

AirBnb Exploratory Data Analysis

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Abstract:

An American firm called Airbnb, runs an online marketplace for travel-related services and accommodations, especially home stays for holiday rentals. Our objective is to evaluate the dataset and derive various conclusions based on pricing, neighborhood, and crowd.

Description of the dataset:

There are 48895 rows and 16 columns in our dataset. There are several null values that I have fixed.

Data cleaning:

We deleted the null values from the dataset before filtering it according to our needs. Our dataset contains null values, which may interfere with our accuracy therefore I removed them at the start of my project to achieve a better outcome. Then I saw the description of the data and found an outlier on the minimum night column, so swapped the outliers with the 95 percentile quantile value of minimum night column.

Problem statements:

- What can we know about different hosts and areas?
- What can we know from locations, prices, reviews, etc?

- Which hosts are the busiest and why?
- Is there any noticeable difference of traffic among different areas and what could be the reason for it?

Methodology:

I used Python to complete all of the processes necessary to draw inferences from the dataset. Using built-in Python tools, I cleaned and filtered the dataset. The data was then displayed using matplotlib and seaborn to meet my needs. To get more insight of data, I extracted month from the last review column.

Conclusions:

- People prefer to stay in cheaper accommodations.
- If you are looking for cheaper stays then it is recommended to not travel to Bronx in the month of April and Queens in the month of October.
- June and July are the busiest months.
- Home apartment and Private rooms are most preferred room type.
- Brooklyn and Manhattan experiences highest traffic. This is because they are tourist place. The average price in also Brooklyn and Manhattan are higher as compared to other neighborhoods.
- Queens is the ideal destination for our client as a lot of Airbnbs with reviews are available there that fills his criteria