



Storytelling Case Study: Airbnb, NYC



airbnb.com

Belong Anywhere

For Data Analysis Managers And Lead Data Analyst



AGENDA :

- Objectives
- Understanding & Assumptions
about of the Data
- Background Summary
- Important Findings
- Appendix - Data Methodology
- Team Background and Details





OBJECTIVES:

- Enhance our all-around understanding of the effect of Covid-19 on economic and market essentials for the Airbnb Community.
- Furnish details and gather insights to our Lead Data Analyst & Data Analysis Manager about the impact.
- Improve our shared understanding of the challenges and gaps we faced during our Research phase and Data Preparation..



UNDERSTANDING AND ASSUMPTIONS OF THE DATA:

- Assuming the sites hosted on the platform are not providing a better user experience to the end consumers and there could be another competitor capturing the market share
- working on company's Data and taking access from the company for Data for analysis
- The data provided is grasped from the Customer relationship management tool used by Airbnb to manage their customers that are hosting sites on their platform.
- The examinations provided in the data frame are considered to be positive as it is not mentioned whether they are negative or positive reviews.



BACKGROUND SUMMARY:

- In the last few months, Airbnb has seen a major decline in revenue due to lockdown imposed during pandemic.
- All the five neighborhood's borough (New York City) – the Bronx, Brooklyn, Manhattan, Queens and Staten Island – have contributed around \$105 million in economic activity and supported 950 jobs in the outer boroughs past year-1.
- Hence provided the report in hand based on previous data caught, we need to analyze the patterns for declining profits and recommend certain recommendations to overcome



IMPORTANT FINDINGS:

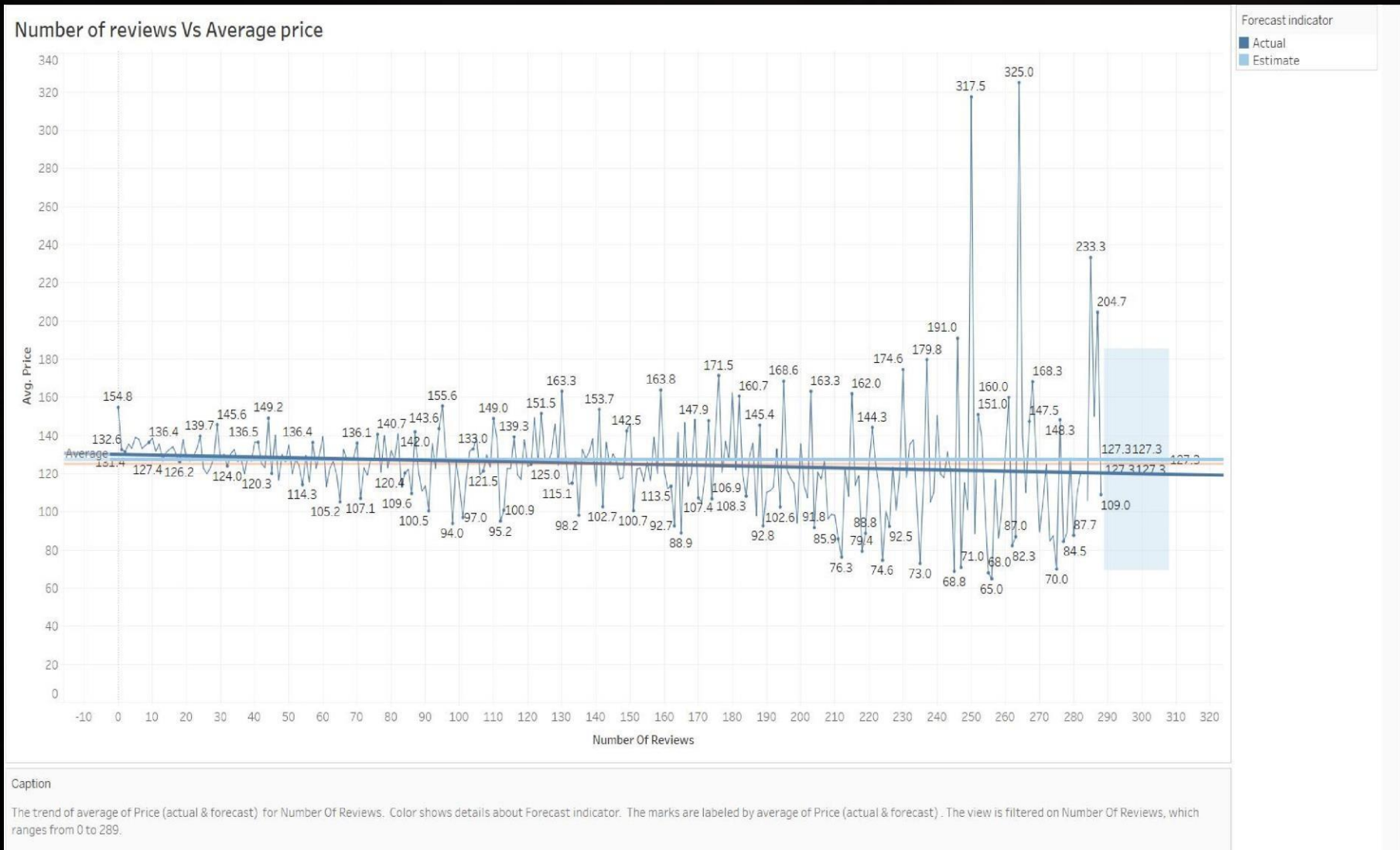
1. Correlation plot for checking correlation between the variables



