



The Battle of Neighbourhoods

CAPSTONE PROJECT

Introduction:

Burgers are an American classic and you would be hard-pressed to find a city with a better burger spread than New York. There are mouth-watering spots in every neighbourhood. I am a Culinary Youtuber based in Singapore and I am planning to do a Burger Tour in New York with the eventual hope of starting my own Burger Joint there. Therefore, to facilitate the completion of this goal, I will have to identify:

1. All the Burger Joints present in New York City.
2. Borough and neighbourhood that have the highest concentration of Burger Joints.
3. Neighbourhoods with top average ratings for Burger Joints
4. Which Burger Joints have the highest ratings (Based on "Likes", "Ratings" and "Tips")

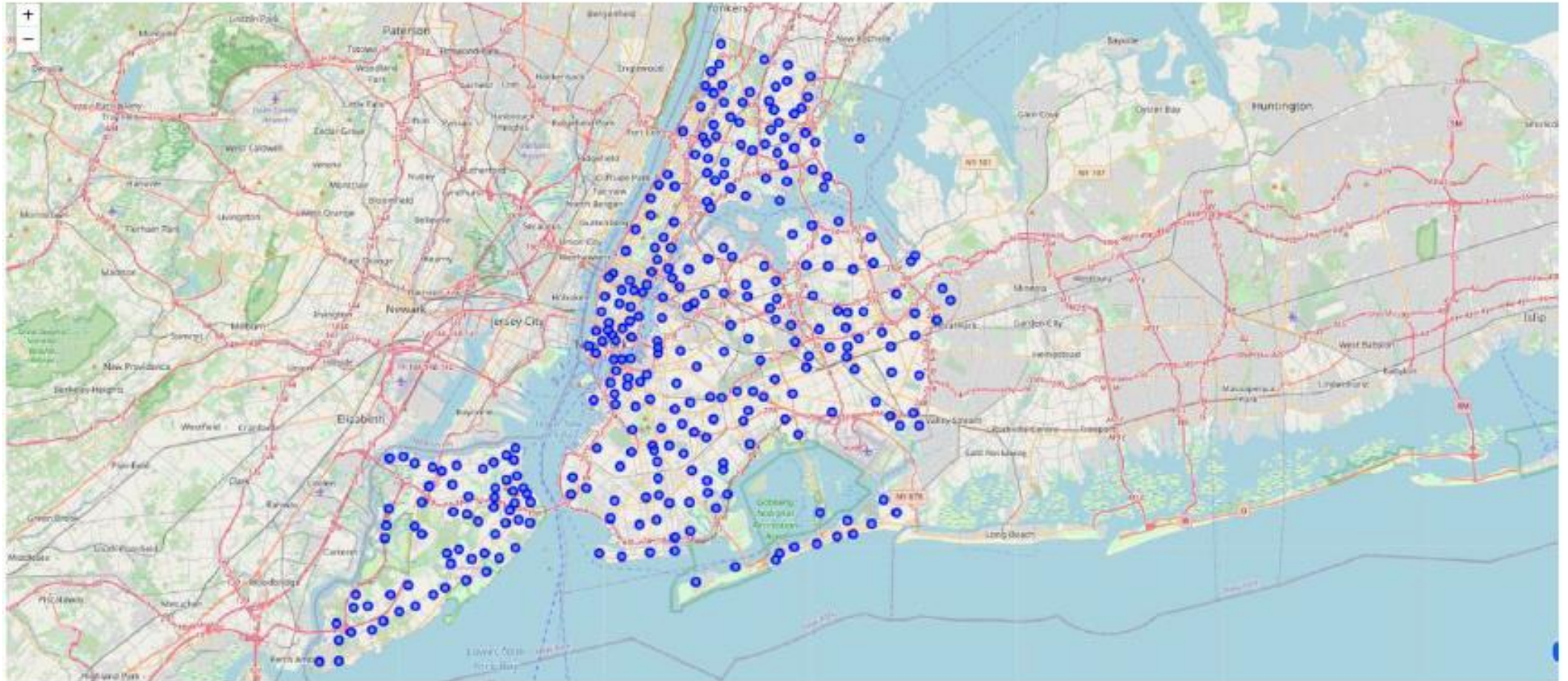
This project will also provide a good insight for aspiring burger chefs who are looking to set up their own restaurants in terms of best location, competition present as well as potential restaurants that they can study to better improve their services/food quality.

Please note that this project only takes into the "Burger Joint" classification as per FourSquare's Category.

