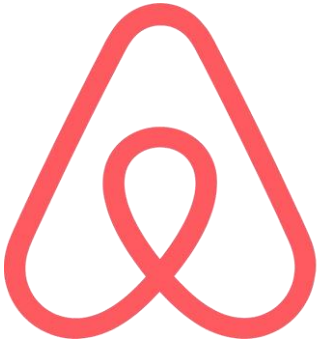
airbnb

Airbnb 2019 Case Study

By –

Dipesh Pimpale
Samiksha Bansod
Nadhiya C

Case Study Understanding



Company

Airbnb is an online marketplace that connects homeowners with people looking for accommodations in specific locales.
Airbnb makes the bulk of its revenue by charging a service fee for each booking.

Problem statement

Airbnb saw a major decline in revenue as the number of bookings and travel activity dropped drastically.

Airbnb wants to make sure that it is fully prepared for this change.

Challenges deep-dive

Challenge 1

Business Understanding

The first step in our visualization project was to gain a clear understanding of the business problem and the objectives of the project.

Challenge 2

Data Wrangling

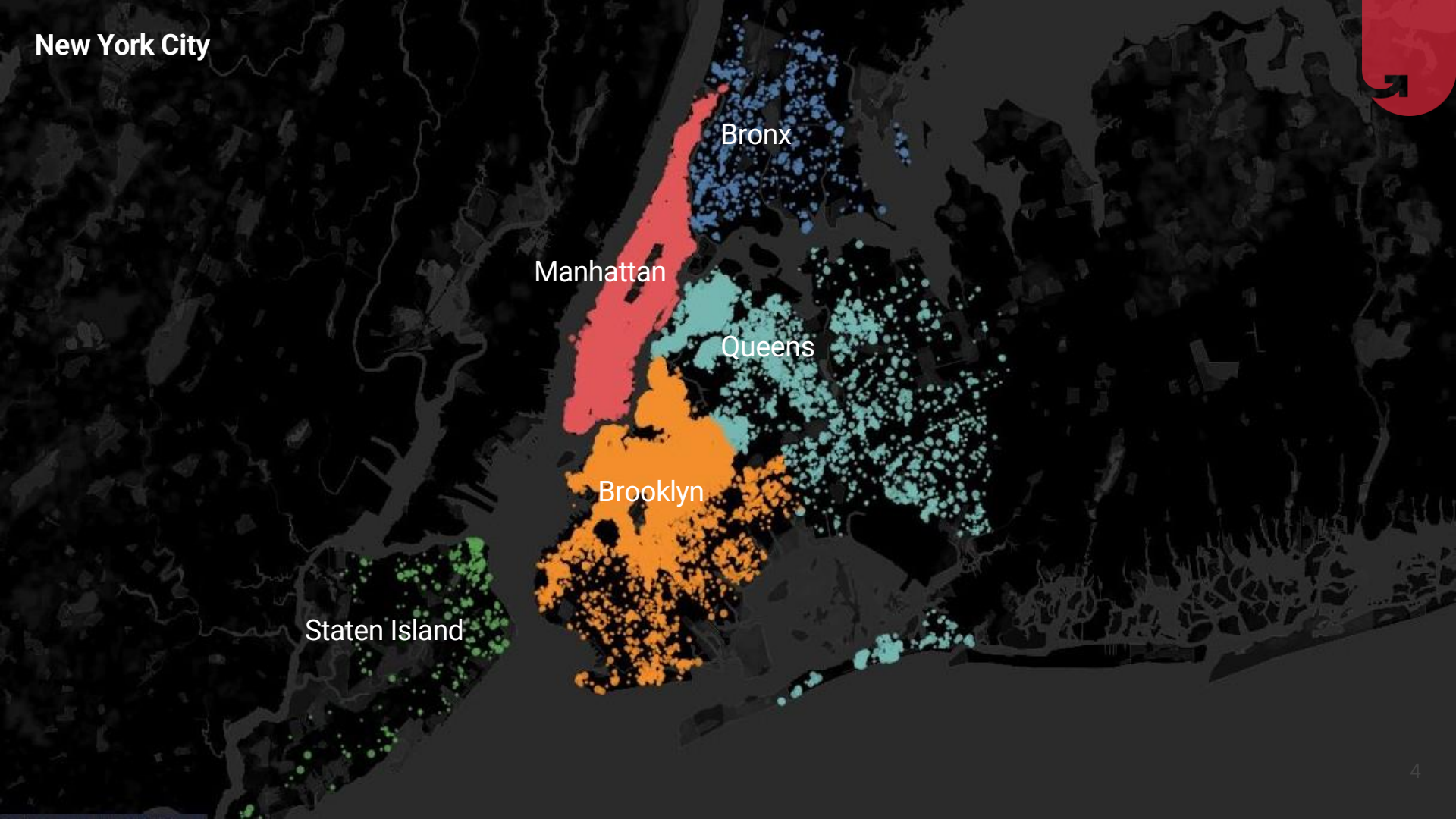
This involved collecting and exploring the dataset to gain a better understanding of the variables, data types, and distributions. We imported the data in Python for more clarity of the given data.

