



UNVEILING THE SECRETS OF AIRBNB **IN NYC:**

For Head of Acquisition & Operations and Head of User Experience



Agenda

- Objective
- Background
- Key findings
- Recommendations
- Appendix
 - Data sources
 - Data methodology
 - Data model assumptions

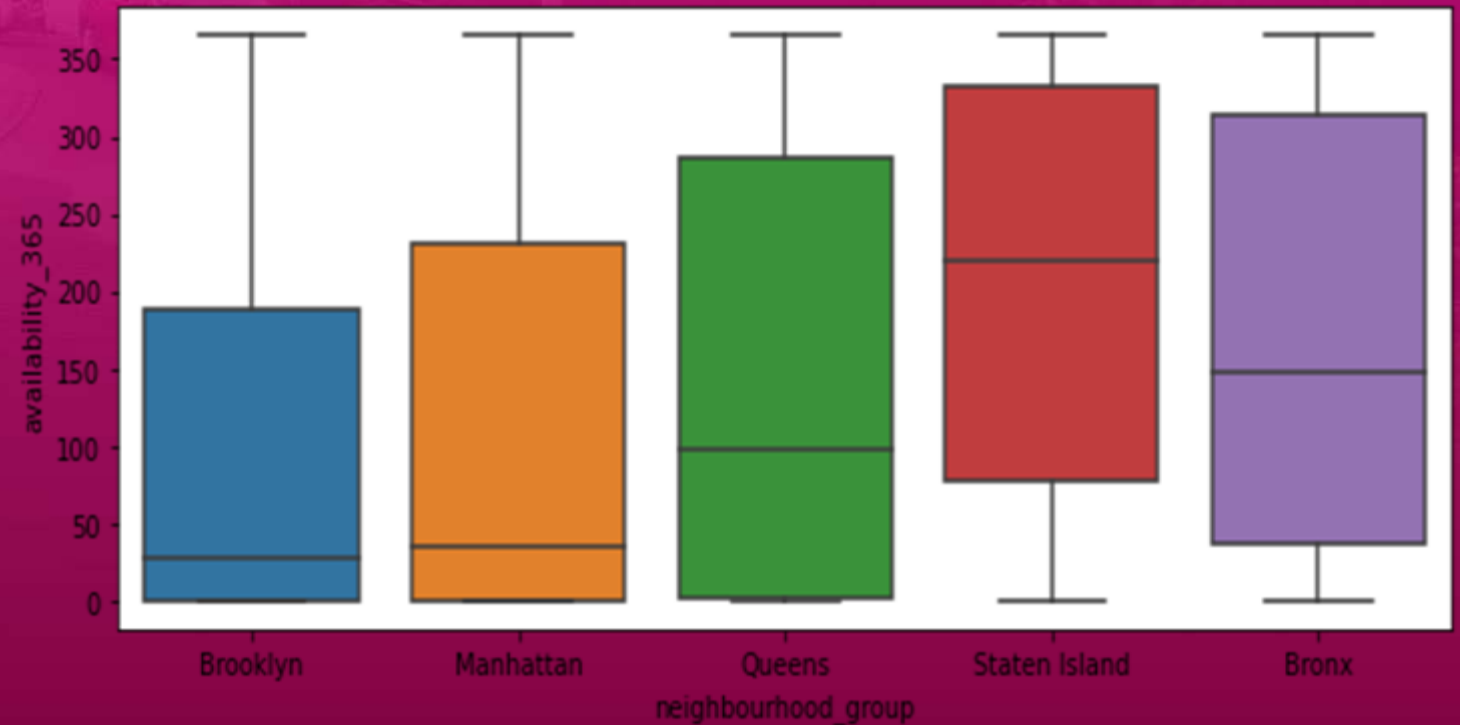


Objective

- To Provide insight into the current market situation.
- Please provide additional information to help us better understand the processes involved in acquiring properties and hosts, managing operations, and catering to customer preferences.
- We need to provide our marketing and operations teams with preliminary recommendations.

