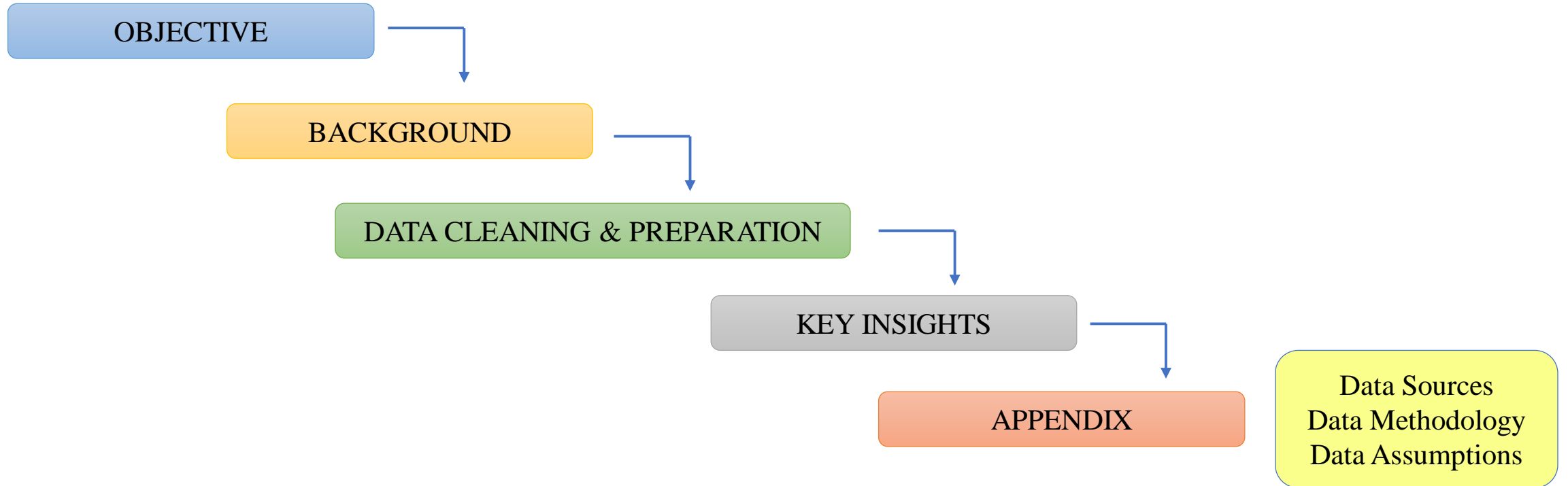


Insights for Driving Revenue Growth of New York's Airbnb



By:
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AGENDA



OBJECTIVE

- Analyze Airbnb's listings in New York City Enhance our strategies to ensure a swift recovery and capitalize on the resurgence in business post COVID-19 pandemic.
- Delve into the pre-pandemic period of New York Airbnb's business to extract valuable insights.
- Predict post-COVID travel preferences by understanding evolving customer choices and inclinations.

