

# Storytelling Case Study: Airbnb, NYC

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# Objective:

- ▶ Airbnb is an online platform that facilitates the booking and renting of lodging and accommodations
- ▶ During the covid time, there was a major decline in revenue due to travel restrictions
- ▶ People have now started travelling again and Airbnb is aiming to bring up the business again and ready to provide services to customers.

# Background

- ▶ For the past few months due to Covid restrictions , Airbnb has seen a major decline in revenue
- ▶ Now that the restrictions have started lifting and people have started to travel more, Airbnb wants to make sure that it is fully prepared for this change.
- ▶ Analysis has been done on a NYC dataset consisting of various Airbnb listings.

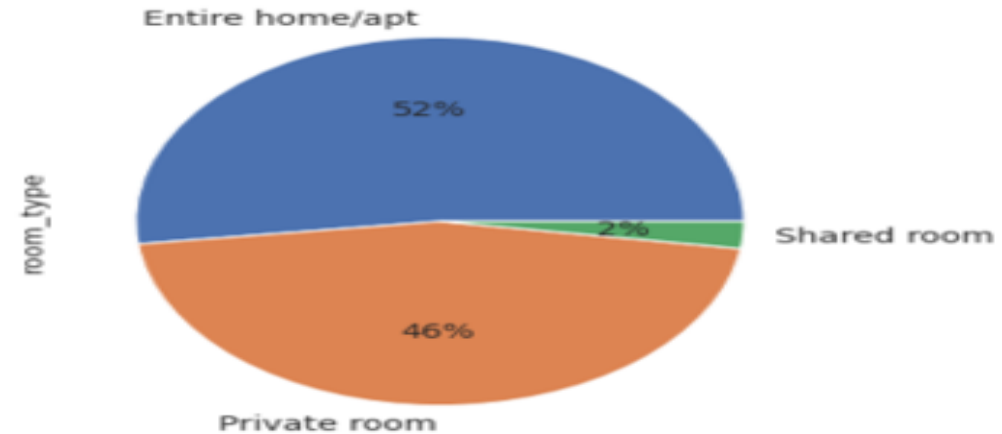
# Data Preparation

- ▶ Cleaned data to remove any missing values and duplicates.
- ▶ Dropped insignificant columns.
- ▶ Understanding data types
- ▶ Removing Null values
- ▶ Identified outliers

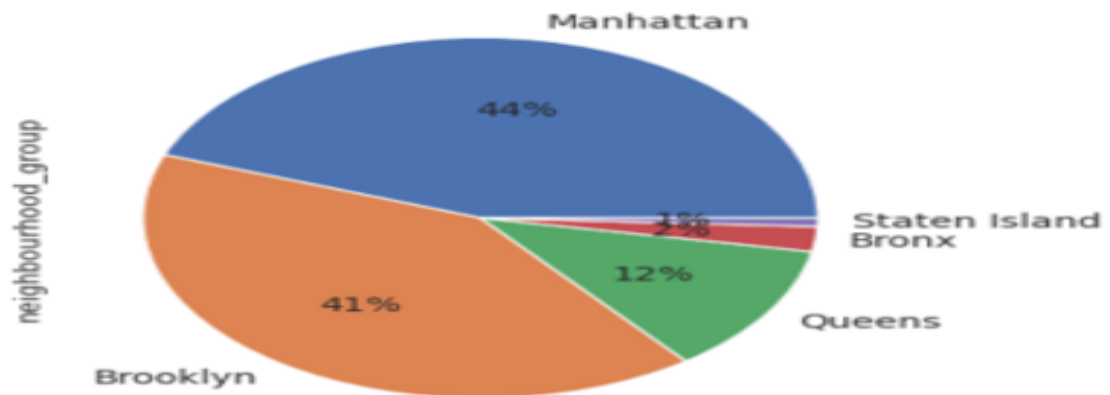
# Room type and Neighbourhood group

- Entire Home and Private room are booked the most and in demand always.
- Manhattan and Brooklyn are top neighbourhood groups and mostly people prefer to book the entire home or private room.
- 85% of total listed properties are present in Manhattan and Brooklyn
- Extremely less number of shared rooms are available as per the room type which denotes shared rooms are not preferred.

