Opening an Indian Restaurant in Queens, NY

June 2019

1 Introduction

In a city of New York, if someone is looking to open an Indian restaurant, recommend that where they should open it. The intention is to open this restaurant in Queens borough as there is a general knowledge and understanding that there is high Indian population in Queens, NY.

1.1 Background

Opening a new restaurant can be daunting. There are so many things to consider – from choosing the right location to finding financing to selecting the right name. And, of course, buying equipment and hiring staff. The first step in opening a new restaurant is deciding what type of restaurant it is going to be. Do you want to open a high-end fine dining restaurant? A casual 1950s-style diner? Do you have a specific type of cuisine in mind, such as Italian, French, or Indian?

Before a lease is signed for a restaurant's location, homework must be done. Is the restaurant location in a busy area with plenty of foot traffic? If not, is there enough parking? Have several other restaurants opened and closed in the same spot?

The most enjoyable part of opening a new restaurant can be selecting a restaurant name that means something to you. It can be a family name, a play on words, another meaningful turn of phrase, or it can reflect the theme or location you chose, such as Broadway Diner or The Highlands. But if it turns out that it wasn't a good location for a type of restaurant you are decided to open, all the efforts will go waste and it could cost a lot of money.

1.2 Problem

New York has is multicultural city and with many neighborhoods. It has many ethnicities and indeed a large Indian community. It would advantageous to predict whether an India restaurant would be a good choice to open and if so, whether Queens borough would be a good location. The project aims to determine whether Indian restaurant is a right choice in Queens, NY.

1.3 Interest

Obviously, the restaurant opener would be very interested in knowing where to open the restaurant for competitive advantage and business values. Others who are interested in opening any type of restaurant also may also be interested. It would also be good to know what other popular venues in Queens, NY.

2 Data

2.1 Data Sources

New York primary has 5 boroughs and 300+ neighborhoods. In order to determine whether Queens, NY is a good location to open the Indian restaurant, we will segment and explore the neighborhoods. The dataset that will be used can be found here. We will then use Foursquare API to explore the neighborhoods and determine the Queens, NY is a good location to open the Indian restaurant. We will use the explore function to get the most common venue categories in each neighborhood, and then use this feature to group the neighborhoods into clusters. I will use the k-means clustering algorithm to complete this task. I will also use scatter, box plot, histogram etc. diagrams and also develop distribution using linear regression if necessary.

2.2 Data Cleaning and Exploration

Neighborhood has a total of 5 boroughs and 300+ neighborhoods. In order to segment the neighborhoods and explore them, we will essentially need a dataset that contains the 5 boroughs and the neighborhoods that exist in each borough as well as the latitude and longitude coordinates of each neighborhood.

Data will be downloaded from above source. Will convert addresses into their equivalent latitude and longitude values. Also, will use the Foursquare API to explore neighborhoods in New York City. Will use the explore function to get the most common venue categories in Queens neighborhood, and then use its features to group the neighborhoods into clusters.

2.3 Feature Selection

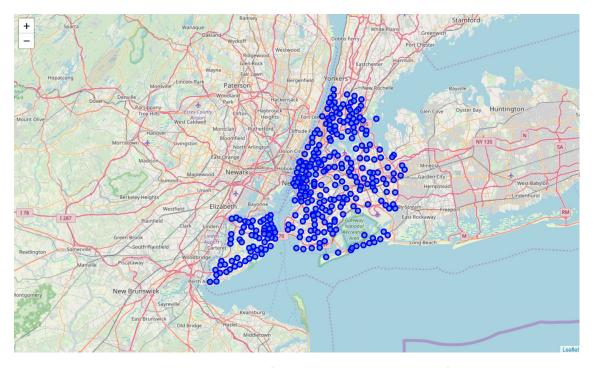
It was obvious that relevant data is in the features key, which is basically a list of neighborhoods. Below are some sample features key data for Queens neighborhood.

```
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   'annoline3': None,
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   'annoline2': None,
```