- From Above Correlation plot we can say that there is no Strong Correlation between the Variables



2. Number of Reviews vs Average Price

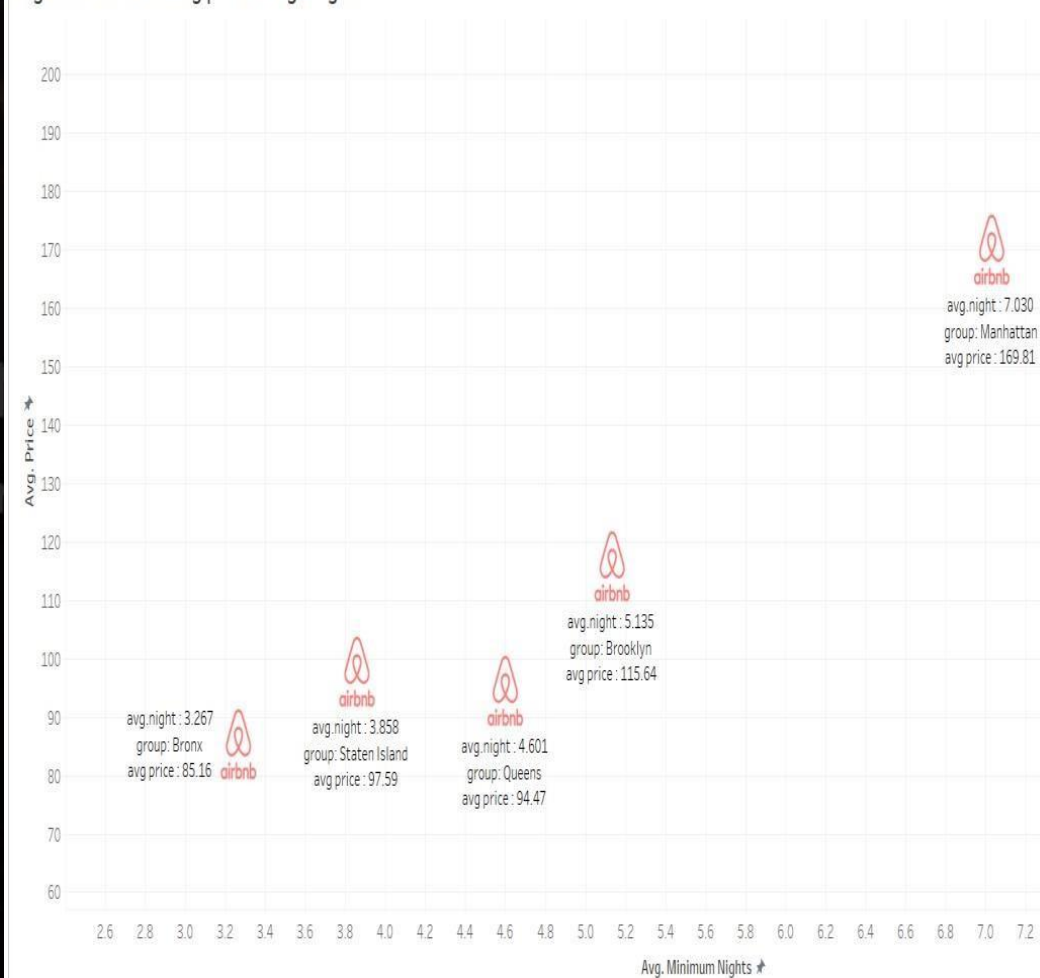




3. Price Analysis

- Manhattan is the only Neighborhood in the Borough that lies in offering the Highest Price range of properties on the platform followed by others with a Medium Price range on average. Prices offered above 120\$ on average are a High Price, between 80\$ to 120\$, Medium Price range and less than 80\$ to be considered Low Price range property.
- Manhattan has the highest number of places listed around more than 10 by a single host with an average price of 230 \$ followed by Brooklyn with an average price of 108\$. On the other hand, all the hosts have less than 2 properties listed in either of the Borough on an average price range between 80 \$ to 170 \$.
- The majority of the customers prefer a price range of 120\$ to 130\$ on average for a stay. As most of them have provided a good number of reviews within this price range. And it is forecasted to be at 126.83 \$ in the upcoming future.

