SCOPE OF WORK
Data Analysis Airbnb Melbourne Project

Data Analyst: Tauan Oliveira

Client/Sponsor: Data Analysis - Airbnb Melbourne

Purpose:

Airbnb, a global online marketplace founded in 2008, allows individuals to rent out their spaces to travelers. It operates in over 191 countries and offers diverse accommodations, from single rooms and apartments to unique properties like yachts, islands, and even castles.

On Airbnb's platform, hosts provide short-term lodging and tourism-related activities. Guests can search for accommodations based on type, dates, location, and price, and can specify preferences for unique homes, bed and breakfasts and vacation homes.

Airbnb, by providing unique and customized experiences, has revolutionized the travel industry. A great illustration of this achievement is Melbourne, Australia. This city, acclaimed for its cultural diversity, blend of architecture, vibrant arts scenes, culinary delights, exemplifies Airbnb's focus on local experiences and personal connections. The city's wide range of unique accommodations enhances its appeal to travelers.

With this in mind, the purpose of this project is: **to analyze the key characteristics of Airbnb listings in Melbourne to gain a comprehensive understanding of the local rental market**. We aim to analyze historical data from Airbnb's reservations in Melbourne to uncover trends and patterns. This analysis will provide valuable insights into how Airbnb is being used in Melbourne and what implications this has for hosts, guests, and the broader community.

Key questions we aim to answer through our analysis include:

- Who are the top 10 hosts with the most listings?
- Where are the top 10 Melbourne Airbnbs listings located?
- Is the average price per night higher for private room than for shared room?

By answering these and other questions, we hope to provide a comprehensive overview of the main characteristics of Airbnb listings in Melbourne.

Scope / Main Project Activities:

Activity	Description
Identify the problem	Define the problem to understand what kind of problem we will handle with.
Consider key stakeholders	Know the main stakeholders
Collect data	Collect data from Airbnb listings in Melbourne
Identify how data is organized	Check the DataFrame structure, the columns and their respective data types.
Sort and filter the data	Sort the data.
Check for data errors	Check for duplicates, empty, inconsistent or mispelled data.
Format data into the right type	Ensure correct data types in their respective columns.
Document the cleaning process	Define a changelog to record all changes.
Verify data integrity	Ensure that the DataFrame is consistent to perform the analysis.

Analyze the data	Analyze relevant variables using descriptive techniques to identify trends and patterns to discover insights.
Create an effective data visualization	Create captivating data visualization to show the findings.
Present the findings	Execute a clear presentation showing the major insights that were discovered in the analysis.
Ensure the work is accessible to your target audience	Make the project available so that it can be used as a basis for future analysis.
Create a final report	Develop an analysis report.

This project does not include:

- This project does not include inferential statistics.
- This project does not include make predictions.

Goods:

Delivery	Description/ Details
The problem statement	The questions that will be answered through insights.
Data cleaning documentation	Document of all changes performed in the analysis.
A summary of the analysis	A summary explaining the main insights.
Key insights and visualizations	Effective visualizations.
Dashboard	A dashborad with graphs and tables.
Final Report	A final report describing the whole analysis project.

Schedule Overview / Key Milestones:

Milestone	Expected completion date	Description/Details
Understanding the problem	*09/12/23*	*Understanding the problem/ question to analyze*
Data collection	*09/12/23*	*Data available*
Data cleaning	*10/12/23*	*Data ready to analyze*
Changelog	*10/12/23*	*Changelog available*
Data analysis	*15/12/23*	*Data analysis completed*
Data visualization	*19/12/23*	*Effective data visualization*
Present the findings	*21/12/23*	*Share the insights*
Final Report	*21/12/23*	*A detailed report*

Estimated data for completion:

21, December, 2023