Finding the Optimal Location for a new Indian Restaurant in NYC

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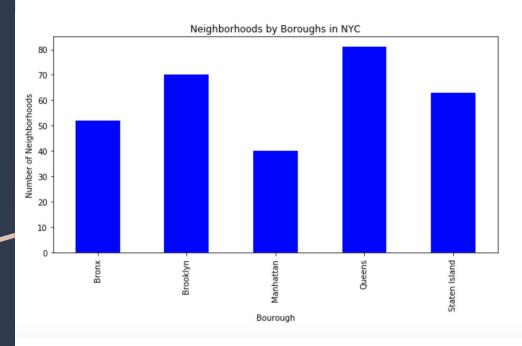
Why is this valuable?

- Using FourSquare we can use data to find out the best position to open up a new Indian Restaurant
- This helps out new restaurant owners who want to open a new shop
- This helps them open up in an area that allows them to make money and not close up their restaurant

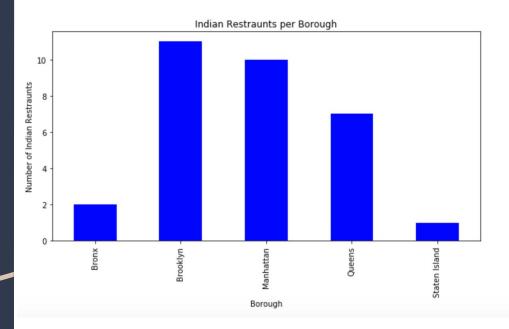
Data Used

- New York City data containing the neighborhoods and boroughs, latitudes, and longitudes will be obtained from the data source: https://cocl.us/new_york_dataset
- New York City data containing neighborhood boundaries will be obtained from the data source:
 - https://data.cityofnewyork.us/City-Government/ Borough-Boundaries/tgmj-j8zm
- All data related to locations and quality of Indian restaurants will be obtained via the FourSquare API utilized via the Request library in Python.

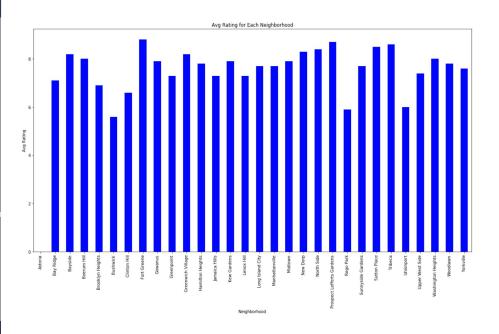
Neighborhood concentration in different Boroughs



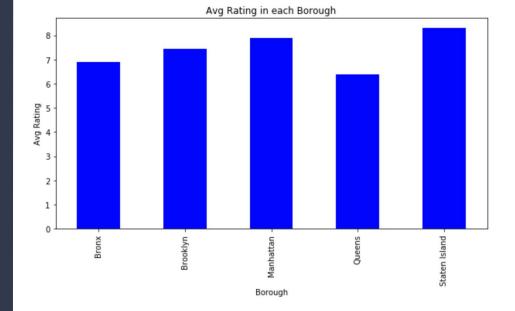
How many Indian Restaurants are in each Borough?



Average Rating in each Neighborhood



Average Rating in Each Borough



| | | Borough | Avg Rating | | |
|--|---|---------------|------------|--|--|
| | 3 | Queens | 6.385714 | | |
| | 0 | Bronx | 6.900000 | | |
| | 1 | Brooklyn | 7.445455 | | |
| | 2 | Manhattan | 7.900000 | | |
| | 4 | Staten Island | 8.300000 | | |

Indian Restaurants in Queens

- Chosen because Queens has the lowest rating among all the Boroughs in Indian Restaurant
- Avg Rating: 6.385714

| | Borough | Neighborhood | ID | Name | Likes | Rating | Tips |
|----|---------|-------------------|--------------------------|-----------------------------|-------|--------|------|
| 22 | Queens | Astoria | 0 | 0 | 0.0 | 0.0 | 0.0 |
| 23 | Queens | Kew Gardens | 5782c9ce498edde587f5aa14 | Tikka Indian Grill | 10.0 | 7.9 | 2.0 |
| 24 | Queens | Long Island City | 50a287a7e4b0033f830f06db | Raj's Indian Kitchen | 25.0 | 7.7 | 13.0 |
| 25 | Queens | Rego Park | 4b3a8aa5f964a520996925e3 | Sajni 026 | 3.0 | 5.9 | 6.0 |
| 26 | Queens | Bayside | 4f1f4996e4b01ff351a7a50c | Ayna Agra Indian Restaurant | 38.0 | 8.2 | 12.0 |
| 28 | Queens | Jamaica Hills | 4c434b2bd691c9b6ef8f8f0a | Sagar Restaurant | 10.0 | 7.3 | 6.0 |
| 30 | Queens | Sunnyside Gardens | 4c48da9f3013a59356c5f0e1 | Saffron Garden | 17.0 | 7.7 | 16.0 |

Indian Restaurants in Bronx

- Chosen because Bronx has the second lowest rating between Boroughs
- Has second least indian restaurants in borough
- Avg Rating: 6.9

| | Borough | Neighborhood | ID | Name | Likes | Rating | Tips |
|---|---------|--------------|--------------------------|-----------------------------|-------|--------|------|
| 0 | Bronx | Woodlawn | 4c0448d9310fc9b6bf1dc761 | Curry Spot | 5.0 | 7.8 | 10.0 |
| 1 | Bronx | Unionport | 4c194631838020a13e78e561 | Melanies Roti Bar And Grill | 3.0 | 6.0 | 2.0 |

Indian Restaurants in

- Chosen because it only has one indian restaurant in borough
- Avg Rating: 8.3

| | Borough | Neighborhood | ID | Name | Likes | Rating | Tips |
|----|---------------|--------------|--------------------------|-------------------|-------|--------|------|
| 27 | Staten Island | New Dorp | 4be74a502468c928505a0243 | Taste Of India II | 29.0 | 8.3 | 14.0 |

Conclusion(Options to put Indian Restaurants)

Option 1: The Bronx

- Only two restaurants
- Both mediocre ratings(6.0 and 7.8)

Option 2: Staten Island

- Only one restaurant
- Even though the restaurant has a high rating(8.3) you can open the restaurant in a different neighborhood than New Dorp where it is located