Airbnb Case Study- Strategies to increase revenue

AGENDA

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

OBJECTIVE

- Generate insights which will help to increase revenue for Airbnb
- Improve understanding of current customer preferences and user experience in New York City
- Provide recommendations to acquisition and operations teams for new acquisitions and improve user experience

BACKGROUND

- Airbnb revenue has been declining significantly in the last few months
- With removal of restrictions travel is expected to go up
- Airbnb wants to be prepared to increase revenue

AIRBNB SHOULD FOCUS ON STATEN ISLAND AND BRONX TO DRIVE REVENUE

- Majority of properties are focused in Manhattan and Brooklyn

- To get unpopular properties more traction Airbnb should focus on the less popular neighborhoods like Staten Island

- Premium properties in Manhattan should be focused on as they attract maximum bookings despite high price

85% of properties are concentrated in Brooklyn and Manhattan
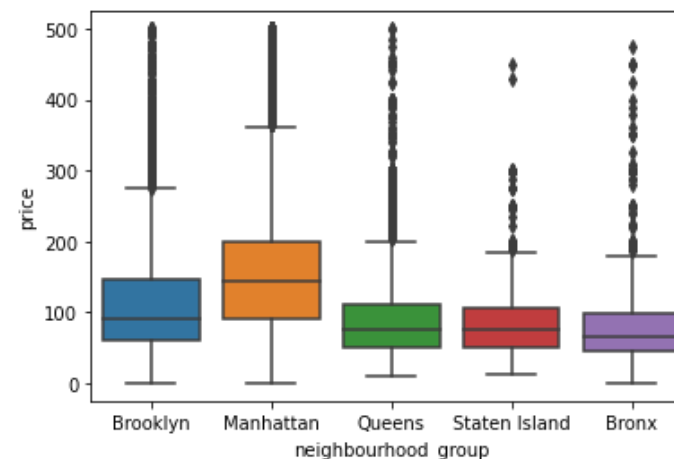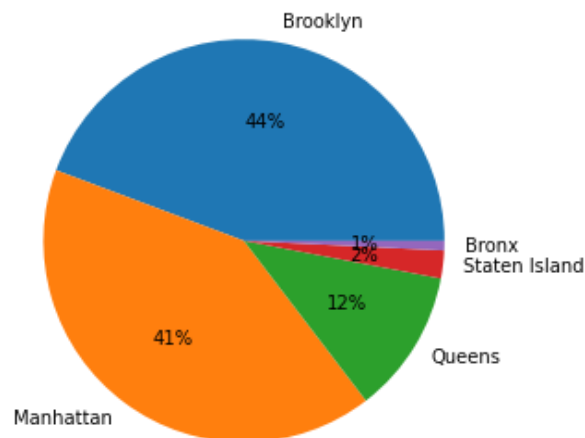
ENTIRE APARTMENTS SHOULD BE PRIORTIZED FOR NEW ACQUISITIONS

- Private rooms and Entire homes contribute to ~98% of properties and entire homes account for higher price