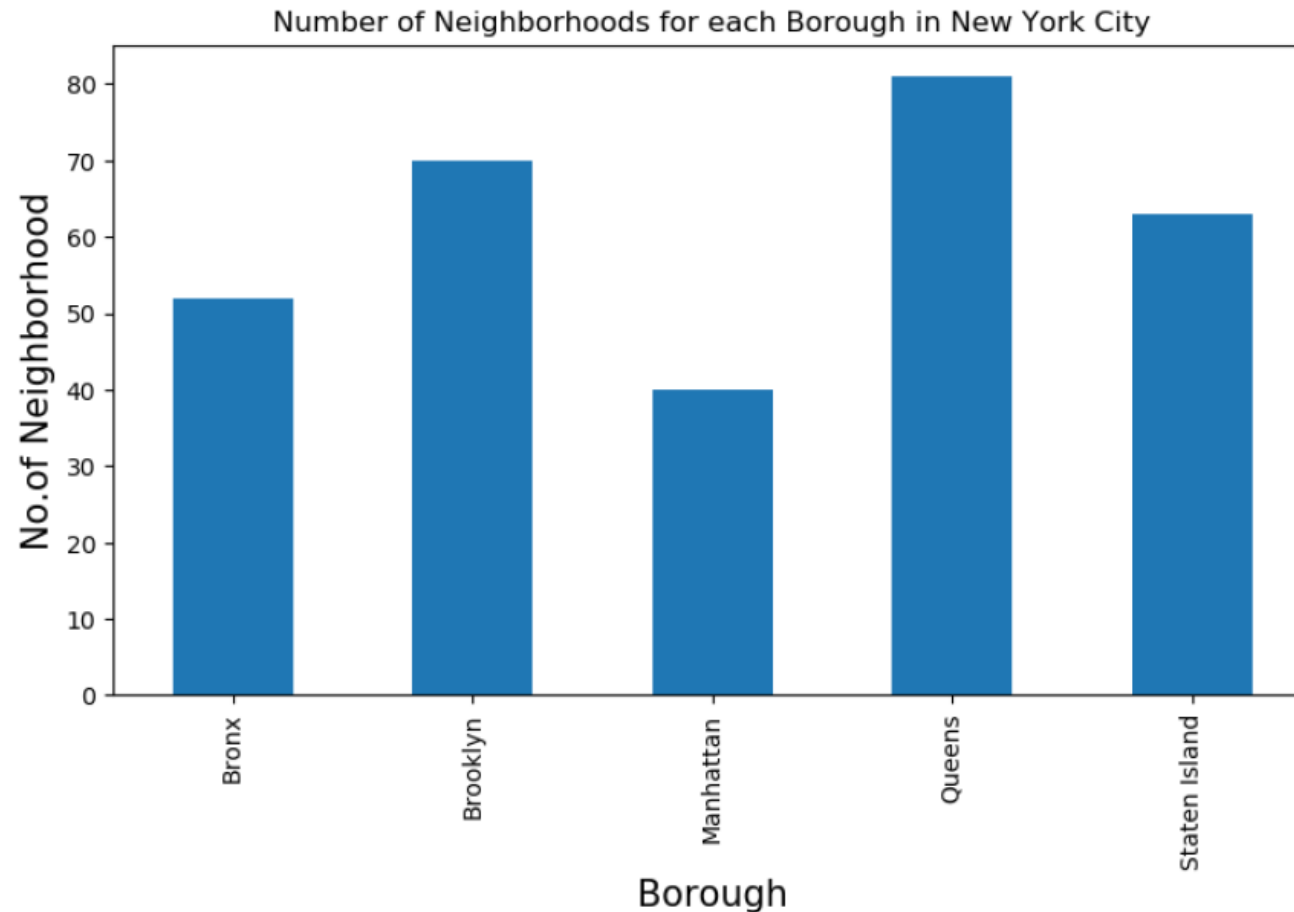
Data Requirements

- ▶ For this project, we will require the following data:
- ▶ 1. Data on the 5 boroughs as well as the neighbourhoods that exist in each borough. The latitude and longitude coordinates of each neighbourhood are required as well. I will obtain this information from https://cocl.us/new_york_dataset.
- ▶ 2. Detailed information on Burger joints in New York City. This will be obtained from Foursquare. Foursquare will be able to provide us with detailed information of all the burger joints in New York such as location, ratings, likes, reviews, etc.
- ▶ By combining and integrating both sources of information using data science tools, we will be able to obtain the information required to solve the business problem that was previously discussed.