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   'name': 'Bellaire',
   'stacked': 1},
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   'annoline2': 'Corona',
   'annoline3': None,
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   'annoline2': 'Hills',
   'annoline3': 'Gardens',
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   40.7146110815117,
   -73.8410221123401,
   40.7146110815117],
   'borough': 'Queens',
   'name': 'Forest Hills Gardens',
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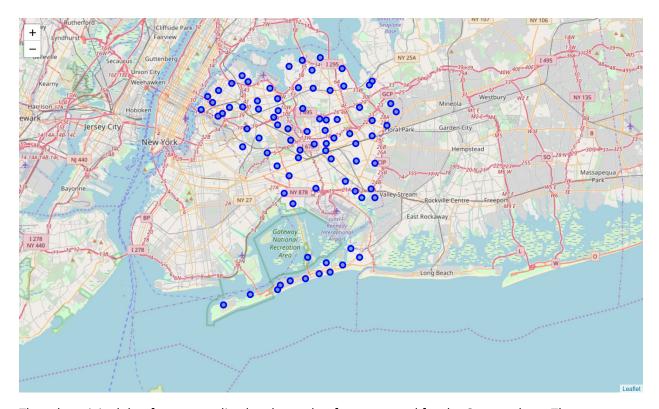
3 Exploratory Data Analysis / Methodology

As part of exploratory data analysis, NY and Queens map were created.



For illustration purposes, the map was simplified, segmented and clustered for only the neighborhoods in Queens.

Unique neighborhoods of Queens ['Astoria' 'Woodside' 'Jackson Heights' 'Elmhurst' 'Howard Beach' 'Corona' 'Forest Hills' 'Kew Gardens' 'Richmond Hill' 'Flushing' 'Long Island City' 'Sunnyside' 'East Elmhurst' 'Maspeth' 'Ridgewood' 'Glendale' 'Rego Park' 'Woodhaven' 'Ozone Park' 'South Ozone Park' 'College Point' 'Whitestone' 'Bayside' 'Auburndale' 'Little Neck' 'Douglaston' 'Glen Oaks' 'Bellerose' 'Kew Gardens Hills' 'Fresh Meadows' 'Briarwood' 'Jamaica Center' 'Oakland Gardens' 'Queens Village' 'Hollis' 'South Jamaica' 'St. Albans' 'Rochdale' 'Springfield Gardens' 'Cambria Heights' 'Rosedale' 'Far Rockaway' 'Broad Channel' 'Breezy Point' 'Steinway' 'Beechhurst' 'Bay Terrace' 'Edgemere' 'Arverne' 'Rockaway Beach' 'Neponsit' 'Murray Hill' 'Floral Park' 'Holliswood' 'Jamaica Estates' 'Queensboro Hill' 'Hillcrest' 'Ravenswood' 'Lindenwood' 'Laurelton' 'Lefrak City' 'Belle Harbor' 'Rockaway Park' 'Somerville' 'Brookville' 'Bellaire' 'North Corona' 'Forest Hills Gardens' 'Jamaica Hills' 'Utopia' 'Pomonok' 'Astoria Heights' 'Hunters Point' 'Sunnyside Gardens' 'Blissville' 'Roxbury' 'Middle Village' 'Malba' 'Hammels' 'Bayswater' 'Queensbridge']



Then the original dataframe was sliced and new dataframe created for the Queens data. Then geographical coordinates of Queens then gathered from geolocator. After that, Foursquare APIs were utilized to explore the neighborhoods and segment them. For that function was created to repeat the same process to all the neighborhoods in Queens and get the top venues within 5000 meters. New dataframe of the venues was created for Queens venues. The number of unique categories were calculated from the all returned venues. All the rows were grouped by neighborhood and by taking the mean of the frequency of occurrence of each category. Then top 25 venues for each neighborhood were printed. All the venues were sorted in descending g order. Then new dataframe was created to display the top 25 venues for each neighborhood. k-means was run to cluster the neighborhood into 10 clusters. Another dataframe was created to include the cluster as well as the top 25 venues for each neighborhood. Resulting clusters were visualized in a map.



