

# Capstone Project-1

## EDA on Airbnb NY

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# Objective

1. Defining Problem Statement
2. Exploratory Data Analysis
3. Obtaining Critical Insights

# What Is Airbnb?

- Airbnb, as in “Air Bed and Breakfast,” is a service that lets property owners rent out their spaces to travelers looking for a place to stay. Travelers can rent a space for multiple people to share, a shared space with private rooms, or the entire property for themselves.
- The Airbnb Dataset Lists the number of spaces available with 16 columns describing various attributes.

# Data Summary

Id- It provides a unique id to each listing in the dataset.

Name-It describes the property in a concise manner.

Host\_id-It is used to ascertain the ownership of a certain individual

Host\_name-It is the name of the property owner

Neighbourhood\_group-It basically categorizes neighbourhood into five groups Bronx,Brooklyn, Manhattan,Staten Islands and Queens

Neighbourhood-It designates the location of a property.

Latitude-It Specifies the Latitude of the property.

Longitude-It denotes the Longitude of the property.

Room\_type-It classifies the type of property into Private\_Room,Shared\_Room and Entire\_Apartment.

# Data Summary

Price- It provides the price of each listed property.

Minimum\_Nights-It gives the minimum night one needs to pay for in the property.

Number\_of\_reviews-It is used to ascertain the number of reviews received by a property.

Reviews\_per\_month-It denotes the number of reviews per month.

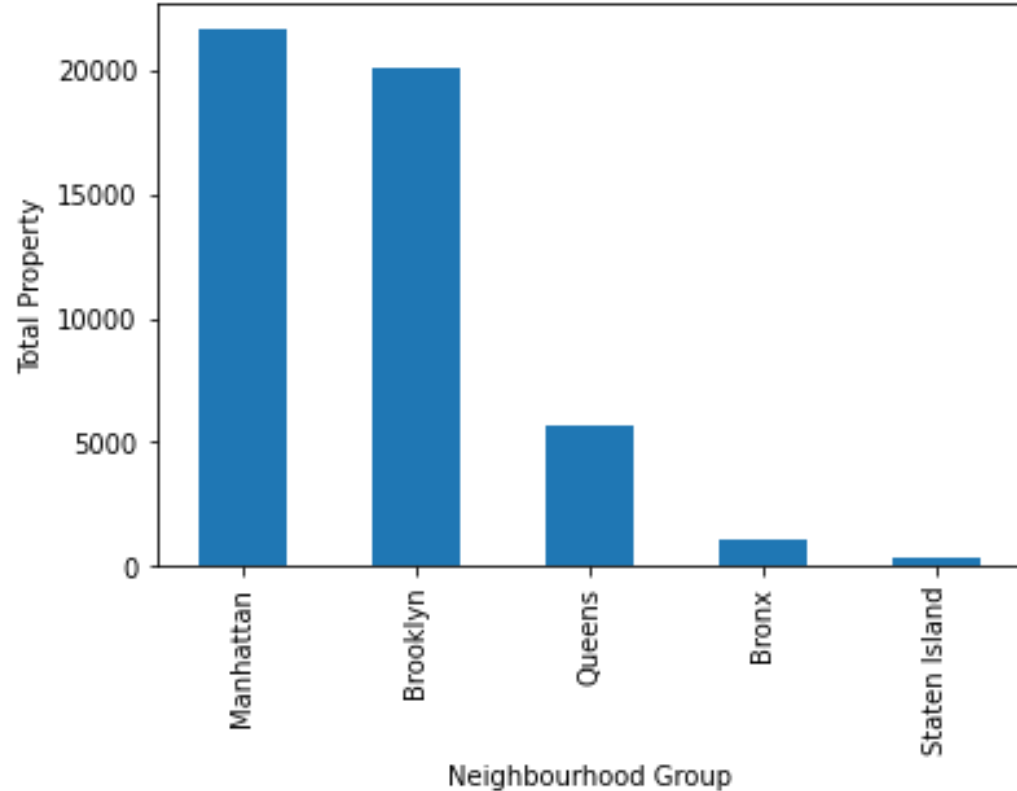
Calcuated\_host\_listings\_count-It corresponds to the number of properties hosted by the unique host\_id

Availability\_365-The number of days the property is available in a year.