Background

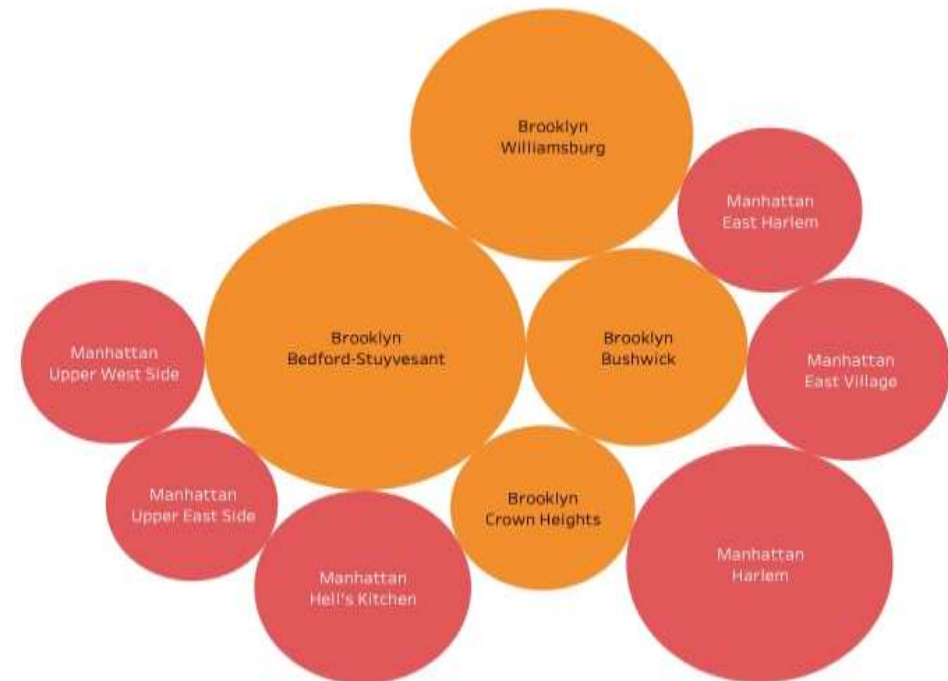
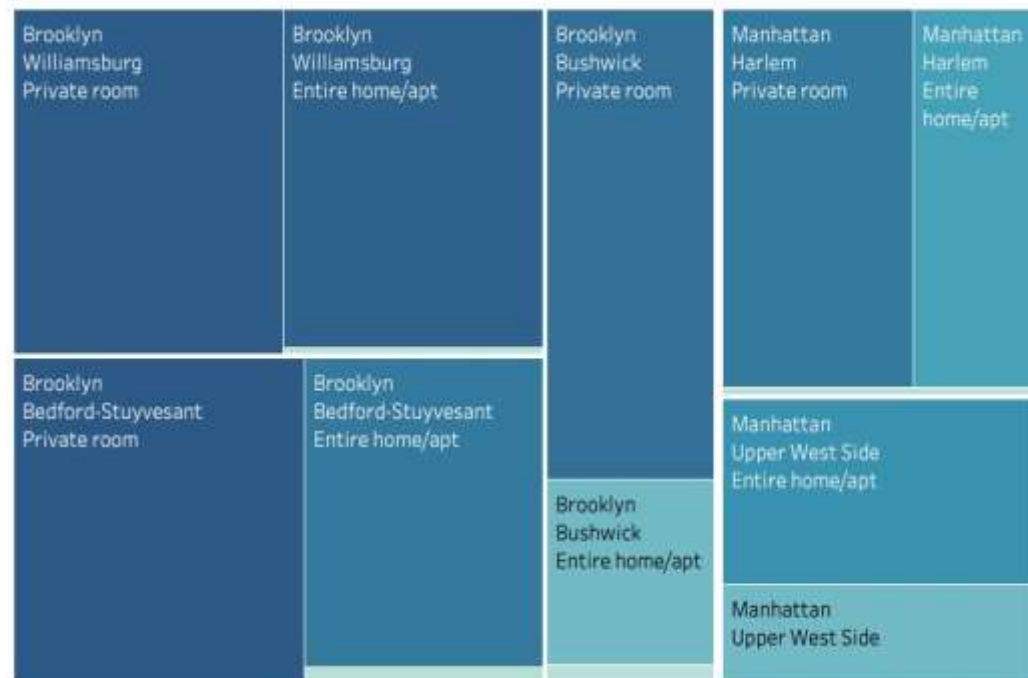
- Airbnb is a global online marketplace for vacation rentals, lodging, and tourism activities.
- Founded in 2008, Airbnb has grown rapidly and become a major player in the travel industry however, Airbnb has experienced a critical decline over recent months.
- This decline can be attributed to various factors, including the COVID-19 pandemic, travel restrictions, and economic uncertainty.
- With the relaxation of restrictions and an uptick in travel activities, Airbnb aims to proactively adapt to this changing landscape.
- Airbnb is intending on optimizing its operations and strategies to ensure a swift recovery and capitalize on the resurgence in travel.

Data Cleaning and Preparation

- Missing values in the data were filled in.
- Numeric columns were condensed to get an overview of how the data is spread out and to understand its features better.
- Correlation was examined to see how strongly and in what direction two variables are related in a linear manner.