Each cluster was then examined to determine the venue categories that distinguish each cluster. Below were a few clusters.

	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	11th Most Common Venue	12th Most Common Venue	13th Most Common Venue	14th Most Common Venue	15th Most Common Venue	16th Most Common Venue	17th Most Common Venue	18th Most Common Venue	19th Most Common Venue	20th Most Common Venue	21th Most Common Venue	22th Most Common Venue	23 Mc Comm Ven
15	Glendale	Food & Drink Shop	Brewery	Deli / Bodega	Arts & Crafts Store	Fast Food Restaurant	Empanada Restaurant	Event Space	Falafel Restaurant	Farm	Farmers Market	Filipino Restaurant	Egyptian Restaurant	Fish & Chips Shop	Fish Market	Flower Shop	Food	Electronics Store	Women's Store	Eastern European Restaurant	Food Court	Dry Cleaner	Donut Shop	Dog R
19	South Ozone Park	Deli / Bodega	Park	Hotel	Food Truck	Donut Shop	Fast Food Restaurant	Sandwich Place	Bar	Empanada Restaurant	Egyptian Restaurant	Electronics Store	Farm	Event Space	Falafel Restaurant	Farmers Market	Filipino Restaurant	Fish & Chips Shop	Fish Market	Eastern European Restaurant	Dry Cleaner	Dumpling Restaurant	Food	Dog R
21	Whitestone	Bubble Tea Shop	Dance Studio	Deli / Bodega	Train	Women's Store	Farm	Electronics Store	Empanada Restaurant	Event Space	Falafel Restaurant	Fast Food Restaurant	Farmers Market	Eastern European Restaurant	Filipino Restaurant	Fish & Chips Shop	Fish Market	Flower Shop	Egyptian Restaurant		Dumpling Restaurant	Food & Drink Shop	Donut Shop	Dog R
30	Briarwood	Deli / Bodega	Convenience Store	Arts & Crafts Store	Bus Station	Fast Food Restaurant	Coffee Shop	Gym	Mexican Restaurant	Indian Restaurant	Empanada Restaurant	Food	Flower Shop	Fish Market	Fish & Chips Shop	Filipino Restaurant	Cycle Studio	Dance Studio	Farmers Market	Farm	Falafel Restaurant	Event Space	Dessert Shop	Dim Su Restaura
42	Broad Channel	Other Nightlife	Pizza Place	Deli / Bodega	Dive Bar	Bus Station	Farm	Electronics Store	Empanada Restaurant	Event Space	Falafel Restaurant	Farmers Market	Eastern European Restaurant	Fast Food Restaurant	Filipino Restaurant	Fish & Chips Shop	Fish Market	Flower Shop	Egyptian Restaurant	Women's Store	Dumpling Restaurant	Cosmetics Shop	Dry Cleaner	Dor Sh
65	Bellaire	Deli / Bodega	Convenience Store	Italian Restaurant	Moving Target	Bus Station	Bus Stop	Chinese Restaurant	Greek Restaurant	Coffee Shop	Grocery Store		Empanada Restaurant	Fish & Chips Shop	Cycle Studio	Filipino Restaurant		Dance Studio	Department Store	Farmers Market	Farm	Falafel Restaurant	Event Space	Electron Sto

