Introduction

New York City's demographics show that it is a large and ethnically diverse metropolis. It is the largest city in the United States with a long history of international immigration. It is also a huge tourist attraction, resulting in millions for business owners every year.

An Italian businessman has decided that he wants to fulfill his lifelong dream of opening an Italian restaurant in New York. With rents lower than ever after the pandemic, and people eager to go out and socialize, this seems like a good time to open a restaurant. The following questions will be addressed in the dataset:

1. What is the best location for Italian in New York City?
2. In what Neighborhood and/or borough should the investor open a Italian restaurant to have the best chance of being successful?
3. What part of New York city has the best Italian food?

Data

In order to answer the above questions, data on New York City neighborhoods, boroughs to include boundaries, latitude, longitude, restaurants are required. Data requiring average restaurant ratings will also be required.
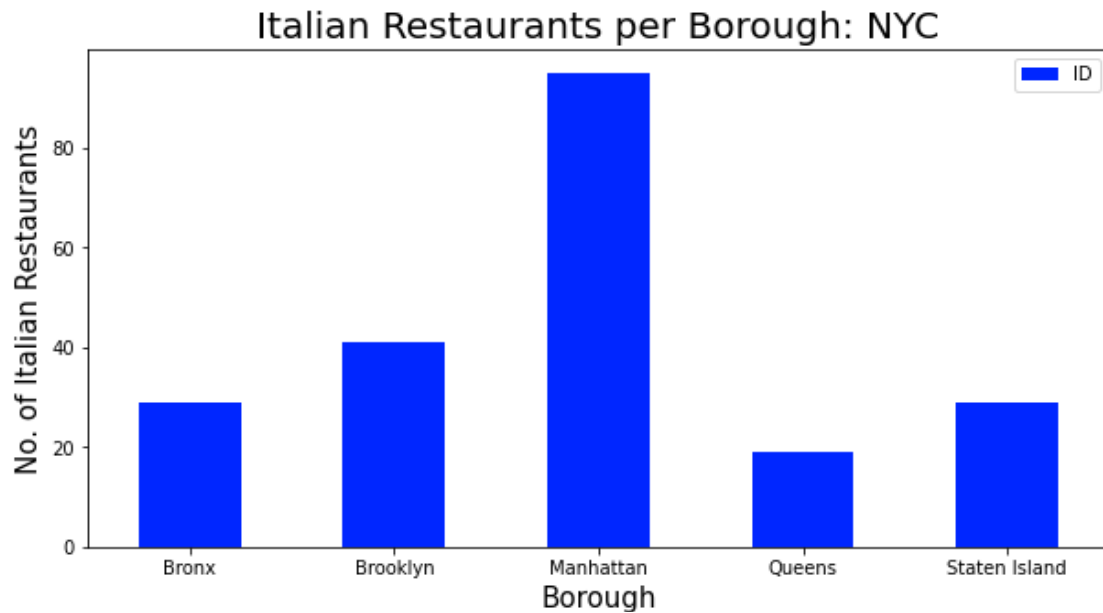
New York City data containing the neighborhoods and boroughs, latitudes, and longitudes will be obtained from the data source: https://cocl.us/new_york_datasetAll data related to locations and quality of Italian restaurants will be obtained via the FourSquare API utilized via the Request library in Python.

Methodology

• Data will be collected from https://cocl.us/new_york_dataset and cleaned and processed into a dataframe.

• FourSquare be used to locate all venues and then filtered by Irish restaurants. Ratings, tips, and likes by users will be counted and added to the dataframe.

• Data will be sorted based on rankings.

• Finally, the data be will be visually assessed using graphing from Python libraries as well as maps using Folium

Results and Discussion

There are 213 Italian restaurants in New York, with most located in Manhattan, followed by Brooklyn, Staten Island, the Bronx and Queens.

Italian Restaurants per Borough: NYC

Bushwick, Bedford and Hamilton Heights are the neighborhoods with the highest average rating for Italian restaurants.