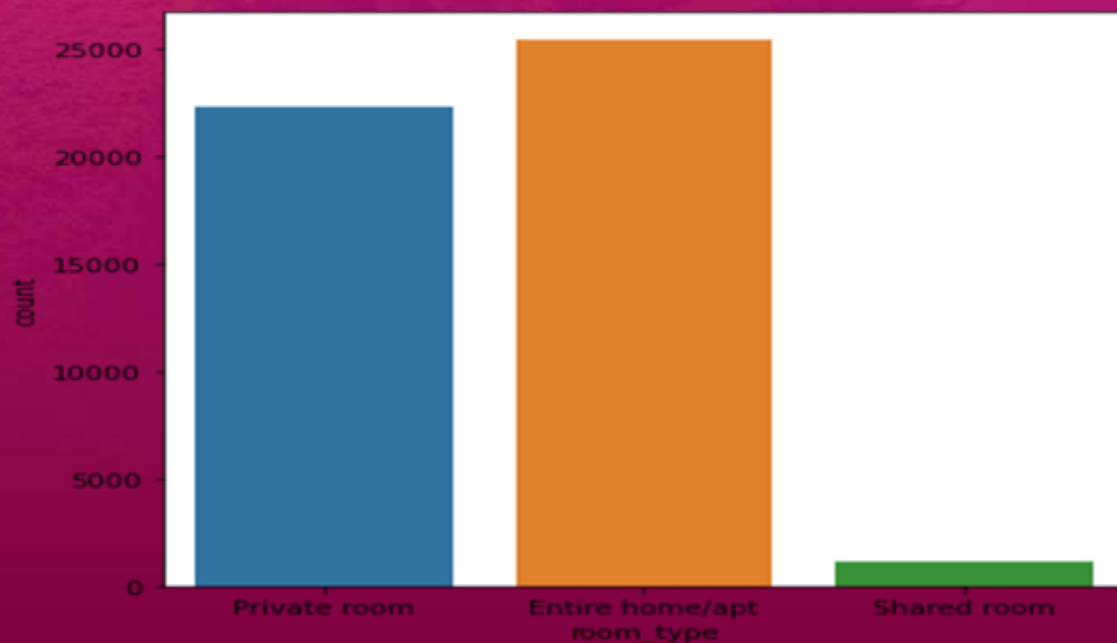
Most Contributing Neighbourhoods

- Room availability in Brooklyn and Manhattan is less than 50 days followed by Queens .
- Staten Island is available for booking for almost 250 days an year.
- In order to increase the room availability in Brooklyn and Manhattan, Airbnb should acquire few more hosts/listings to accommodate the customers.



THE PROBLEMS WITH SHARED ROOMS

1. Private room and Entire home/apt room are available for 50 days on an average . This shows that they are most preferred.
2. . Most of the customers in Manhattan prefer Entire home/apt when compared to shared and private rooms
3. The majority of the sites hosted are either Private rooms or Entire apartments but very less Shared rooms.
4. They are less likely to be reviewed.



Neighbourhood Group					
Room Type	Bronx	Brooklyn	Manhat..	Queens	Staten I..
Entire home/apt	28.98%	38.25%	90.15%	15.29%	32.49%
Private room	62.60%	56.20%	9.18%	81.49%	61.73%
Shared room	8.42%	5.55%	0.67%	3.22%	5.78%

EVERY HOST MATTER

➤ The top 60 hosts only make up 20% of the total host count!