	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	11th Most Common Venue	12th Most Common Venue	13th Most Common Venue	14th Most Common Venue	15th Most Common Venue	16th Most Common Venue	17th Most Common Venue	18th Most Common Venue	19th Most Common Venue	20th Most Common Venue	21th Most Common Venue	22th Most Common Venue	23th Most Common Venue	24ti Mos Common Venue
63	Somerville	Park	Women's Store	Dumpling Restaurant	Flower Shop	Fish Market	Fish & Chips Shop	Filipino Restaurant	Fast Food Restaurant	Farmers Market	Farm	Falafel Restaurant	Event Space	Empanada Restaurant	Electronics Store	Egyptian Restaurant	Eastern European Restaurant	Dry Cleaner	Food & Drink Shop	Donut Shop	Dog Run	Dive Bar	Discount Store	Diner	Dim Sun Restauran

Ne	ighborhood	1st Mos Common Venue	Common Venue	t 3rd M Comm	on Come	non Comn	ton Comm	on Common	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue	11th Most Common Venue	12th Most Common Venue	13th Most Common Venue	14th Most Common Venue	15th Most Common Venue	16th Most Common Venue	17th Most Common Venue	18th Most Common Venue	19th Most Common Venue	20th Most Common Venue	21th Most Common Venue	22th Most Common Venue	23th Most Common Venue	24th Most Common Venue	25th Me Commo Ven
0	Astoria	Ba	Middle Eastern Restauran	Hookah t	Bar Restau		ant bak	ery Restaurant	Mediterranean Restaurant	Salon / Barbershop	Café	Pub	Coffee Shop	Deli / Bodega	Pizza Place	American Restaurant	Food Truck	Indian Restaurant	Ice Cream Shop	Gourmet Shop	Grocery Store	Gym	Food & Drink Shop	Gym / Fitness Center	Japanese Restaurant	Salad Pla
1	Woodside	Grocery Store	Deli , Bodegi	i Bak	ery Restau	Thai L rant Ameri Restau	etin Filip can Restaur ant		Bar	Pizza Place	Donut Shop	Pub	Ice Cream Shop	Sandwich Place	Café	Restaurant	Mexican Restaurant	Chinese Restaurant	Gourmet Shop	Gym / Fitness Center	Pharmacy	Spa	Metro Station	Mobile Phone Shop	Empanada Restaurant	Coffee Sh
2	Jackson Heights	Latin American Restauran	Souti American Restauran	Peru	ian Mo ant Phone S	bile Bai	ery Thai Restaur	nestaurant	Mexican Restaurant	Pizza Place	Clothing Store	Diner	Empanada Restaurant	Supplement Shop	Grocery Store	Pharmacy	School	Cuban Restaurant	Kids Store	Laundromat	Shoe Store	Shipping Store	Bubble Tea Shop	Burger Joint	Cajun / Creole Restaurant	Loung
3	Elmhurst 1	Thai Restauran	Mexican Restauran	t Restaur	ese Indone ant Restau	sian Bubble rant S	Tea Vietnam nop Restaur	ese South ant Restaurant	Malay Restaurant	Sushi Restaurant	Donut Shop	Bar	Bank	Colombian Restaurant	Gym / Fitness Center	Snack Place	Ice Cream Shop	Hotpot Restaurant	Park	Argentinian Restaurant	Food	Pizza Place	Salon / Barbershop	Egyptian Restaurant	Farmers Market	Fan