Top Neighborhoods And Room Types in New York

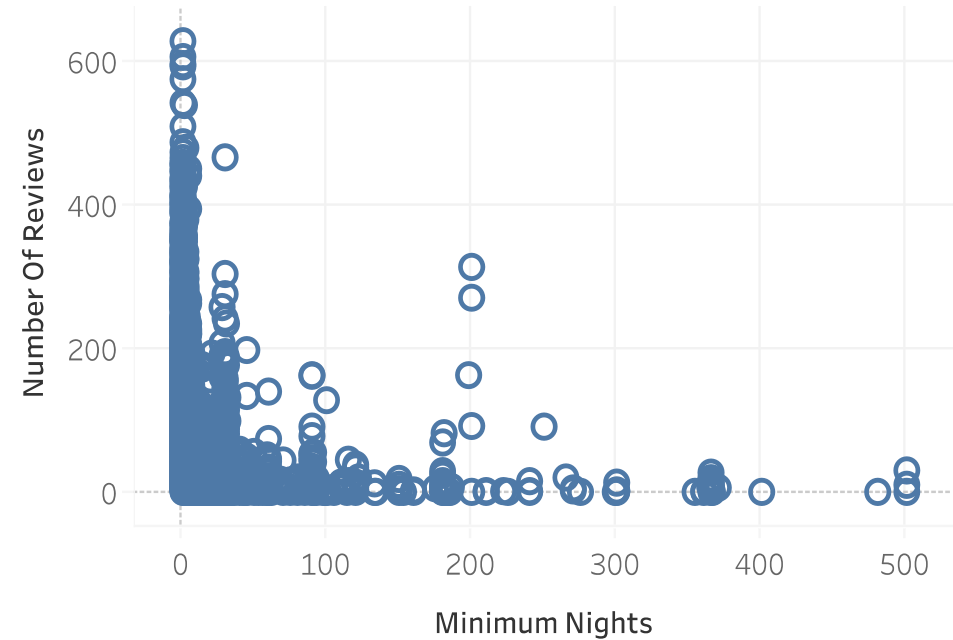
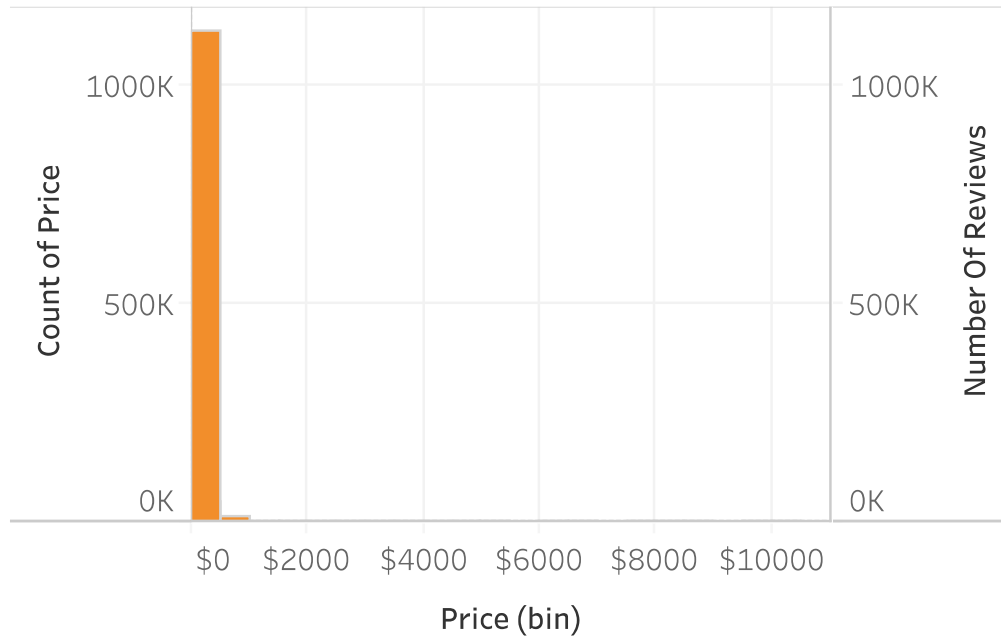
Within New York City, **Bedford-Stuyvesant, Brooklyn** emerges as the standout neighborhood on Airbnb, attracting a significant demand. This area garners distinction by amassing an exceptional count of reviews which is **20% of overall reviews**, primarily attributed to the popularity of **private room** with the count of **2038 listings**.



Most Customers Favor \$500 or Less and Minimum One Night

Most customers exhibit a preference for accommodations falling within the price bracket of **\$0 to \$500**.

