**Airbnb Bookings Analysis**

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**Abstract:**

Airbnb has allowed guests and hosts to broaden their travel options and present a more distinctive, personalized way of seeing the world.

Airbnb has evolved into a one-of-a-kind service that is used and recognized all over the world.

The company's data analysis of millions of listings offered by Airbnb is a critical aspect.

As a result of our experiments, we can determine which hosts are the busiest, which rooms guests prefer, and who got the maximum number of reviews. From the data, we can understand why these hosts or neighborhood groups are so busy.

**Keywords: Eda, Airbnb businesses model, pricing, Airbnb neighborhood group**

**1.Problem Statement**

From the Airbnb data, we can see that guests and hosts have used Airbnb to expand on travel possibilities and present a more unique, personalized way of experiencing the world. Airbnb has evolved into a one-of-a-kind service that provides a premium service to the entire world. Data analysis on millions of listings provided through Airbnb is a crucial factor for the company. These millions of listings generate a lot of data—data that can be analyzed and used for business decisions, understanding of customers and providers' behavior and performance on the platform, and helping with marketing.

**Basic Data Summary**

* id : It is an unique ID which represents a particular row
* name : This column represents the name of the Airbnb listing
* neighbourhood\_group: It consists of several neighborhoods categorized under 1 major group, there are such groups in this column
* neighbourhood : It has names of all the neighbourhoods
* latitude : Describes the horizontal coordinates of the listing
* longitude :Describes the vertical coordinates of the listing
* room\_type : Describes the types of rooms  listed in listings by the hosts. There are three categories of listings in his column
* price: It has the price of the  different type of rooms keeping in mind different neighbourhood groups
* minimum\_nights : The minimum number of nights that a tourist has to book
* number \_of\_reviews : Number of reviews that a particular place or a listing got. With this we can determine how much popular that place is among the tourists
* last\_review :  When was the last time that place was reviewed, this demonstrates how frequently, the host lists his place
* reviews\_per\_month : Number of reviews a place is getting per month on average
* Calculated\_host\_listings\_count **:** How many times on average does the host lists their properties
* availability\_365 : availability of the places listed by the host  throughout the year

**2.Introduction**

From Airbnb data has been utilized by guests and hosts since 2008 to increase travel options and provide a more distinctive, personalized way of experiencing the world.

Airbnb has evolved into a one-of-a-kind service that is used and recognized all over the world.

Our goal is here to find insights into the different hosts and their properties. From the  predictions we can know more about  locations, prices, reviews etc.

**3.What is Airbnb Business Model?**

Airbnb's business strategy, like Oyo's, is based on aggregation.

Airbnb is powered by an internet platform that connects all of the components of the model.

Individuals and hosts, who are key components inside the Airbnb process, are Airbnb's most valuable assets.

Airbnb serves as a connecting point for both hosts and travelers.

Hosts can list their property for rent, and if someone wants to stay there, they will be paid rent.

# **4.How Airbnb Makes Money**

The sharing economy, also known as the peer-to-peer economy, is a commercial or economic model.

Airbnb connects travelers looking for low-cost lodging with hosts who rent out their properties on a short-term basis.

Based on the listing, renters are charged a nonrefundable service fee of less than 14.2 percent.

Hosts are also charged a fee of up to 3% for each completed booking.

**5.Steps involved**

* **Importing data**

After importing the data, we first split the columns into categorical and non-categorical. Then we can see we have some missing values in the 'name', 'host\_name', 'last\_review', and'reviewes\_per\_month'. So, drop those columns.

* **Maximum number of listings and in which neighbourhood**

We checked that Sonder has the maximum number of listings and is in the Manhattan neighborhood. And guests love to use the entire home/apartment for the wide spaces and the luxuries, compared to private rooms and shared rooms

* **Highest number of reviews**

Chart, pie chart

Description automatically generatedWe can clearly see that Queens got the highest number of reviews with 629, and of course, it's also the highest in percentage of reviews.

* **Average price of rooms in neighbourhood group**

We can conclude that shared room prices in Manhattan are quite high when compared to other neighbourhood groups. This is due to its financial center, restaurants, and excellent museums.

Staten Island is less expensive than other neighbourhood groups because it is not well connected to the city; you must take the ferry every time.

The same is true for private rooms. Queens has the lowest property value in only entire home/apartment complexes.

* **Price comparison of different neighbourhood groups**

According to the chart, Manhattan has the most expensive Airbnb property because it is considered one of the world's foremost commercial, financial, and cultural centers.

Chart, bar chart

Description automatically generated

### **Busiest Hosts**

We can conclude from the foregoing that Dona has the most reviews. As a result, she is the most in demand Airbnb host .As I previously stated, Queens, a borough in New York City, NY, is home to excellent museums, five-star restaurants, tourist favorites, and famous attractions such as the giant World's Fair globe in Flushing Meadows and the USTA National Tennis Center. And based on the reviews, we can conclude that she has maintained a positive relationship with her customers.

Chart, bar chart, histogram

Description automatically generated

* **Conclusion –**

First and foremost, we can see that Sonder has the most listings, and its neighbourhood is Manhattan, owing to its fame and popularity as a tourist destination.

Second, people prefer to visit entire homes or apartments because they are obviously more luxurious than private or shared rooms.

As we can see, Queens and Manhattan have received the most reviews.

Dona and JJ also belong to these neighbourhood groups. We can conclude from this that Dona and JJ have better properties in these neighbourhood groups than the other hosts, and they, of course, have good customer relations.

Because of their extensive history, these locations perform admirably and are well connected to the rest of New York. Due to its connectivity with the other places, Manhattan has the most expensive property, while Staten Island has the cheapest.

When we compare the prices of these two neighbourhood groups, we notice a significant difference.

Other neighbourhood groups, such as Staten Island and the Bronx, have fewer listings, especially on Staten Island.

Many visitors may choose this property to save money.

**References-**

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Airbnb

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