The Dynamics of New York's Airbnb
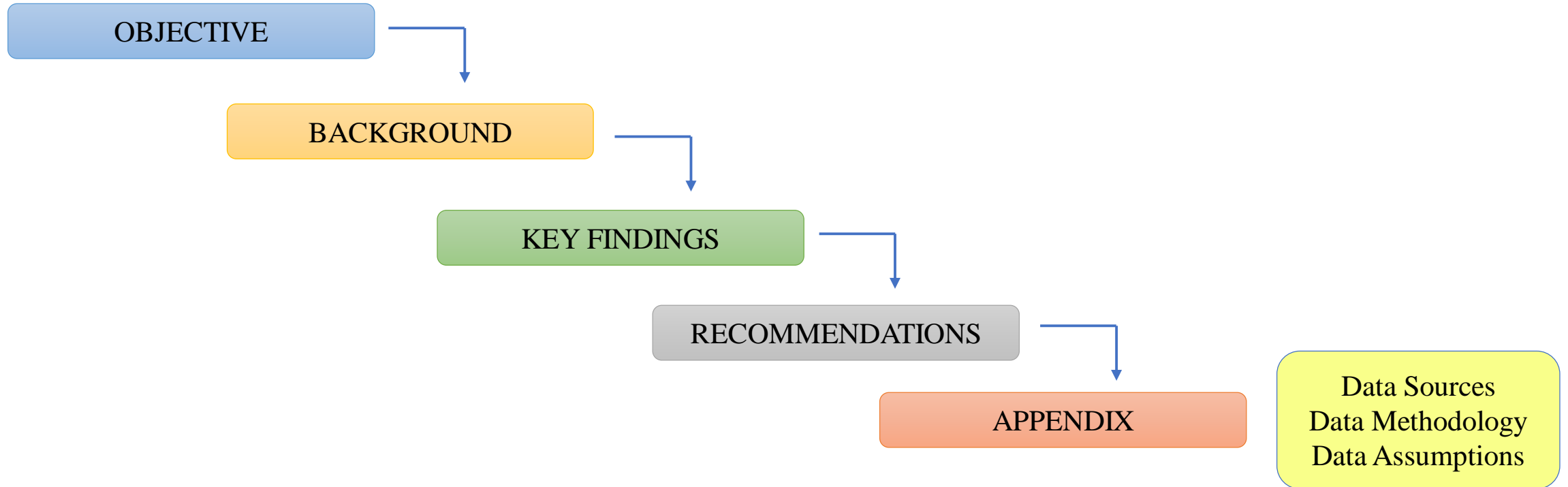
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OBJECTIVE

To analyze Airbnb listings in New York City and identify data-driven insights that can help Airbnb increase revenue and prepare for the revival of travel.

- Identifying preferred hosts and locations for acquisition.

- Categorizing customers by preferences.

- Targeting specific neighborhoods.

- Determining pricing preferences.

- Understanding property types and adjustments.

- Identifying popular areas in New York.

- Strategies to boost unpopular property traction.

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.

Type of hosts to acquire more and Neighborhood

In New York City, **Bedford-Stuyvesant, Brooklyn** stands out on Airbnb, drawing considerable attention. This neighborhood is distinguished by amassing a remarkable 20% of total reviews, largely due to the popularity of its 2038 **private room** listings.
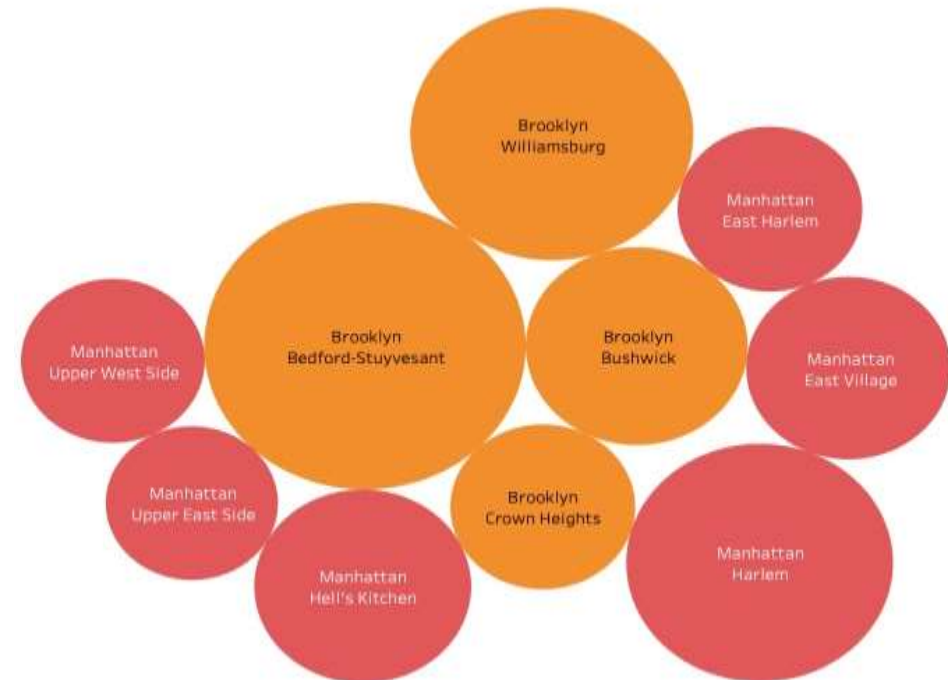
Most Customers Favor $500 or Less and Minimum One Night