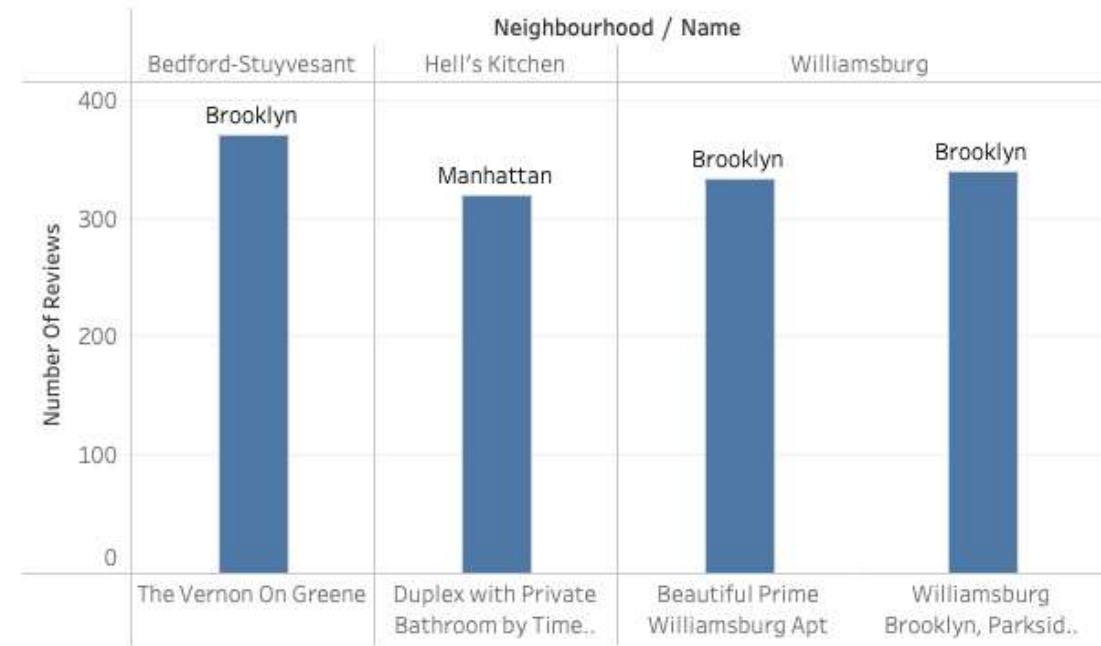
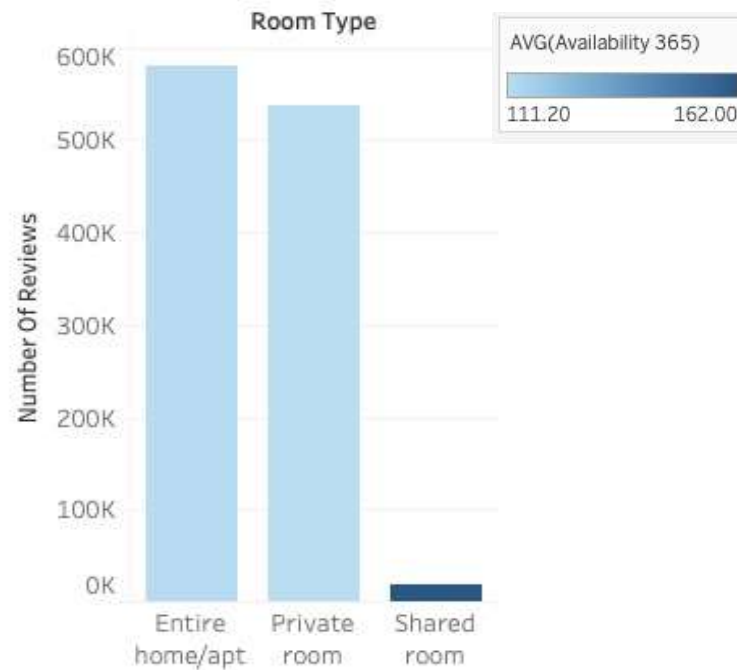
Furthermore, a noteworthy trend emerges as most customers lean towards a **minimum stay of one night**, showcasing a commonality in their booking behaviors.



Preference for Room Type and Neighborhood

There is a strong customer preference for **Entire Home/Apartment & Private Rooms (98%)** with very low availability, with a significantly **lower demand** for **Shared Rooms (2%)** among Airbnb users with very high availability.

The top listings in New York City, as per customer interest, include **The Vernon On Greene, Duplex with Private Bathroom near Times Square** and **Beautiful Prime Williamsburg Apt** and **Williamsburg Brooklyn, Parkside Penthouse NYC View**.



Appendix - Data Sources

Data Source: New York Airbnbs Dataset https://cdn.upgrad.com/uploads/production/bbf31a02-833b-43be-835d-b8d27753605f/AB_NYC_2019.csv

Note: The price column contains the price/night.

| 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 |

Categorical Variables:

- room_type
- neighbourhood_group
- neighbourhood

Continous Variables(Numerical):

- Price
- minimum_nights
- number_of_reviews
- reviews_per_month
- calculated_host_listings_count
- availability_365
- Continous Variables could be binned in to groups too

Location Variables:

- latitude
- longitude

Time Varibale:

- last_review

Appendix - Methodology

Data Acquisition and Understanding:

- Acquired the New York's Airbnb dataset relevant to the business problem.
- Analyzed and understood the dataset structure and content.

Data Cleaning and Preparation:

- Cleaned and pre-processed the dataset in Excel to address any inconsistencies or missing information.
- Prepared the dataset for visualization by transforming and organizing it into a suitable format.

Data Visualization and Insights Generation:

- Utilized Tableau to create various charts and graphs.
- Implemented relevant filters within the visualizations to focus on specific aspects of the data.
- Analyzed the visualizations and extracted key insights relevant to the business problem.

Appendix - Assumptions

- Airbnb's revenue prior to the COVID-19 pandemic was satisfactory.
- Airbnb has no immediate plans to expand into new territories within New York City.
- Airbnb's plans are formulated assuming that travel will rise again in the period after COVID-19.