AIRBNB'S IN EUROPE

A PRESENTATION ON THE NEXT BEST CITY TO EXPAND TO

DONE BY NDUTA MAINA
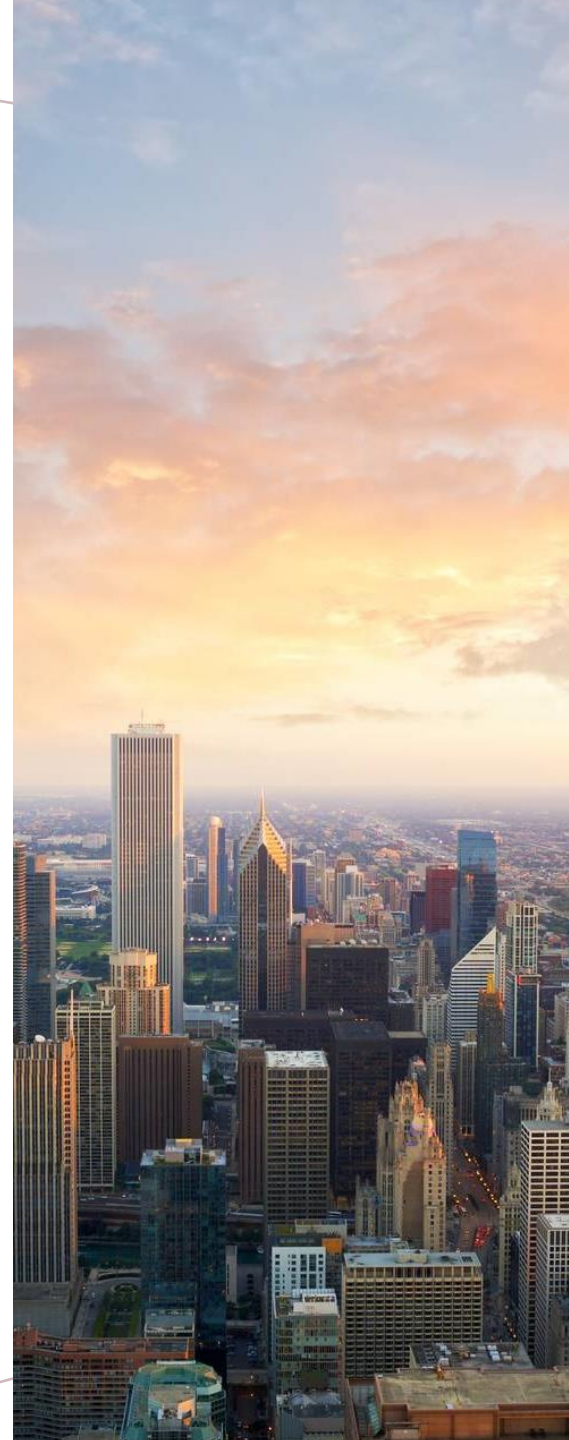
INTRODUCTION

BUSINESS PROBLEM:

- A travel business that specializes in planning curated trips for long-term stays, primarily utilizing Airbnb properties, is looking to expand its operations to a new European city. The agency is evaluating Amsterdam, Berlin, and Lisbon as potential markets for expansion. The key objective is to determine which city offers the most favorable conditions for their business, specifically in terms of market trends related to Airbnb demand, supply, pricing, and regulations. Additionally, the business aims to identify the city with the highest marketing potential to attract clients.

- The main business problem is to analyze these cities and decide which one provides the optimal balance of Airbnb growth, competitive pricing, and regulatory environment to support sustainable business expansion and effective marketing strategies.

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BACKGROUND ON ANALYSIS

DATA SOURCE, METADATA AND QUERIES MADE

DATA SOURCE & META DATA

DATA: AIRBNB'S IN EUROPE (FOR KAGGLE)

This dataset provides a comprehensive analysis of Airbnb prices in several popular European cities. Each listing is assessed based on various attributes such as room type, cleanliness, guest satisfaction ratings, number of bedrooms, distance from the city center, and more, to offer an in-depth understanding of Airbnb pricing on both weekdays and weekends. By applying spatial econometric methods, the dataset identifies the key determinants of Airbnb prices across these cities. It includes data such as *realSum* (the total price of the listing), *room_type* (private/shared/entire home/apt), guest_satisfaction_overall* (the overall rating from guests comparing all listings offered by a host), number of bedrooms, *dist* (distance from the city center

**I EXTRACTED ONLY THE 3 CITIES

The aim is to provide insights into how global markets are influenced by social dynamics and geographical factors, which in turn impact pricing strategies for optimal profitability.

