant	Pet Store	Restaurant	Fast Food Restaurant
12	Bedford Park	Chinese Restaurant	Diner	Pizza Place	Deli / Bodega	Mexican Restaurant	Spanish Restaurant	Sandwich Place	Food Truck	Discount Store	Bar
13	University Heights	Bakery	Pizza Place	Chinese Restaurant	Laundromat	Burrito Place	Shoe Store	Donut Shop	Pharmacy	Sandwich Place	Fried Chicken Joint
14	Morris Heights	Spanish Restaurant	Pizza Place	Recreation Center	Pharmacy	Deli / Bodega	Grocery Store	Supermarket	Bank	Women's Store	Doctor's Office
16	East Tremont	Pizza Place	Café	Fast Food Restaurant	Breakfast Spot	Supermarket	Shoe Store	Lounge	Donut Shop	Liquor Store	Bank
18	High Bridge	Pharmacy	Pizza Place	Bus Station	Supermarket	Latin American Restaurant	Seafood Restaurant	Sports Club	Bus Stop	Food	Park
19	Melrose	Pizza Place	Pharmacy	Gym / Fitness Center	Sandwich Place	Discount Store	Grocery Store	Clothing Store	Supermarket	Supplement Shop	Diner
20	Mott Haven	Pizza Place	Spanish Restaurant	Donut Shop	Latin American Restaurant	Burger Joint	Storage Facility	Baseball Field	Discount Store	Bakery	Mobile Phone Shop
21	Port Morris	Latin American Restaurant	Furniture / Home Store	Cupcake Shop	Music Venue	Storage Facility	Food Truck	Donut Shop	Brewery	Distillery	Restaurant
25	Soundview	Chinese Restaurant	Deli / Bodega	Latin American Restaurant	Breakfast Spot	Bus Station	Bus Stop	Fried Chicken Joint	Basketball Court	Grocery Store	Burger Joint

	Morris Park	Pizza Place	Diner / Bodega	Bakery	Coffee Shop	Buffet	Pharmacy	Place	Donut Shop	Supermarket	
39	Castle Hill	Bank	Pizza Place	Deli / Bodega	Pharmacy	Southern / Soul Food Restaurant	Diner	Park	Market	Baseball Field	Women's Store
40	Olinville	Caribbean Restaurant	Food	Southern / Soul Food Restaurant	Supermarket	Fried Chicken Joint	Liquor Store	Deli / Bodega	Dessert Shop	Eastern European Restaurant	Cupcake Shop
42	Concourse	Grocery Store	Deli / Bodega	Bus Station	Ice Cream Shop	Liquor Store	Pharmacy	Convenience Store	Chinese Restaurant	Caribbean Restaurant	Donut Shop
45	Claremont Village	Grocery Store	Chinese Restaurant	Bus Station	Bakery	Caribbean Restaurant	Liquor Store	Gym	Deli / Bodega	Discount Store	Pizza Place
47	Mount Eden	Pharmacy	Fast Food Restaurant	Supermarket	Spanish Restaurant	Bar	Grocery Store	Fried Chicken Joint	Deli / Bodega	Clothing Store	Diner
48	Mount Hope	Pizza Place	Grocery Store	Deli / Bodega	Moving Target	Supermarket	Donut Shop	Sandwich Place	Spanish Restaurant	Video Game Store	Ice Cream Shop
50	Allerton	Pizza Place	Spa	Deli / Bodega	Chinese Restaurant	Bakery	Supermarket	Smoke Shop	Pharmacy	Breakfast Spot	Fast Food Restaurant
51	Kingsbridge Heights	Pizza Place	Bus Station	Food Truck	Coffee Shop	Chinese Restaurant	Pharmacy	Café	Check Cashing Service	Fried Chicken Joint	Baseball Field
18	High Bridge	Pharmacy	Pizza Place	Bus Station	Supermarket	Chinese Restaurant	Chinese Restaurant	Sports Club	Bus Stop	Food	Park
19	Melrose	Pizza Place	Pharmacy	Gym / Fitness Center	Sandwich Place	Discount Store	Grocery Store	Clothing Store	Supermarket	Supplement Shop	Diner
20	Mott Haven	Pizza Place	Spanish Restaurant	Donut Shop	Latin American Restaurant	Burger Joint	Storage Facility	Baseball Field	Discount Store	Bakery	Mobile Phone Shop
21	Port Morris	Latin American Restaurant	Furniture / Home Store	Cupcake Shop	Music Venue	Storage Facility	Food Truck	Donut Shop	Brewery	Distillery	Restaurant
25	Soundview	Chinese Restaurant	Deli / Bodega	Latin American Restaurant	Breakfast Spot	Bus Station	Bus Stop	Fried Chicken Joint	Basketball Court	Grocery Store	Burger Joint
29	Parkchester	Supermarket	Pizza Place	American Restaurant	Bank	Kids Store	Women's Store	Discount Store	Caribbean Restaurant	Restaurant	Chinese Restaurant
31	Van Nest	Pizza Place	Deli / Bodega	Middle Eastern Restaurant	Food Truck	Coffee Shop	Donut Shop	Bus Stop	Bus Station	Film Studio	Board Shop
32	Morris Park	Pizza Place	Burger Joint	Deli / Bodega	Bakery	Coffee Shop	Buffet	Pharmacy	Sandwich Place	Donut Shop	Supermarket
39	Castle Hill	Bank	Pizza Place	Deli / Bodega	Pharmacy	Southern / Soul Food Restaurant	Diner	Park	Market	Baseball Field	Women's Store
40	Olinville	Caribbean Restaurant	Food	Southern / Soul Food Restaurant	Supermarket	Fried Chicken Joint	Liquor Store	Deli / Bodega	Dessert Shop	Eastern European Restaurant	Cupcake Shop
42	Concourse	Grocery Store	Deli / Bodega	Bus Station	Ice Cream Shop	Liquor Store	Pharmacy	Convenience Store	Chinese Restaurant	Caribbean Restaurant	Donut Shop
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								Fried			

## Conclusion

It seems that the most frequented venue around the University is a Bakery, followed by the Pizza Place and then a Chinese Restaurant. Within the same cluster however, there are already quite a fair bit of popular Pizza joints, and therefore it may not be a good idea to set up another Pizza joint in the vicinity. Basing upon the popularity and density of other venue categories within the same cluster, I would say a Chinese restaurant would be a safe bet for a restaurant owner targeting University Heights.