Most customers prefer accommodations priced between **$0 and $500**. Additionally, a prevalent trend reveals that customers commonly opt for a **minimum stay of one night**, indicating a consistent booking behavior.
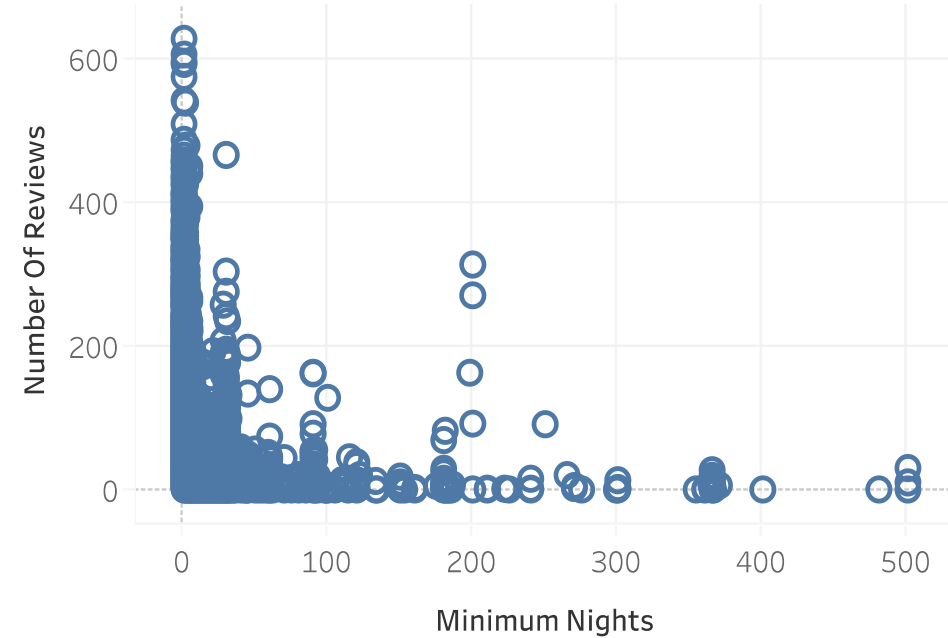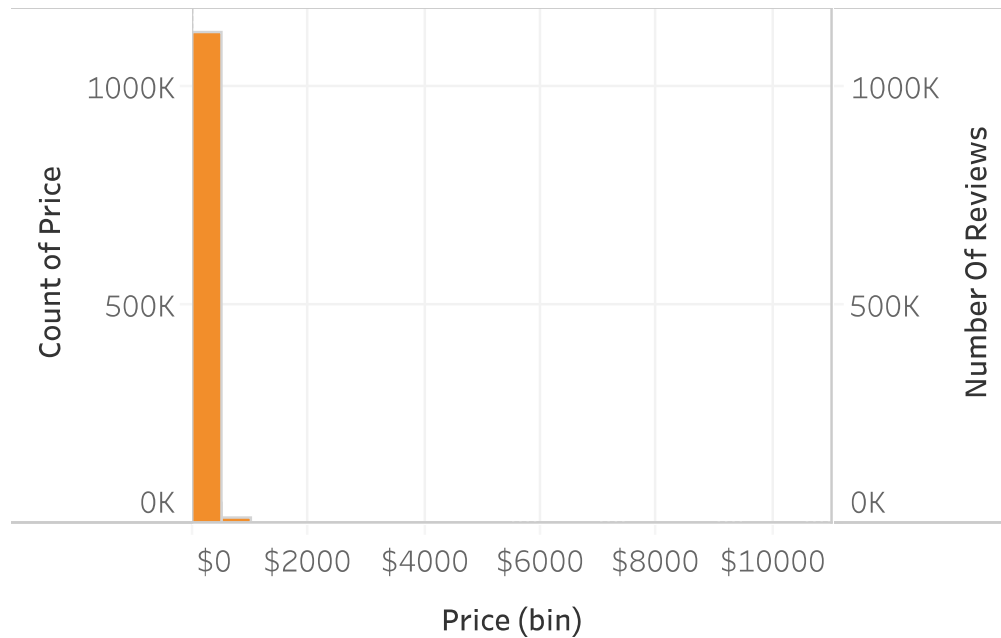
Embrace Customer Preferences for Entire Home/Apartment, Private Rooms and Top NYC Hotspots

Customers show a strong inclination toward **Entire Home/Apartment & Private Rooms**, while there's notably **lower demand** for **Shared Rooms** among Airbnb users.