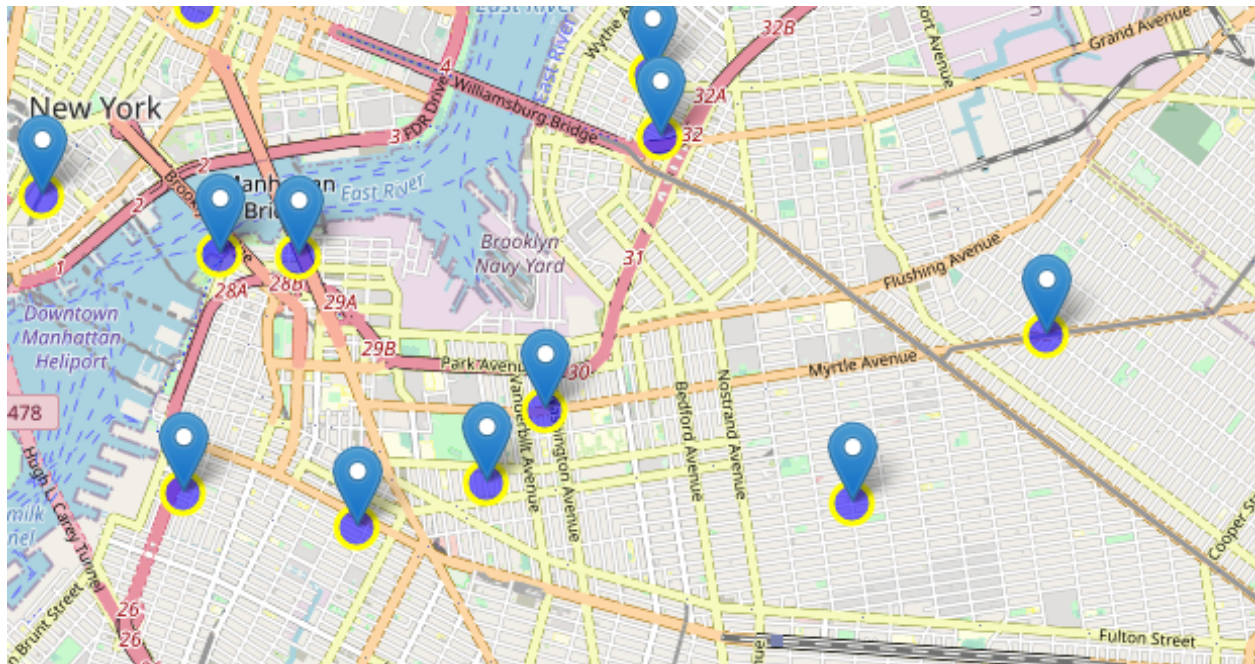|	Neighborhood	Average Rating
13	Bushwick	9.2
8	Bedford Stuyvesant	9.1
44	Hamilton Heights	9.0
82	Tribeca	8.9
11	Boerum Hill	8.9
25	Concourse Village	8.8
78	South Side	8.8
73	Rego Park	8.7
21	Clinton Hill	8.6
66	North Side	8.6

The highest rating for an Italian restaurant on the FourSquare app is Maialino in the Gramercy neighborhood in Manhattan.

```
In [28]: italian_rest_stats_ny.iloc[italian_rest_stats_ny['Rating'].idxmax()]
```

```
Out[28]: Borough                      Manhattan
         Neighborhood               West Village
         ID              4a27289cf964a52062911fe3
         Name                           L'Artusi
         Likes                              1176
         Rating                              9.3
         Tips                                372
         Name: 126, dtype: object
```

When the Italian restaurants were sorted according to at least an average rating of 8, it can be seen that some particular neighborhoods of NYC are lacking high rated Italian restaurants. One area of interest is mid Brooklyn, which seems to be lacking high rated Italian restaurants and is a new and upcoming area for going out.

Conclusion:
We would suggest opening an Italian restaurant in mid Brooklyn. Obviously further analysis is needed to check for crime rates/average rents but based on this preliminary analysis, this seems like a good bet.