Top 10 hosts based on reviews

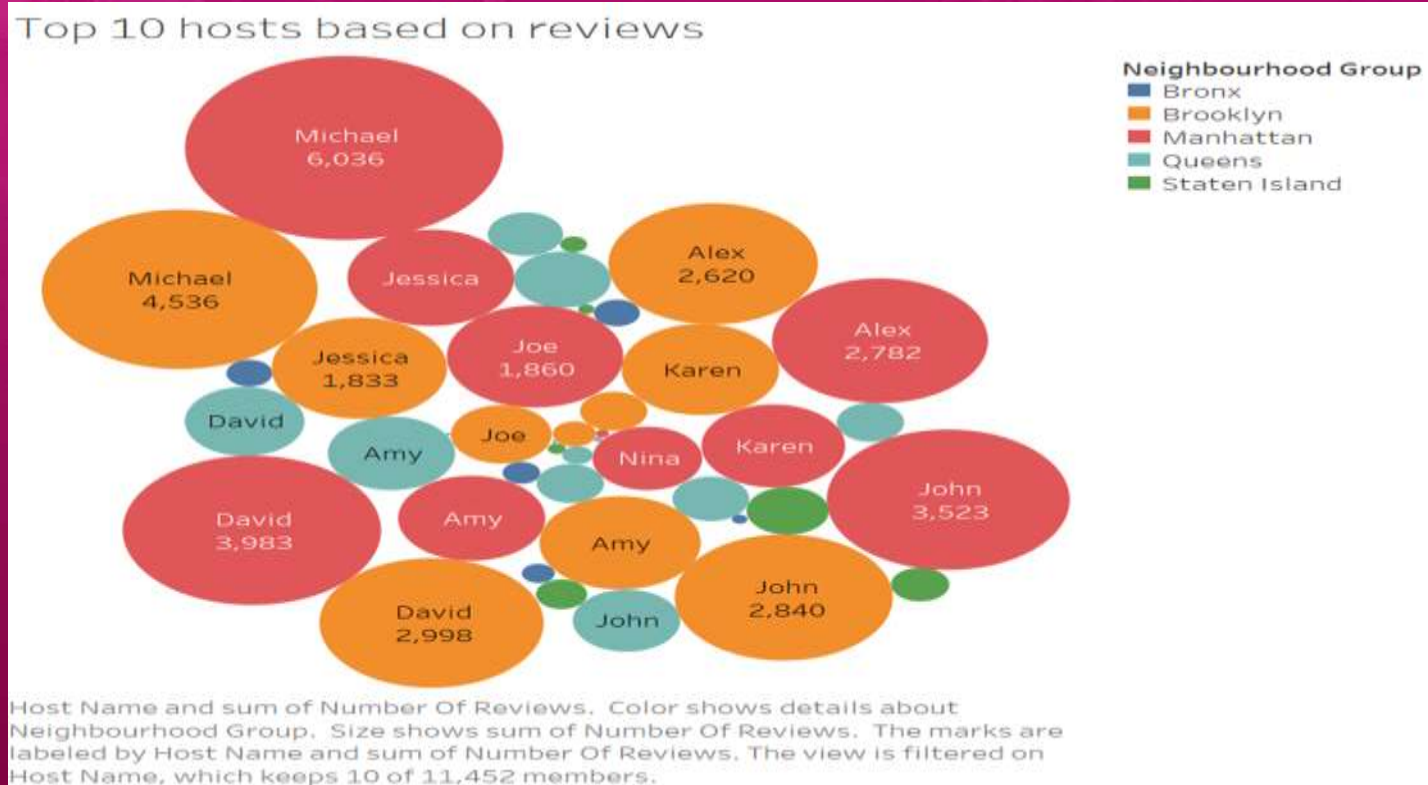
Neighbourhood Group

- Bronx
- Brooklyn
- Manhattan
- Queens
- Staten Island

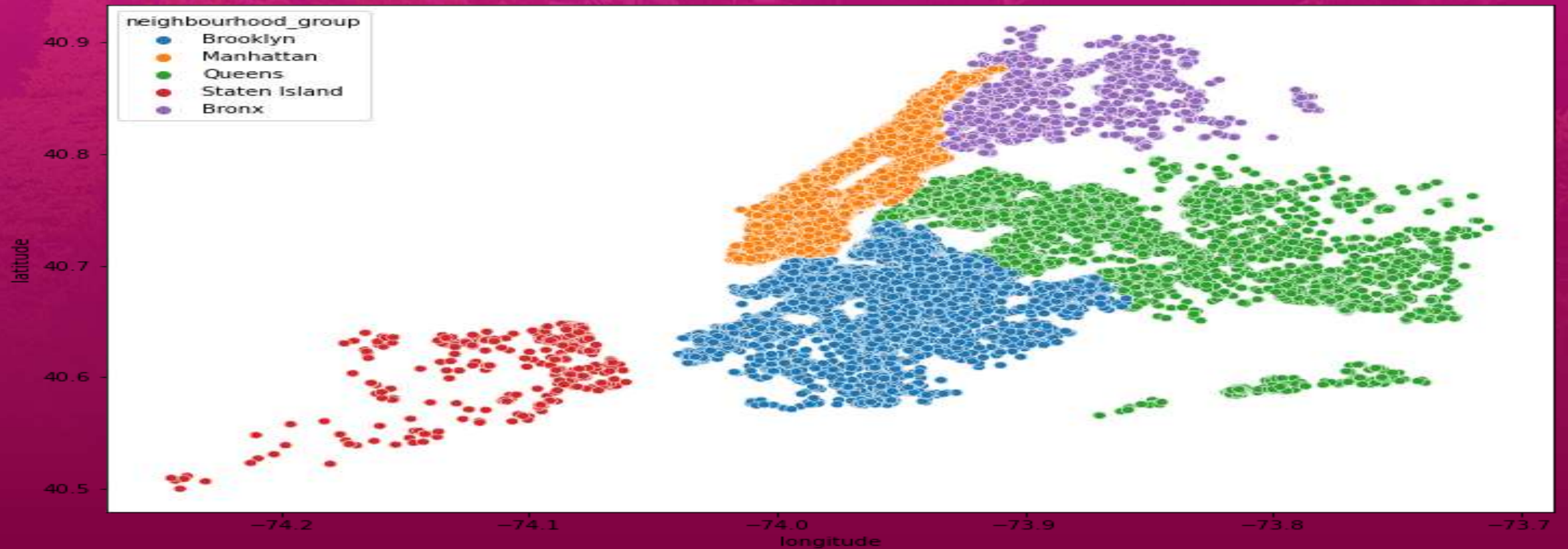
Host Name	Sum of Number Of Reviews	Neighbourhood Group
Michael	6,036	Manhattan
Michael	4,536	Brooklyn
Jessica	1,833	Brooklyn
Joe	1,860	Manhattan
Alex	2,620	Brooklyn
Karen	2,782	Manhattan
John	3,523	Manhattan
David	3,983	Manhattan
David	2,998	Brooklyn
John	2,840	Brooklyn

Host Name and sum of Number Of Reviews. Color shows details about Neighbourhood Group. Size shows sum of Number Of Reviews. The marks are labeled by Host Name and sum of Number Of Reviews. The view is filtered on Host Name, which keeps 10 of 11,452 members.

- The top 60 hosts
only make up
20% of the total
host count!