Challenge 3

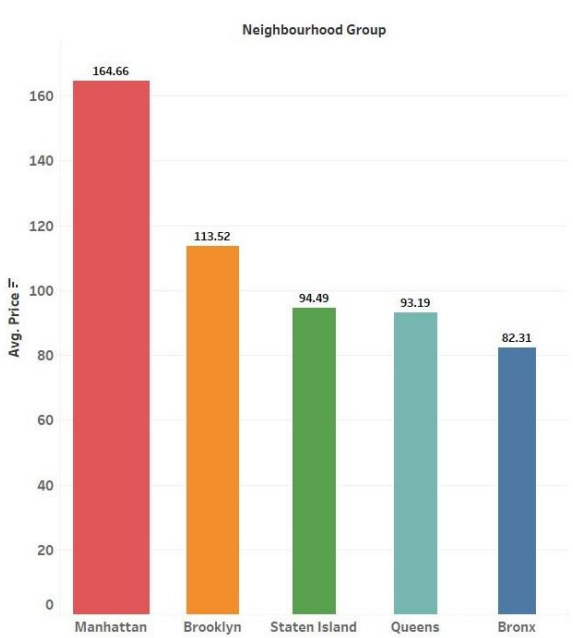
Visualization

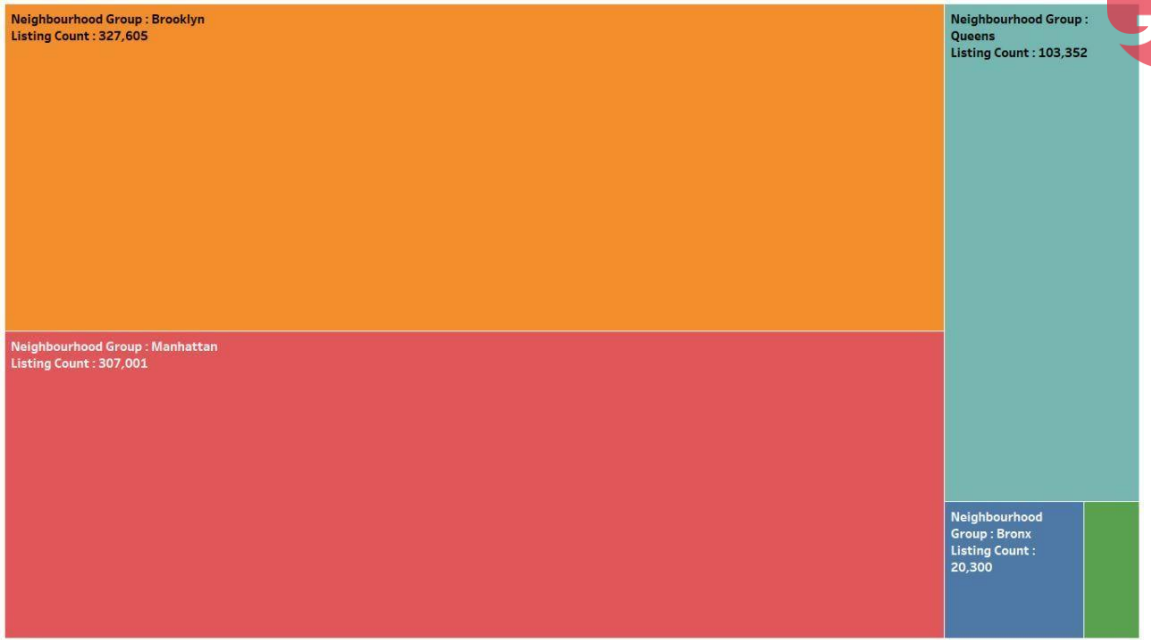
This involved in gaining insights into pricing trends and factors affecting Airbnb. Understanding graphs visually.

New York City



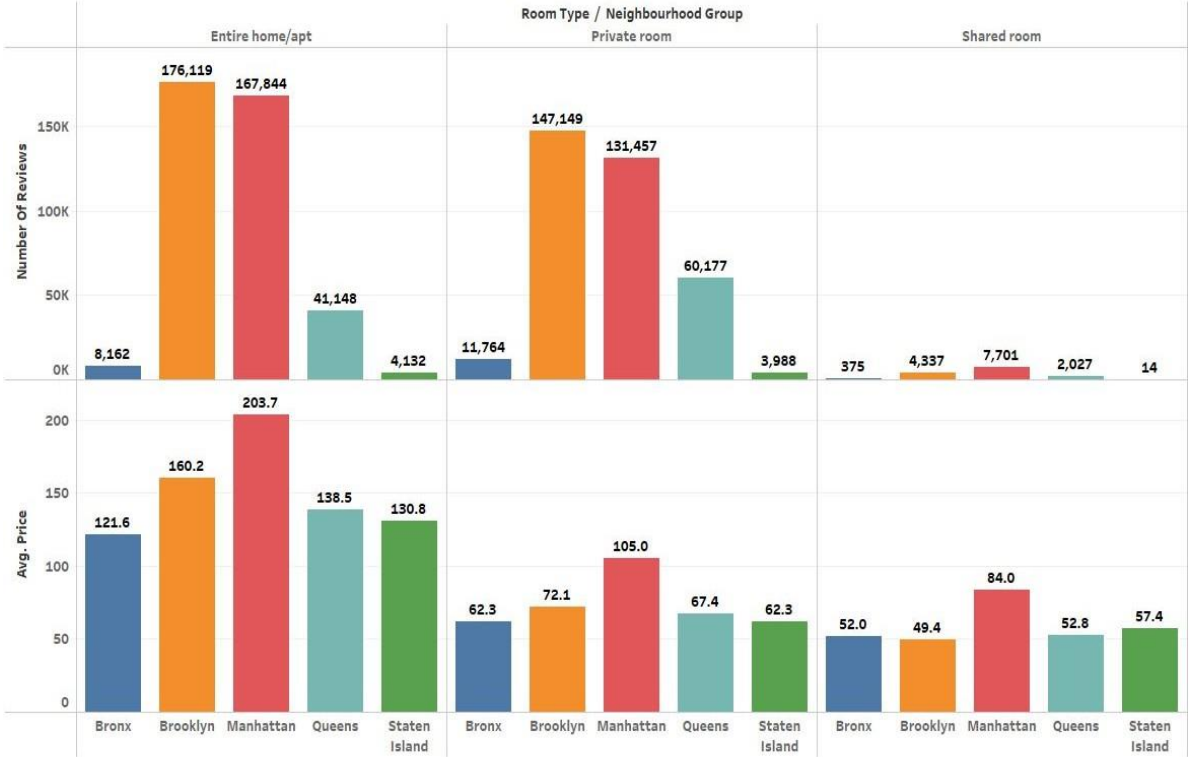
Neighbourhood group v/s pricing and listing count