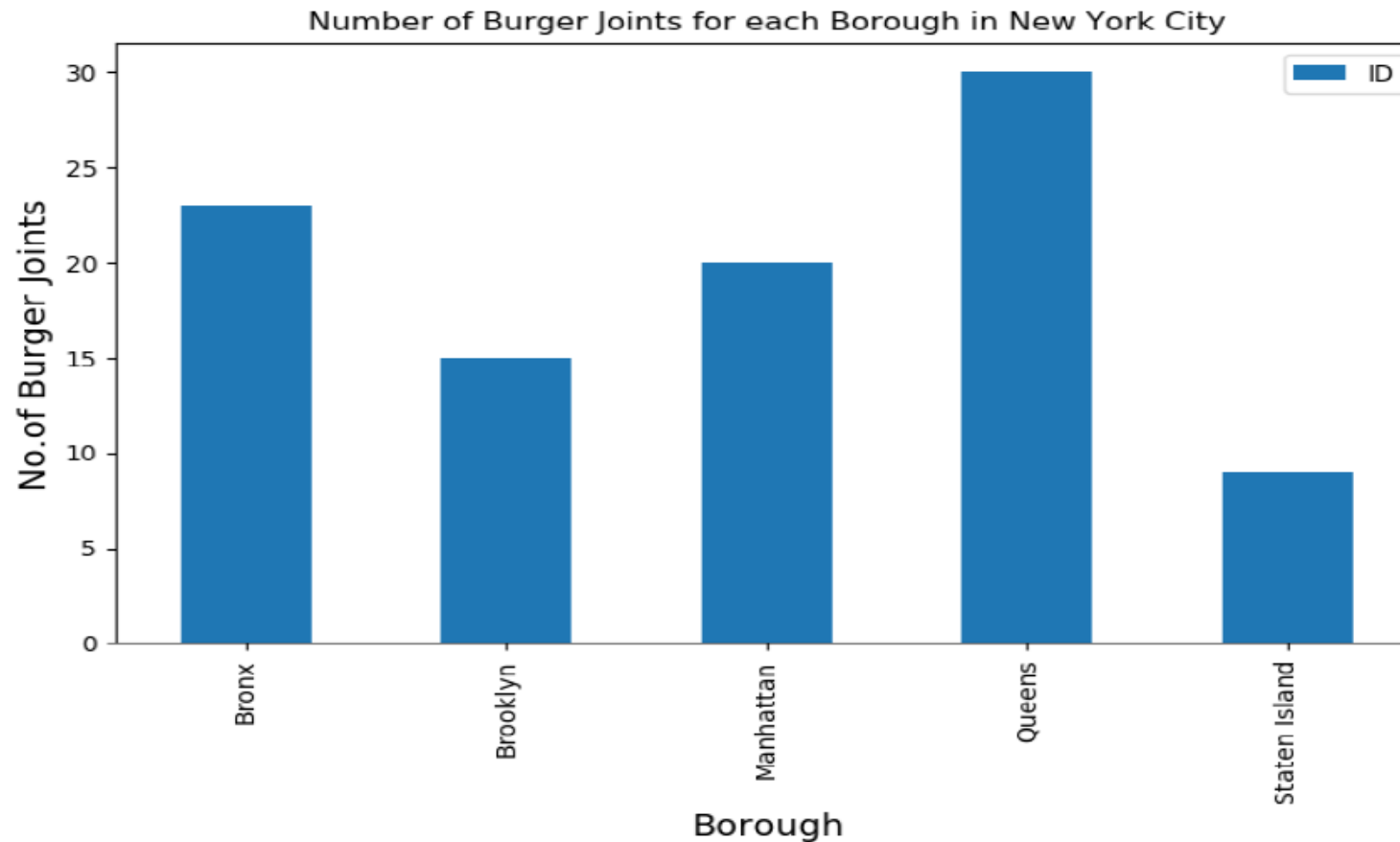
New York has 5 boroughs and 306 neighborhoods



