

Battle of the Neighborhoods

Preferred Borough for Pizza Lovers

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Problem Description

- A tourist wants to visit New York for a trip
- He is a Pizza lover
- Find Borough where pizza is easily accessible
- Find Borough which has maximum Pizza Places
- Find Borough with highest density of Pizza Places

Data

- Pizza places in various boroughs
- Data of Borough and Neighborhoods with Lat Lang data
- Sources: https://geo.nyu.edu/catalog/nyu_2451_34572, https://cocl.us/new_york_dataset, Using Foursquare API

Possible Destinations

There are 5 Borough in NYC:

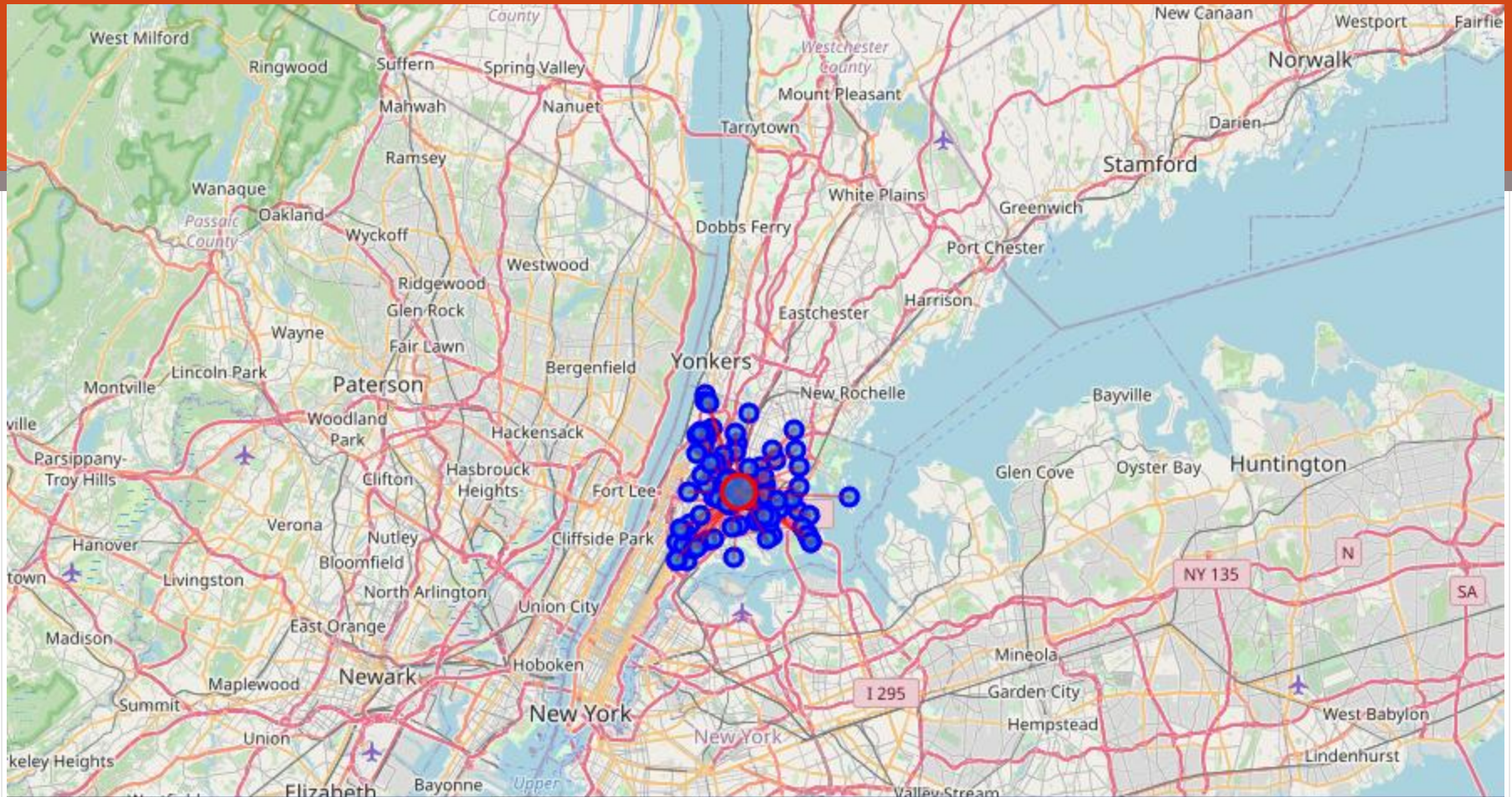
- Bronx
- Manhattan
- Brooklyn
- Queens
- Staten Island