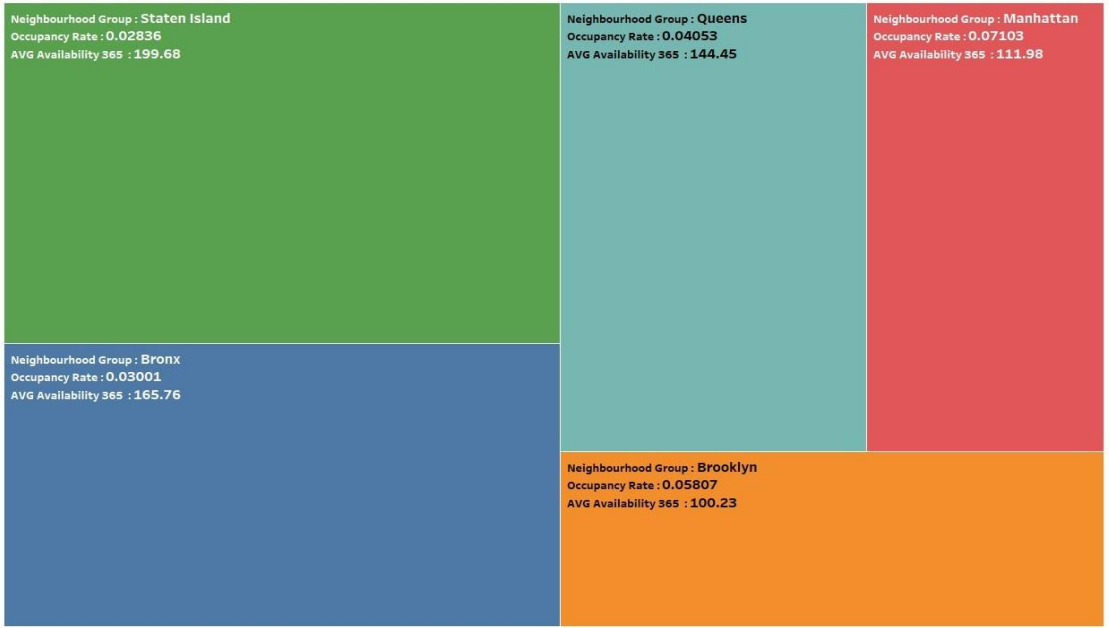
- The first graph shows that **Manhattan has the highest average price** and **Bronx has the lowest**, while the second graph reveals that **Brooklyn and Manhattan** have the **most number of Airbnb listings**.
- Some possible **business solutions** could be to focus on **Manhattan and Brooklyn** to **increase customer base**, **offer discounts** in Bronx, improve quality in high-listing areas, and explore other popular areas to diversify the business.