4 H	oward Beach	Italia: Restauran	Bagel Shop	Fast Fo Restaur	ood Pharm	nacy Sandy	rich Chin ace Restaur	ese Donut Shop	Tapas Restaurant	Diner	Sushi Restaurant	Supermarket	Cosmetics Shop	Fried Chicken Joint	Japanese Restaurant	Spa	Breakfast Spot	Mexican Restaurant	Seafood Restaurant	Sporting Goods Shop	Clothing Store	Bank	Deli / Bodega	Convenience Store	Construction & Landscaping	
5	Corona	Mexicar Restauran	Pizza Place	ltal Restaur	lian Convenie ant S	ence Foo tore Drink S	d & Empans nop Restaur	da Supermarket ant	School	Sandwich Place	Donut Shop	Bakery	Restaurant	South American Restaurant	Park	Deli / Bodega	Ice Cream Shop	Diner	Dance Studio	Cosmetics Shop	Fast Food Restaurant	Creperie	Farmers Market	Cuban Restaurant	Farm	Falafi Restaurar
6	Forest Hills	Gyn	Gym . Fitnes Cente	/ s Pizza Pi	ace Restau	Thai rant	lark Yoga Stu	dio Pharmacy	Convenience Store	Business Service	Sandwich Place	Liquor Store	Italian Restaurant	Snack Place	Peruvian Restaurant	Spa	Food Truck	Donut Shop	Chinese Restaurant	Supermarket	Supplement Shop	Farmers Market	Bakery	Bagel Shop	Gift Shop	Optical Sho
7	Kew Gardens	Chinese Restauran	Pari	c Pharm	acy Pizza P	face Restau	lian Donut Sh ant	op Bank	Bar	Deli / Bodega	South American Restaurant	Food	Spa	Bubble Tea Shop	Pub	Juice Bar	Diner	Fish Market	Sandwich Place	Italian Restaurant	New American Restaurant	Movie Theater	Sushi Restaurant	Bakery	Trail	Wine Sho
8 R	ichmond Hill	Pizza Place	e Lounge			ount Spar tore Restau	nish Bus Stat ant	on Supermarket	Canibbean Restaurant	Sandwich Place	Bank		Clathing Store	Metro Station	Diner	Gym / Fitness Center	Indian Restaurant	Pet Service	Empanada Restaurant	Filipino Restaurant	Fast Food Restaurant	Farmers Market	Cuban Restaurant	Cycle Studio	Farm	Falaf Restaura
9	Flushing	Chinesi Restauran	Hotpo t Restauran		Spa Bubble	Tea Karaoke hop	Bar Kore Restaur	an Asian ant Restaurant	Bakery	Gym / Fitness Center	Gym	Construction & & Landscaping	Supermarket	Food Truck	Pool Hall	Dumpling Restaurant	Church	Yoga Studio	Ramen Restaurant	Resort	Cantonese Restaurant	Malay Restaurant	Shipping Store	Shanghai Restaurant	Seafood Restaurant	Caf
10	Long Island City	Hote	Coffee Shop	Pizza Pi	ace	Bar (afé Restaur	an Donut Shop	Gym	Deli / Bodega	Chinese Restaurant	Restaurant	Bus Station	Post Office	Sandwich Place	Steakhouse	Mobile Phone Shop	Spa	Bookstore	Food Truck	Residential Building (Apartment / Condo)	Fast Food Restaurant	Brewery	Cocktail Bar	Italian Restaurant	Climbing Gyn
11	Sunnyside	Pizza Plac	Italia: Restauran	So Ameri Restaur			unt Ho	tel Coffee Shop	Bakery	Liquor Store	Seafood Restaurant	Laundromat	Spa	Fast Food Restaurant	Bus Station	Bus Stop	Restaurant	Mexican Restaurant	Romanian Restaurant	Korean Restaurant	Clothing Store	Pub	Diner	Deli / Bodega	Peruvian Restaurant	Lati America Restaurar