Methodology

- Finding the Borough with highest Pizza Places
 - Means demand is high
 - High competition may lead to better quality
- Finding the Borough with highest density of Pizza Places
 - Easy access to other pizza places

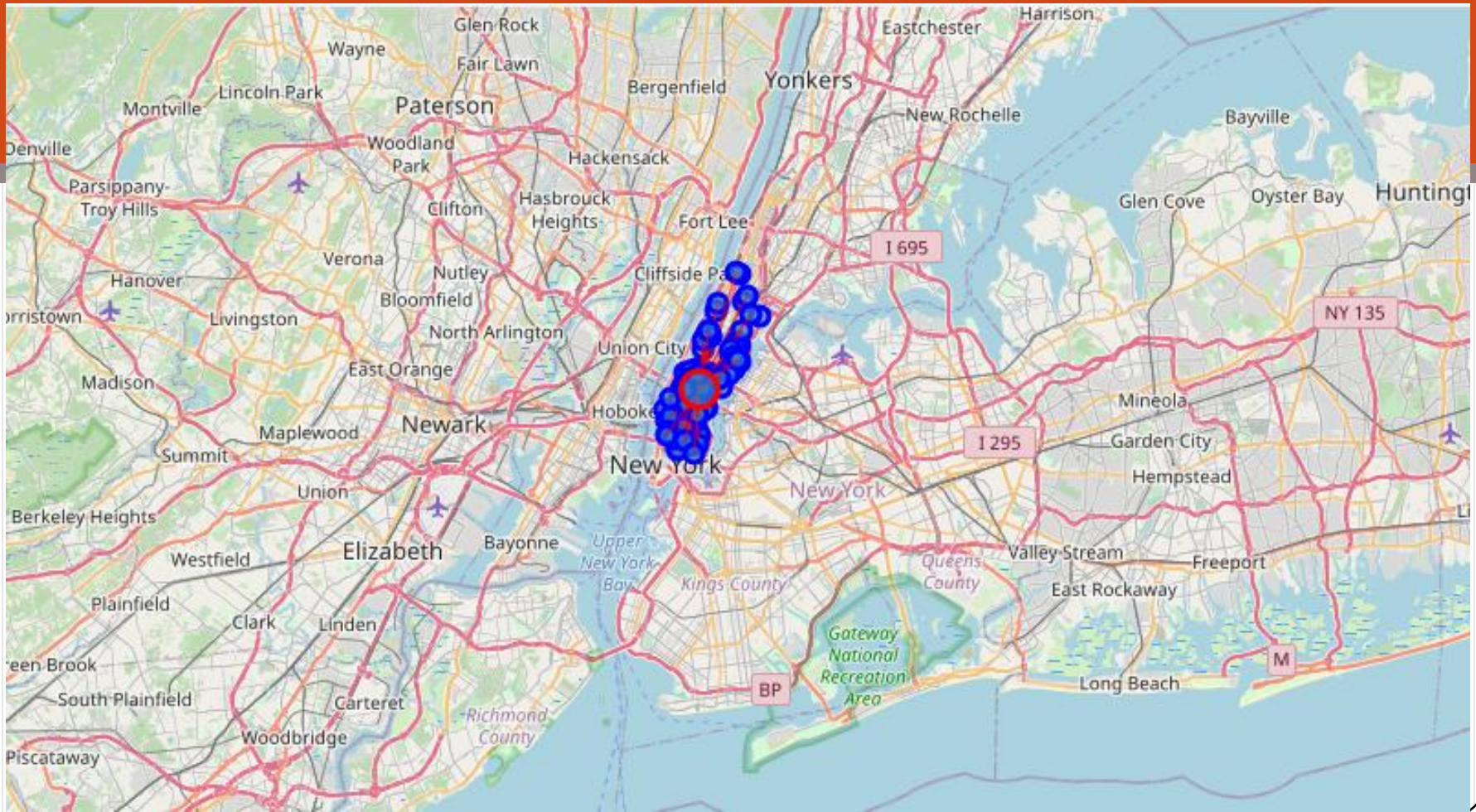
Maps with Mean Coordinate

Bronx



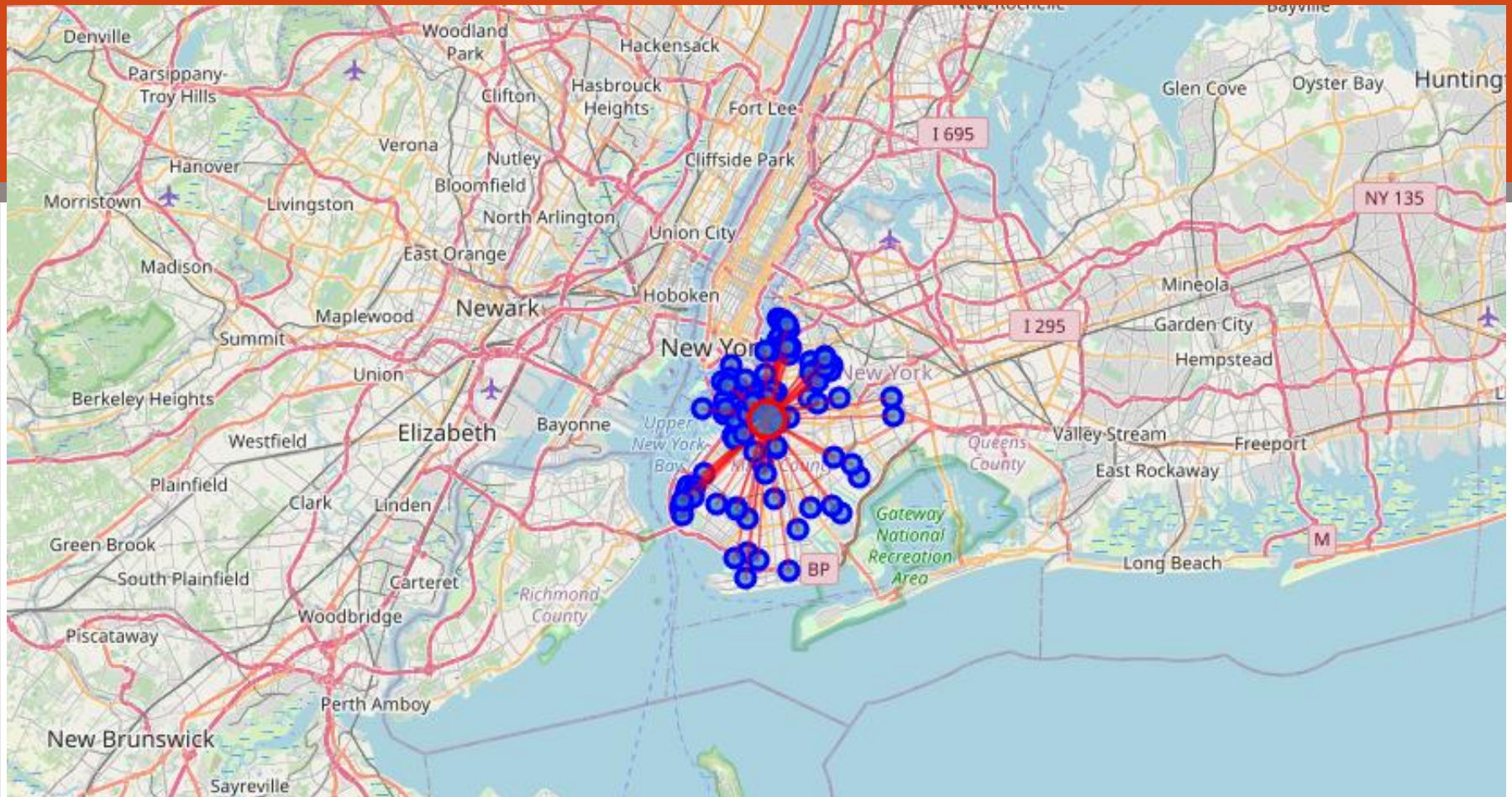
Maps with Mean Coordinate

Manhattan



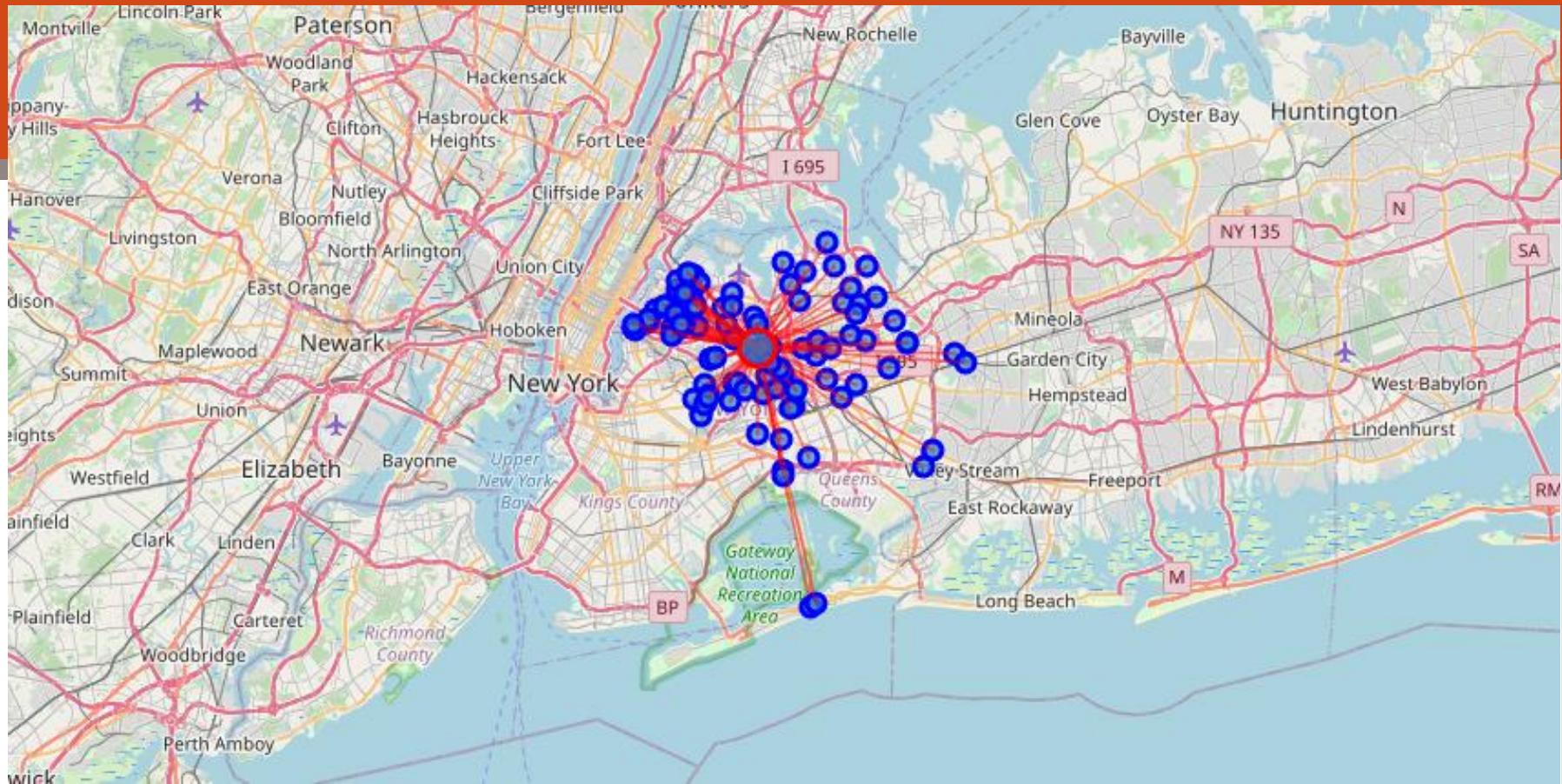
Maps with Mean Coordinate