Reviews and pricing for room type and neighbourhood groups

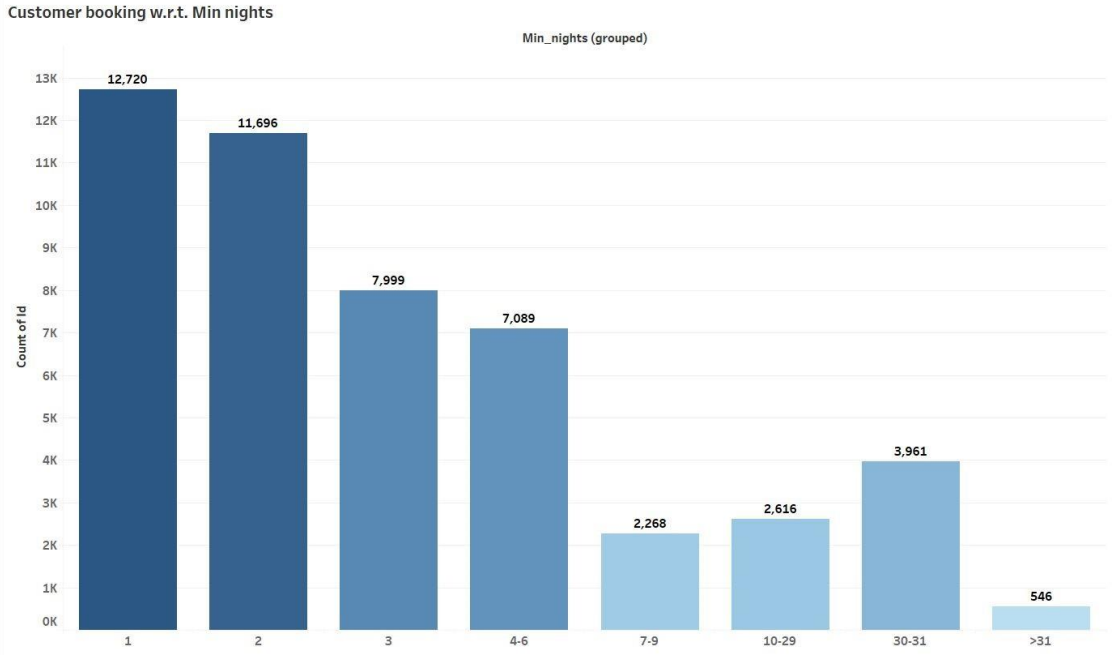


- Guests prefer to book entire homes over shared rooms, despite lower pricing for the latter.
- The Bronx has the highest number of reviews for entire homes, despite having the second-highest pricing.
- Manhattan has the highest pricing for both entire homes and private rooms, as well as the second-highest number of reviews.
- **Hosts can use this information to understand guest preferences and adjust pricing and marketing strategies to increase revenue.**

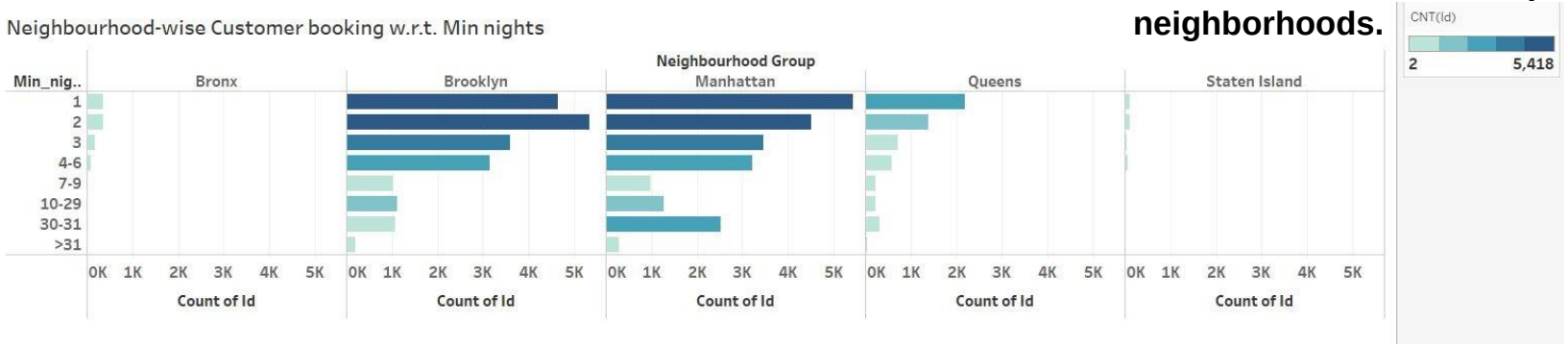
Neighbourhood group wise Occupancy rate and availability



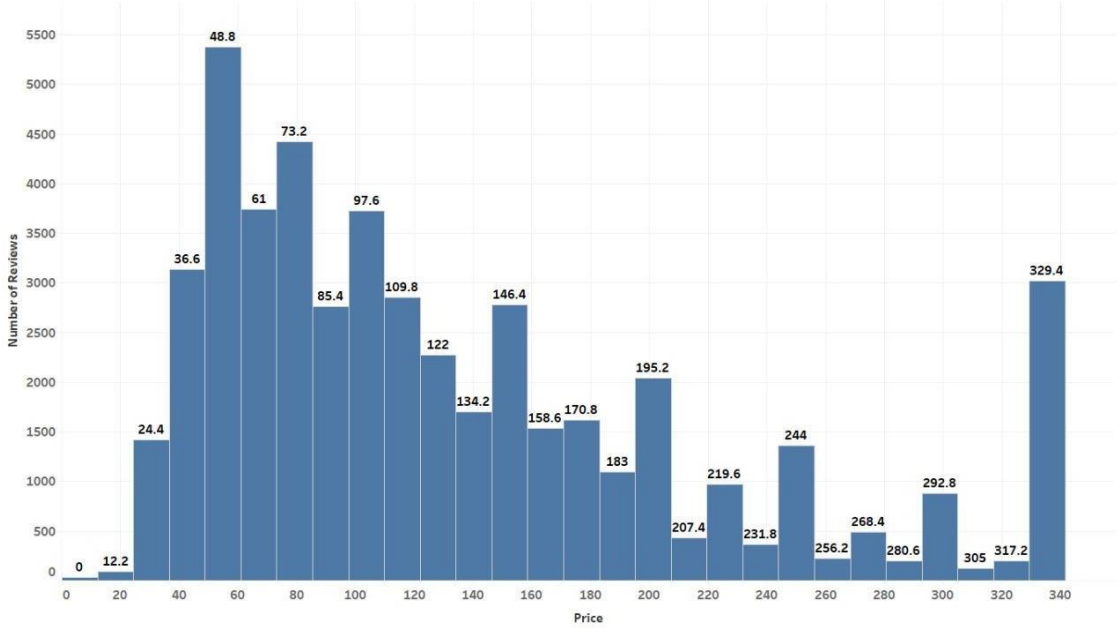
- The treemap visualization indicates that Staten Island has the highest availability rate but the lowest occupancy rate, while Brooklyn has the least availability rate but the higher occupancy rate.
- Manhattan has the second-lowest availability rate but a relatively higher occupancy rate.
- **Possible business solutions to improve performance include increasing occupancy rates in Staten Island, increasing availability rates in Brooklyn, optimizing prices based on occupancy and availability rates, and diversifying the business in other areas.**



