INSIGHTS FROM AIR-BNB, NYC PRE-COVID PERIOD

FOR DATA ANALYSIS MANAGERS &

LEAD DATA ANALYST

BY :

NIKHIL KUMAR SINGH

AGENDA

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

OBJECTIVE

- Improve our strategy to minimize the economic and commercial effects of COVID – 19 on AIR-BNB, New York City.

- Understand client preferences and trends in user experience for AIR-BNB in New York City.

- Provide early recommendations for fresh acquisitions and customer experience enhancement.

BACKGROUND

➤ FOR THE PAST FEW MONTHS AIR-BNB HAS SEEN A MAJOR DECLINE IN IT'S REVENUE.

➤ THE COVID – 19 PANDEMIC AFFECTED AIR-BNB BUSINESS DUE TO TRAVLE RESTRICTIONS.

➤ RESTRICTIONS HAVE STARTED LIFTING AND PEOPLE HAVE STARTED TO TRAVEL MORE AND THUS A THOROUGH ANALYSIS WAS NEEDED TO RECOVER THE LOSSES INCURRED.

AVERAGE PRICES OF LOCATION W.R.T ROOM TYPE

➢ **Average price of Manhattan is highest among all the room type.**

➢ **For shared room type Brooklyn has the lowest average price whereas if we look at the entire home/apt and private room type Brooklyn is second highest in terms of average price.**

➢ **Queens, Staten Island and Bronx have approximately equal average prices in all room type.**

Average Prices of Location wrt Room Type
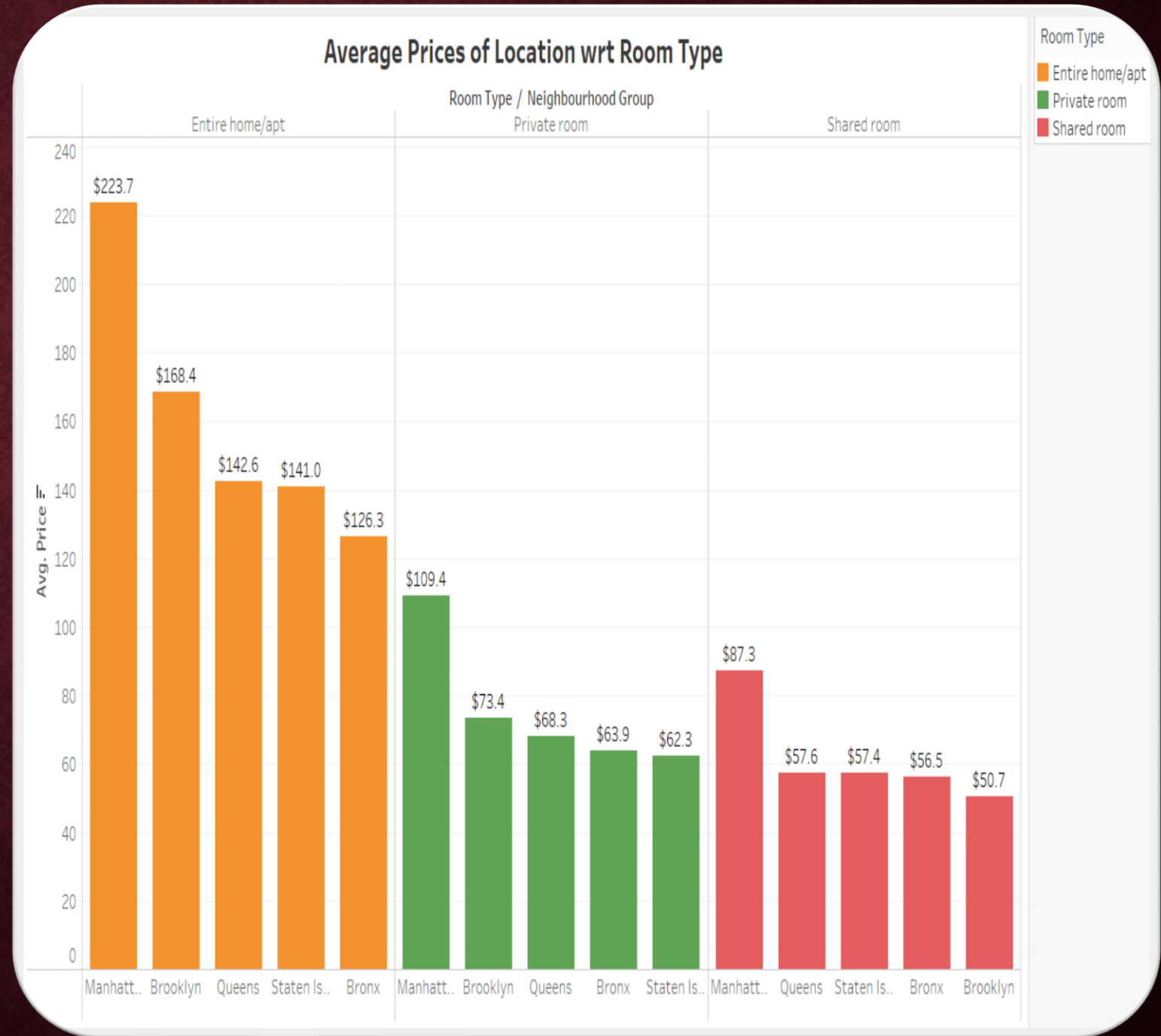
HOST LISTING COUNT OF LOCATION W.R.T ROOM TYPE