Brooklyn



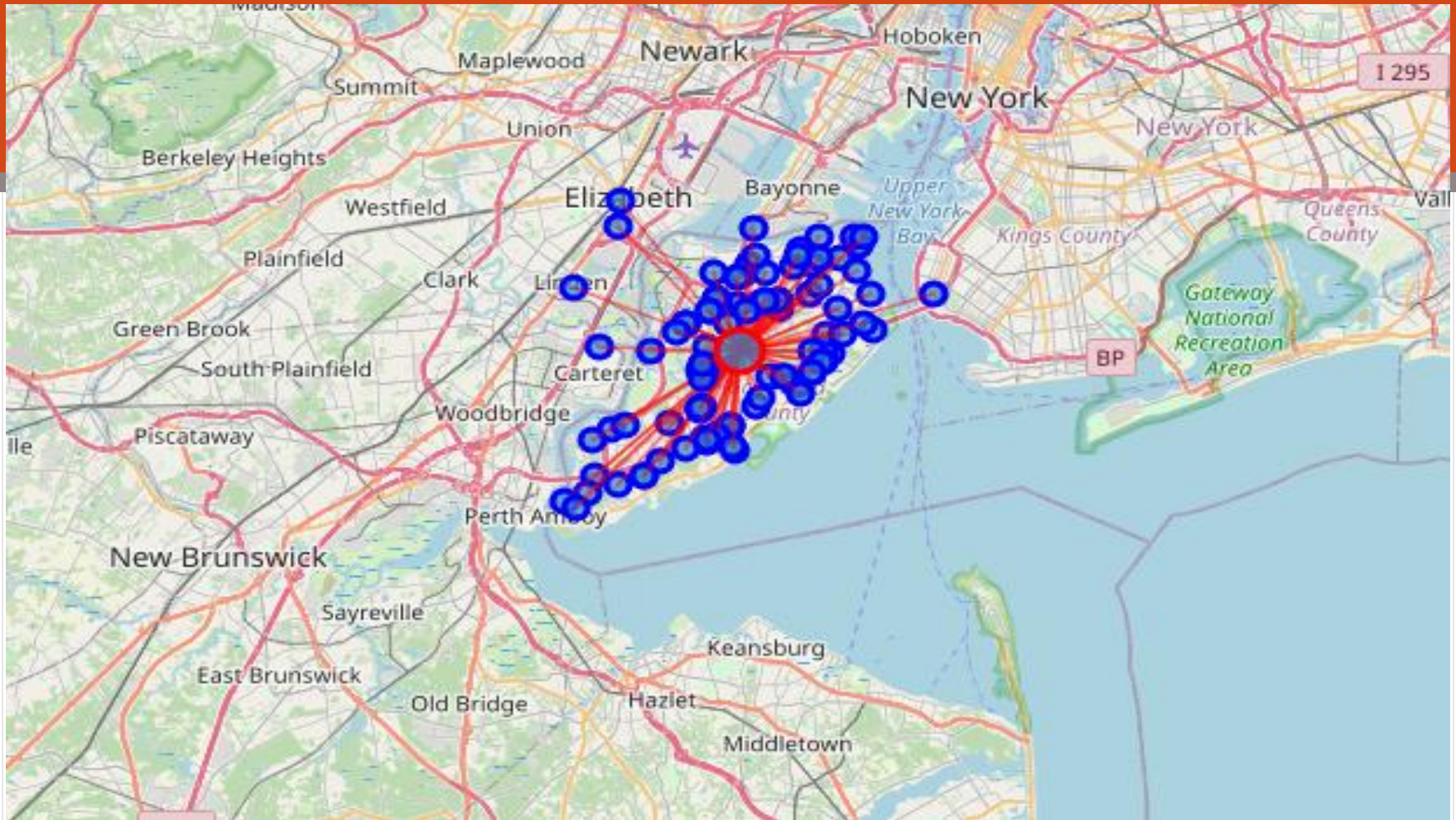
Maps with Mean Coordinate

Queens



Maps with Mean Coordinate

Staten Island



Results

Highest Number of Pizza Places

Total number of pizza places in Bronx = 158

Showing Top 100

Total number of pizza places in Manhattan = 252

Showing Top 100

Total number of pizza places in Brooklyn = 232

Showing Top 100

Total number of pizza places in Queens = 188

Showing Top 100

Total number of pizza places in Staten Island = 140

Showing Top 100

The ranking as per the number of pizza places is:

1. Manhattan
2. Brooklyn
3. Bronx
4. Queens
5. Staten Island

Results

Highest Density of Pizza Places

```
Bronx
Mean Distance from Mean coordinates
0.03498701585170117
Manhattan
Mean Distance from Mean coordinates
0.025780434583878624
Brooklyn
Mean Distance from Mean coordinates
0.0455394088214408
Queens
Mean Distance from Mean coordinates
0.06189604575236819
Staten Island
Mean Distance from Mean coordinates
0.05600907549251621
```

The ranking as per the density of pizza places is:

1. Manhattan
2. Bronx
3. Brooklyn
4. Queens
5. Staten Island

Conclusion

- From both the result sets Manhattan is the Borough which should be the most preferred one

Future Scope

- Attributes such as ratings of the pizza place and pizza type preference (Thin Crust etc) can also be considered