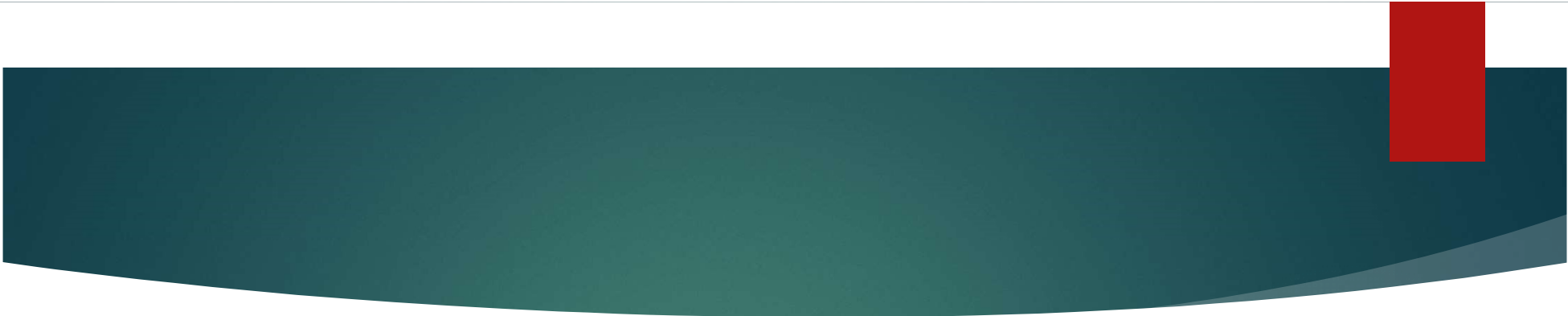**Coursera IBM Applied Data Science Capstone**

Opening a Korean Restaurant in the New York City
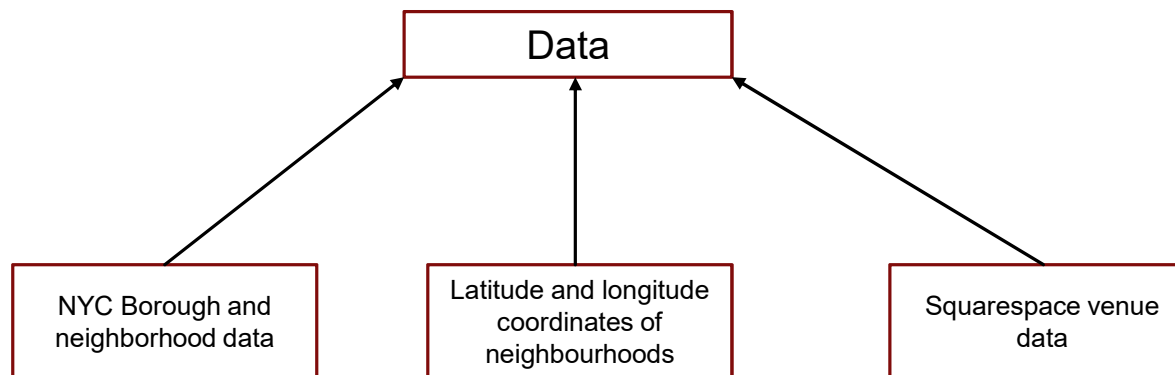
PRESENTATION

BY

MUHAMMAD IMRAN

- New York city is the largest metropolitan area of the United States.

- New York has one of the world's most dynamic and competitive restaurant scenes of the world.

- Korean Restaurants industry in the US has grown 3.0% per year on average between 2015 and 2020. So, a Korean restaurant has a good potential in New York City.

- But 80% of New York restaurants close in the first five years. So a potential investor has to be careful about where he opens a Korean restaurant.

