



## **Project: Analysis of Airbnb Data Using Power BI**

Airbnb, headquartered in San Francisco, California, operates a popular online marketplace specializing in short-term accommodations and experiences. Established in 2008 by founders Brian Chesky, Nathan Blecharczyk, and Joe Gebbia, the name Airbnb is derived from its original moniker, AirBedandBreakfast.com. iVision analytics firm has been provided with datasets related to Airbnb listings and reviewer scores worldwide. The objective is to gain a deeper understanding of Airbnb's operations and draw meaningful insights from the data. As a BI Analyst at iVision, your role is to create informative reports by conducting a thorough analysis of the data using powerful tools like Power BI.

### **Data Description:**

- The necessary data and data dictionaries are available as CSV files.
- The Reviews (Reviews.csv) dataset contains information about reviews left for Airbnb listings, while the Listings (Listings.csv) dataset contains all relevant details about the listed stays. Comprehensive descriptions of each column can be found in their respective data dictionary files (Listings\_data\_dictionary.csv and Reviews\_data\_dictionary.csv)

### **Business Objective:**

The primary objective is to analyze Airbnb data to reveal insights into user experiences and satisfaction levels with the numerous listed stays, all accomplished using Power BI.

### **Project Goals:**

- Assessing District Location Scores: The aim is to pinpoint the location in the district with the least favorable location scores.
- Examining Host Response Time Impact: The goal is to delve into the relationship between host response times and the overall ratings of Airbnb listings, providing valuable insights.
- Visualizing Airbnb Listing Prices: The objective is to create visual representations of Airbnb listing prices across different cities and summarize any noteworthy trends or variations.
- Analyzing Composite Scores: The task involves creating a composite score that integrates check-in experience and host communication for various districts with subsequent analysis and insights.



- Calculating Listing Age and Host Tenure: This objective entails computing the age of Airbnb listings and identifying hosts who have accumulated more than ten years of hosting expertise.
- Property Type Price Analysis: The task involves the creation of a visual tree map that displays average prices for various room and property types, with specific attention given to the property type associated with the highest prices for entire places.
- Crafting a Comprehensive City Insights Report: This objective entails the creation of a comprehensive report that presents listing prices, guest ratings, and visitor trends for multiple cities, with a particular focus on assessing changes in visitor trends in 2020 in contrast to earlier years.

#### **Artifacts to be generated (For Learners):**

- Presentation (Slides) summarizing the project
- Artifacts generated need to be submitted in vLearn on or before the deadline
- Create a zip file of the Power BI File
  - Power BI File (.pbix)
- Zip file name: <LearnerName>\_ABADS\_<Batch>.zip
  - Eg: KartikMudaliar\_ABADS\_B10.zip

#### **Grading Criteria (For Faculty & Learners):**

Learners will be graded on the following parameters(10 points for each):

1. Relevance and Approach of Analysis
2. Quality of Output
3. Overall presentation
4. Response to Questions
5. Creativity & Innovation

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#### **Submission Instructions:**

To submit your assignment, please follow these guidelines:

- Ensure that your assignment is fully completed.
- Push your assignment to a GitHub repository.
- Share the repository link by including it in a text, Word, or PDF file.

Submit the file/text containing the repository link via Vlearn.