Airbnb Data Analysis

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Agenda

o Objective

o Background

o Key Findings

o Appendix:

    - Data Methodology

    - Data Assumptions

Objective

o Improve strategies to review the business in the post covid period.

o Understand customer preferences and user experience trends for Airbnb NYC business.

o Provide early recommendations for new acquisitions and improving customer experience.

Background

o   The COVID-19 pandemic affected Airbnb business due to travel restrictions.

o   The revenue took the largest hit in NYC in the Q2 of 2020.

o   Now that the travel restrictions are lifted, the business should be operated to recover the loss.

Key findings

1.Customer Preferences

- **Low to medium prices** ranging from **60-150** preferred by customers.

- **Entire home/Apt.** highly preferred by customers on basis of **price, number of reviews** and **listings**. Followed by **Pvt rooms.**

- **Manhattan** being most popular borough followed by **Brooklyn for highest bookings** and **number of reviews.**

Customer Prefered Price Range

Popular Borough

Customer prefered Room type
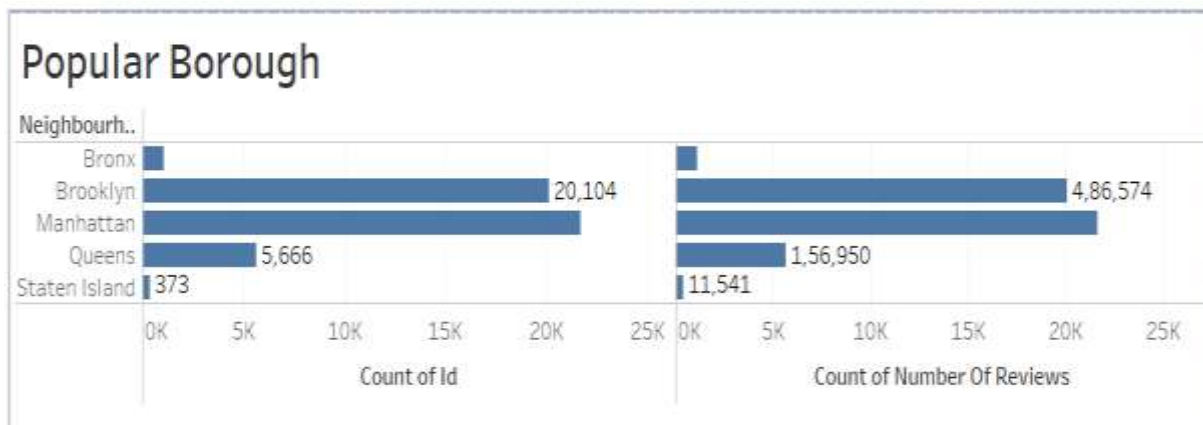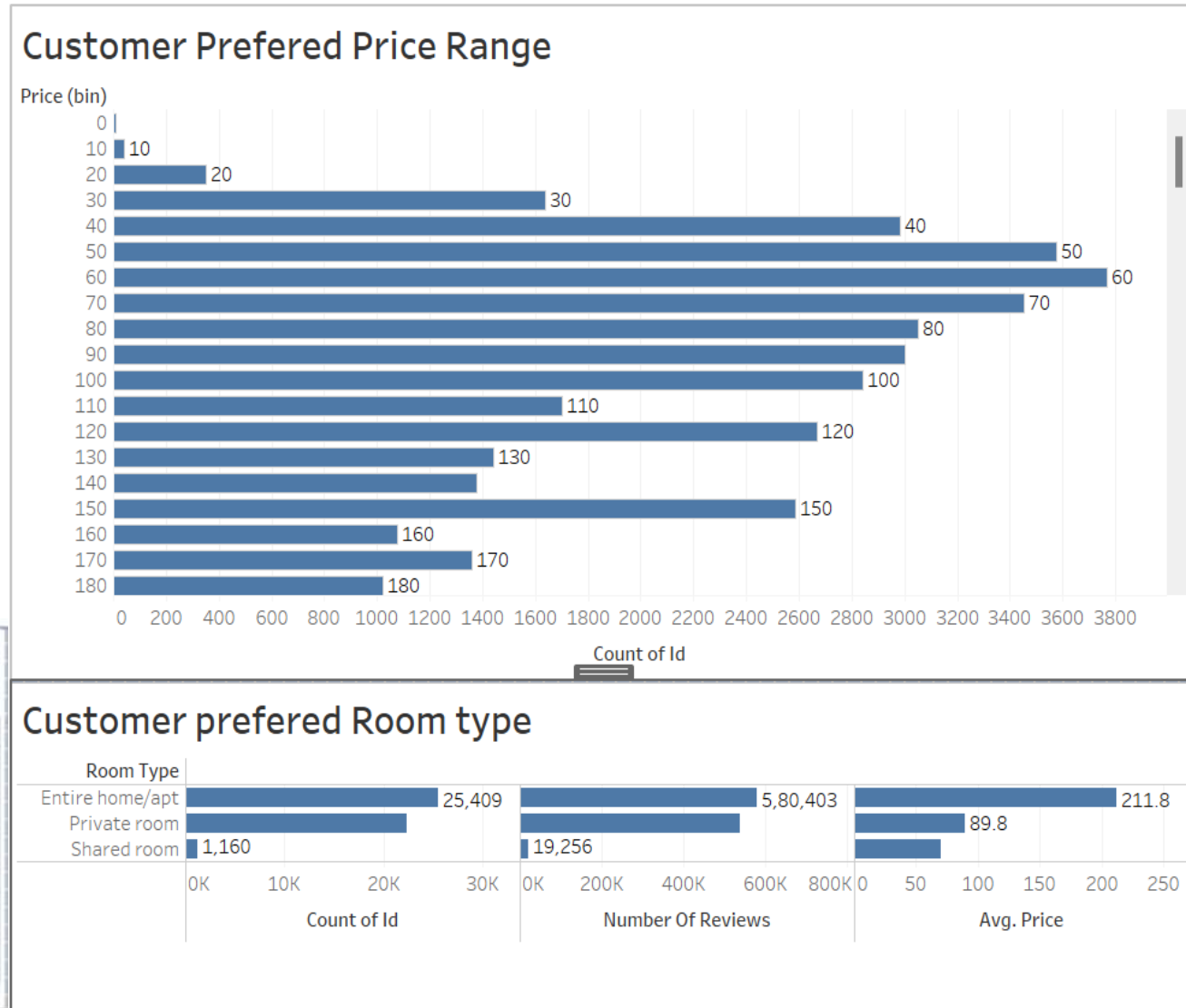
2. Entire homes with highest minimum nights to stay