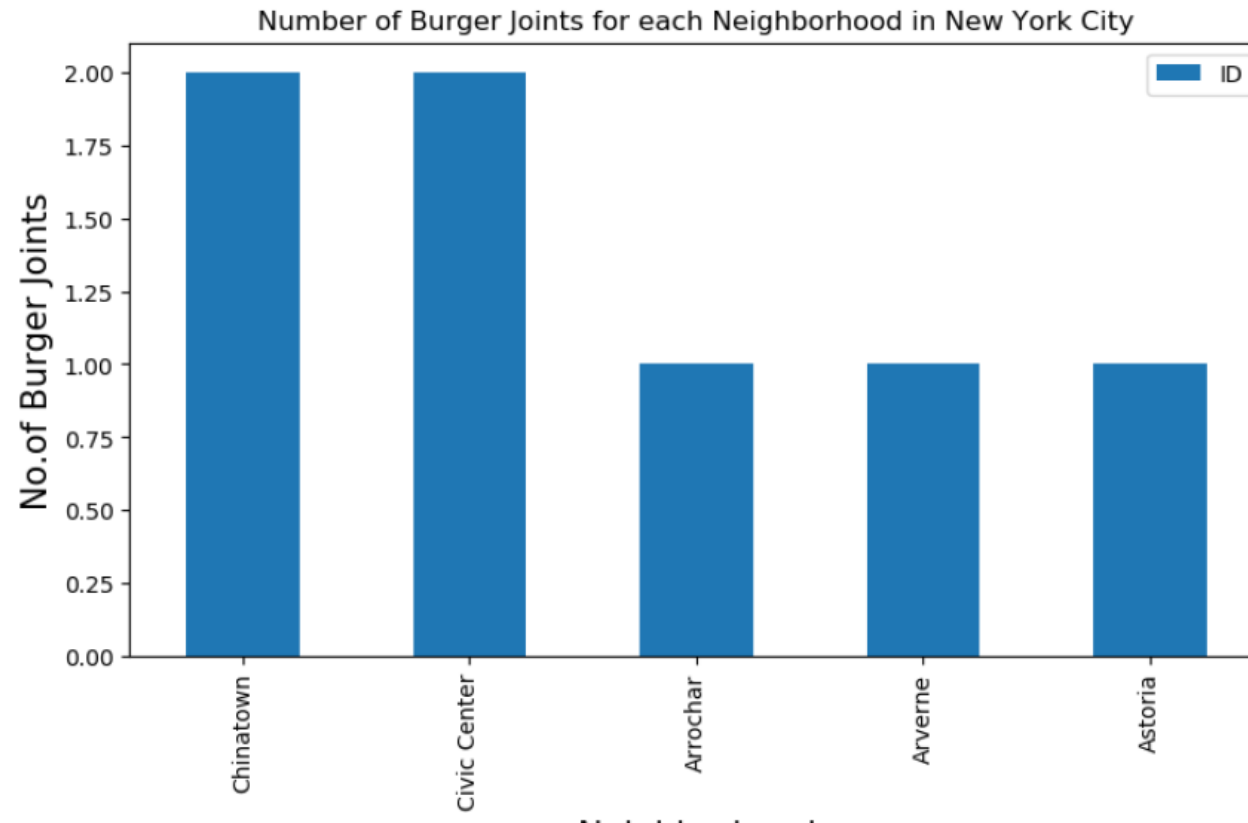
Queens has the greatest number of neighbourhoods



There are 97 burger joints in NYC



Chinatown and Civic Center is tied for the most number of burger joints



Identifying which burger joint ranks first in terms of 'Likes'

```
In [91]: burger_joints_stats_ny.iloc[burger_joints_stats_ny['Likes'].idxmax()]
```

```
Out[91]: Borough      Queens  
Neighborhood    Corona  
ID      3fd66200f964a52096e91ee3  
Name      Corner Bistro  
Likes      1065  
Rating      8.3  
Tips      392  
Name: 49, dtype: object
```

Identifying the
top ranking
burger joint
based on Likes,
Tips and Ratings

Identifying the top ranking burger joint based on Likes, Tips and Ratings

Identifying which burger joint ranks first in terms of 'Tips'

```
In [92]: burger_joints_stats_ny.iloc[burger_joints_stats_ny['Tips'].idxmax()]
```

```
Out[92]: Borough      Queens  
Neighborhood    Corona  
ID      3fd66200f964a52096e91ee3  
Name      Corner Bistro  
Likes      1065  
Rating      8.3  
Tips      392  
Name: 49, dtype: object
```

Identifying the top ranking burger joint based on Likes, Tips and Ratings

Identifying which burger joint ranks first in terms of 'Ratings'

```
In [93]: burger_joints_stats_ny.iloc[burger_joints_stats_ny['Rating'].idxmax()]
```

```
Out[93]: Borough          Brooklyn  
Neighborhood      Williamsburg  
ID      5787b68e498efcabbabba4f8  
Name      Shake Shack  
Likes          505  
Rating        8.7  
Tips          80  
Name: 23, dtype: object
```

	Borough	Average Rating
4	Staten Island	8.200000
1	Brooklyn	7.653333
2	Manhattan	6.945000
3	Queens	6.090000
0	Bronx	3.778261

Staten Island is
the borough with
the highest
average burger
joint rating

	Neighborhood	Average Rating
75	Ridgewood	8.7
91	Williamsburg	8.7
34	Forest Hills Gardens	8.7
68	North Side	8.7
39	Hollis	8.7
6	Battery Park City	8.7
32	Financial District	8.7
29	East Williamsburg	8.7
10	Briarwood	8.7
46	Jamaica Hills	8.7

Top 10
neighbourhood
in terms of
average burger
joint ratings

Conclusion

- ▶ We will now be able to answer all the previously raised questions.
- ▶ 1. There are 97 burger joints across NYC
- ▶ 2. Borough that have the highest concentration of Burger Joints - Queens, neighbourhood that have the highest concentration of Burger Joints - Chinatown and Civic Center
- ▶ 3. Multiple neighbourhoods are tied at 8.7 rating for the best burger joints
- ▶ 4. The best burger joint in terms of likes and tips is the Corner Bistro located in Corona, Queens while the best burger joint in terms of rating is Shake Shack located in Williamsburg, Brooklyn