

Project 4 Proposal

Group 15

Members:

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Original Dataset

<https://www.kaggle.com/datasets/arianazmoudeh/airbnbopendata>

The date on this dataset is 2/28/2022 from New York - USA

Combined and Cleaned Dataset for 2022-2024

[join_years_cleaning.ipynb](#)

Python Anywhere Link

<https://project4group15.pythonanywhere.com/>

GitHub Repository

<https://github.com/musicmaj/project-4-group-15>

Project Overview and Inspiration

This Airbnb Open Dataset is based in New York, USA. This project involves travel for consumers and business insight for entrepreneurs who may want to get involved with Airbnb or other similar companies. We were able to add in open source data between 2022 and 2024 to allow for additional insight and machine learning and predictive capabilities. Fields of interest for this project include the location information for mapping, prices on rentals and service fees, minimum number of nights required to rent as well as availability throughout the year, and information on the host's listings and reviews of the locations. Minimal cleaning is needed for this dataset and a comparison dataset can easily be added in for predictive qualities over time if desired.

Project Goals

Original Dataset

- Discover insight on most common locations for Airbnb's throughout New York
- View and predict average prices for rentals depending on location and other fields such as type of rental, minimum nights, if the location has reviews, etc...
- Predict which factors for rentals may indicate whether or not reviews are given about the host/property

- Other insights into location, property type, and service fees.

Additional Datasets to Add Two Additional Years

- Due to Airbnb having open source data, we can gather updated and archived data to view trends over time for top Airbnb's in New York and what factors may indicate long-term use of Airbnb's services.

Color Palette

Airbnb has a color palette available for reference:

<https://coolers.co/ff5a5f-00a699-fc642d-484848-767676>

Bootswatch Theme

The colors and professionalism of this theme fit well with the hues of the Airbnb color palette: <https://bootswatch.com/solar/>

Project Logistics

Due to the complex nature of this project, we plan to work collaboratively as a team while also having individual team members work on specifics in order to complete the project deliverables. We will all collaborate on the slides within the slideshow and assist where needs arise throughout the project.

Current group assignments:

Kade: Data Cleaning (2 additional datasets from 2023 and 2024), Python Anywhere, JS, HTML, and CSS templates

Gunel: Tableau Dashboard

Fatima: Tableau Dashboard, Machine Learning

Lina: Machine Learning

If time permits, an additional predictive page will be added.

Other Resources

Airbnb Open Data Dictionary

This dictionary is provided to share the fields, types, and descriptions of the AirBnB open Data.

https://docs.google.com/spreadsheets/d/1b_dvmyhb_kAJhUmv81rAxl4KcXn0Pymz/edit?gid=1967362979#gid=1967362979

Inside Airbnb Website

<https://insideairbnb.com/explore/>