12	ast Elmhurst	Donut Shop	Schoo	l Superman	loet I	Lake Hotel	So Bar Amerii Restaur	oth Ice Cream can Shop	Gas Station	Bus Station	Rental Car Location	Coffee Shop	Liquor Store	Electronics Store	Empanada Restaurant	Women's Store	Event Space	Egyptian Restaurant	Farm	Farmers Market	Fast Food Restaurant	Filipino Restaurant	Fish & Chips Shop	Falafel Restaurant	Dumpling Restaurant	Easter Europea Restaurar
13	Maspeth	Pizza Place	e Dine	r Pharm	acy Phone S	ibile Groi hop Si	ery Ba	nk Japanese Restaurant	Sandwich Place	Sports Bar	Donut Shop	Sushi Restaurant	Chinese Restaurant	Taco Place	Discount Store	Bakery	Lounge	Gourmet Shop	Dessert Shop	Park	Pub	Ice Cream Shop	Deli/ Bodega	Flower Shop	Eastern European Restaurant	Event Space
14	Ridgewood	Pizza Plac	e Baker	Dv Bode	eli/ Gro ega S	cery Gr tore Restau	eek Mobile Pho ant Sh		Egyptian Restaurant	Eastern European Restaurant	Sandwich Place	Liquor Store	Italian Restaurant	Restaurant	Diner	Noodle House	Supplement Shop	Sushi Restaurant	Dessert Shop	Mexican Restaurant	Café	Convenience Store	Bar	German Restaurant	Polish Restaurant	Pet Stor
16	Rego Park	Baker	Grocery Store		rich S ace Restau	ushi Restau rant			Donut Shop	Plaza	Diner	Bubble Tea Shop	Shanghai Restaurant	Chinese Restaurant	Coffee Shop	Park	Discount Store	Spanish Restaurant	Nail Salon	Mediterranean Restaurant	Martial Arts Dojo	Liquor Store	Flower Shop	Kosher Restaurant	Furniture / Home Store	Japanes Restaurar
17	Woodhaven	Pharmac	Deli , Bodegi		ank Pizza P	face Dive	Ber Restaur	an Mobile ant Phone Shop	Spe	Fried Chicken Joint	American Restaurant	Supermarket	Sandwich Place	Nail Salon	Donut Shop	Restaurant	Thai Restaurant	Japanese Restaurant	Bagel Shop	Hookah Bar	Park	Gift Shop	Cycle Studio	Falafel Restaurant	Event Space	Creper
18	Ozone Park	Pharmac	r Dine			lank Pizza P atin	ace Deli/Bode	ga Goods Shop	Spanish Restaurant	Breakfast Spot	Fast Food Restaurant	Shop & Service	Mobile Phone Shop	Café	Department Store	Sandwich Place	Latin American Restaurant	Donut Shop	Dance Studio	Coffee Shop	Dessert Shop	Restaurant	Bowling Alley	Gym / Fitness Center	Train Station	India Restaurar
20	College Point	Chinese Restauran	e Asiar t Restauran			ican	Bar Pharm	scy Sandwich Place	Pizza Place	Donut Shop	Food & Drink Shop	Mexican Restaurant	Karaoke Bar	Spanish Restaurant	Supermarket	Steakhouse	Caribbean Restaurant	Bakery	Gift Shop	Nightclub	Diner	Buffet	Dessert Shop	Seafood Restaurant	Hotel Bar	Video Stor
22	Bayside	Ва	r Pizza Place		Spa Amer Restau	rant Restau	ant Restaur	ian Italian ant Restaurant	Pub	Sushi Restaurant	Bakery	Donut Shop	Greek Restaurant	French Restaurant	Shipping Store	Gym Fast Food	Shanghai Restaurant Deli /	Burger Joint	Sandwich Place	Salon / Barbershop	Bus Station	Café	Cajun / Creole Restaurant	Health & Beauty Service	Gymnastics Gym Filipino	Pharmac
