**Analysis of Airbnb Seattle listings**

As part of my Udacity Data Scientist Nanodegree Program, created the blog post showing the analysis done for Airbnb datasets

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**1. Project Overview:**

As part of this project , I have tried to analyze Airbnb Seattle listings and find meaningful insights using plots and at the same time to write a data science blog post

Listing activities of bookings in Seattle has been provided in the datasets. Available datasets has been explored as part of this project. It has 3818 property listings and 92 variables containing info about host, host types, neighborhoods, price, reviews, property types, room types,accomodates and much more. The data is obtained from [Seattle AirBNB Data](https://www.kaggle.com/airbnb/seattle/data). The Jupiter Notebook with all detailed code with analysis and visualization can be found [here](https://github.com/pmbiradar/SeattleAirbnb/blob/main/SeattleAirBnb.ipynb).

CRISP-DM known as Cross-industry standard process for data mining, is an open standard process model This process has 6 phases outlined below. Each phase corresponds to specific activities that usually exist in any Data Science projects.

1. Business Understanding
2. Data Understanding
3. Data Preparation
4. Modeling
5. Evaluation
6. Deploy

However , for this project , I have used Business Understanding , Data Understanding and Data preparation phases . With this phase done , I have performed the analysis

This project focuses on answering following questions

1. How are the listings available throughout the year?
2. Which are the neighborhoods with highest bookings?
3. Which property types and accommodates are comparatively booked the most?

**2. Libraries**

Below python libraries are used as part of the project using Jupiter Notebook.

* Pandas
* Matplotlib
* Numpy

**3. Project Directory Contents**

* **Data:**

listings.csv: File obtained from [Seattle AirBNB Data](https://www.kaggle.com/airbnb/seattle/data).

calendar.csv: File obtained from [Seattle AirBNB Data](https://www.kaggle.com/airbnb/seattle/data).

* **Screenshots:**

This folder contains many screenshots generated from matplotlib map visualization codes as part of project analysis.

* **Root Directory:**

SeattleAirBnb.ipynb: Jupyter notebook containing the project code, analysis and visualization used to answer business question.

readme.md: readme file about the project description and content.

**4. Summary**

1. How are the listings available throughout the year?

There are total of 2873 listings . Looking at the visualization, it can be said that March and December are the month where most of the listings are made available. Looks like October and November are the months with next most available listings. As the last quarter of the year seems to have most listings available , travelers can plan in advance and hopefully this helps them for better planning and booking transport to and accommodations in Seattle

1. Which are the neighborhoods cleansed with highest bookings?

Looking at visualization plot , it can be said that Capitol Hill in the Seattle are heavily booked followed by Ballard and Minor. Other neighborhood listings are relatively lesser . Suggest travelers to top 10 neighborhood to plan very well in advance due to heavy bookings . Other neighborhood though offers quite good number of listings and hopefully slight easily available for bookings.

1. Which property types and accommodates are comparatively booked the most?

Looking at above visualization plot , it can be said that House and Apartment which can accommodates only 2 person are in very much demand compared to other property type House and Apartments.

**5. Author**

* Pravin Biradar
* Link to clone the GitHub Repo is [here](https://github.com/pmbiradar/SeattleAirbnb)
* Blog post on this project can be checked on my medium platform [here](https://pmbiradar.medium.com/airbnb-in-seattle-ee07a5a174b1)

**6. Acknowledgements**

* Data Scientist Nanodegree course from [Udacity](https://classroom.udacity.com/nanodegrees/nd025/dashboard/overview)
* Data obtained from kaggle [Seattle AirBNB Data](https://www.kaggle.com/airbnb/seattle/data).