**Coding Challenge -BI**

The analysis of the Airbnb prices dataset for European cities reveals several insights that can be helpful for Airbnb hosts to optimize their pricing strategies and improve their customer experience.

Graphical user interface, chart, Excel

Description automatically generatedThe dataset highlights that Amsterdam, Paris, and London are the most expensive cities for Airbnb hosting, while Athens, Budapest, Rome, Lisbon, and Barcelona are the most affordable ones. The higher prices in Amsterdam, Paris, and London can be attributed to their popularity as tourist destinations and the high demand for accommodations, while the affordability of Athens, Budapest, Rome, Lisbon, and Barcelona could be due to a lower cost of living and lower demand for Airbnb listings.

Graphical user interface, chart, Excel

Description automatically generatedThe dataset also shows that weekend bookings tend to be higher compared to weekdays across European cities. However, Paris stands out as a city with consistent bookings throughout the week, indicating that it is a popular tourist destination with a constant flow of visitors, regardless of the day of the week.

Graphical user interface, chart, Excel

Description automatically generatedThe analysis also reveals that the prices of Airbnb listings differ based on the type of room. Entire homes/apartments tend to be more expensive compared to private rooms or shared rooms, possibly due to the privacy and amenities they offer.

Graphical user interface, application

Description automatically generatedRegarding the important determinants of Airbnb prices, the dataset suggests that guest satisfaction, cleanliness ratings, and location are essential factors. Athens, despite being an affordable option, maintains high levels of guest satisfaction and cleanliness ratings compared to other cities in Europe, while Paris, which is one of the most expensive cities, has lower guest satisfaction and cleanliness ratings. This highlights the importance of maintaining high standards of cleanliness and guest satisfaction to succeed in the Airbnb marketplace.

The analysis also reveals that the most preferred room option among people is a one-bedroom room with two occupants. Most people prefer not to have a private or shared room, and the second most preferred type of room is a private room with no sharing. This indicates that offering entire homes/apartments or private rooms with no sharing could attract more bookings and improve occupancy rates.

Lastly, the dataset shows that the distance to the nearest metro station is an important factor that influences booking occupancy. Paris has the most conveniently located metro stations, with a median distance of 0.22 kilometres, while Amsterdam has the farthest median distance of 0.8 kilometres. Hosts could promote their listings based on proximity to public transportation to attract more bookings.

In conclusion, Airbnb hosts can use these insights to optimize their pricing strategies and improve their customer experience based on the specific city and type of room they are offering. Hosts in Amsterdam could leverage the high demand for accommodations to charge a premium price for their listings, while hosts in Athens could attract more customers by offering more affordable rates. Hosts could also adjust their pricing strategies based on the day of the week and the type of room they offer to maximize their occupancy rates and revenue.