- Most customers prefer to book accommodations for 1-2 days.
- Bookings are concentrated in the Manhattan and Brooklyn neighborhoods.
- There are relatively few bookings in the Staten Island, Bronx, and Queens neighborhoods.
- Hospitality businesses can expand offerings in less popular neighborhoods to attract more customers.
- **Promoting unique features and attractions of these neighborhoods can increase their appeal.**
- **Special deals or packages can incentivize customers to book accommodations in less popular neighborhoods.**

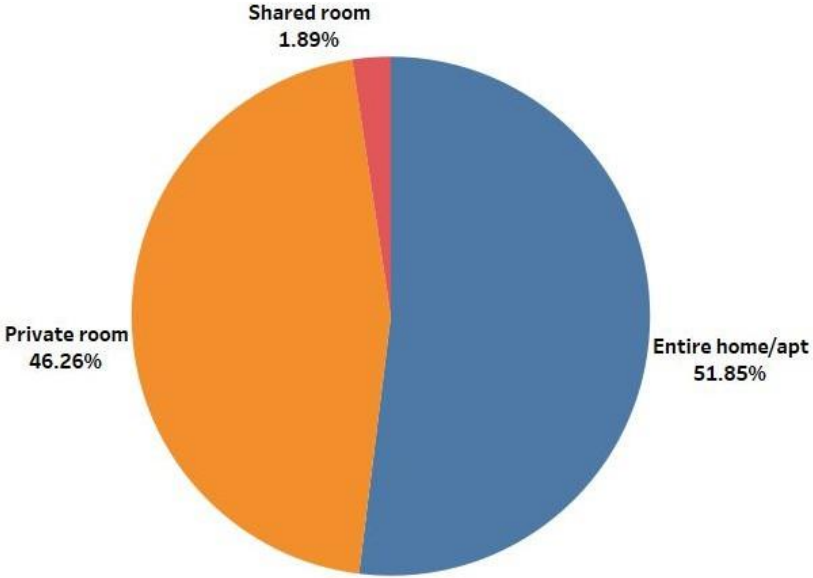


Pricing preferred by customers



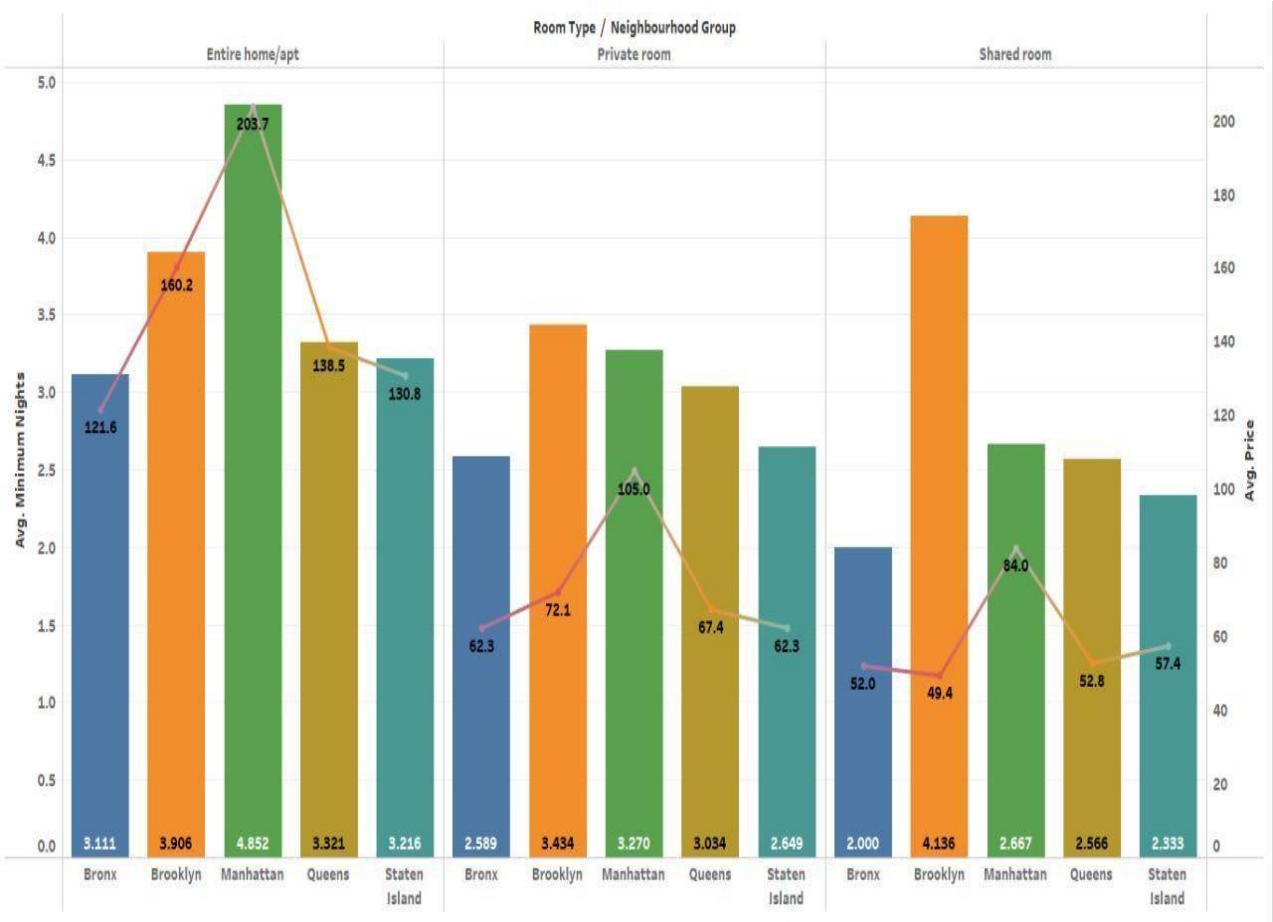
- The chart illustrates that rooms priced between $40-$80 and $320-$340 have a high number of positive reviews, indicating their popularity among customers.
