PYTHON PROJECT 02

Exploratory data analysis

EDA-project-Airbnb-bookings-analysis

Introduction of Airbnb

*   Airbnb is a popular online platform that allows individuals to list, discover, and book unique accommodations around the world. It was founded in 2008 by Brian Chesky, Joe Gebbia and Nathan Blecharczyk, and has since become the largest and most successful home-sharing companies in the world.

*   Airbnb allows hosts to list their homes, apartments, or other properties for short-term rentals, and provides a platform for travelers to search for and book these accommodations. The platform includes a variety of listing types, including entire homes, private rooms, and shared rooms, and offers a wide range of price points to suit different budgets.

*   Airbnb has also become a popular choice for travelers who want to experience a destination like a local, rather than as a tourist. With more than four million listings in over 100,000 cities.

About the Dataset – AIRBNB BOOKINGS

Dataset Information
* Number of instances: 48895
* Number of attributes: 16

*   The Data includes both categorical and numeric values, providing a diverse range of information about the listings.

*   This Dataset may be useful for analyzing trends and patterns in the Airbnb market in New York and also gain insights into the preferences and behavior of Airbnb users in the area.

*   This dataset contains information about Airbnb bookings in New York City in 2019. By analyzing this data, you may be able to understand the trends and patterns of Airbnb use in the NYC.

Different Python libraries used to complete this EDA:

* Pandas

* NumPy

* Matplotlib.Pyplot

* Seaborn

Project Work flow

1. Importing Libraries

2. Loading the Dataset

3. explore Dataset

3. Data Cleaning and manipulate

4. Handling Outliers

5. Data Visualization

6. Conclusion

Listing_id :- This is a unique identifier for each listing in the dataset.

Listing_name :- This is the name or title of the listing, as it appears on the Airbnb website.

Host_id :- This is a unique identifier for each host in the dataset.

Host_name :- This is the name of the host as it appears on the Airbnb website.

Neighbourhood_group :- This is a grouping of neighborhoods in New York City, such as Manhattan or Brooklyn.

Neighbourhood :- This is the specific neighborhood in which the listing is located.

Latitude :- This is the geographic latitude of the listing.

Longitude :- This is the geographic longitude of the listing.

Room_type :- This is the type of room or property being offered, such as an entire home, private room, shared room.

Price :- This is the nightly price for the listing, in US dollars.

Minimum_nights :- This is the minimum number of nights that a guest must stay at the listing.

Total_reviews :- This is the total number of reviews that the listing has received.

Reviews_per_month :- This is the average number of reviews that the listing receives per month.

Host_listings_count :- This is the total number of listings that the host has on Airbnb.

Availability_365 :- This is the number of days in the next 365 days that the listing is available for booking.

PROBLEM STATEMENTS FOR ANALYSIS

(1) Find Distribution Of Airbnb Bookings Price Range.

(2) Find Total Listing/Property count in Each Neighborhood Group in NYC.

(3) Find Average Price Of listings/property in each Neighborhood Groups and also Neighborhoods.

(4) Find Top Neighborhoods and Hosts by Listing/property in entire NYC.

(5) Find the Number Of Active Hosts Per Location by Each Neighborhood Groups.

(6) Find Total Counts Of Each Room Types in entire NYC.

(7) Find Stay Requirement counts by Minimum Nights.

(8) Find the total numbers of Reviews and Maximum Reviews by Each Neighborhood Group.

(9) Find Most reviewed room type in Neighborhood groups per month.

(10) Find Best location listing/property location for travelers.

(11) Find also best location listing/property location for Hosts.

(12) Find Price variations in NYC Neighborhood groups.

>>**The purpose of the analysis**

understanding the factors that influence Airbnb prices in New York City, or identifying patterns of all variables and Our analysis provides useful information for travelers and hosts in the city and also provides some best insights for Airbnb business.