Room\_type

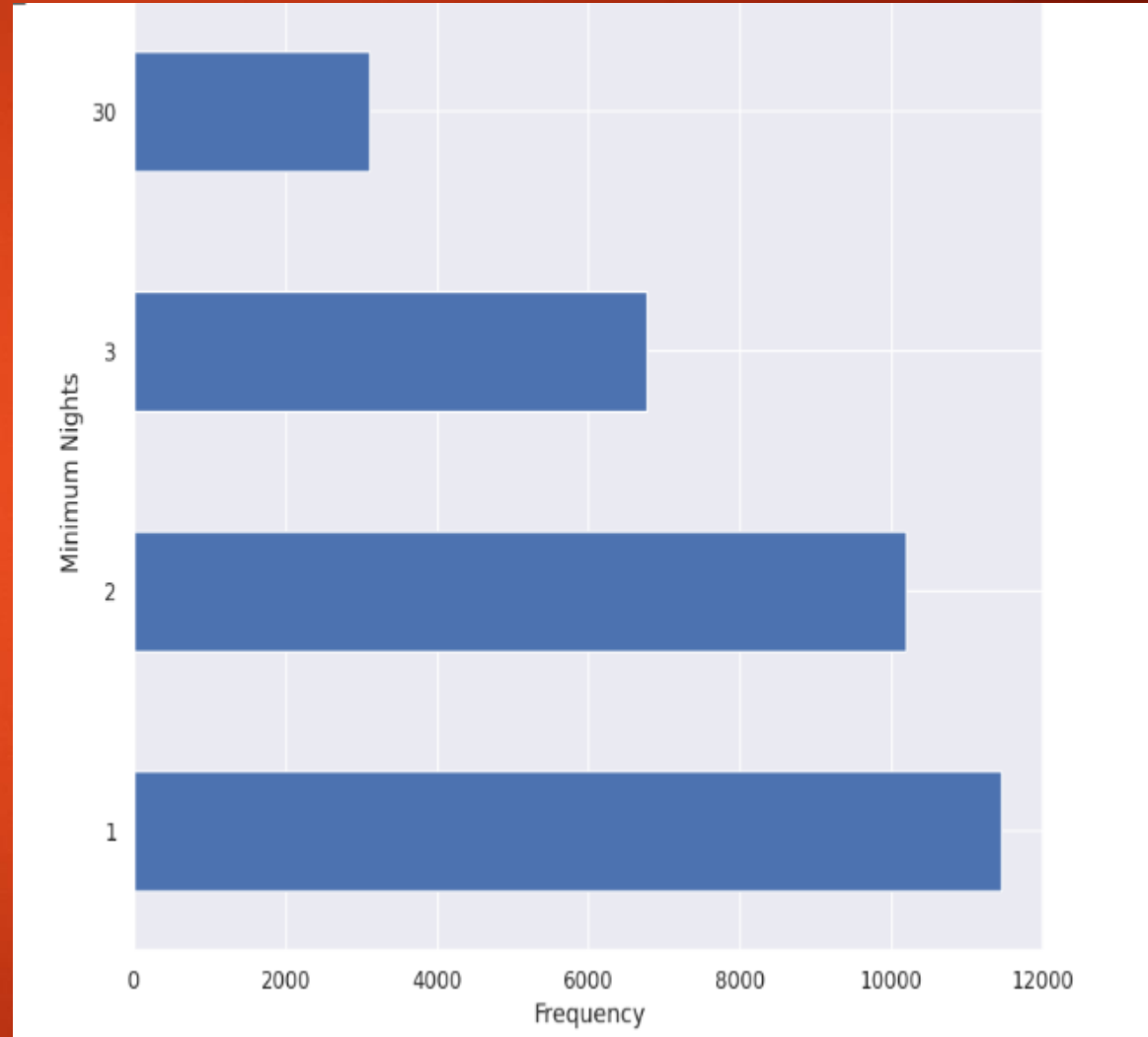


Neighbourhood\_group



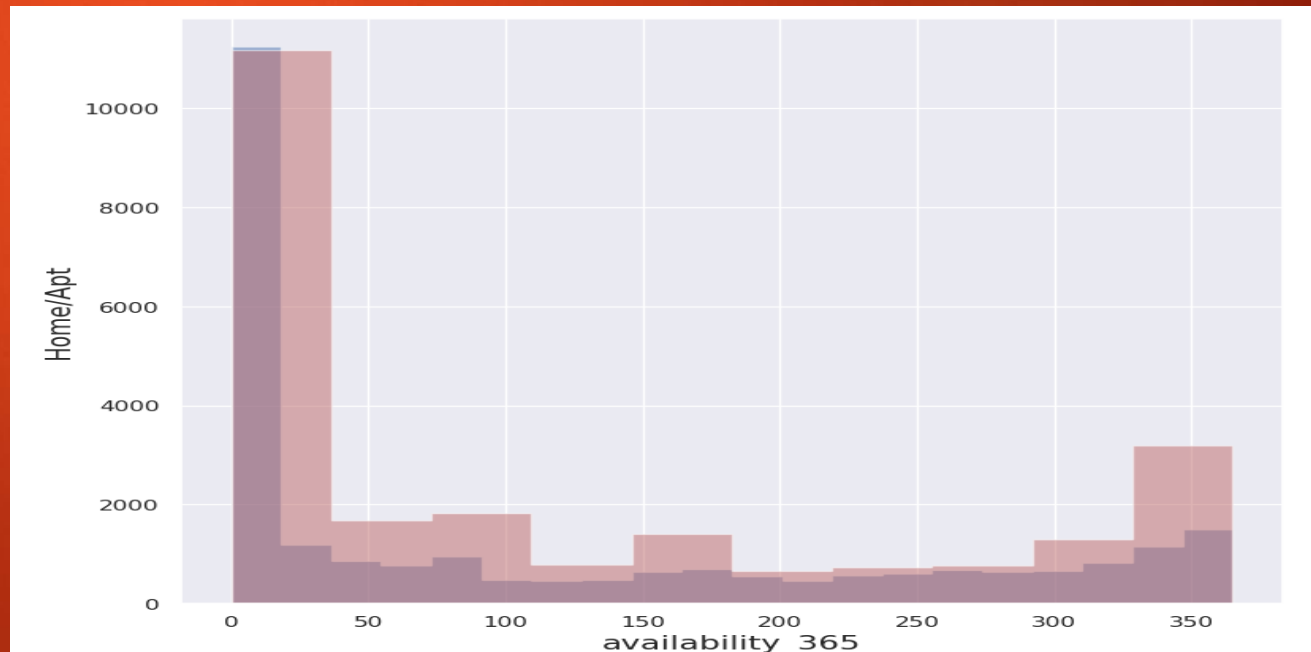