highest Price offering per average nights





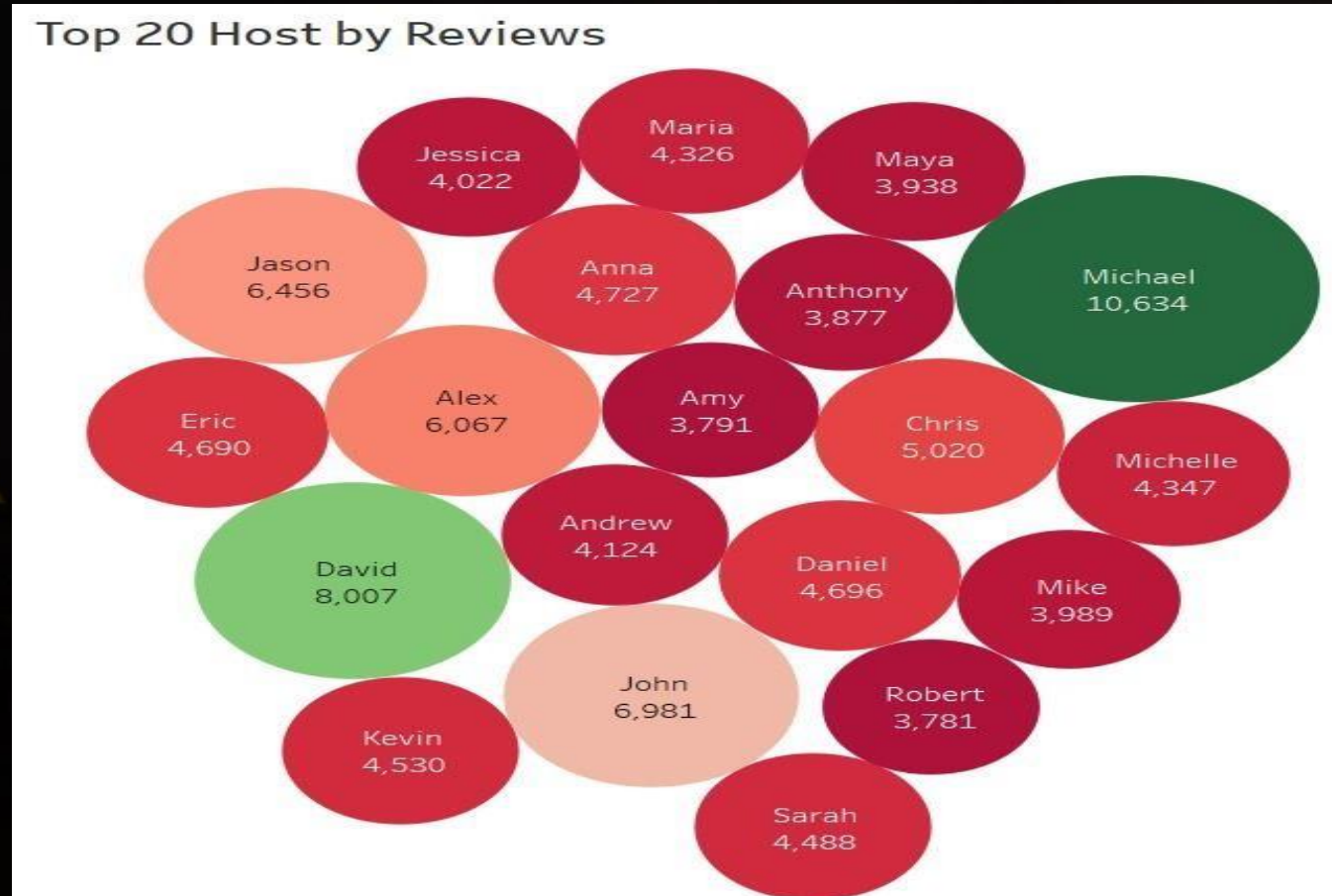
4. Location Analysis



- Staten Island - Silver Lake, Staten Island - Richmond town, Staten Island - Eltingville, Staten Island - Huguenot and Brooklyn - Manhattan Beach are the Top 5 locations with Low Price ranges that have received the highest number of reviews on average being the lowest in the Price range. On the contrary, Queens - Deposit, Manhattan - NoHo, Manhattan - Tribeca, Staten Island - Willow brook and Manhattan - Flatiron District is the highest in the Price range and have received a low number of reviews.



5. Top 5 host by reviews



From Above chart we can say that - Top Location Based type of hosts are **Michael, David, Alex, John and Daniel** those seems to have received the highest number of reviews for their listed sites and have also sites listed with a High price range.



6. Property Analysis

“WELCOME, TO BROOKLYN” PARKSIDE VIEW STUDIO APT”, “Oasis on the Park”, “HELLO BROOKLYN” PARKSIDE VIEW NEWLY RENO APT”, “Comfy Home Away From Home/Multiple rooms”, “LOVE BROOKLYN” Newly Renovated Studio APT” and “Cozy Retreat” in North Crown Heights” are the Top 6 listed places that have received the highest number of reviews.