There are 3 types of data that we will need for this project

```
                    ┌─────────────────┐
                    │      Data       │
                    └─────────────────┘
              ↗              ↑              ↖
   ┌──────────────┐  ┌──────────────┐  ┌──────────────┐
   │ NYC Borough  │  │ Latitude and │  │ Squarespace  │
   │     and      │  │  longitude   │  │  venue data  │
   │ neighborhood │  │ coordinates  │  │              │
   │    data      │  │      of      │  │              │
   │              │  │neighbourhoods│  │              │
   └──────────────┘  └──────────────┘  └──────────────┘
```
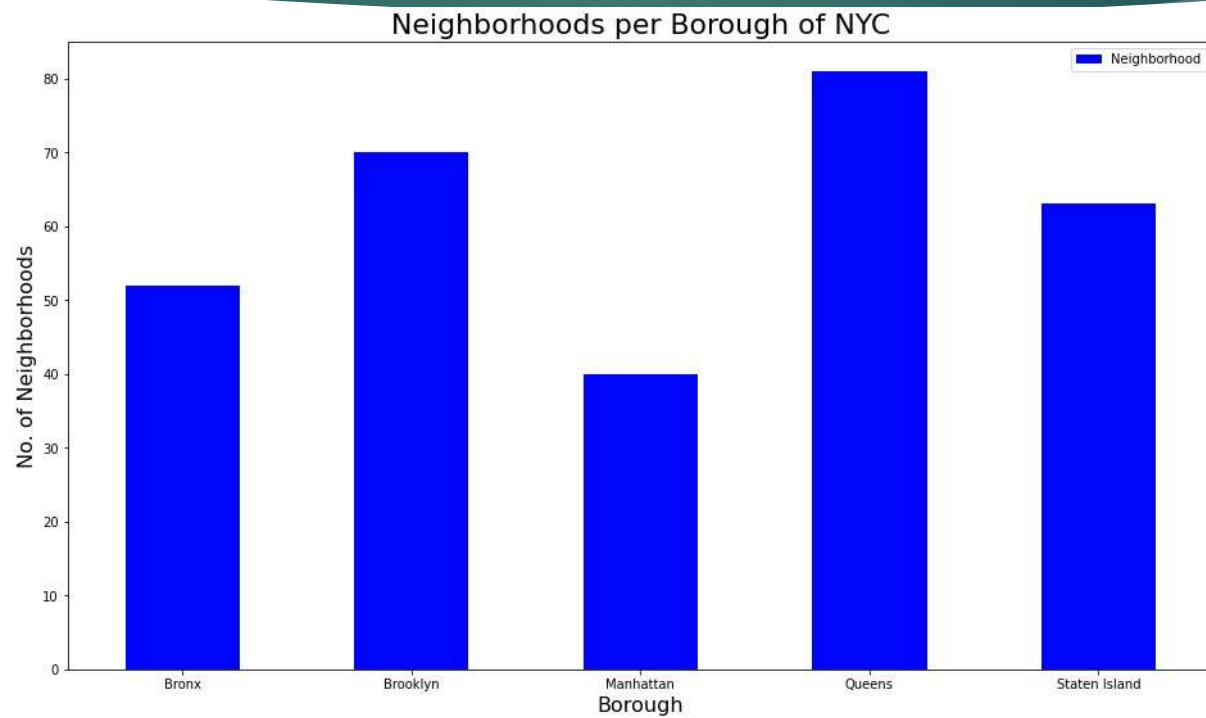
Methodology

Boroughs and neighbourhoods of NYC data was collected from. This data was cleaned and processed into a dataframe.

