PowerBI

Airbnb Listings Analysis

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Chosen Database

Database Overview

Pre-cleaned Data:
280,000 rows, 34 columns

Post-cleaned Data:
187,000 rows, 33 columns

Handling Outliers

While we did find a few outliers, we determined them to be True outliers and chose not to remove them.

Missing Values

86% of districts were null values, so we removed that column.

30% of reviews were null, and before removing the rows, we checked that they were evenly distributed.

Standardising Data

Within Power BI, we created a new column to generate the Z- score of the value for money rating.

Creating Measures

In our CSV file, additional Boolean columns were created to indicate the presence/absence of popular amenities, e.g. Wifi, TV, Kitchen, etc.

Measures were then created in Power BI to identify the percentage of Airbnb listings with that specific amenity.

Duplicates

After other cleaning measures, there were no duplicates.

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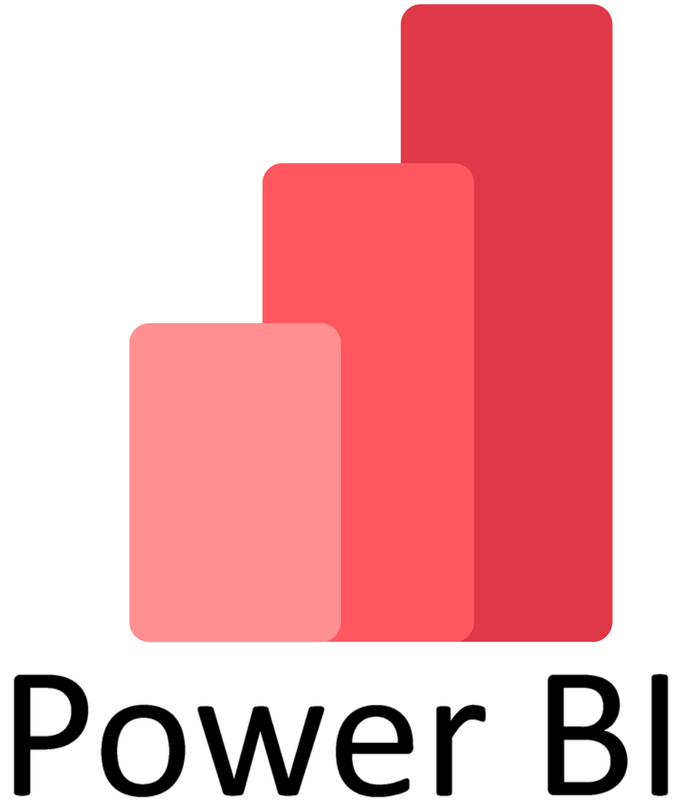
Interactive Analysis & Results



Summary of Findings

Out of the 10 major cities, **Mexico City** stands as the most beloved city among Airbnb users

Wifi, essentials, a kitchen & allowing long-term stays are the **Top 4 most valuable amenities** to guests

New York City ranks the **most expensive** per night, averaging €123 per night across its Airbnb listings

After a certain amount of guests, cities such as **Cape Town** and **Rio de Janeiro** revealed lower average prices per night for every odd no. of guests

Eg. Rio de Janeiro
Avg. price per night (6 guests) €147
Avg. price per night (7 guests) €117

The **number of hosts** and the **length of time** they have been hosting may influence price through a developed / underdeveloped reputation of the hosting service in particular cities.

Eg. Istanbul exhibits the lowest prices at **€12.56**, accompanied by a recent surge in host memberships and a notably lower total number of hosts when compared to any other city.

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Data Availability

The dataset used in this PowerBI report, compiled initially from multiple datasets found on **Inside Airbnb**, was downloaded from **Maven Analytics**. The dataset was uploaded on the 4th of September, 2021. For our report, this dataset has undergone processing through Jupyter Notebook using Python 3.

Files Employed

CSV File pre Data Cleaning (Original): **Listings_Original.csv (Google Drive)**

Data Cleaning Code: **Listings_Cleaning.py (Google Drive)**

CSV File Cleaned (File employed): **Listings_Cleaned.csv (Google Drive)**

PowerBI Report PBIX:
MT412_powerbi_7_AnnaMeudec_ChloeDownes_ErisByrne_KellieStaunton.pbix (Google Drive)

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