

# **Final Project: Applied Data Science Capstone**

**Optimal location for an Indian restaurant in New York City.**

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# Introduction

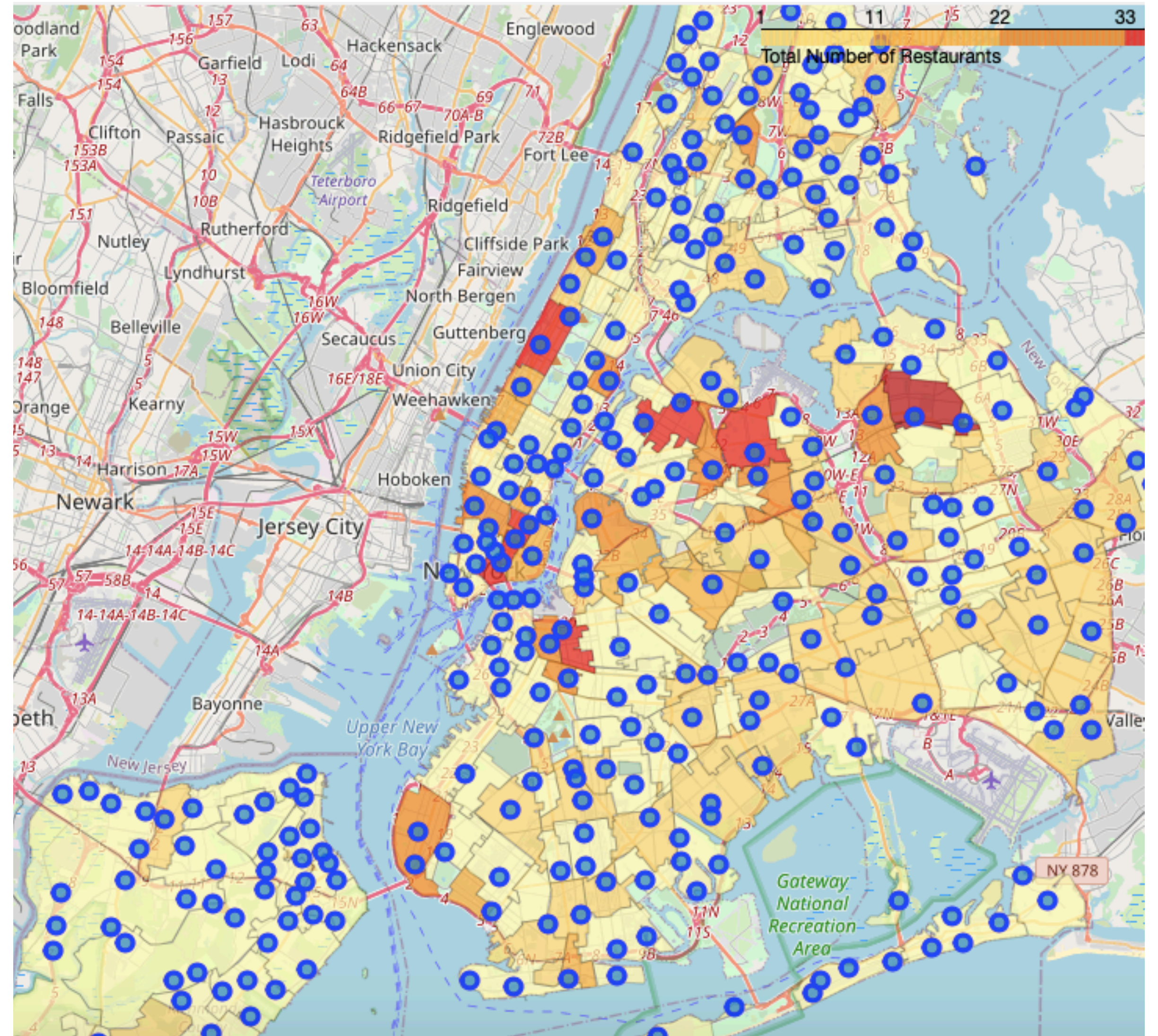
## Finding the optimal location

- As part of the final project we try to find the optimal location for opening a new Indian Restaurant in New York City.
- Objective: To find locations with low occurrences of an Indian restaurant in NYC
- Also it would be ideal to have these locations in neighbourhoods with high demands for restaurants.
- In order to find these locations we look at the number of existing restaurants as a proxy for demand.