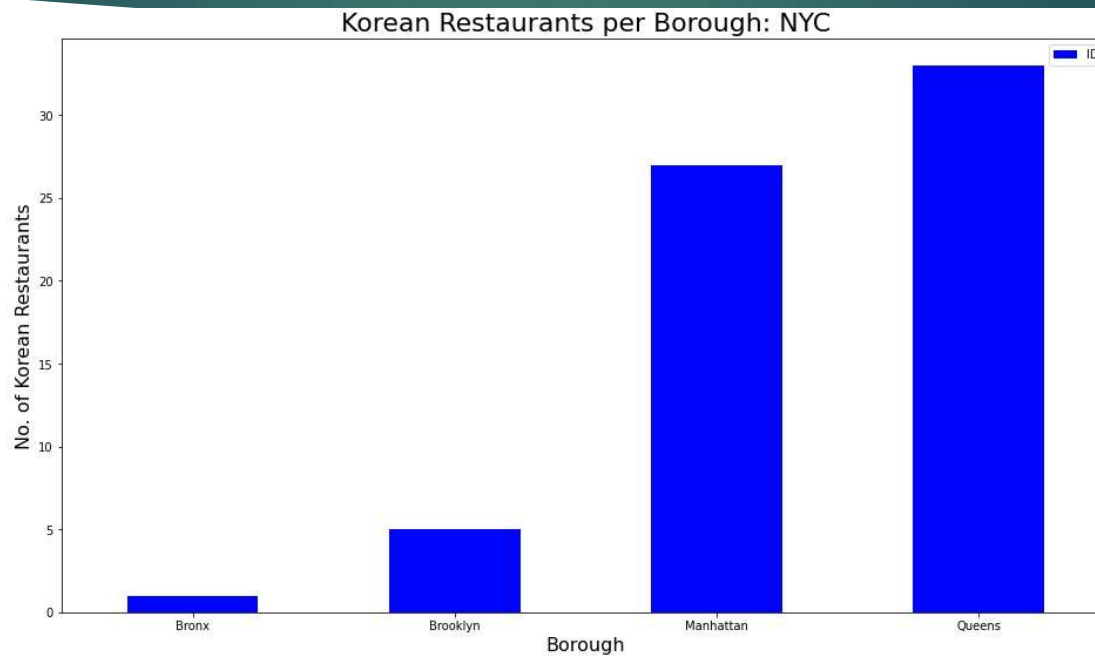Foursquare was used extract restaurant data

Then the dataframe was sorted based on different criteria.

