Storytelling Case Study: Airbnb, NYC

For Data Analysis Managers And Lead Data Analyst

AGENDA :

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OBJECTIVES :

o Enhance our all-around understanding of the effect of Covid-19 on economic and market essentials for the Airbnb Community.

o Furnish details and gather insights to our Lead Data Analyst & Data Analysis Manager about the impact.

o Improve our shared understanding of the challenges and gaps we faced during our Research phase and Data Preparation..

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UNDERSTANDING AND ASSUMPTIONS ABOUT 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.

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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 year1.

• 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.
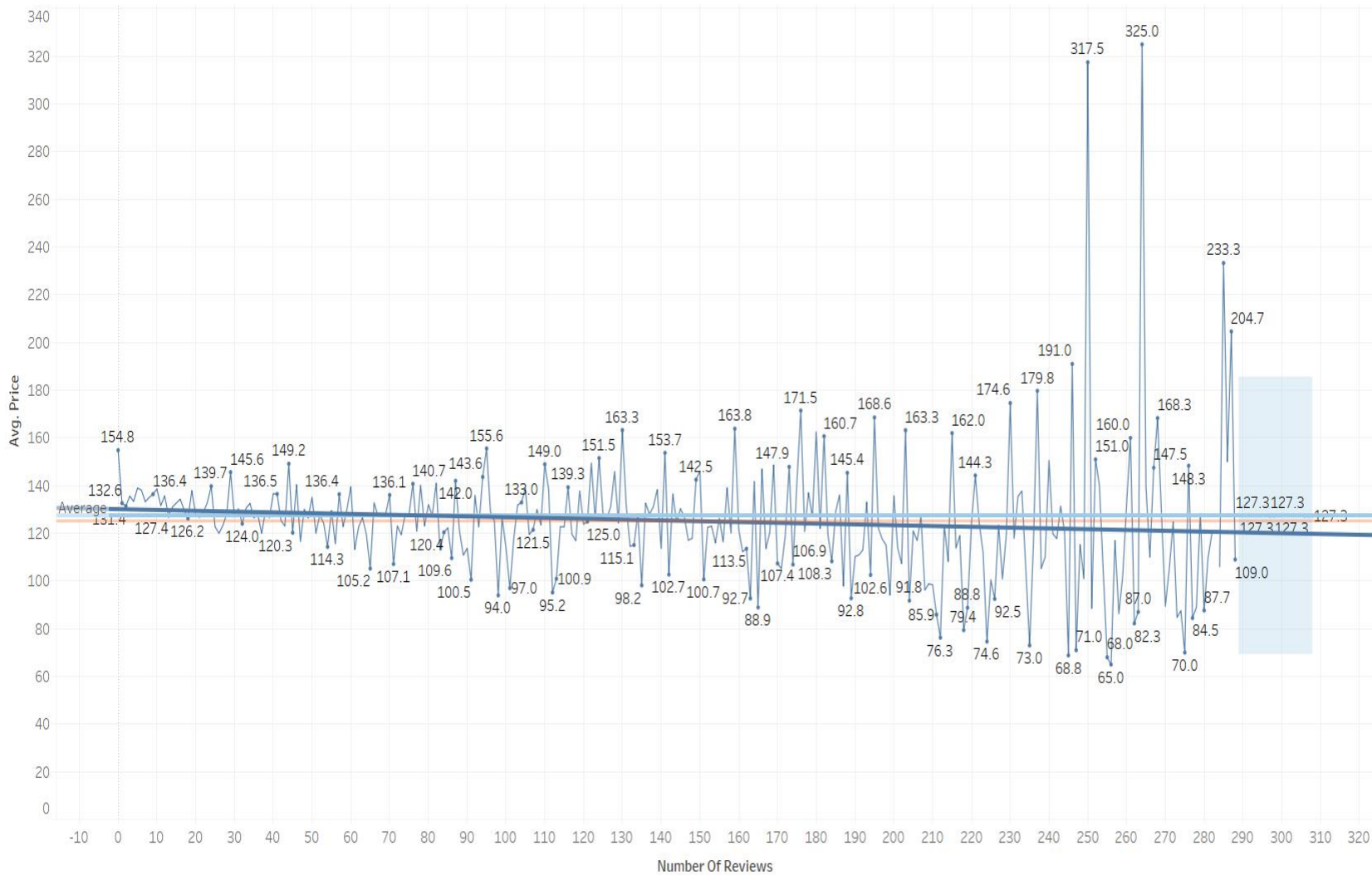
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Correlation Between Different Variables
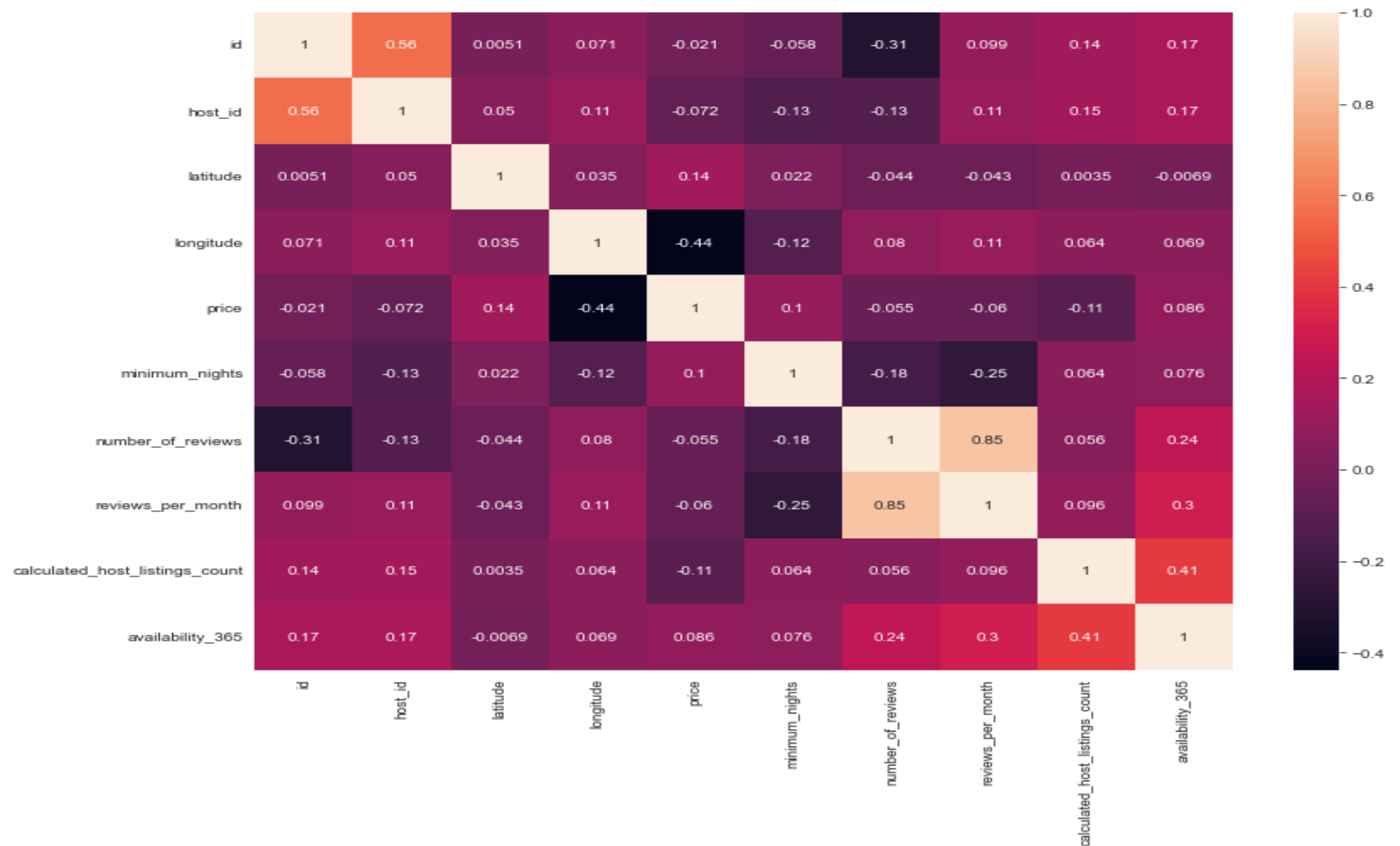
From Above 2 Charts we can Conclude that there is no Strong Correlation between the variables
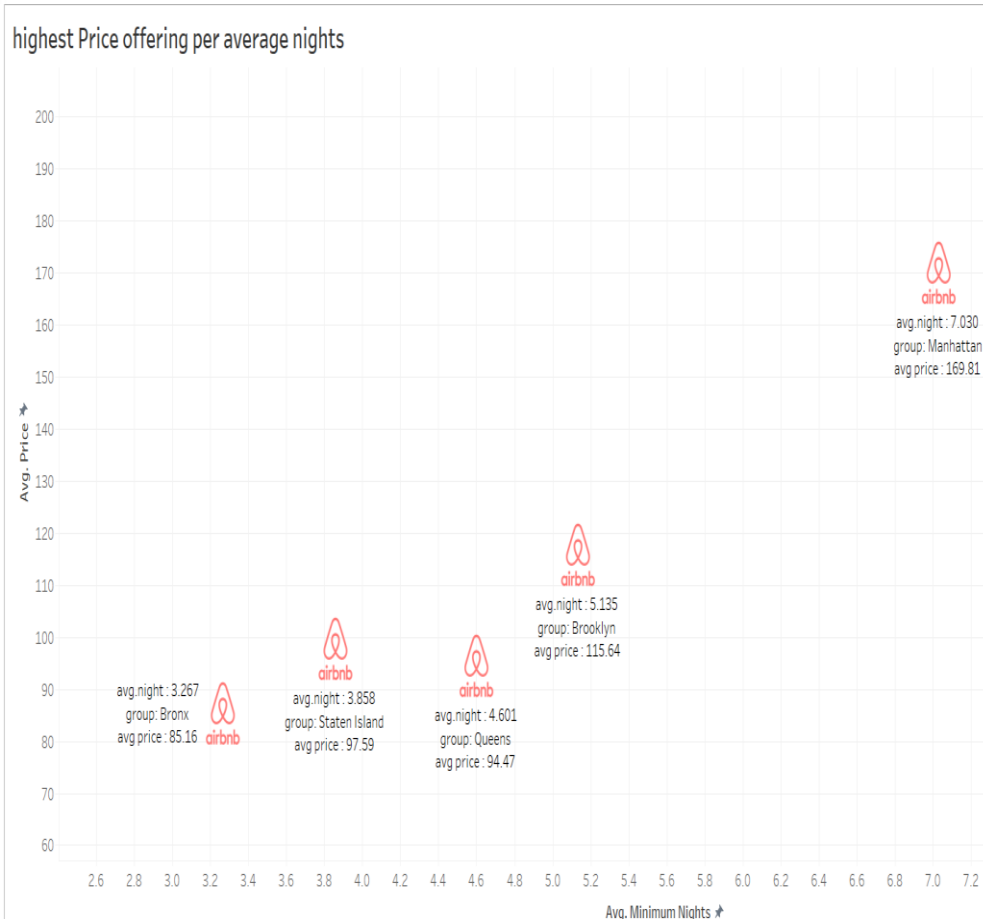
Number of reviews Vs Average price