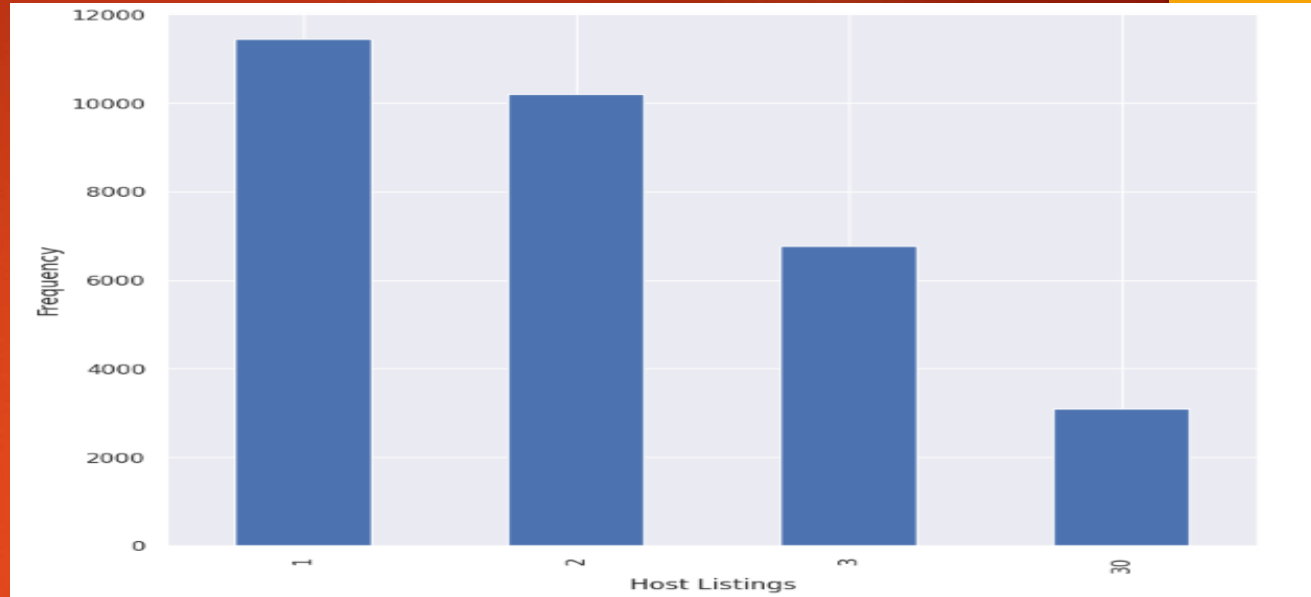
# Customer Booking with respect to minimum nights