- Entire home/apt types are preferred more by the customers followed by Private rooms as they available for a higher number of minimum night's stay.

- Manhattan consist of maximum Entire homes and private rooms with highest min nights to stay.

- Brooklyn has second most Entire homes and private rooms with largest min nights to stay.

Entire home with highest minnights to stay
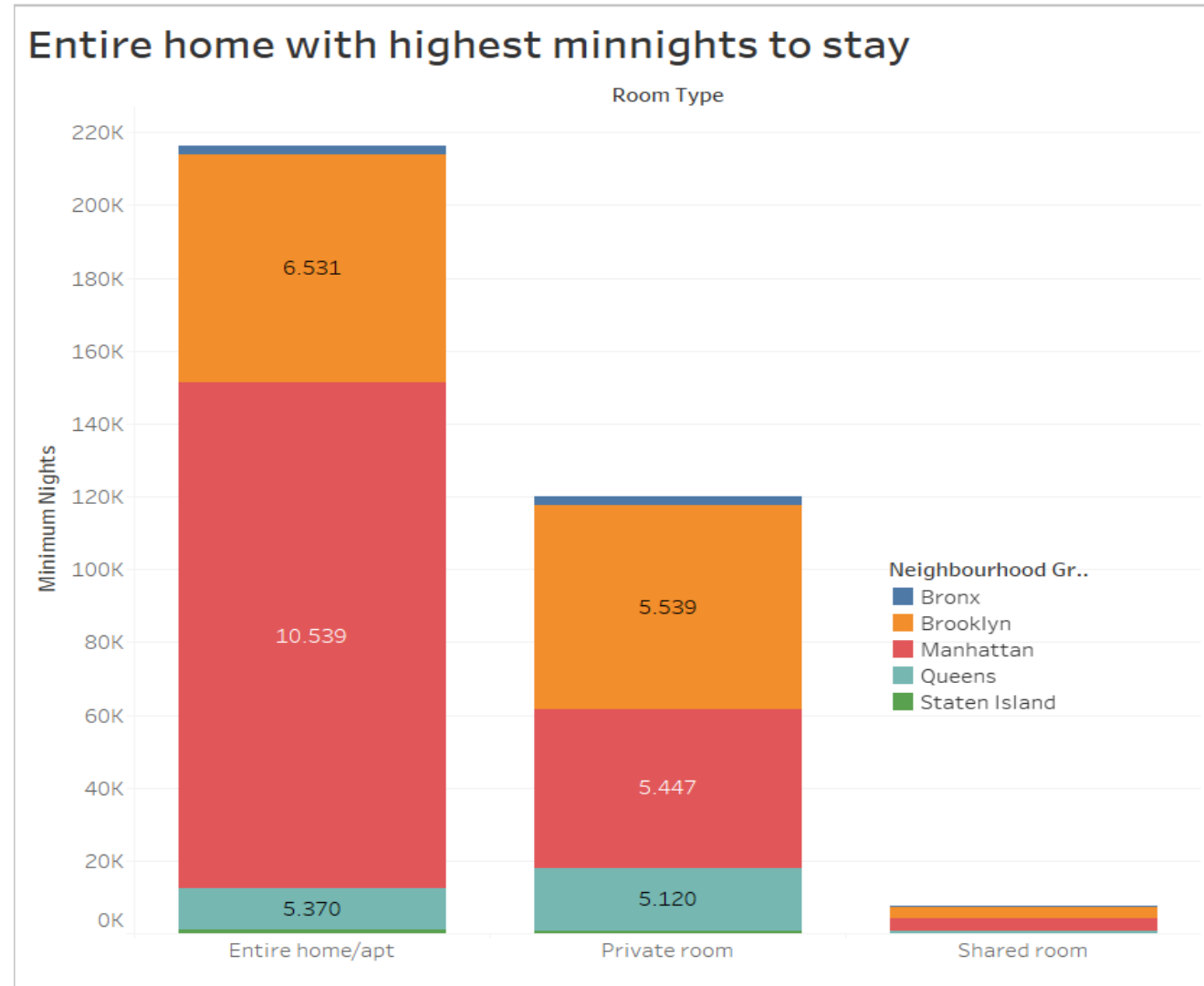
3.Entire Home available for average 100 days

o Having a **high price** range with **average price 211$**, **Entire home/apt** types of rooms are available for **112 days**.

o Private rooms available for average of **111 days** with **low average price 90$**

o **Shared rooms** around **162 days** on average being available with the lowest in **average price 70$** .

