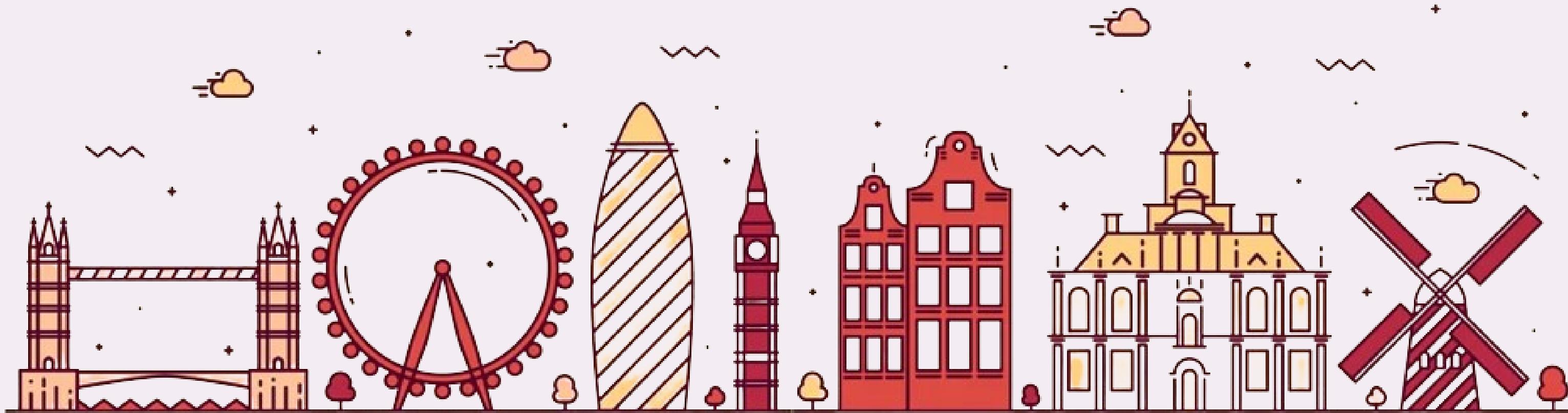


GLASCA GROUP: ADOBATI, D'AMICIS, GHISELLI RICCI, GUBELLI, LOTANO, MARIANI

SUMMER IN LONDON OR AMSTERDAM?

NAVIGATING AIRBNB ACCOMMODATIONS



ACADEMIC YEAR: 2023-2024

COURSE: DATA VISUALIZATION



DATA COLLECTION AND PREPARATION

ABOUT THE DATASET

"Airbnb Prices in European Cities"

This dataset provides a comprehensive look at Airbnb prices in some of the most popular European cities. Each listing is evaluated for various attributes such as room types, cleanliness and guest's satisfaction ratings, bedrooms, distance from the city centre, and more to capture an in-depth understanding of Airbnb prices on both weekdays and weekends.

OUR GOALS

The main point of our analysis is to compare different Airbnb accommodations in London and Amsterdam according to the type of room, their price, relative position to the nearest subway and distance from the city center. This is an exploratory data visualization, which allows the user to explore the different options, depending on their needs.

DATA COLLECTION AND PREPARATION

PREPROCESSING

- Merge of datasets of Amsterdam and London to analyze the costs over the week
- Categorization of price variable, based on frequency

ANALYSING

We choose not to analyze "Guest Satisfaction Overall" because the ratings given by Airbnb customers are high and similar (about 90-100) regardless of the accommodation chosen

CLEANING

- Search for missing or anomalous values
- Removal of attributes not inherent to the objective of the analysis (person capacity, host is superhost, multi, bedrooms)
- Restriction of analysis to non-business accommodations

DESIGN AND AESTHETICS

KEY COMPONENTS

The maps of London and Amsterdam show the distance to the subway: darker colours are associated with greater distance while larger icons are associated with higher prices. The bar graphs show the average distance to the centre according to price range. The pie charts show the different room types, while those in the centre show how the different price ranges are distributed.

LAYOUT

At the beginning there is a button to choose the desired price range and the type of room which makes the dashboard interactive. The dashboard is structured in 3 macro-areas and in a symmetric layout: Amsterdam's area, London's area and an overall price comparison.

DESIGN AND AESTHETICS

COLOUR



#5485B2



#E74545



#C48FB2

We use scale of blue and red tones as a reference to the flags of the two countries to highlight the comparison and purple for the common graphics.