QUERIES PERFORMED ON THE DATA
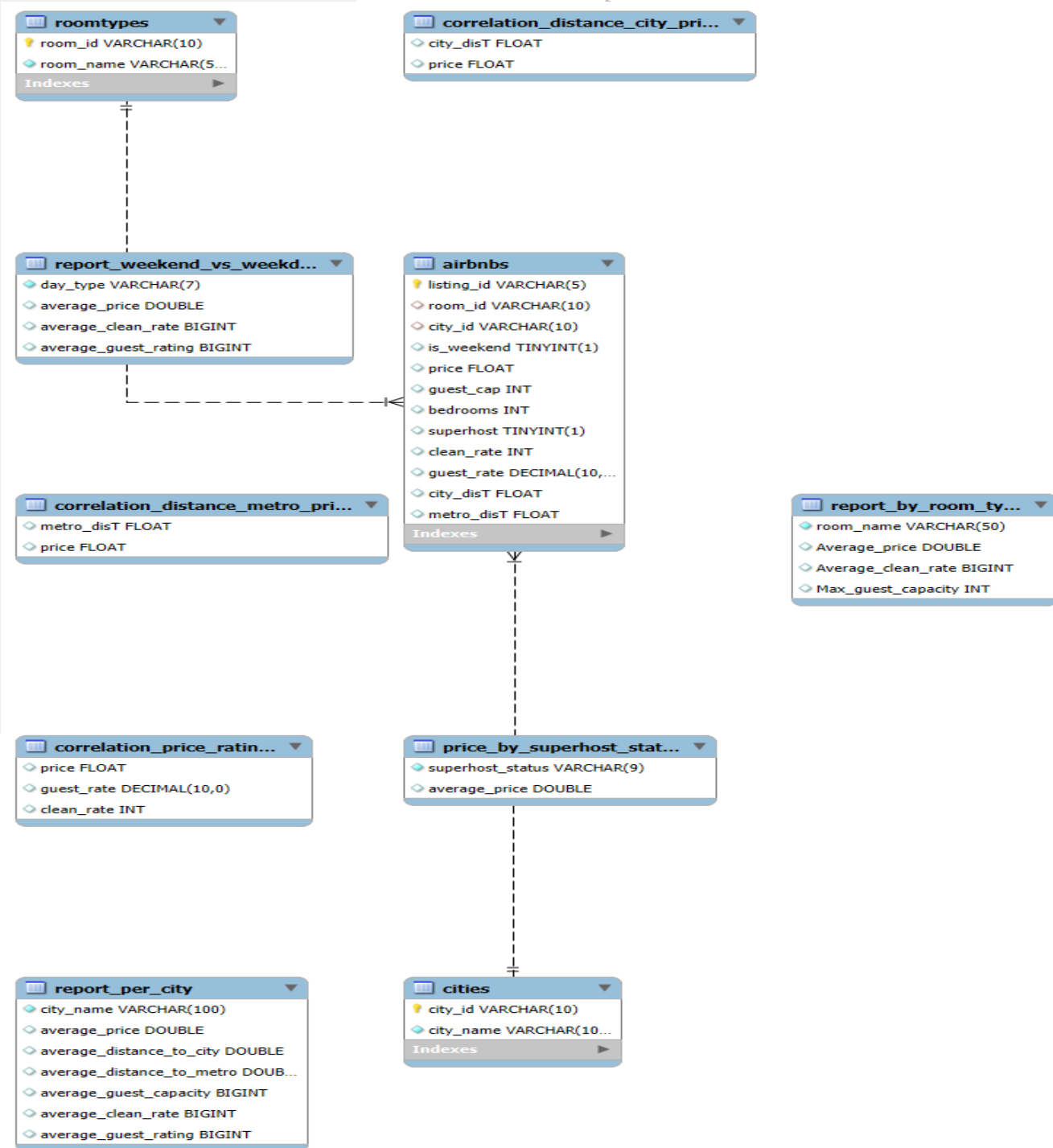
ANALYSIS QUESTIONS