Avg Availabity of Rooms with Avg Price

Entire home/apt
211.8
111.92

Private room
89.8
111.20

Avg. Price

70.1   211.8

Shared room
70.1
162.00
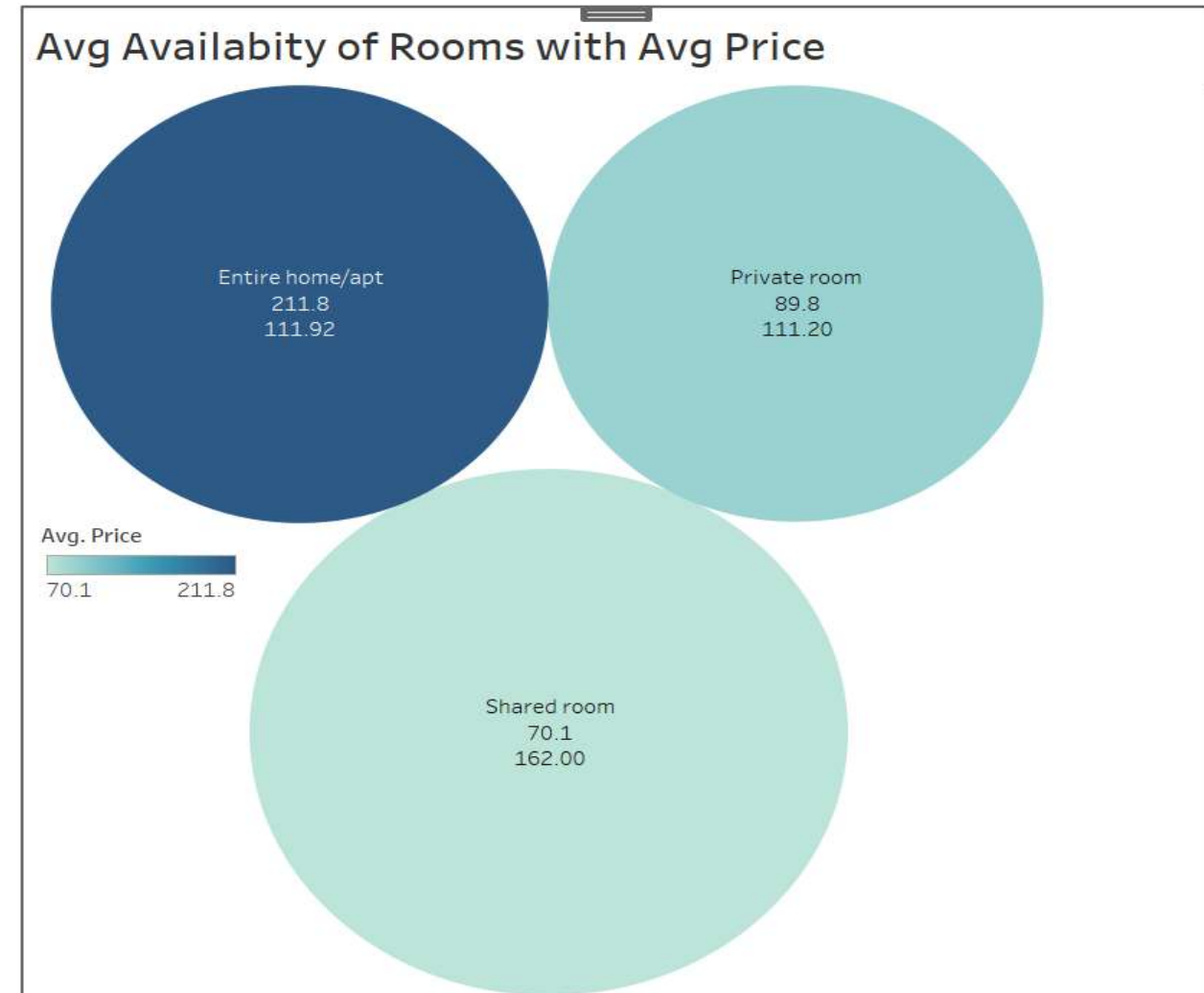
4.Top 5 Hosts based on Price, Reviews, &Listings

o **Michael** is the topmost hosts receives highest reviews for his listed sites with high price range.

o **David, Alex, John,** and **Daniel** are the next 4 topmost hosts followed by Michael.