- ➤ **Amount of listings per host is highest in Manhattan followed by Brooklyn.**

- ➤ **Entire home/apt has more amount of listings in Manhattan but for Brooklyn & Queens Private room has more amount of listings per host.**

- ➤ **Bronx & Staten Island has very less amount of listings per host.**

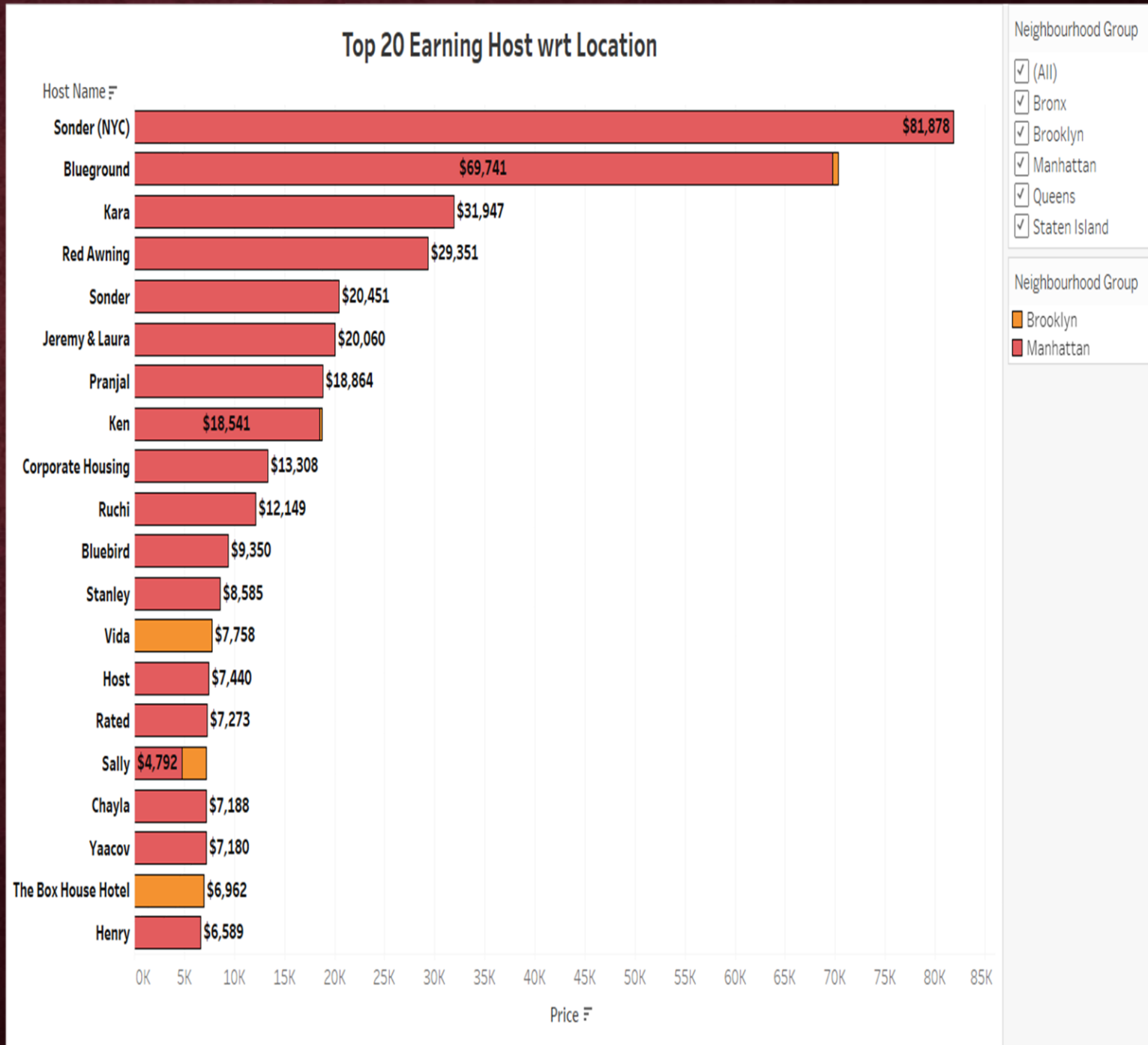Host Listing Count of Location wrt Room Type
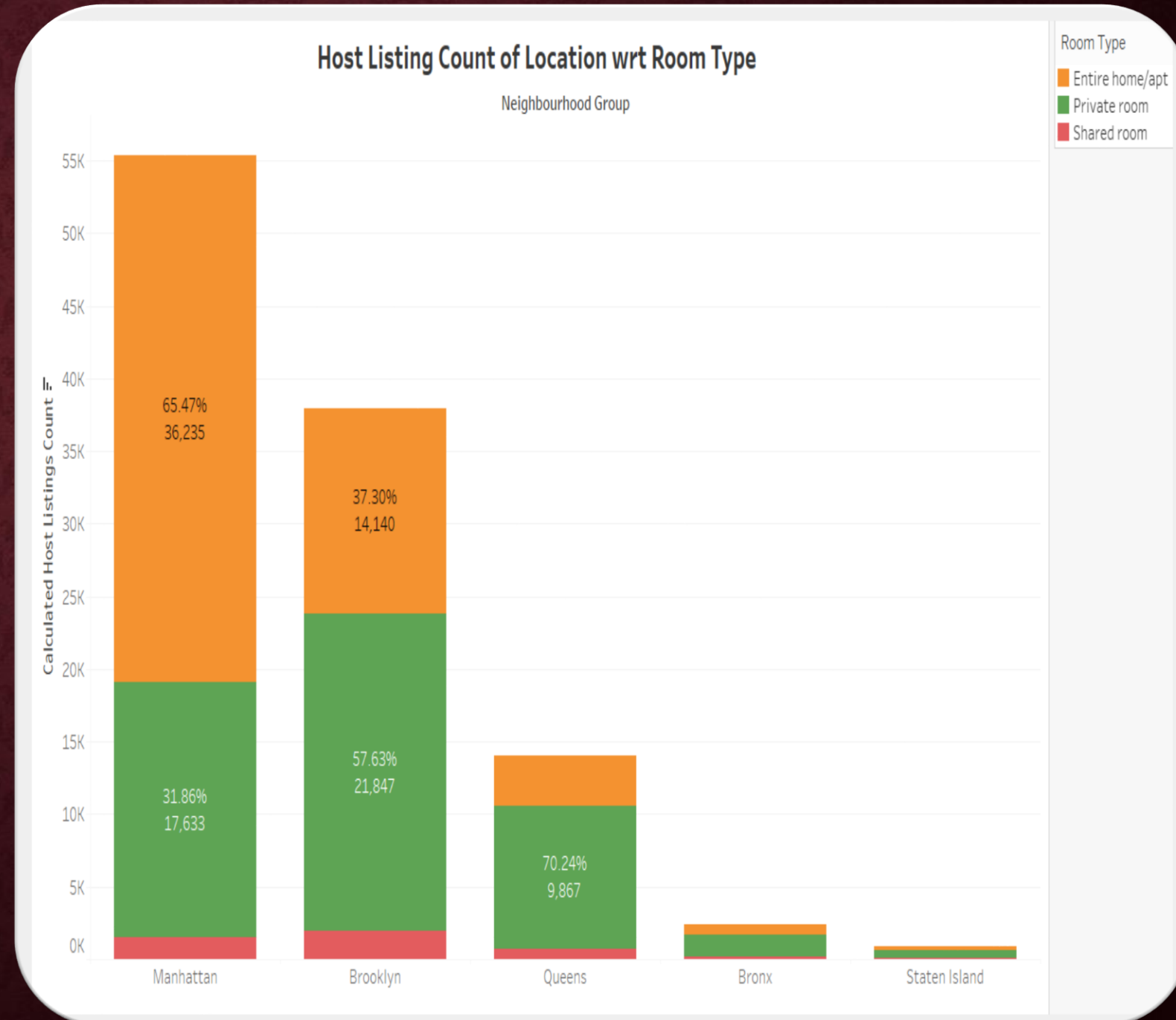
TOP 25 AREA BY NO OF REVIEWS & THERE AVG MINIMUM NIGHTS