What are the key characteristics and performance metrics of Airbnb properties in Amsterdam, Berlin, and Lisbon, and how do these factors compare across the three cities?

city_name	average_price	average_distance_to_city	average_distance_to_metro	average_guest_capacity	average_clean_rate	average_guest_rating
Lisbon	224.55	3.95	0.9	4	10	93
Berlin	231.91	5.03	0.93	3	10	94
▶ Amsterdam	408	3.82	1.43	3	10	96

How do Airbnb prices, cleanliness ratings, and guest satisfaction ratings vary between weekdays and weekends?"

day_type	average_price	average_clean_rate	average_guest_rating
weekend	267.41	10	95
weekday	308.9	10	94
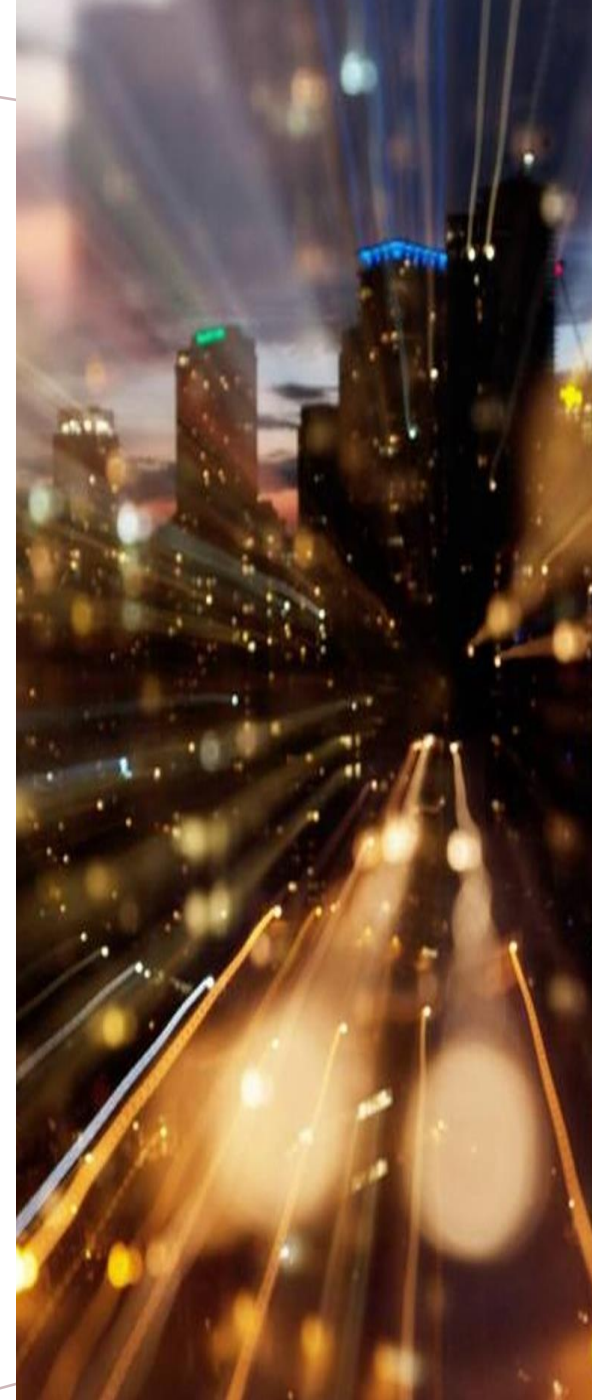
What are the key characteristics and performance metrics of the three room types and how do these factors compare across the three cities?

room_name	Average_price	Average_city_distance	Average_metro_distance	Average_clean_rate	Max_guest_capacity
Home/Apartment	368.63	3.6	0.77	10	6
Private Room	229	5.06	1.3	10	4
Shared Room	243.63	2.22	1.36	10	6