o We can have one on conversation with hosts to get unpopular properties more traction.
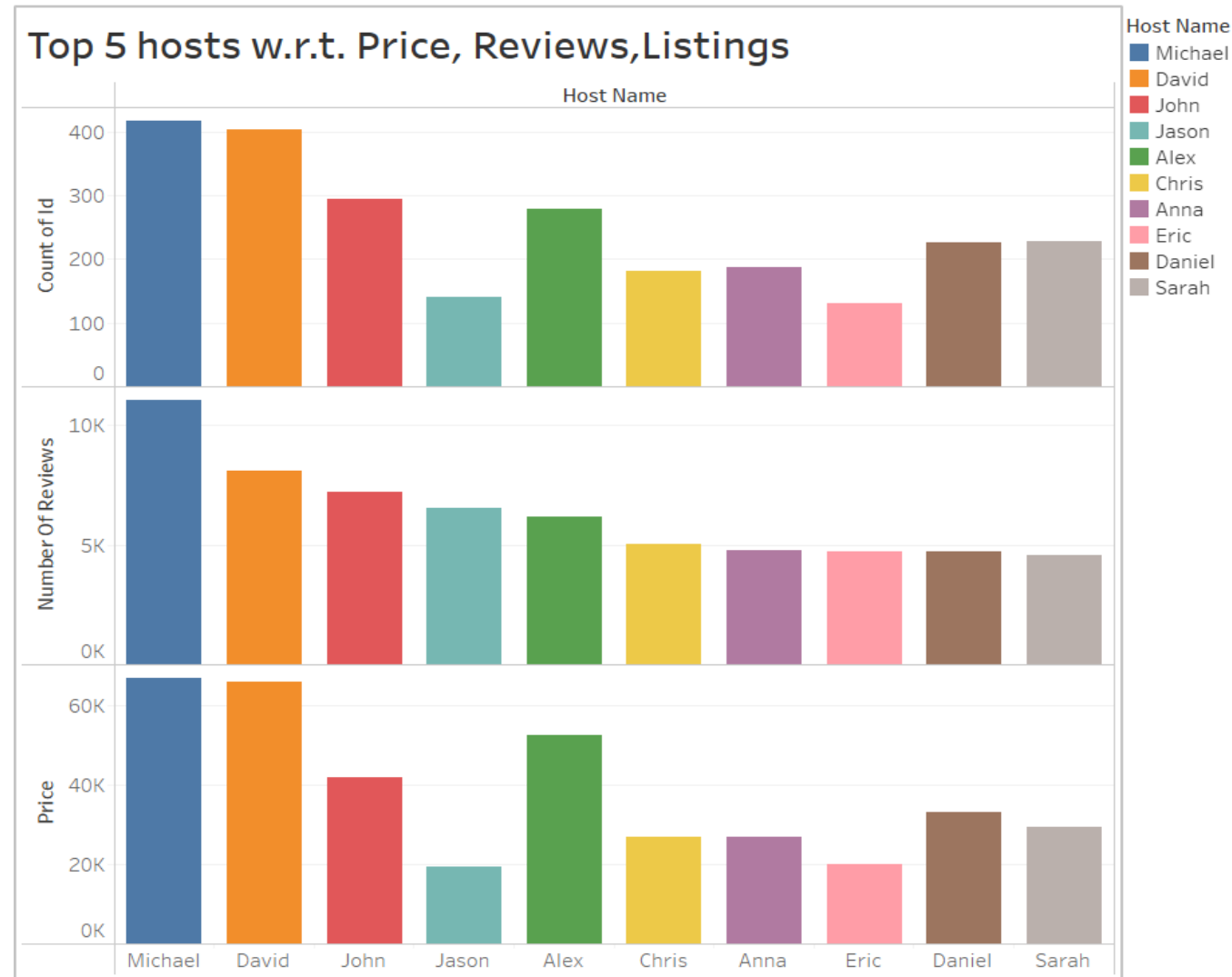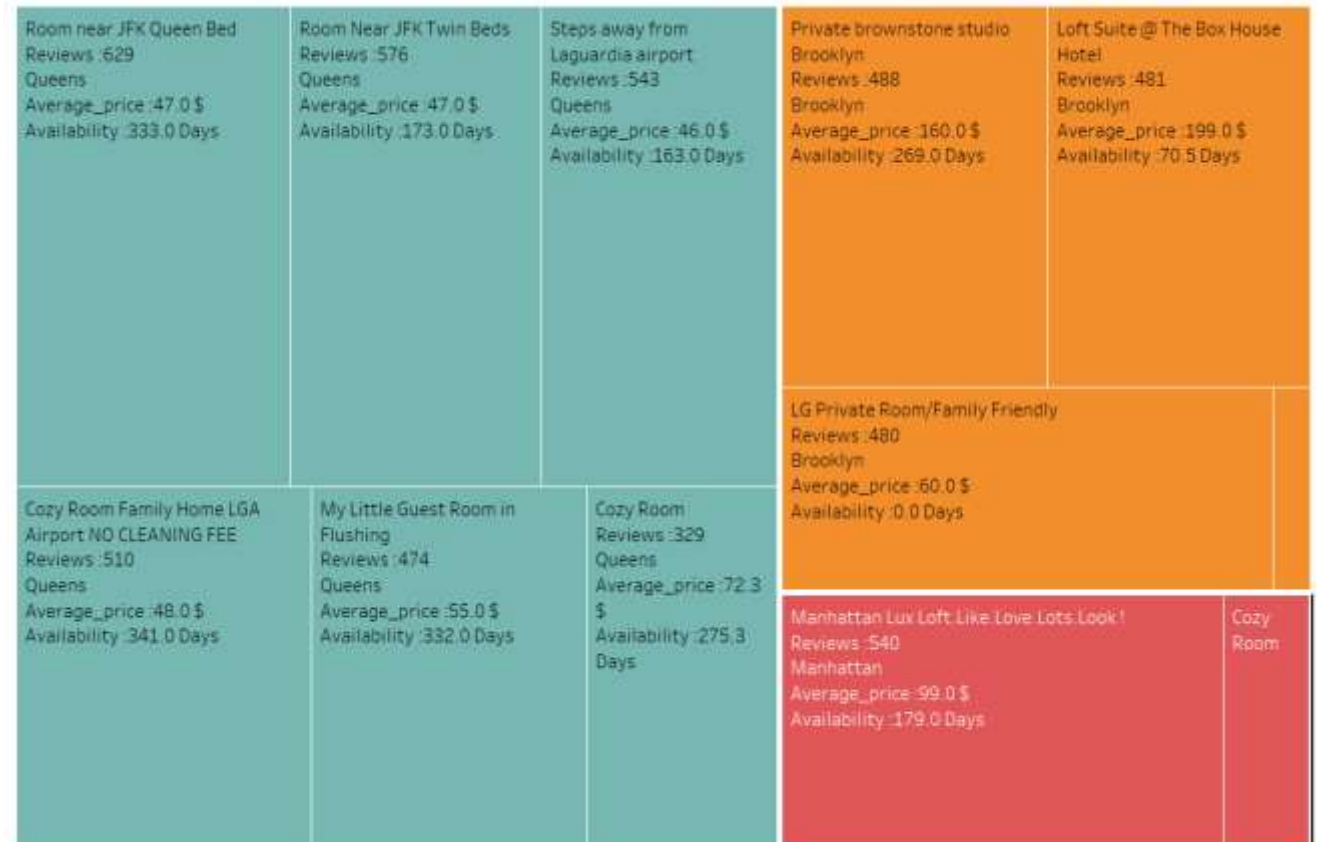
5. Top 10 Neighborhoods by Reviews