- The listings with Minimum nights 1 have the most number of bookings.
- There is also a high spike in monthly (30 days), as customers prefer renting out on a monthly basis. The reason could be either tourists\company booking long stays for budget bookings due for cheap higher discounts options on a monthly booking.
- Customers booking from 1-3 days have most overall frequency. Also, most of the customers prefer staying between 1-3 days.



# Host Listings and cheap negotiations on availability

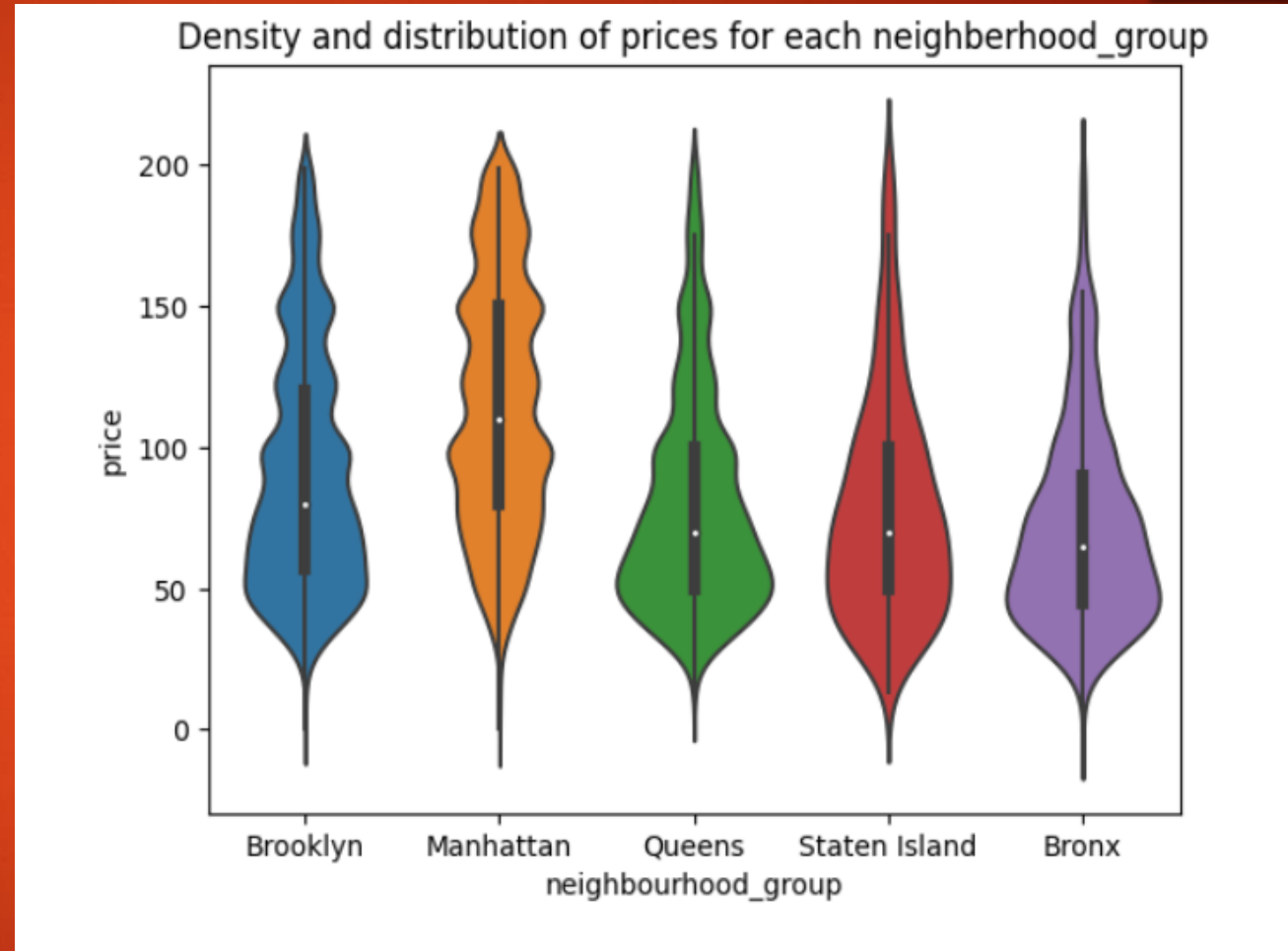
- Most of the hosts have 1 place to renting of lodging and accommodations
- Host listings with 1-3 places oversees the day-to-day operations of the properties crucially and seriously.
- Negotiating prices for higher availability involve discussions with property owners, sellers, the renting of properties. Negotiation skills are essential to secure the best deals.