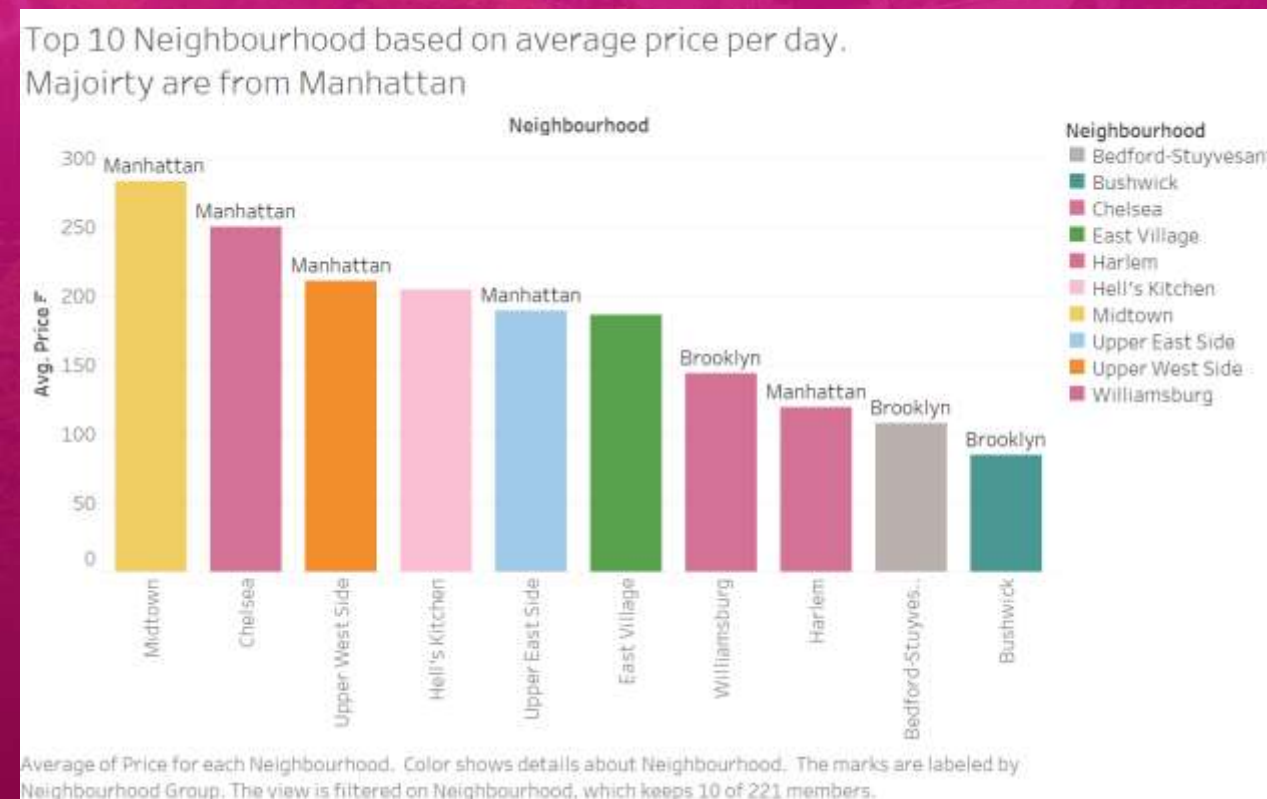
NYC Map For Airbnb





Top Causes For Declining Revenue

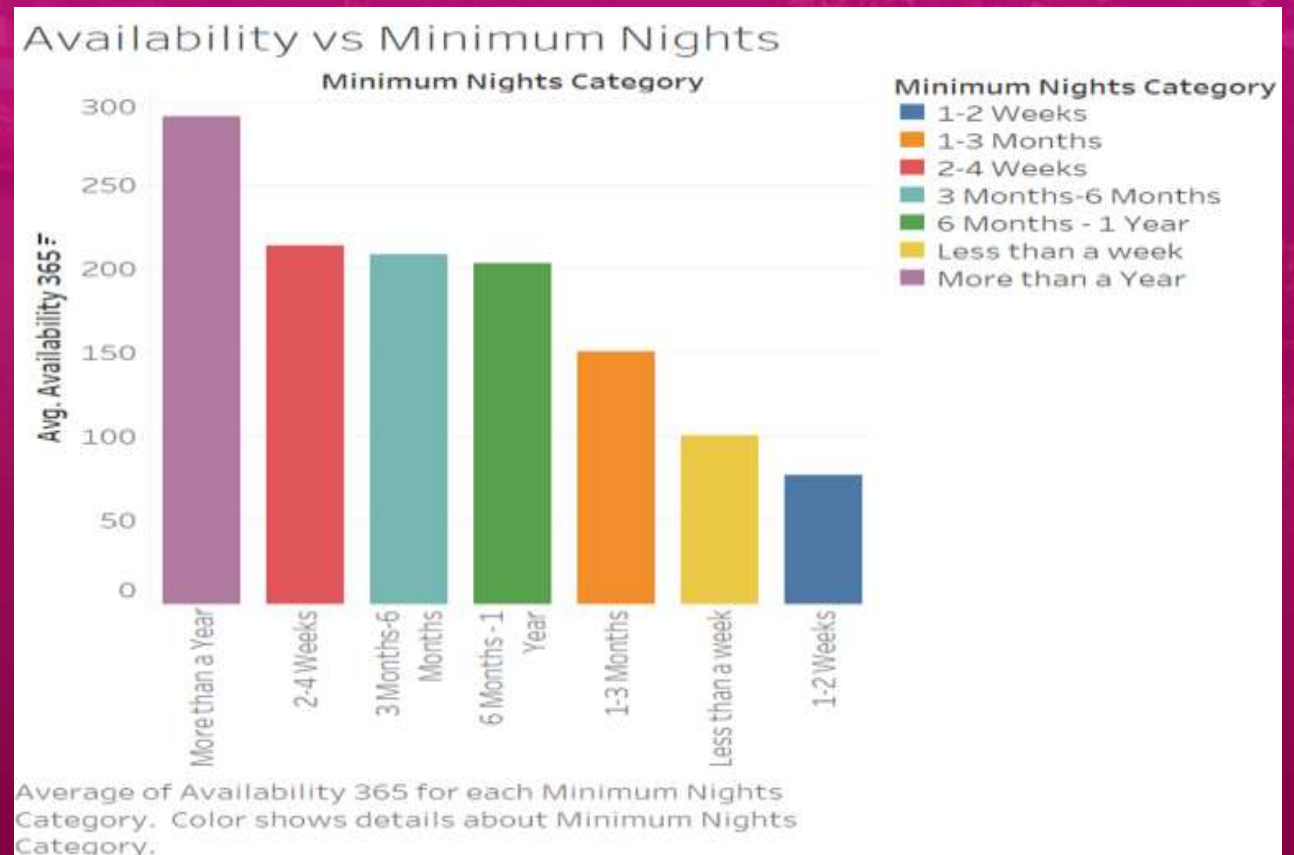
- Some properties are non-functional for a significant portion of the year, spanning multiple days.
- The properties do not provide the end-user with the option to book a minimum night stay that meets their maximum requirements.



