Airbnb Dynamic Pricing Recommendation Engine

Objective

Analyze historical Airbnb data from India to suggest optimal pricing based on location, seasonality, guest capacity, and listing quality.

Tools Used

- Python: Data cleaning, EDA, and pricing model

- Tableau: Interactive dashboard creation

- Excel: Preliminary analysis and formatting

Python Pricing Engine Summary

Developed a pricing recommendation model using regression analysis. Features included:

- Room Type

- Rating

- Number of Guests

- Location (latitude & longitude)

The engine suggests adjusted prices based on user input and filters.

Tableau Dashboard Overview

The dashboard includes:

- Avg Price by Room Type (bar chart)

- Price by Guest Capacity (bar chart)

- Map View (Longitude/Latitude for pricing geography)

- Price Suggestion Table (with adjusted price parameter)

Interactive filters: Room Type, Rating, Address, Guests

Parameter control: Price Adjuster Slider

Recommendations

- Use Tableau Public to publish and share your dashboard online

- Include project link and dashboard screenshots in your portfolio

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- Upload all related files (CSV, Python script, Tableau workbook, and PPT) to GitHub

- Create a strong README file for GitHub with description, tools, and usage instructions