- Airbnb should focus on Entire homes/apartments to drive revenue

- Shared rooms should be deprioritized

Shared rooms contribute to ~2% of properties and lower priced rooms
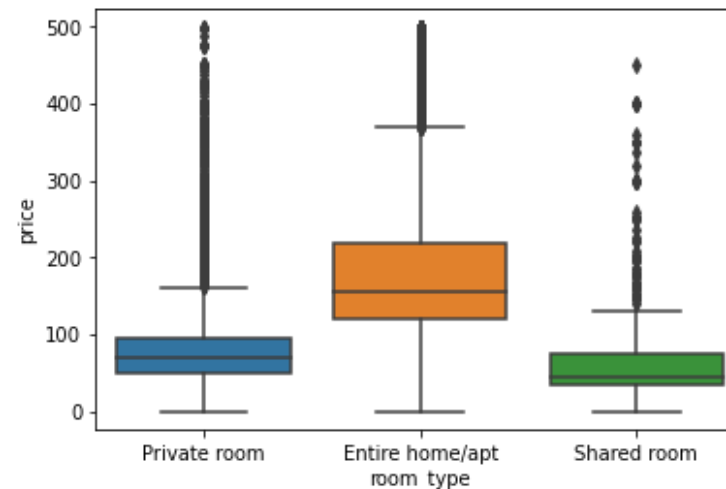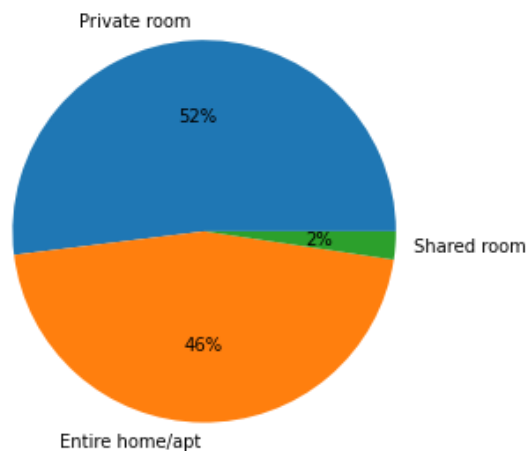
AIRBNB SHOULD FOCUS ON ROOMS WITH LOW MINIMUM NIGHTS REQUIREMENT

- Properties with low minimum nights requirement are more preferred followed by properties with minimum 30 days requirement

- Airbnb should focus on rooms with low minimum night requirements and apartments with 30 days minimum requirements as these are preferred by tenants who wants to book them for entire month

Majority of hosts have <7 days as minimum night requirements
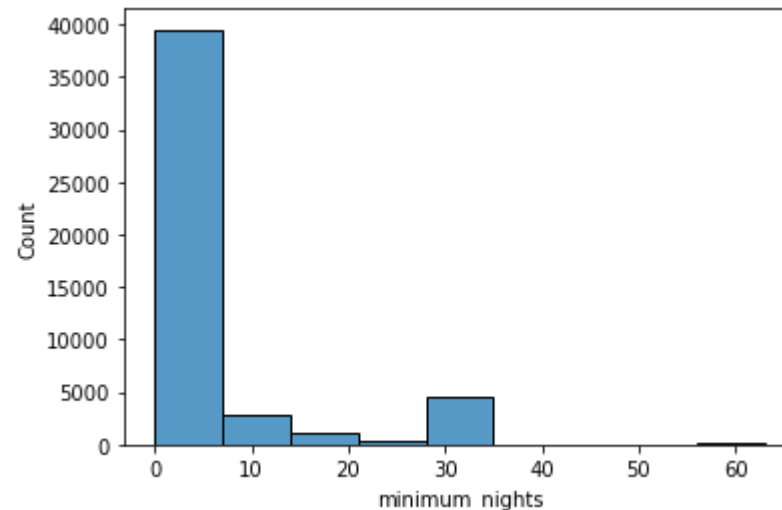
Appendix – Data Attributes

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

Dataset Description

○ New York Airbnb dataset contains information about different Airbnb listings along with their hosts, locations, prices and other attributes.

○ The columns in the dataset are self-explanatory. You can refer to the diagram given below to get a better idea of what each column

Appendix – Data Methodology

Performed an in-depth examination of the dataset containing New York Airbnb information:

- Employed Python to clean the dataset, addressing missing values and outliers.

- Utilized exploratory data analysis techniques to discern customer preferences.

- Applied group aggregation, pivot tables, and various statistical methods for in-depth analysis.

- Generated charts and visualizations using Matplotlib and Seaborn libraries in Python.

Appendix – Data Assumptions

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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
```

Variable Categories

- Assuming a classification of variables into distinct types, including categorical, numeric, location, and time. The significance lies in discerning the appropriate plotting method for each variable.

- Assuming the data from the pre-COVID-19 period reflects the intended revenue outcomes.

- Assuming the company's strategies are formulated under the expectation that travel will increase in the post-COVID period.