o **Bedford-Stuyvesant, Williamsburg, Bushwick, Harlem and Crown heights** are **5 topmost neighborhoods** by **reviews**.

o **Top 10** neighborhoods belongs to **Manhattan** and **Brooklyn**.

o **Average price** offered ranges **110 -210 $** with **5-10 days** of **average min nights stay**
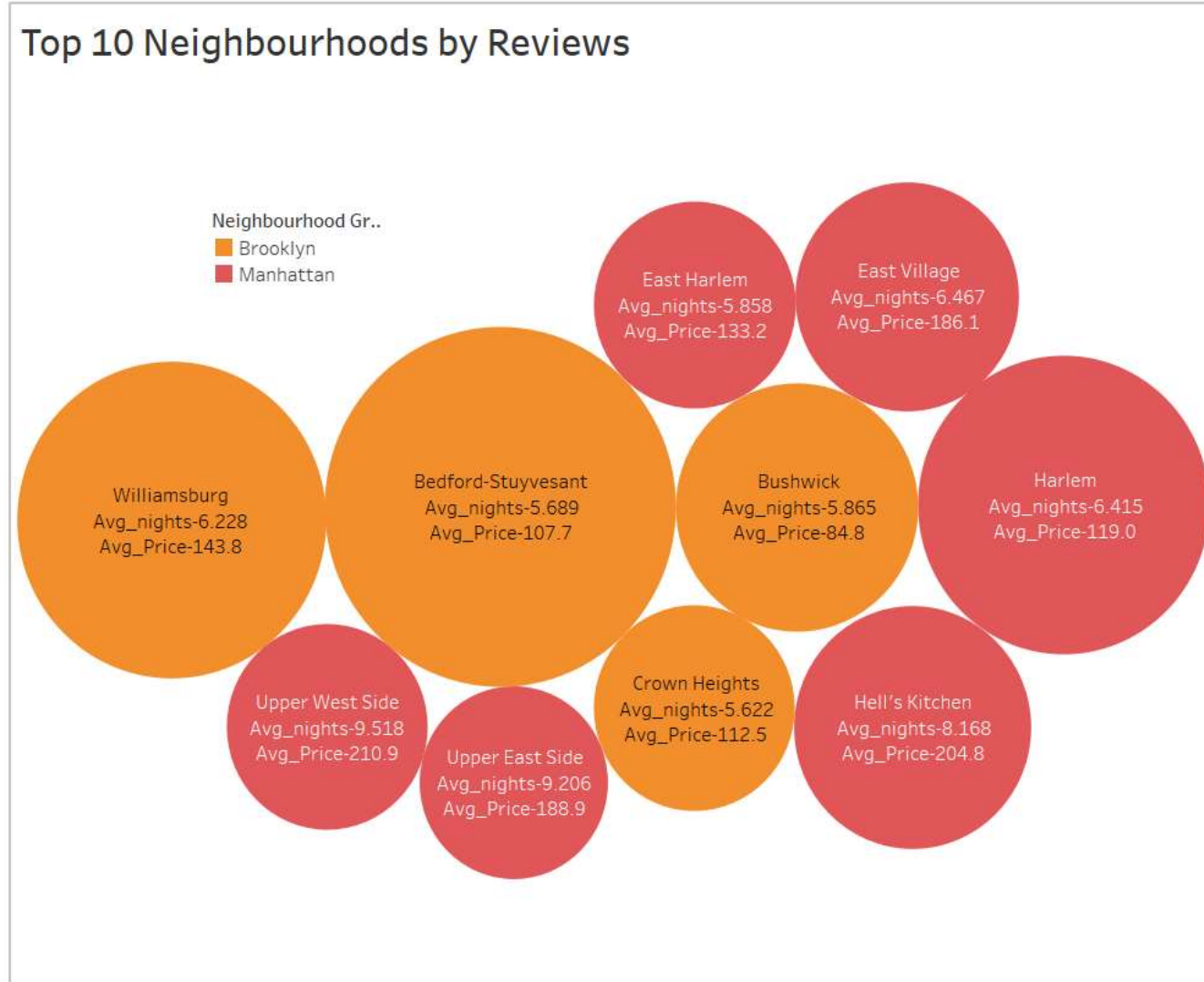
6. Top 10 Properties by Reviews

o **Rooms near JFK Queen Bed, Cozy Room family home LGA, Steps away from LaGuardia airport, Cozy Rooms, Private brownstone studio** are top 5 properties by reviews.

o **Top 10** properties belongs to **Queens** and **Brooklyn**.

o **Low Average price** offered by **Queens** properties with availability **300+** days.

Queens properties acquires greatest Review

Room near JFK Queen Bed
Reviews :629
Queens
Average_price :47.0 $
Availability :333.0 Days

Room Near JFK Twin Beds
Reviews :576
Queens
Average_price :47.0 $
Availability :173.0 Days

Steps away from Laguardia airport
Reviews :543
Queens
Average_price :46.0 $
Availability :163.0 Days

Private brownstone studio
Brooklyn
Reviews :488
Brooklyn
Average_price :160.0 $
Availability :269.0 Days

Loft Suite @ The Box House Hotel
Reviews :481
Brooklyn
Average_price :199.0 $
Availability :70.5 Days

LG Private Room/Family Friendly
Reviews :480
Brooklyn
Average_price :60.0 $
Availability :0.0 Days

Cozy Room Family Home LGA Airport NO CLEANING FEE
Reviews :510
Queens
Average_price :48.0 $
Availability :341.0 Days

My Little Guest Room in Flushing
Reviews :474
Queens
Average_price :55.0 $
Availability :332.0 Days

Cozy Room
Reviews :329
Queens
Average_price :72.3 $
Availability :275.3 Days

Manhattan Lux Loft Like Love Lots Look !
Reviews :540
Manhattan
Average_price :99.0 $
Availability :179.0 Days

Cozy Room

Appendix-data methodology

We conducted thorough analysis of Airbnb data. The process includes:

o   Data cleaning for missing values

o   Using EDA finding customer preferences based on

  - Area

  - Price

  - Types of Properties

  - Number of listing

  - Minimum number of nights

Appendix-data assumptions

We assume that:

o   Data prior to COVID -19 period was achieving desired revenue.

o   Company does not want to expand to new territories.

Thank You