“Modern Duplex - Central Chelsea!!!” in Manhattan-Chelsea, “Spacious & Bright 3BRs Near Subways, Parks, Shops” in Brooklyn-Cobble Hill, “NYC LUXURY3 BEDROOMS IN MIDTOWN EAST & GYM& BALCONY” in Manhattan-Murray Hill, “An Artist's Inspiration: Sun-Soaked Chelsea Loft” in Manhattan-Chelsea and “Upper West Side elegance. Riverside” in Manhattan-Upper West Side are the Top 5 hosted places with highest price offerings



APENDIX: DATA METHODOLOGY

1. Methodology Approach

- a. Research Problem
- b. Business Understanding
- c. Type of Data Require
- d. Data Source
- e. Whom are we presenting?
- f. Analysis Done
- g. Recommendations

2. Method of Analysis along with code

- a. Data Understanding and Preparation
- b. Variables overview
- c. Handling missing values and outliers
- d. Feature selection / engineering
- e. Analyzing methods
- f. Matrix used Analysis
- g. Evaluation of Methods

3. Training Methods:

- a. I. Python Using CRISP-DM methodology, Data Understanding, Pre-processing and general Univariate and Multivariate Analysis.
- b. II. Tableau & Excel used for in-depth Bi-Multivariate Analysis Finding and Insights

5. Finding and Insights



THANK YOU