Typically, customers prefer an average price range of \$120 to \$130. However, popular neighborhoods like Manhattan and Brooklyn tend to offer higher price ranges, which may discourage customers from making a booking.

EFFECT OF MINIMUM REVIEWS

- Customers are more inclined to leave reviews when the minimum number of nights required for booking is lower.
- Brooklyn has received the highest number of reviews due to its availability for bookings for more than 200 days in a year.
- On the other hand, there are some sites in Staten Island that are not open for booking at all, which may be the reason why they have received very few reviews from end consumers.



CONCLUSION & RECOMMENDATIONS

- It is necessary to conduct inspections of shared rooms.
- The combined contribution of all hosts is more valuable than the success of only a few hosts.
- More than 80% of the listings belong to the Manhattan and Brooklyn neighborhoods. So the company needs to acquire more properties in other neighborhoods to bring stability to the market.
- To make properties more customer-oriented, the minimum night threshold should be set to a lower limit.
- Also, the hotels can provide complementary breakfast, great discount/cashback, and cab facilities for senior citizens and handicap people to increase their sales, revenue and promote their business.



Appendix - Data Sources

- The columns in the dataset are self-explanatory. You can refer to the diagram given below to get a better idea of what each column signifies.

Column	Description
id	listing ID
name	name of the listing
host_id	host ID
host_name	name of the host
neighbourhood_group	location
neighbourhood	area
latitude	latitude coordinates
longitude	longitude coordinates
room_type	listing space type
price	
minimum_nights	amount of nights minimum
number_of_reviews	number of reviews
last_review	latest review
reviews_per_month	number of reviews per month
calculated_host_listings_count	amount of listing per host
availability_365	number of days when listing is available for booking



The background of the slide features a photograph of a large, multi-story house with a modern design, including a glass-enclosed upper level. The house is surrounded by lush green trees and flowering bushes. A white, curved graphic element separates the top image from the purple gradient area below.

Appendix –Data Methodology

- Conducted a thorough analysis of New York Airbnb Dataset.
- Cleaned the data set using python.
- Derived the necessary features.
- Used group aggregation, pivot table and other statistical methods.
- Created charts and visualizations using Tableau.



APPENDIX - DATA ASSUMPTIONS

Categorical Variables:

- room_type
- neighbourhood_group
- neighbourhood

Continous Variables(Numerical):

- Price
- minimum_nights
- number_of_reviews
- reviews_per_month
- calculated_host_listings_count
- availability_365
- Continous Variables could be binned in to groups too

Location Variables:

- latitude
- longitude

Time Varibale:

- last_review





Thank you From

- Heena Kanzar
- Sai Rama Krishna
- Kunwar Urjaswit