- **Bedford-Stuyvesant (Brooklyn) has the highest No of Reviews.**

- **Average amount of minimum nights is highest in Midtown (Manhattan).**

- **No area of Bronx & Staten Island location is under Top 25.**
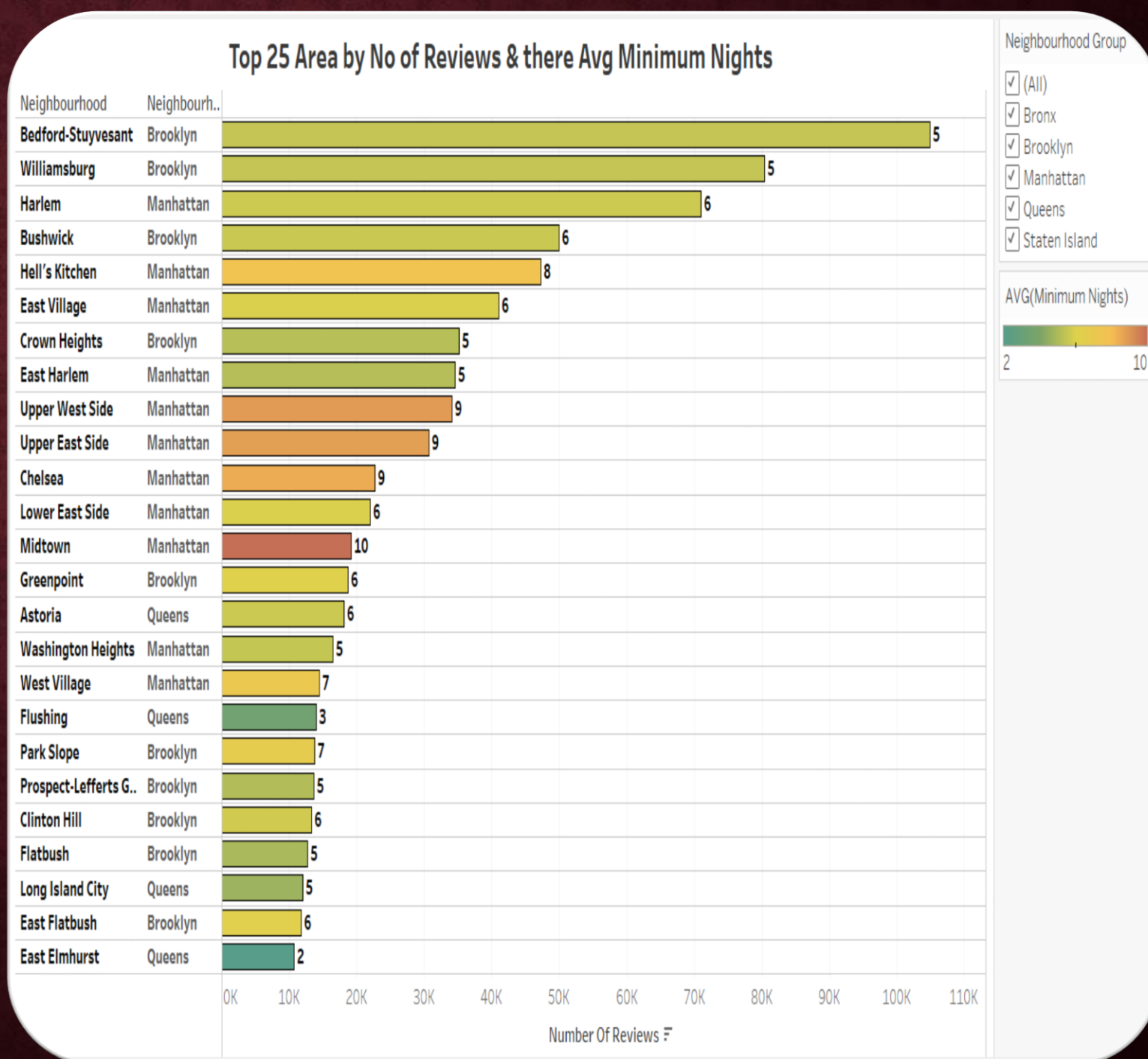
TOP 20 EARNING HOST W.R.T LOCATION