- To increase revenue, Airbnb can focus on marketing and improving these popular room types.
- **Offering promotions or special packages for these room types can attract more bookings and further boost revenue.**

Percentage of visitors for each room type



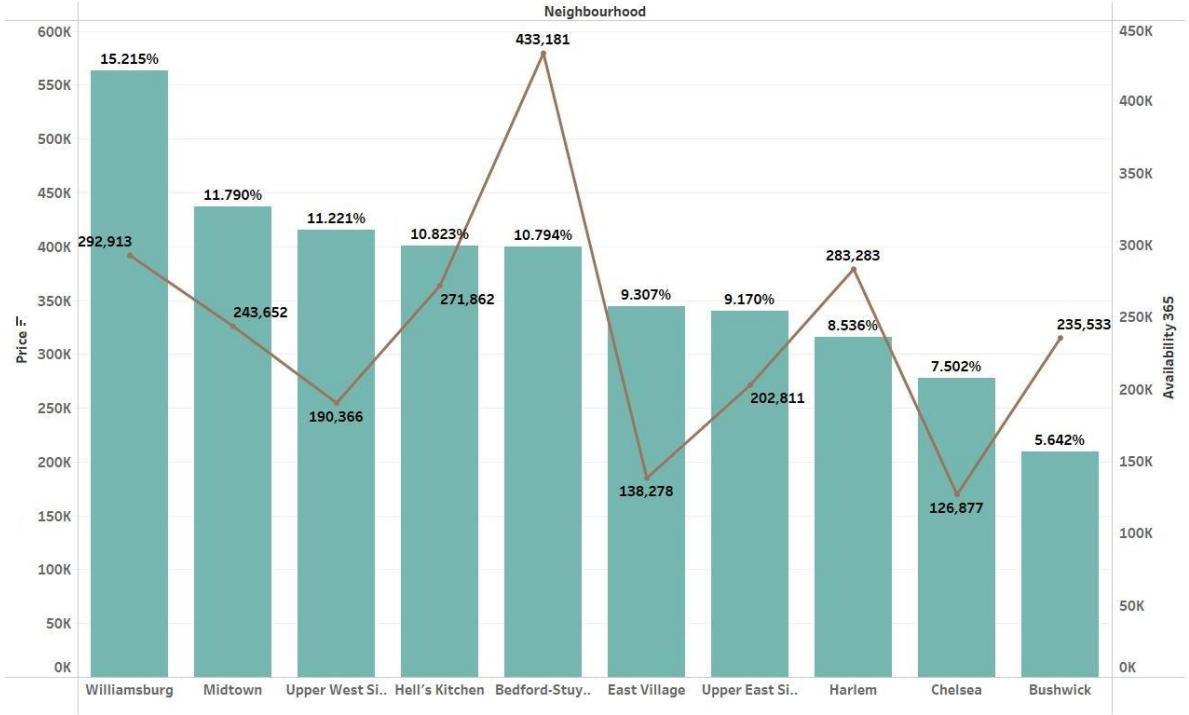
- Most visitors prefer to book a private room or an entire home.
- Only a small percentage of visitors book shared rooms.
- Private rooms and entire homes offer more privacy and comfort.
- Hospitality businesses could offer more private room and entire home options.
- **Promoting the privacy and comfort of these accommodations can increase their appeal.**
- **Special deals or packages could incentivize customers to book private rooms or entire homes.**