# Price range preferred by Customers

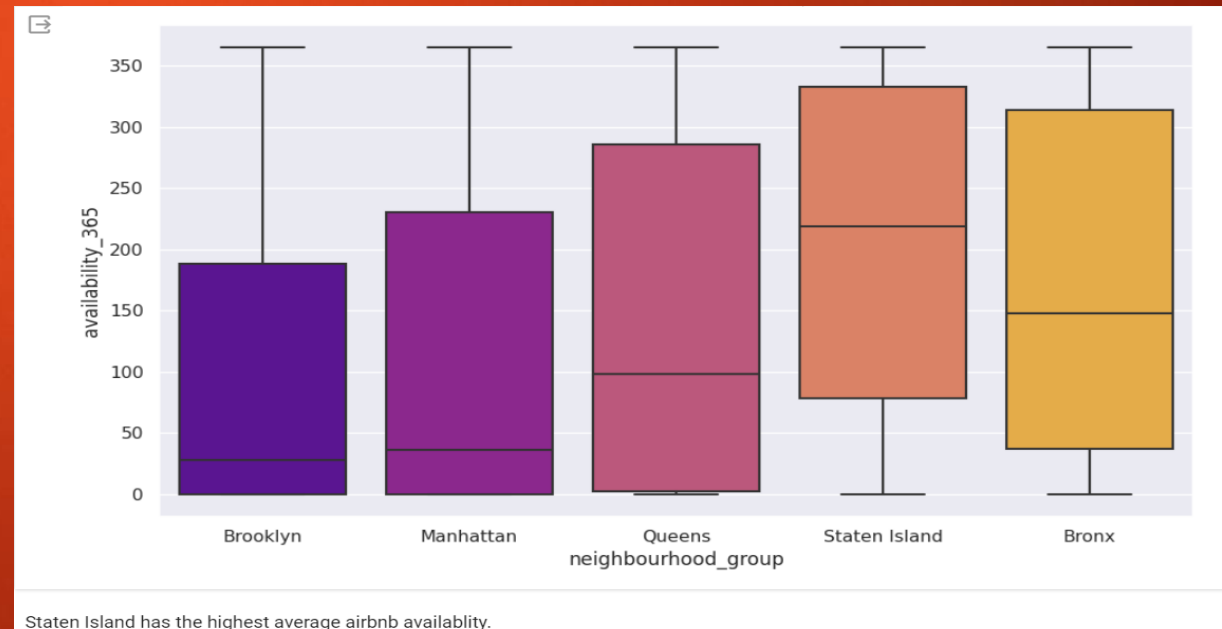
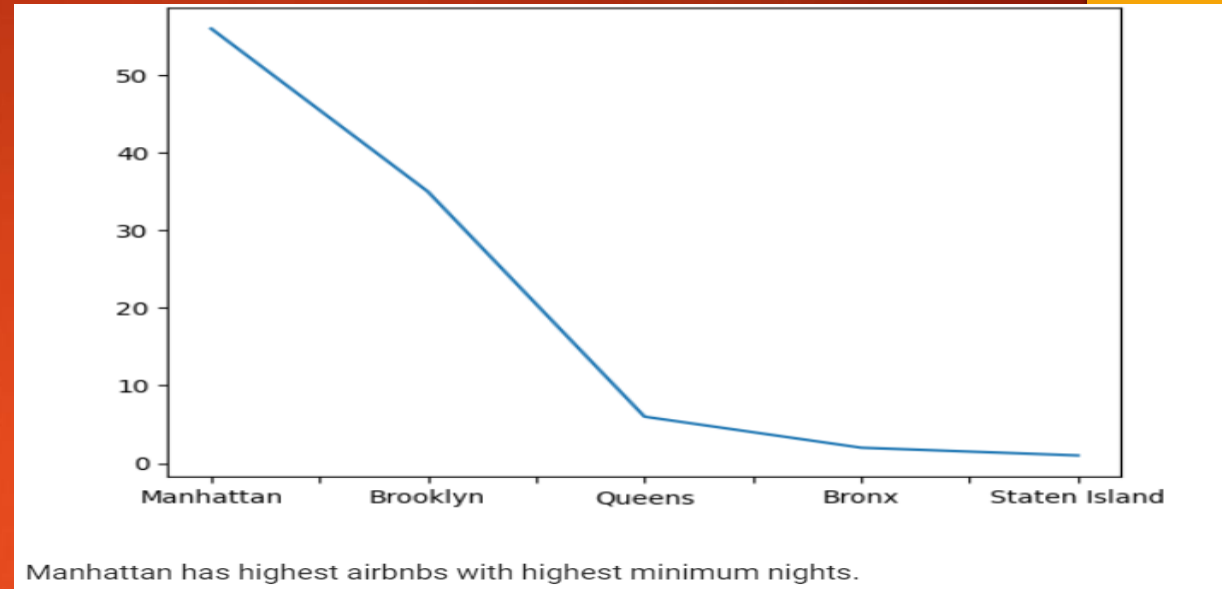
- We have the pricing density and distribution preference based on volume of bookings done in a price range w.r.t. to neighbourhood group.
- From the distribution, the favourable price range is \$50 - \$150. This is the price range preferred by most customers.
- Manhattan neighbourhood pricing and booking has always normal distribution
- Customers booking in other neighborhood's book more places cheaper options which are < 100 \$





# Understanding highest booking and least room booking Neighbourhood

- Manhattan is the most expensive and it has the highest Airbnb with highest minimum nights, much higher than the overall average.
- Manhattan & Brooklyn has the highest average of booked rooms
- Staten Island has the highest average of Airbnb availability whereas Brooklyn and Manhattan has the least average of Airbnb availability.



# Neighborhood variation with respect to Geography

- Airbnb has good presence in Manhattan, Brooklyn & Queens.
- Listings are maximum in Manhattan & Brooklyn owing to the high population density and it being the financial and tourism hub of NYC. Staten Island has the least number of listings, due to its low population density and very few tourism destinations.

