

Capstone Project Submission

Instructions:

- i) Please fill in all the required information.
- ii) Avoid grammatical errors.

Team Member's Name, Email, and Contribution:

Contributor Roles:

1. Ajay Negi:
(Email :- ajayn3300@gmail.com)
 - Data Wrangling:
 1. Managing the numerical outliers
 2. Handling the null numerical values
 - Prices of apartments in different neighbourhood groups.
 - Percentage of room types in every neighbourhood group.
 - Let's compare the prices according to each ROOM TYPE in every neighbourhood group.
 - Room Types in which people have stayed for most no. of nights.
 - Availability of different types of rooms during each year.
 - In which year does Airbnb receives the most no. of reviews.
 - Price fluctuation of each room type during each year.
 - Most active host in different neighbourhood_group.
2. Mantresh Kumar:
(Email :- kmantresh@gmail.com)
 - Data Wrangling:
 1. Fixing the price outliers.
 2. Handling the null categorical values.
 - No. of the Neighbourhood in different groups.
 - Neighbourhood group which have most numbers of the apartment.
 - Prices of room types in different NEIGHBOURHOOD GROUP.
 - In which Neighbourhood group people have stayed most.
 - Let's see the correlation between price, minimum nights and No. of reviews.
 - Availability of rooms in different Neighbourhood_groups during each Year.
 - Years, in which people stayed for the most number of nights.
 - In which month do people spend most no. of nights according to each room type.

Please paste the GitHub Repo and Google Drive link.

Github Link:- <https://github.com/kMantresh/EDA-Airbnb>

Drive Link:- https://drive.google.com/drive/folders/1cHMZN4t_CSXYCIFO07cP-bGPfHCl1cKv?usp=sharing

Please write a summary of your Capstone project and its components. Describe the problem statement, your approaches, and your conclusions. (200-400 words)

Airbnb is an online marketplace that connects people who want to rent out their homes with people who are looking for accommodations in specific locales. In this EDA Project, we were provided with an Airbnb Dataset of The New York City which is the amalgamation of 5 boroughs named Manhattan, Brooklyn, Bronx, Queens, and Staten Island with 3 types of rooms i.e. Entire Home/Apartment, Private Rooms, and Shared Rooms.

Firstly, we've imported all the required libraries like NumPy, Pandas, Matplotlib, Seaborn, and Folium then we've to do the data wrangling part over the raw data. Further, we've plotted graphs in 16 segments.

Then we observed the data of all Neighbourhood Groups to find the No. of Apartments in each, Prices of Apartments in each, percentages of room types in each, Prices of room types in each while we've also done a comparison of the prices based on room types in every neighbourhood groups.

From this dataset, we found the most preferred room types according to people either based on price or availability including the correlation between price, minimum nights, no. of reviews, and availability of the rooms yearly with the yearly reviews of the room types. Observation of the price fluctuation of each room type and the months in which more rush in the rooms with the most active hosts.

Through Exploratory Data Analysis of Airbnb, we've come to many conclusions which can help the company to take futuristic decisions and can help customers as well to find the find locales according to their budget and preference. Further, hosts can also be benefitted by knowing what to rent and where to rent so that they earn more passive income by monetizing their property. Meanwhile, Airbnb can also reward the active hosts for their performance to raise the bar for other hosts.