# Demand for Restaurants

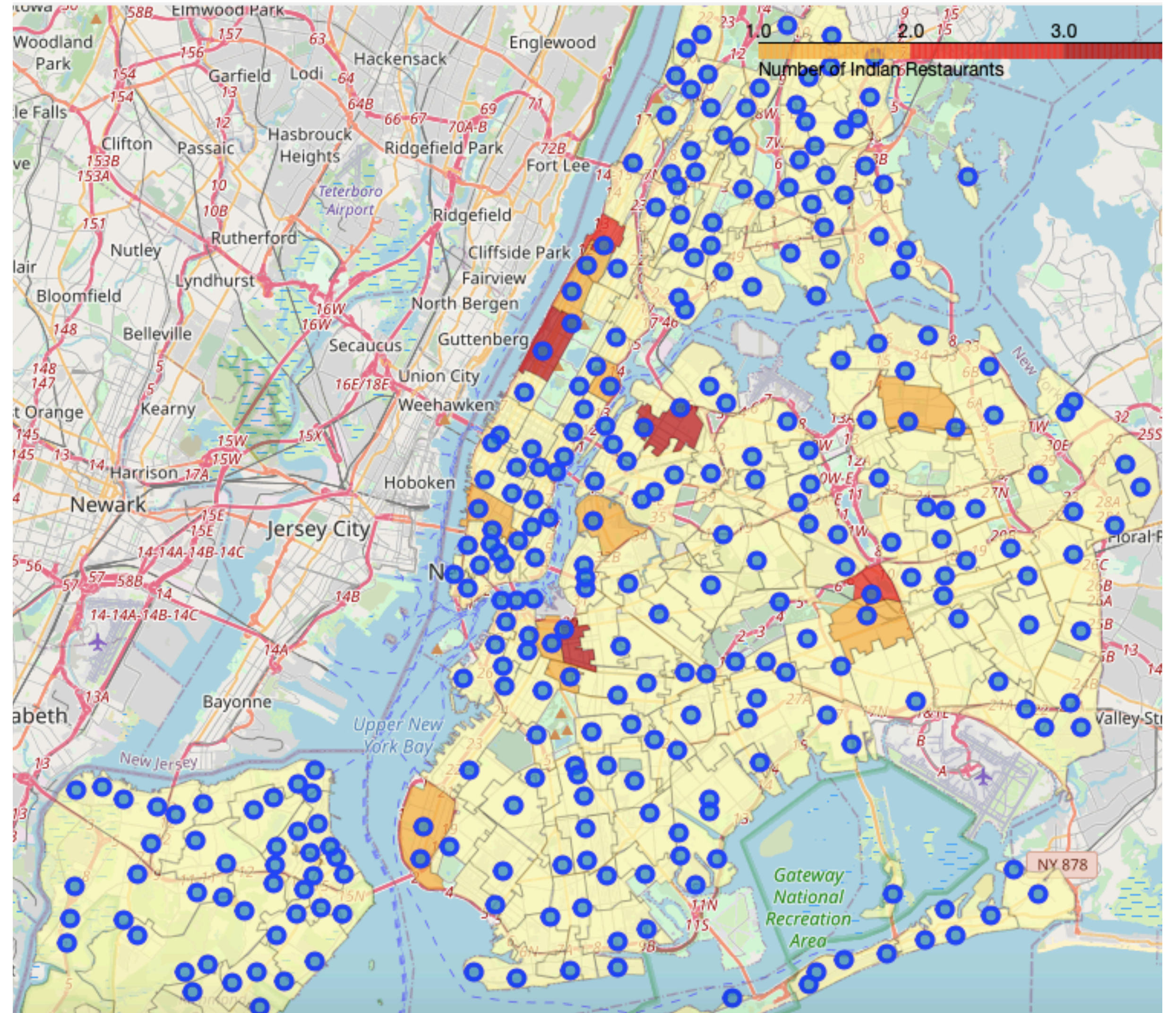
Choropleth map of the count of the total number of restaurants in each neighbourhood