23	Auburndale	Restauran	Hookah Ba	Gymnas	iym Home S		ale use	Bar Store	Mobile Phone Shop	Toy / Game Store	Supermarket	Train	Athletics & Sports	Shop	Ice Cream Shop	Restaurant	Bodega	American Restaurant	Pet Store	Pharmacy	Korean Restaurant	Farmers Market	Farm	Falafel Restaurant	Restaurant	Event Spac
1	leighborha	od Com	mon Co enue	mmon (Venue	4th Mos Commo Venu	e Venue	Common Venue	Common Venue	Venue	Common Venue	10th Most Common Venue	11th Most Common Venue	12th Most Common Venue	Most Common Venue	Mos Common Venue	t Mo n Comme e Ven	on Commune Ver	ost M non Comm nue Ve	Most I mon Com enue V	18th 19 Most Mo mon Commo enue Venu	st Most on Common ue Venue	21th Most Common Venue	Commo	t Mo n Commo e Venu	ost I on Com ue V
43	Breezy Po	oint E		nerican taurant	Board Shop	Landmar	/ Trail	Women's Store		Empanada Restaurant	Event Space	Falafel Restaurant	Farm	Filipino Restaurant	Fast Food Restaurant	Egyptiar Restauran	n chi	ps Mai		ower Shop	Food Electroni Sto	CS European		Dumplin Restauran		Dry D
78	Hamm	nels E	each Sou	thern / il Food taurant	Diner	Caf	é Shoe Store	Gym / Fitness Center	Dog Run	Bus Stop		Fast Food Restaurant	Deli / Bodega	Food Truck		Empanada Restauran			arm C	sh & F. Chips Resta Shop	alafel Fi: urant Mark		Women's Store	Electronic Stor		
Nei	ighborhood		on Com	Most 3r		4th Most Common	5th Most Common	6th Most Common	7th Most Common	8th Most Common	9th Most Common	10th Most Common	11t Mos Commo	t Most	Most	Mos	st M	ost I			18th 19t Most Mos Imon Commo	t Most	21th Most Common	22th Most Common	23th Most Common	N
		Ven		enue	Venue	Venue Fish	Venue Fish &	Venue	Venue Fast Food	Venue	Venue	Venue	Venu Falafe	e Venue	Venue	Venu Electronic	e Ven	ue V	enue \		Dry Food	e Venue	Venue	Venue	Venue Discount	Ve
'	Malba	a Rest Ai		Court	Shop	Market	snop	Restaurant			Restaurant	Farm	Restauran			t Stor	e Restaur	ent Restai	pean		eaner Sho	K Shon	Dog Run	Dive Bar	Store	С
	Bayswate	r Ten Co	nis Playgr urt Playgr	ound	Park	Falafel Restaurant	Eastern European Restaurant	Egyptian Restaurant	Electronics Store	Empanada Restaurant	Event Space				Fast Food Restaurant			ips	Fish arket		Ponut Dr Shop Cleane		Dog Run	Dive Bar	Discount Store	
	Neighborh	hood Co	Vanua Co		Common Venue	Common	5th Most Common Venue		Venue Venue		ommon	10th Most Common (Venue	11th Most Common Venue	12th Most Common Venue	13th Most Common C Venue	14th Most Common Venue	15th Most Common Venue	16th Most Common Venue	Mo	st Mos	t Most n Common C	Most Common Com	Most om	Most I mon Com	Most mon Con	24th Most nmon Venue
64	Broo	kville B	Deli / W odega	Store	Eastern European Restaurant	Food	Flower Shop	Fish Market	Fish & Chips Shop	Filipino F estaurant R	ast Food estaurant	Farmers Market	Farm	Falafel Restaurant	Event Er Space Re	mpanada E estaurant	lectronics Store	Egyptian Restaurant	Dumplin Restaura	ng Foor nt Cour	d Dry t Cleaner	Donut Shop Dog	Run Div		ount Store	Diner