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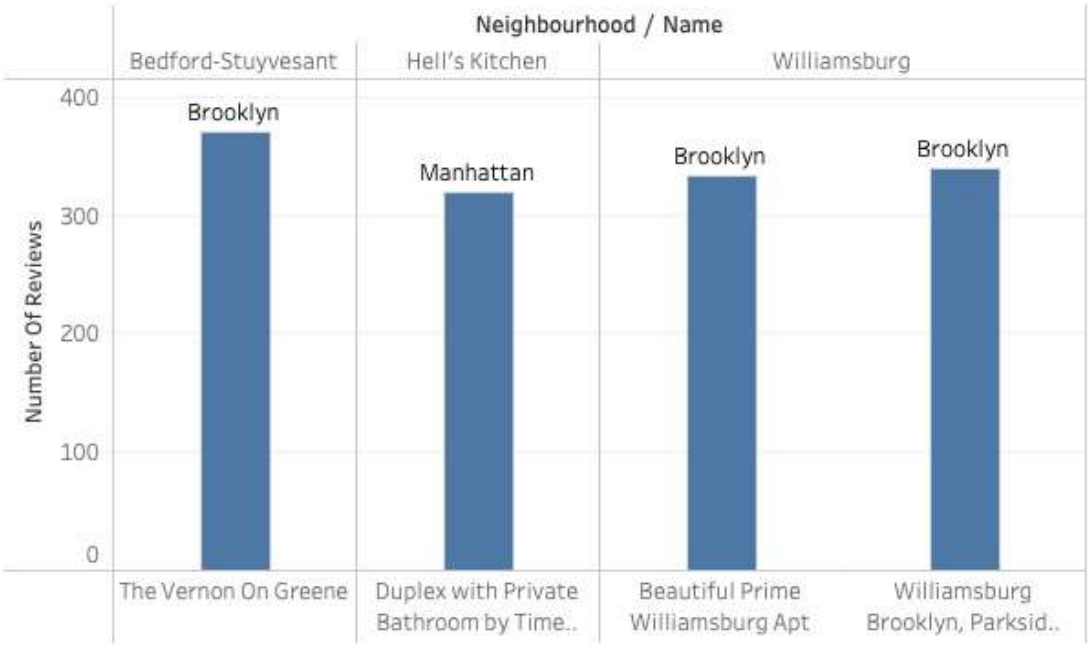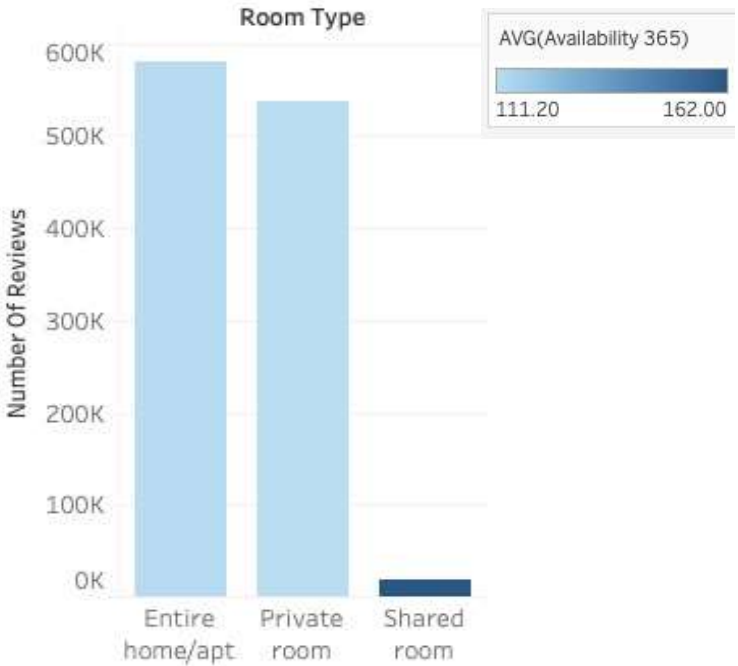
RECOMMENDATIONS

- Prioritize Bedford-Stuyvesant for Property Acquisition and Marketing Efforts

- Tailor Pricing Strategies to Budget-Conscious Travelers

- Encourage Longer Stays with Attractive Packages

- Focus on Entire Home/Apartment and Private Room Listings

- Leverage Popularity of The Vernon On Greene, Duplex with Private Bathroom, and Beautiful Prime Williamsburg Apt

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 Varibles:
    - 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.