Avg minimum nights and Avg price w.r.t room type and Neighbourhood group



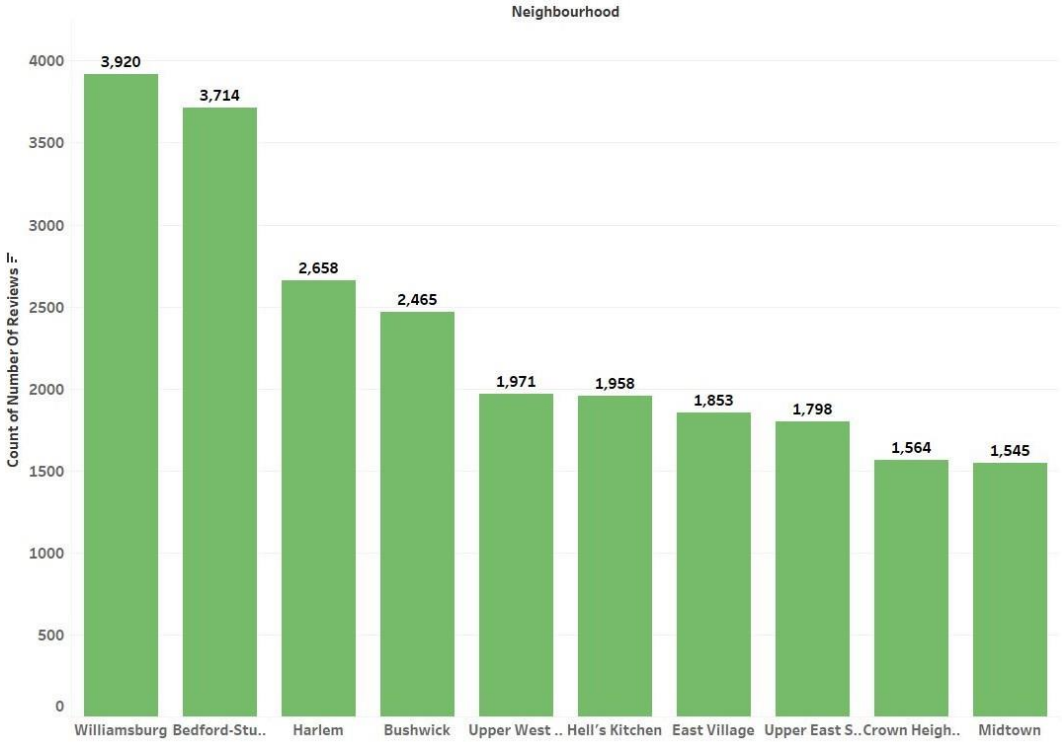
- The chart indicates that entire homes and private rooms are more popular than shared rooms.
- Manhattan has the highest average minimum nights.
- To maximize revenue in Manhattan, hosts should focus on marketing entire homes and private rooms.
- In the Bronx, offering shorter stays can attract more guests.
- **Hosts should adjust their pricing strategy based on the average prices in each neighborhood group and room type to remain competitive.**

Top 10 Neighbourhood w.r.t price and availability



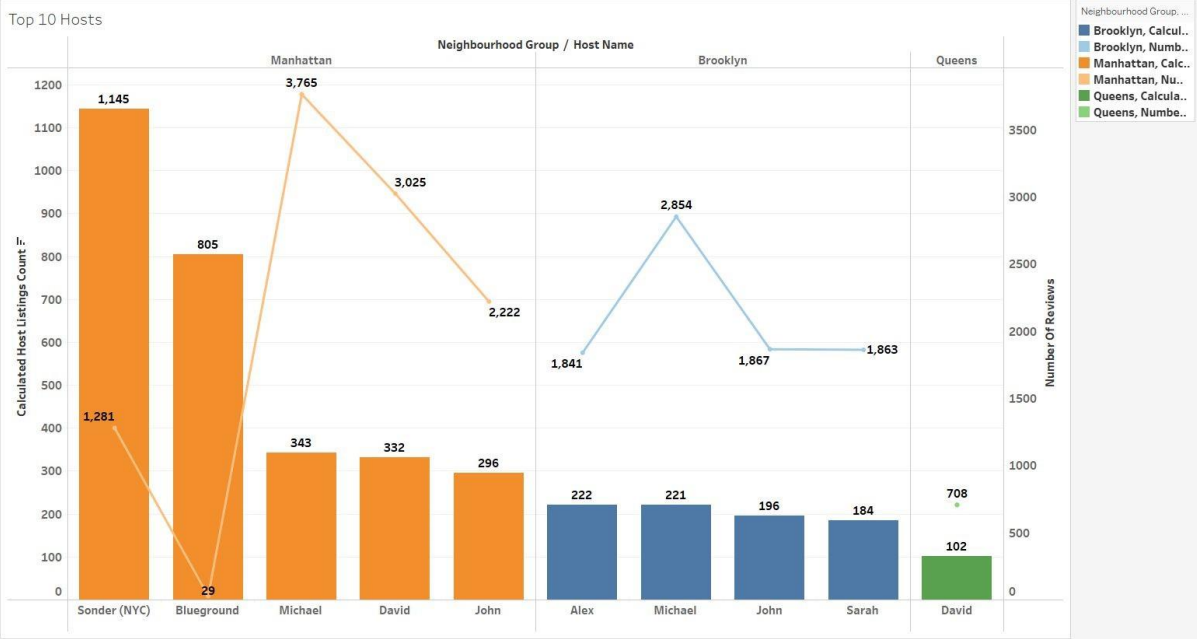
- Williamsburg is the top neighborhood with high price and higher availability.
- Bedford has the highest price among the top 10 neighborhoods but only less availability, suggesting it is a highly sought-after and exclusive location.
- Company can use this information to inform their marketing and sales strategies, targeting customers in Bedford and promoting properties in Williamsburg.
- **Pricing strategies can also be adjusted based on the level of demand and availability, offering more competitive prices for properties in neighborhoods with lower availability and maintaining higher prices for properties in high demand areas.**