How does the Superhost status of Airbnb hosts impact the average pricing of their properties?
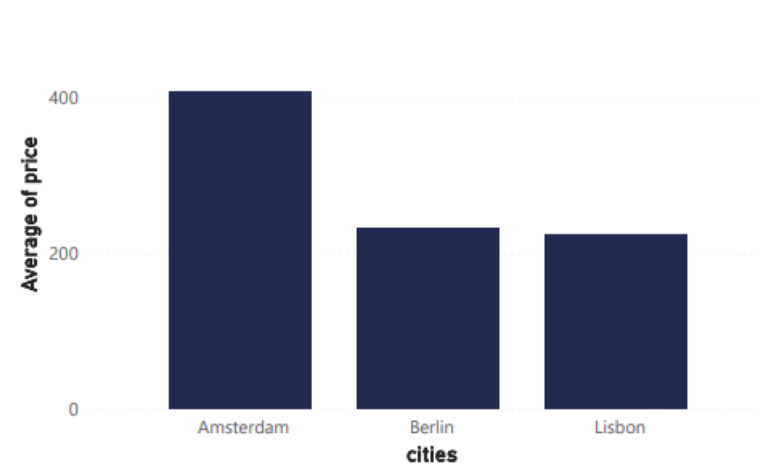
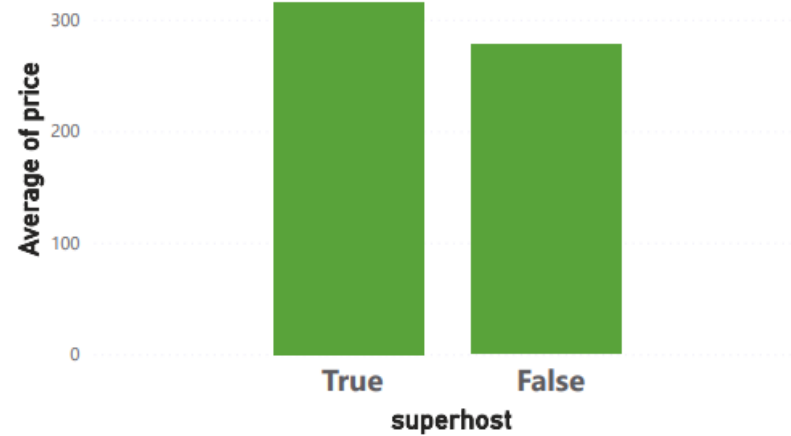| superhost_status	average_price
Host	277.34
Superhost	315.5

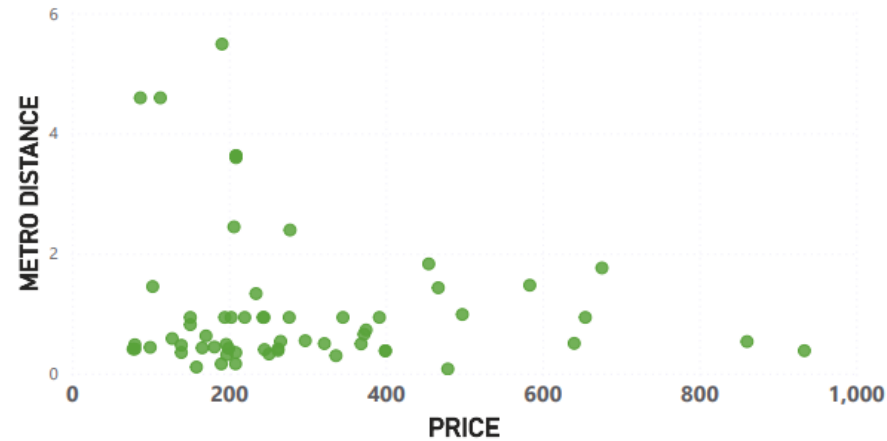## Average of price by room types
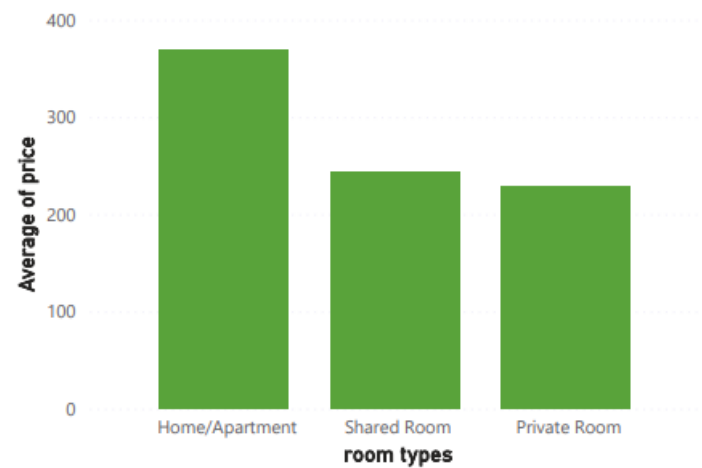
Average of price by cities