➢ **Sonder (NYC) has the maximum earnings.**

➢ **Manhattan has the maximum earnings in Top 20 followed by Brooklyn.**

➢ **No host from Queens, Bronx & Staten Island location is under Top 20.**

Top 20 Earning Host wrt Location

Host Name

Host	Price
Sonder (NYC)	$81,878
Blueground	$69,741
Kara	$31,947
Red Awning	$29,351
Sonder	$20,451
Jeremy & Laura	$20,060
Pranjal	$18,864
Ken	$18,541
Corporate Housing	$13,308
Ruchi	$12,149
Bluebird	$9,350
Stanley	$8,585
Vida	$7,758
Host	$7,440
Rated	$7,273
Sally	$4,792
Chayla	$7,188
Yaacov	$7,180
The Box House Hotel	$6,962
Henry	$6,589

Neighbourhood Group
- ☑ (All)
- ☑ Bronx
- ☑ Brooklyn
- ☑ Manhattan
- ☑ Queens
- ☑ Staten Island

Neighbourhood Group
- ■ Brooklyn
- ■ Manhattan

Price

RECOMMENDATION

➢ Acquire more of Entire home/apt and Private room hosts than shared rooms as they are in demand to maximize the revenue.

➢ We should concentrate on increasing our amount of listings per host in Staten Island and Bronx because we have very less listings on this locations and a feedback system should be reviewed in order to have more reviews from this two locations.

➢ Focus more on those locations i.e. Manhattan & Brooklyn where the revenue generations is pretty high compared to other locations which are popular among the customers.

APPENDIX – DATA SOURCE

➢ **DATA SOURCE : NYC AIR-BNB data-set provided.**

➢ **The data-set columns are self-explanatory.**

➢ **Here is a snapshot of our data dictionary.**

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

APPENDIX – DATA METHODOLOGY

- Data understanding, preparation and pre-processing :

➢ Reading and Understanding data.

➢ Treating missing values.

➢ Treating outliers.

We used python jupyter notebook to perform this steps.

- Used Tableau for data visualization for deeper analysis.

- The methodology document file has been attached with it which has the overall process and snapshot of our whole analysis.

APPENDIX – DATA MODEL ASSUMPTIONS

➢ We assumed the data prior to the COVID - 19 period was achieving the desired revenue.

➢ The company's strategies are decided considering the travel will increased in the post COVID period.

➢ After global COVID - 19 limitations are loosened the business plans will be developed in light of the anticipated increase in travel.

THANK YOU