Numpy and Pandas packages of python was used for data analysis. For data visualization, matplotlib and folium packages were used.
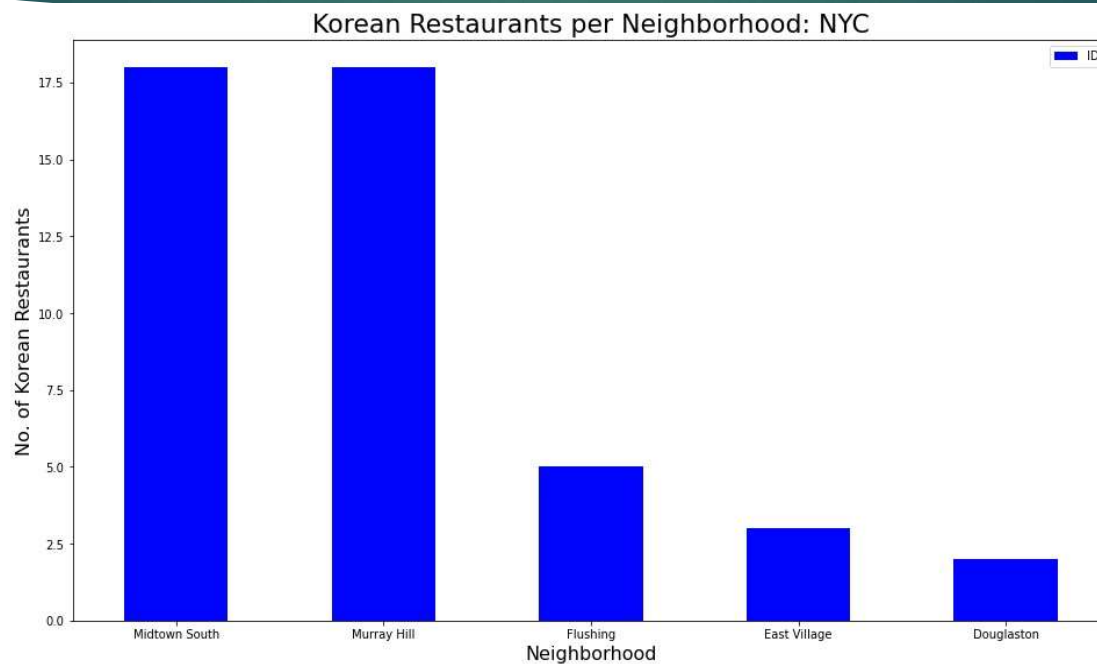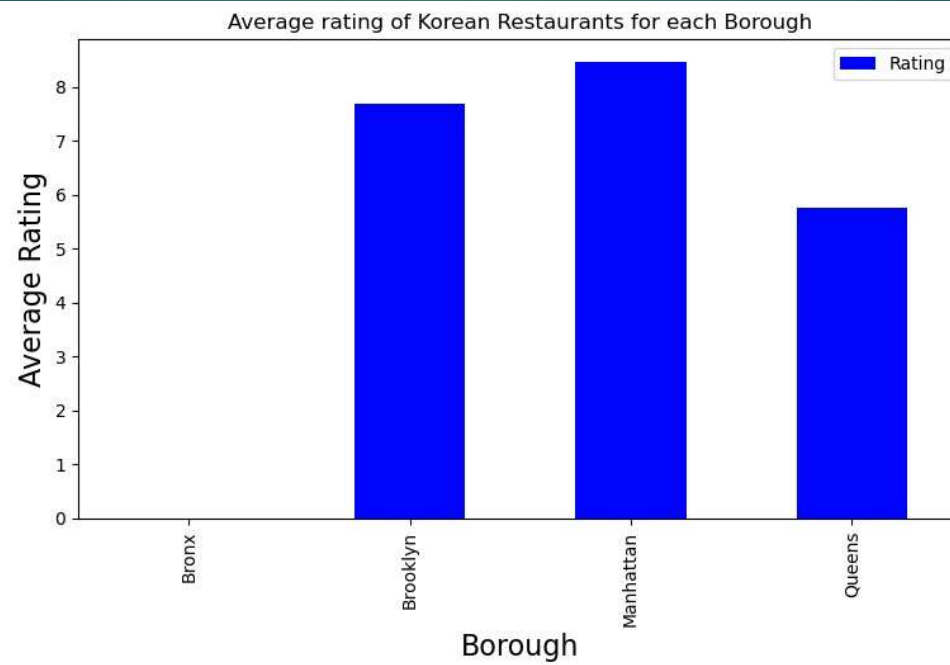
Queens has the highest number of neighbourhood

Queens also has the highest number of Korean restaurants in NYC.

Korean Restaurants per Borough: NYC

The Murray Hill and Midtown South neighbourhoods has the highest number of Korean restaurants.

Korean Restaurants per Neighborhood: NYC

Manhattan has the highest average ratings for Korean restaurants

Average rating of Korean Restaurants for each Borough

Top 3 three neighbourhoods with highest average ratings all are from Manhattan

	Neighborhood	Average Rating
19	Tribeca	8.900000
5	East Village	8.800000
3	Clinton	8.500000
12	Midtown South	8.455556
6	Flatiron	8.400000
16	Prospect Heights	8.400000
20	West Village	8.200000
14	North Side	8.200000
11	Manhattan Valley	8.100000
18	Sunnyside Gardens	7.800000

Discussion and conclusion

- Manhattan has the highest Rated Korean restaurants

- Queens has the highest number of Korean restaurants

- Brooklyn ranks second in the highest rated Korean restaurant ranking.

- But Brooklyn also doesn't have enough Korean restaurants. So it has the potential for growth. As a result, **Brooklyn is the perfect place to open a Korean restaurant.**