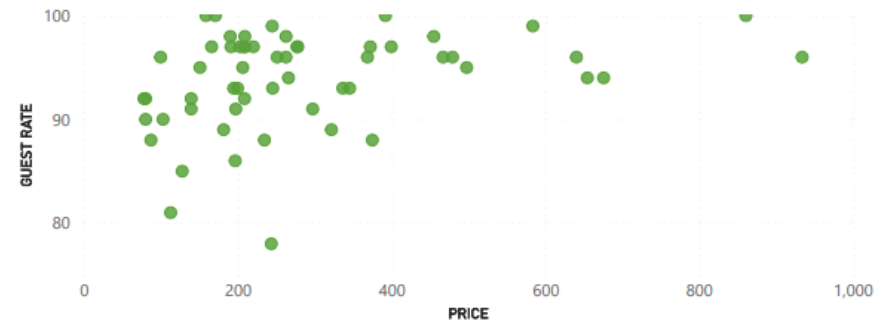## Average of price by superhost

RELATIONSHIPS WITH PRICE

RELATIONSHIP BETWEEN PRICE AND METRO DISTANCE

RELATIONSHIP BETWEEN PRICE AND THE CITY DISTANCE

RELATIONSHIP BETWEEN PRICE AND GUEST RATE

CONCLUSION

Some insights from the analysis include:

• **Weekday prices** tend to be higher than weekend prices, possibly due to lower demand during weekdays, prompting hosts to charge more when they do secure bookings.

• Properties managed by **Superhosts** typically command higher prices than those managed by regular hosts.

• **Homes or apartments** are the most expensive room types, despite having a similar guest capacity as shared rooms. This suggests that other factors, such as privacy or amenities, may drive the price difference.

• The relationship between **price and metro distance** appears to be positive, meaning the closer a property is to a metro station, the lower the price. However, the relationship between **price and city center distance** is weak or nearly nonexistent.

• **Guest satisfaction** tends to be higher when properties are more affordable, indicating that guests rate their experiences more positively when they perceive value for money.

These insights will assist the travel agency in identifying key marketing areas and making strategic decisions for their expansion.

CONCLUSION

To determine the best city for expansion and marketing, the travel agency should consider key factors such as the average price of Airbnb properties and the elements that influence it, like superhost status, room type, guest satisfaction, cleanliness, and proximity to the city center or metro.

Based on my analysis, **Lisbon** is the most favorable city for expansion. It has the lowest average price, and most Airbnb properties are conveniently located near metro stations or the city center compared to other cities. Lisbon also boasts the highest guest capacity, and both its cleanliness and guest satisfaction ratings are excellent.

CONCLUSION

The analysis has several limitations that should be acknowledged.

Firstly, while there are numerous cities in Europe to compare, this study focused solely on Amsterdam, Berlin, and Lisbon. Including more cities could have provided a more comprehensive understanding of market trends.

Additionally, due to the large volume of data for each city, I sampled only 10 properties from each, which may not accurately represent the full population and could limit the generalizability of the findings.

Some variables, such as longitude, latitude, and other repetitive columns, were excluded from the dataset to streamline the analysis, though these variables might have provided valuable spatial insights.

Moreover, as this is a beginner-level analysis, the insights presented are general and likely do not capture the full depth of the data. With more advanced methods, there would likely be a greater range of meaningful insights to uncover.

THANK YOU

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