Top 10 Neighbourhoods w.r.t no. of reviews



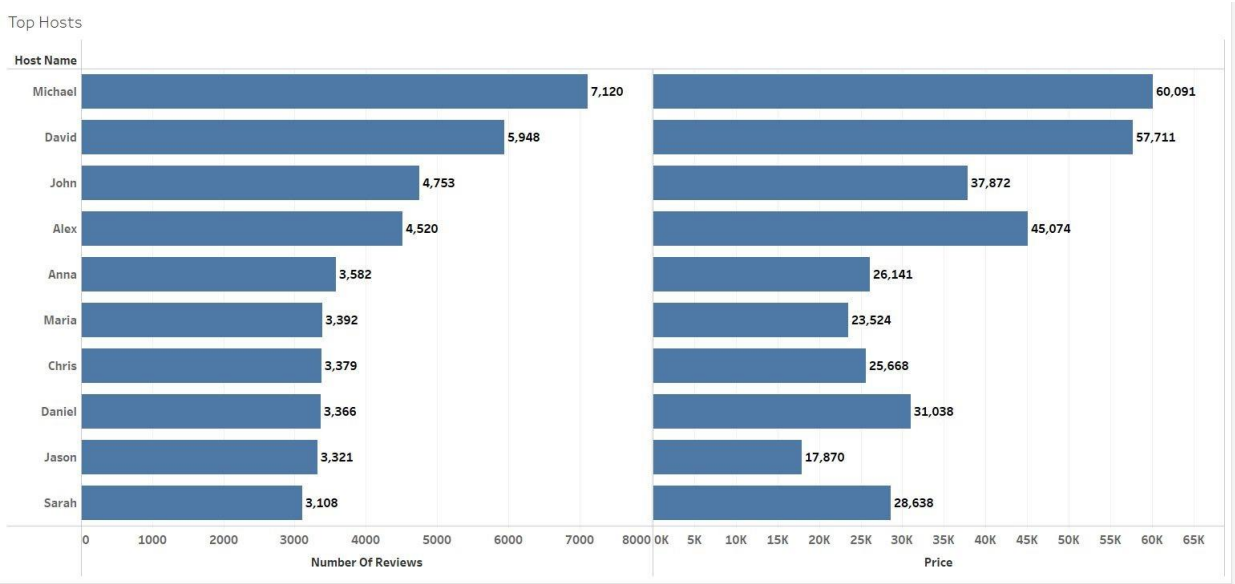
- Williamsburg, Bedford, and Harlem are the most reviewed neighborhoods, while Midtown has the lowest number of reviews.
- **Airbnb can use this information to promote their services in popular neighborhoods and adjust their pricing and offerings accordingly.**

Top 10 host w.r.t listing and reviews



- Sonders (NYC) is the most popular host from Manhattan, while David is the most popular host from Queens, with good numbers of listings and reviews.
- Manhattan has the highest number of hosts, followed by Brooklyn and Queens, with 5, 4, and 1 host, respectively, among the top 10.
- **Airbnb can use this information to create targeted marketing campaigns for popular hosts and neighborhoods, and adjust their pricing strategies based on popularity and demand.**

Top 10 host w.r.t No. of reviews and price



- Michael and David have the most reviews and competitive pricing, while Jason has the lowest pricing among the top 10 hosts.
- Airbnb can use this information to inform their pricing and marketing strategies, targeting customers looking for affordable options or working with popular hosts to create targeted campaigns.
- **Businesses can adjust their pricing strategies based on the level of popularity and demand of each host, and work on improving the quality of services in neighborhoods with fewer hosts.**

Recommendations: -

- Consider adjusting pricing and offering discounts to attract more visitors to Staten Island and Bronx.
- Promote shared rooms or lower their prices in Staten Island to increase bookings.
- Acquire more hosts and listings with 30-60-90 day rental duration, targeting Manhattan and Brooklyn.
- Explore weekly or bi-weekly rentals for customers in quarantine.
- Focus on acquiring private rooms in Manhattan and Brooklyn, and entire homes in Bronx and Queens.
- Expand in the $40-$150 price range to increase customer traffic and satisfaction.
- Consider adjusting minimum nights or prices for Manhattan to attract more visitors and avoid high prices for shared rooms.
- Acquire new properties in coastal regions for better views and easy ferry accessibility.
- Good hosts and maximum/minimum night stay window bookings are key factors in customer satisfaction and reviews.

Thank you !