	Neighborhood					Common	6th Most Common Venue	Common			10th Most Common Venue	11th Most Common Venue	12th Most Common Venue	13th Most Common Venue	14th Most Common Venue	15th Most Common Venue	16th Most Common Venue	17th Most Common Venue	18th Most Common Venue	19th Most Common Venue	20th Most Common Venue	21th Most Common Venue	22th Most Common Venue	23th Most Common Venue	24tl Mos Commoi Venu
59	Laurelton	Caribbean Restaurant	Cosmetics Shop	Train Station	Park	Sculpture Garden	Fast Food Restaurant	Farmers Market	Farm	Falafel Restaurant	Dry Cleaner	Empanada Restaurant	Filipino Restaurant	Electronics Store	Fish & Chips Shop	Egyptian Restaurant	Eastern European Restaurant	Fish Market	Dumpling Restaurant	Event Space	Donut Shop	Food	Dog Run	Dive Bar	Discoun Ston

	Neighborho	1st Mos od Commo Venu	n Comm	on Commo	n Commo	n Commo	n Common	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue	Most Common	12th Most Common Venue	Most	Most	Most	16th Most Common Venue	17th Most Common Venue	Most	Most Common	20th Most Common Venue		Mos Commo	st on C
	35 South Jama	ica Bu Statio					Grocery Store	Bus Line	Caribbean Restaurant	Supermarket	Women's Store			Empanada Restaurant		Falafel Restaurant	Farm	Fast Food Restaurant	Filipino Restaurant		Egyptian Restaurant			an Re
	53 Holliswo	od Bu Statio		Mobi nd Phor Sho	ie Cho	t Supermarke	t Women's Store	Electronics Store	Empanada Restaurant	Event Space	Falafel Restaurant		Farm	Eastern European Restaurant	Postaurant	Filipino Restaurant	Fish & Chips Shop	Fish Market	Egyptian Restaurant	Dumpling Restaurant	Food	Dry Cleaner		ın
	70 Pomor	ok Statio	s Supermark	Ket Japanes Restaurai				Bowling Alley	Playground	Pizza Place	Fast Food Restaurant		Filipino Restaurant	Farm	Falafel Restaurant	Event Space	Empanada Restaurant	Electronics Store	Egyptian Restaurant	Eastern European Restaurant	vvomen s	Dumpling Restaurant		
	Neighborhoo	1st Mos d Common Venue	Most	3rd Most Common Venue	Common	5th Most 6 Common 0 Venue	ommon Co	mmon Con	nmon Com		st Mos n Commo	t Mos n Common	t Most	Most Common	15th Most Common Venue	16th Most Common (Venue	17th Most Common Venue	18th Most Common Co Venue		0th Most 2 Common Venue	Common	22th Most Common C Venue	23th Most ommon C Venue	24tl Mos Commo Venu
	51 Murray H	ill Korear Restauran		Supermarket	: Bar	Bank	Breakfast Spot	Bakery S	Pet Cosmi ervice S	etics Desse ihop Sho		Mobile b Phone Shop	e Chips	Chicken	Karaoke Bar	Bath House	Pizza Place R	Japanese estaurant Bi	BQ Joint AL	utomotive Shop In	tersection	Donut Shop	Farmers Market	Farn
	Neighborhood	1st Most Common Venue		ommon Cor	nmon Cor	Most 6th Monmon Comm	on Commo	n Commo	n Common	Most	11th Most Common Venue	12th Most Common Venue	13th Most Common Venue	14th Most Common Venue	15th Most Common Venue	16th Most Common Venue	17th Most Common Venue	18th Most Common (Venue	19th Most Common C Venue	20th Most Common Co Venue			nmon Cor	24th Most mmon Venue
50	Neponsit	Beach \	Nomen's	Eastern uropean		lower F	ish Fish &	Št Filipin	o Fast Food	Farmers	Farm	Falafel	Event	Empanada		Egyptian	Dumpling	Food	Dry	Donut D	og Run D	ive Bar Dis	count	Diner

4 Conclusion

In this study, I analyzed the neighborhoods of Queens borough of NY and tried to understand what type of top venues there are and how they are clustered. This data helped to determine whether there is an opportunity to open an Indian restaurant in Queens. The data gathered were eyeballed to determine the next steps. Further analysis to categorize venues, specific distances among them may predict better. Regression analysis maybe performed as well.

Above analysis should have shown a good number of Indian restaurants in top 25 venues and 10 clusters. But that does not seem to be case. The cluster data and top venues indicate that there is definitely an opportunity to open up an Indian restaurant in Queens borough. There are enough venues around which can also increase the foot traffic to the Indian restaurant.