# Supply of Indian Restaurants

## Chloropleth map for the Indian restaurants in each neighborhood

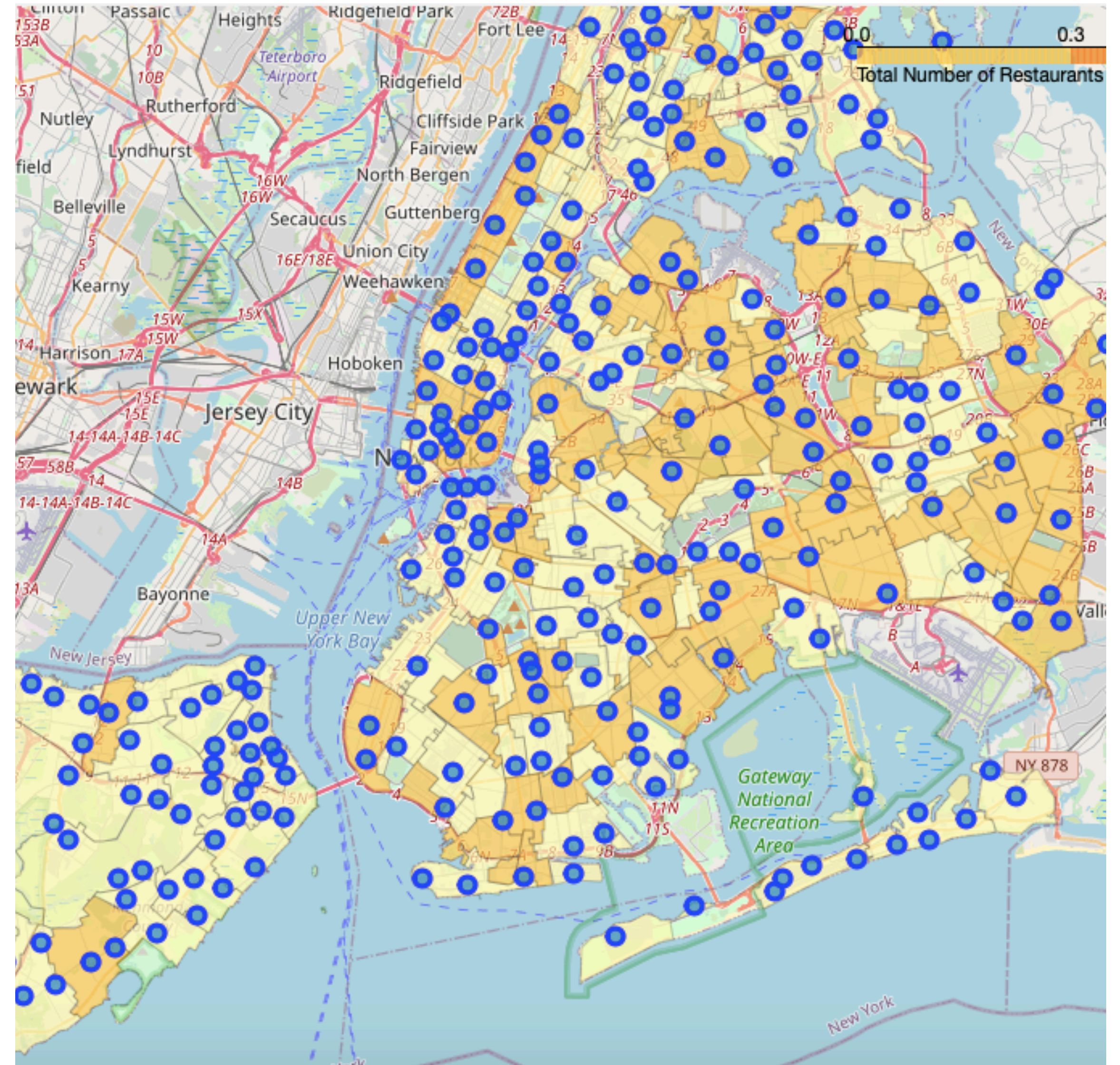




# Finding the ideal location

In order to get highlight the areas with low number of Indian but high number of total restaurants, we make a new column called 'Ratio'

Ratio is defined as the number of Indian restaurants in the area / number of total restaurants in the area.





# Shortlist the best locations

## Top 5

- Looks like a lot of areas lie in the lower ranges of the ratio column.
- Let's focus on areas with the lowest number of Indian Restaurants, i.e. 0
- Further, we should concentrate on the areas which have a high number of total restaurants but a low number of Indian restaurants (in this case, zero).

Neighborhood	Count Indian	Count Total
Jackson Heights	0.0	39
Chinatown	0.0	37
East Village	0.0	35
Little Italy	0.0	32
South Side	0.0	30

# Final Analysis

## Finding the ideal location

- One reason for no occurrence of an Indian restaurant in these locations could be because these might be popular for a certain cuisine and thus the demand for food is also majorly for that one specialised cuisine.
- It would be best for us to find the neighborhood which is the most neutral in terms of the frequency of occurrence of different types of venues. In order to determine the most neutral location, let's look at the venue with the highest frequency of occurrence as a percentage.

# Final Analysis

## Finding the ideal location

1. **Chinatown:** Chinese restaurants comprise 8% of total venues in the neighbourhood.
2. **East Village:** Bars comprise 7% of total venues in the neighbourhood.
3. **Jackson Heights:** Latin American restaurants comprise 11% of total venues in the neighbourhood.
4. **Little Italy:** Bakeries comprise 6% of total venues in the neighbourhood.
5. **South side:** Bars comprise 8% of total venues in the neighbourhood.



# Conclusion

## The Ideal Location

Thus, we can conclude that **Little Italy** and **East Village** are the optimal neighbourhoods to open an Indian Restaurant