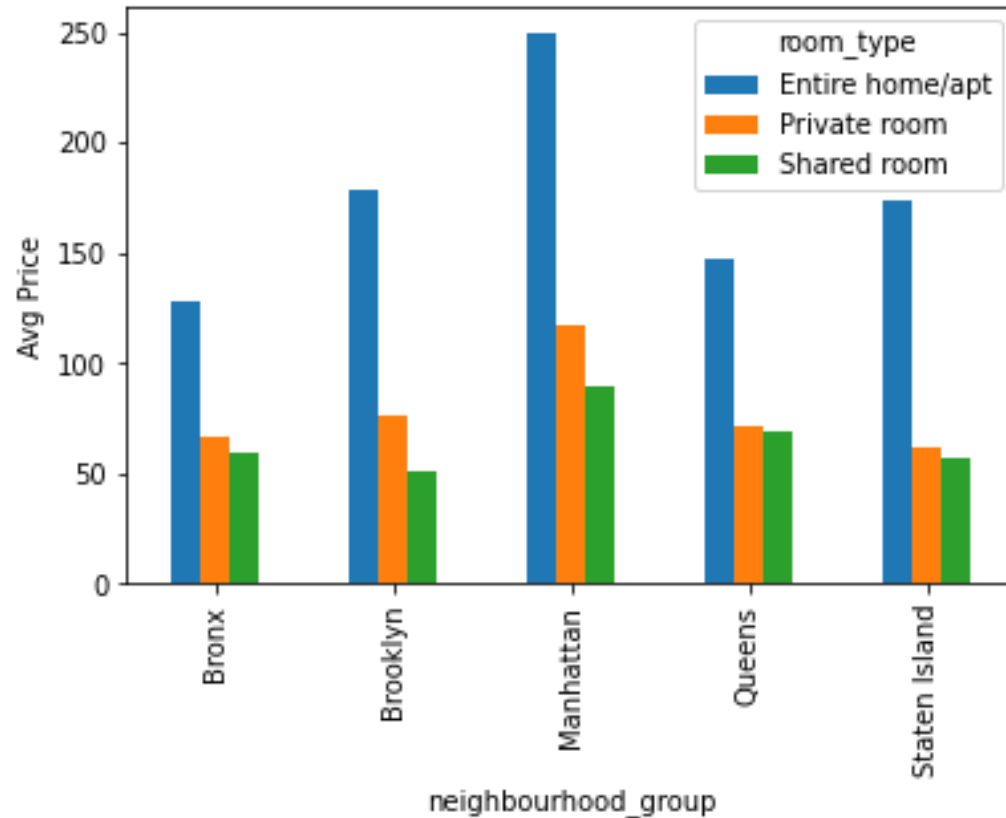
# Map of New York City(NYC)