Caption

The trend of average of Price (actual & forecast) for Number Of Reviews. Color shows details about Forecast indicator. The marks are labeled by average of Price (actual & forecast). The view is filtered on Number Of Reviews, which ranges from 0 to 289.

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PRICE ANALYSIS:

highest Price offering per average nights

- Avg. Price ★
- avg.night : 7.030
  group: Manhattan
  avg price : 169.81
- avg.night : 5.135
  group: Brooklyn
  avg price : 115.64
- avg.night : 3.267
  group: Bronx
  avg price : 85.16
- avg.night : 3.858
  group: Staten Island
  avg price : 97.59
- avg.night : 4.601
 group: Queens
  avg price : 94.47

Avg. Minimum Nights ★

➤ 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.

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LOCATION ANALYSIS

Staten Island - Silver Lake, Staten Island - Richmondtown, 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 - Willowbrook and Manhattan - Flatiron District is the highest in the Price range and have received a low number of reviews.

Top 20 Host by Reviews
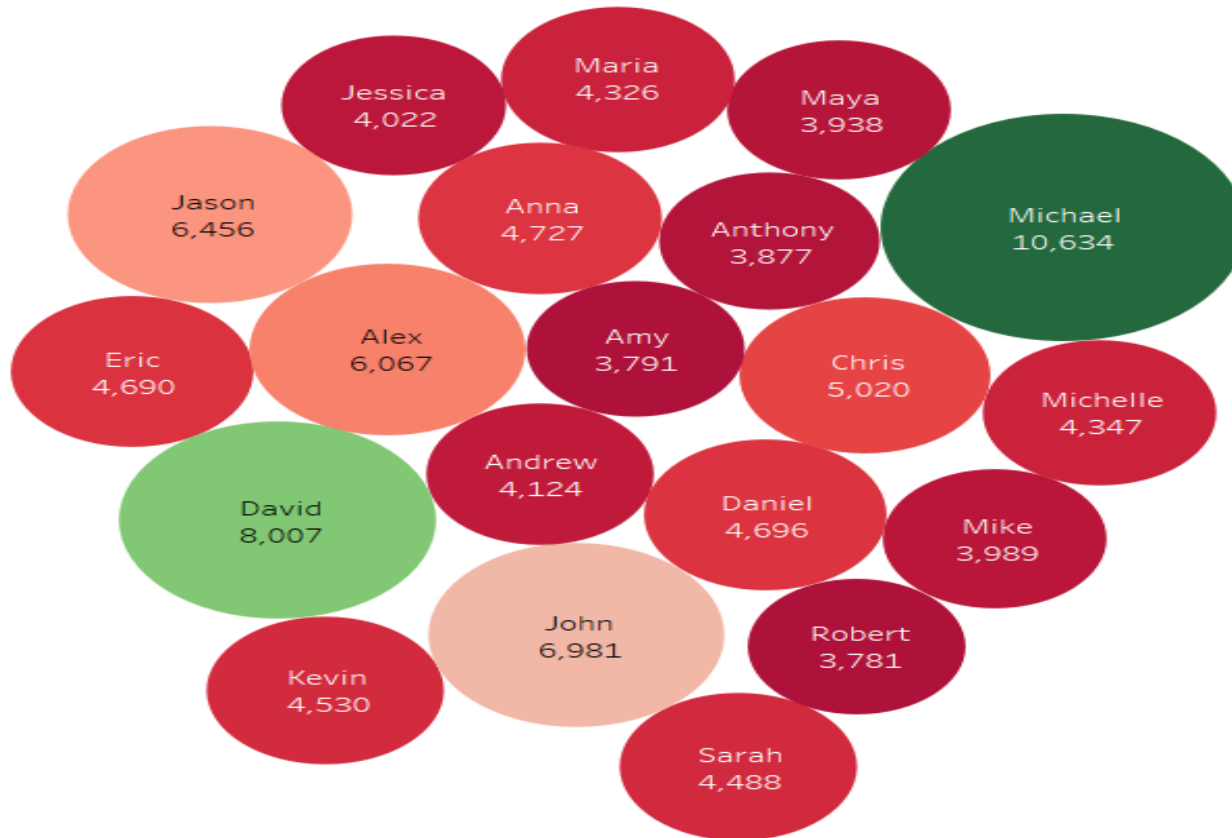
Top Location Based type of hosts are **Michael, David, Alex, John and Daniel** are the Top 5 hosts that seem to have received the highest number of reviews for their listed sites and have also sites listed with a High price range.

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 :
    I. Research Problem
    II. Business Understanding
    III. Type of Data Require
    IV. Data Source
    V. Whom are we presenting?
    VI. Analysis Done
    VII. Recommendations

2. Method of Analysis along with code:
    I. Data Understanding and Preparation
    II. Variables overview –
    III. Handling missing values and outliers –
    IV. Feature selection / engineering –
    V. Analysing methods –
    VI. Matrix used Analysis –

    VII. Evaluation of Methods

3. Training Methods :
    I. Python **Using CRISP-DM methodology,** Data Understanding, Pre-processing and general Univariate and Multivariate Analysis.
    II. Tableau & Excel used for in-depth Bi-Multivariate AnalysisFinding and Insights

4. Fetching insights :

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