# Exploratory Data Analysis

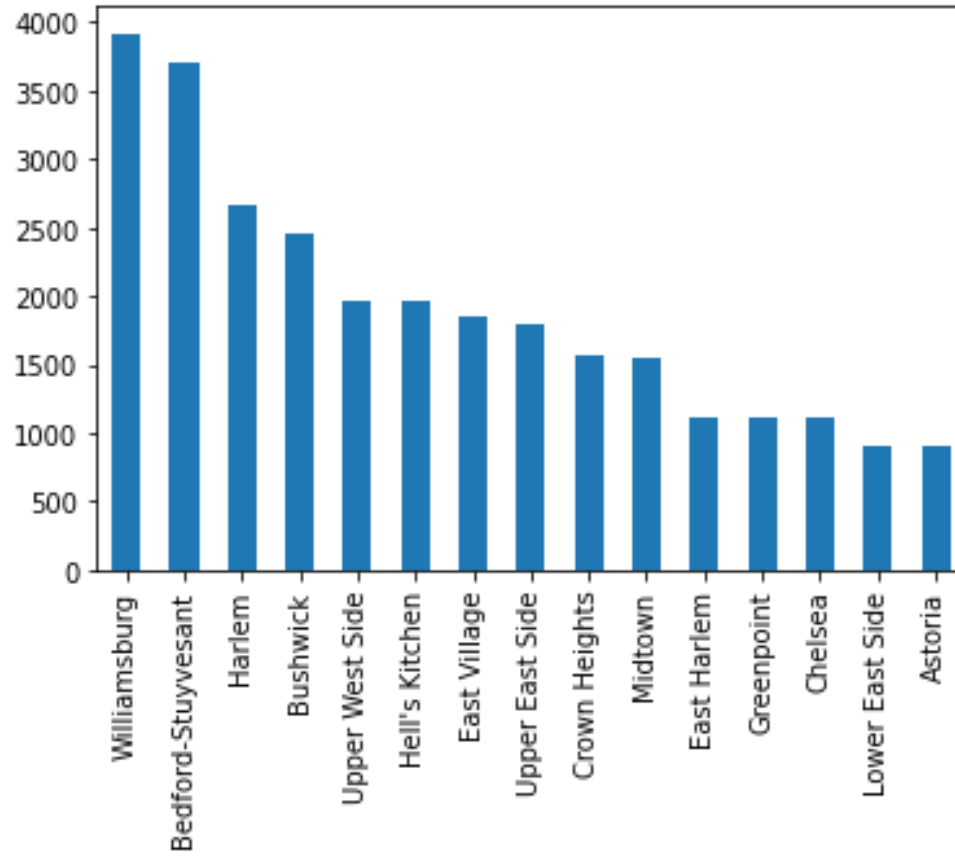


# Exploratory Data Analysis

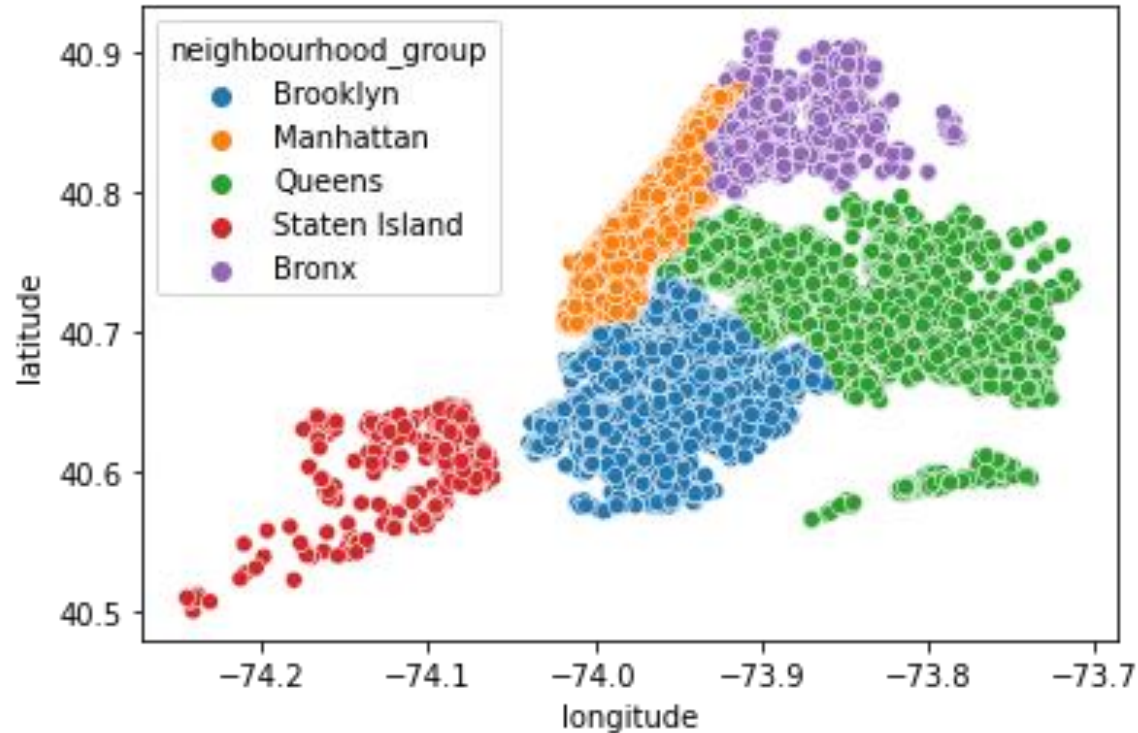




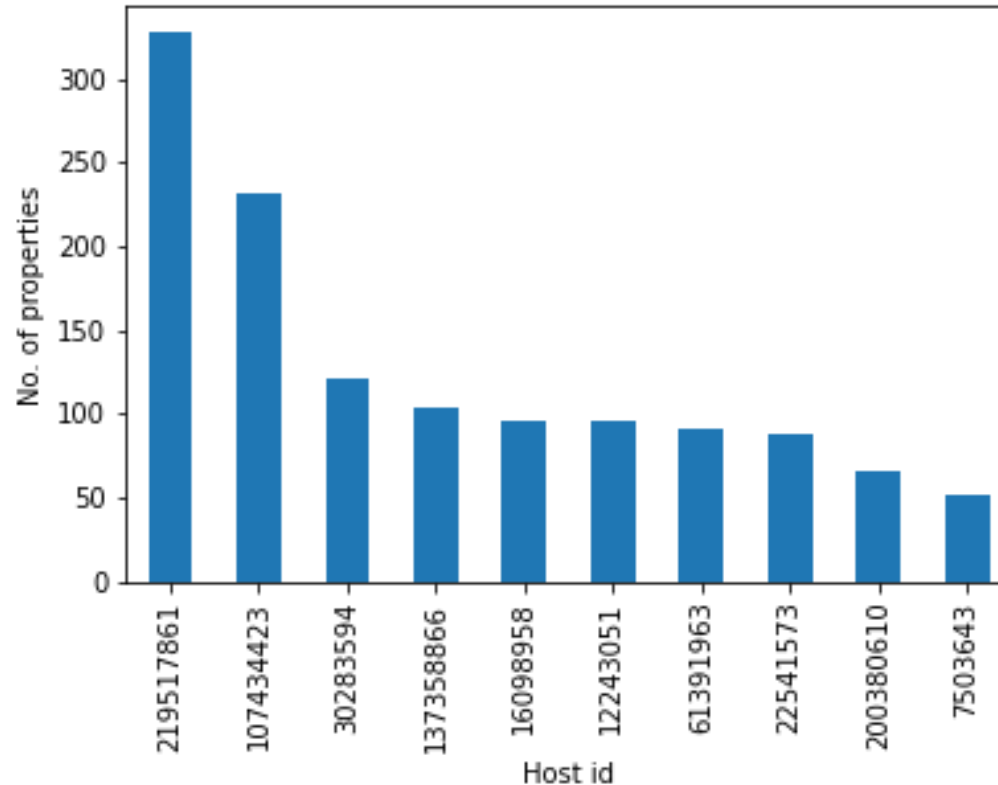
# Exploratory Data Analysis



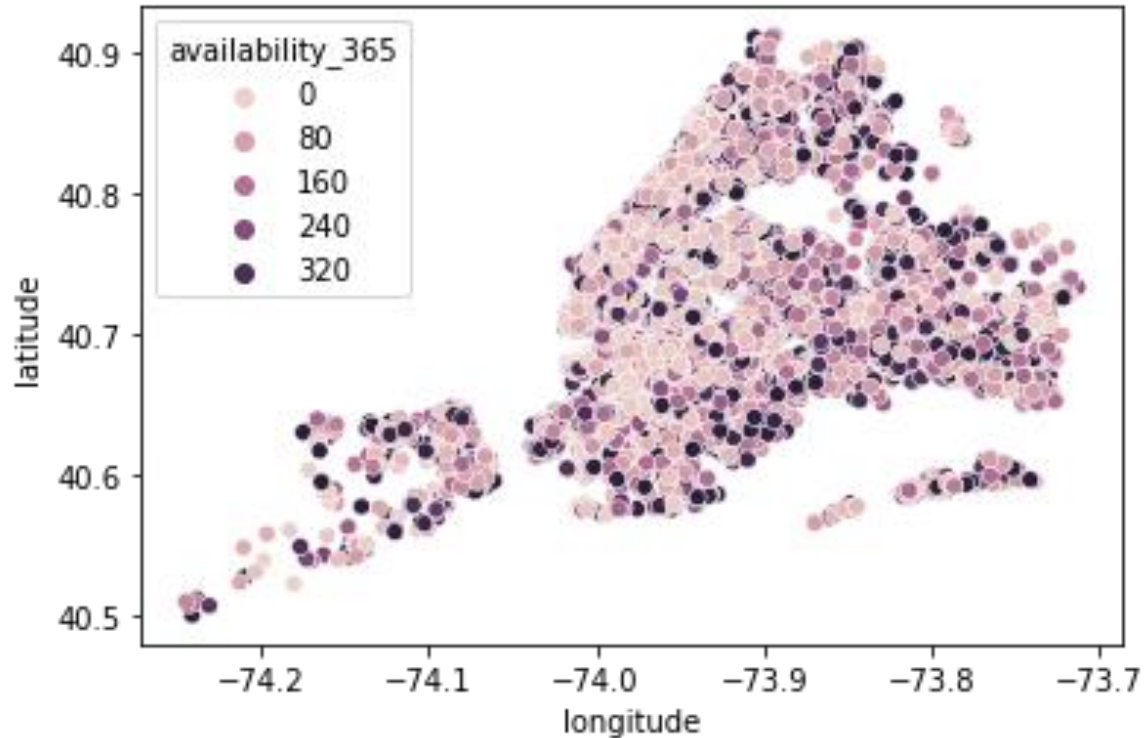
# Exploratory Data Analysis



# Exploratory Data Analysis



# Exploratory Data Analysis



# Conclusions

1. host\_id reveals that some host have a huge number of property ownership above 300.
2. The Majority of the listings are located in Manhattan and Brooklyn whereas Bronx and Staten Island have a miniscule share.
3. Manhattan is the most expensive neighbourhood\_group followed by Brooklyn Staten Island Queens and Bronx.
4. Most Listings offer Entire home followed by Private Room and Shared Room
5. Brooklyn offers nearly the same number of private rooms and entire home whereas Manhattan offers highest number of entire homes followed by private rooms.

# Conclusions

6. Listing of shared room is very little and staten islands and bronx offer very few shared rooms.
7. Williamsburg, Bedford-Stuyvesant and Harlem are the most listed neighbourhood.
8. Brooklyn and Manhattan has the majority share of listings.