FONT

The choice is to use two Sans Serif fonts available in Tableau, to convey an informal tone. For dashboard title is *Bangla MN* while for chart title is *Verdana*.

DASHBOARD CREATION

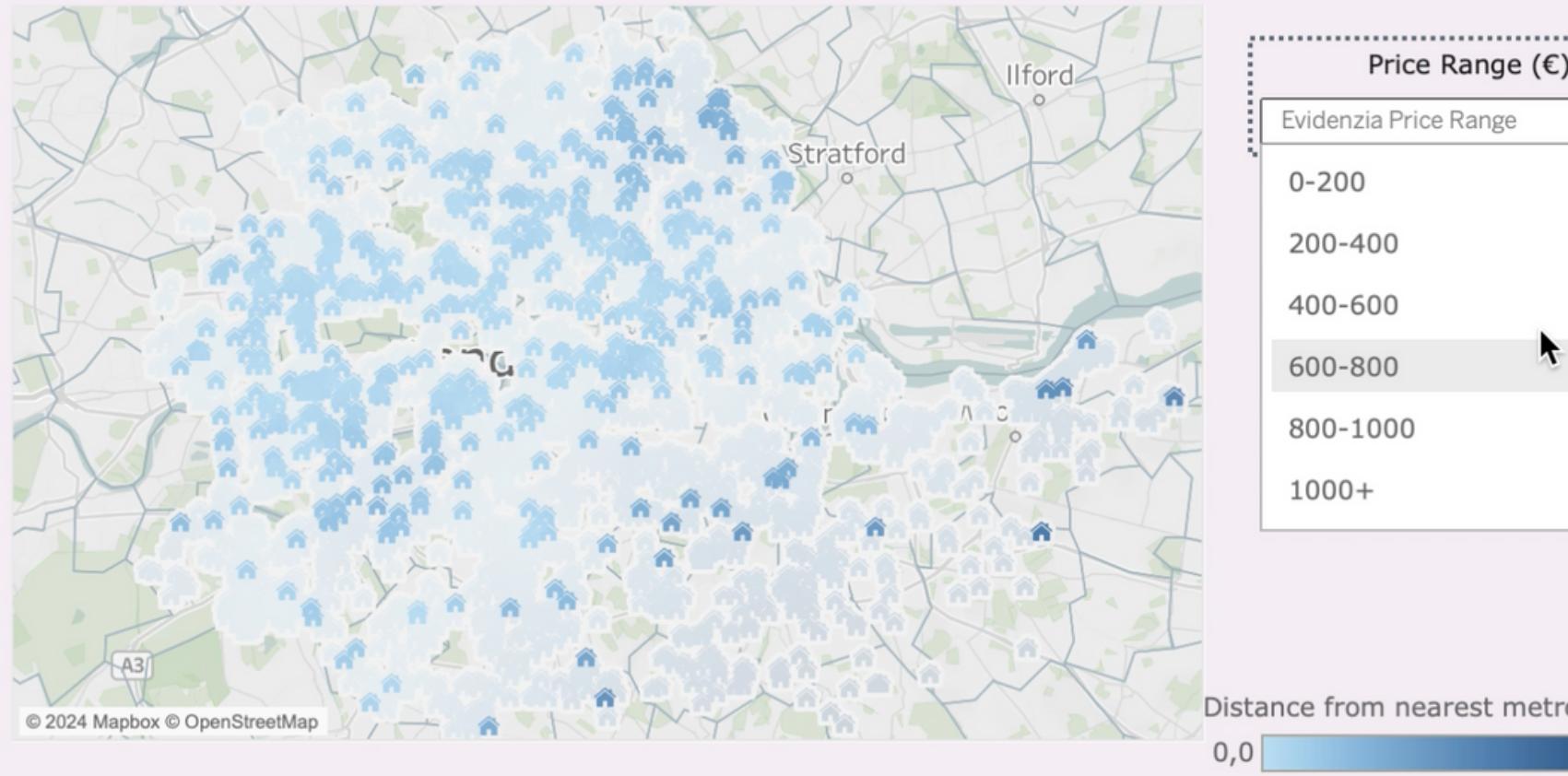
METRO DISTANCE

We choose a sequential palette where colours are assigned based on lightness and hue where lower values are assigned lighter colours and vice-versa.

The map is interactive: you can highlight Airbnb accommodations based on the price range. From the maps we can see that accommodations with higher prices are located in the most prestigious areas of the cities.



London

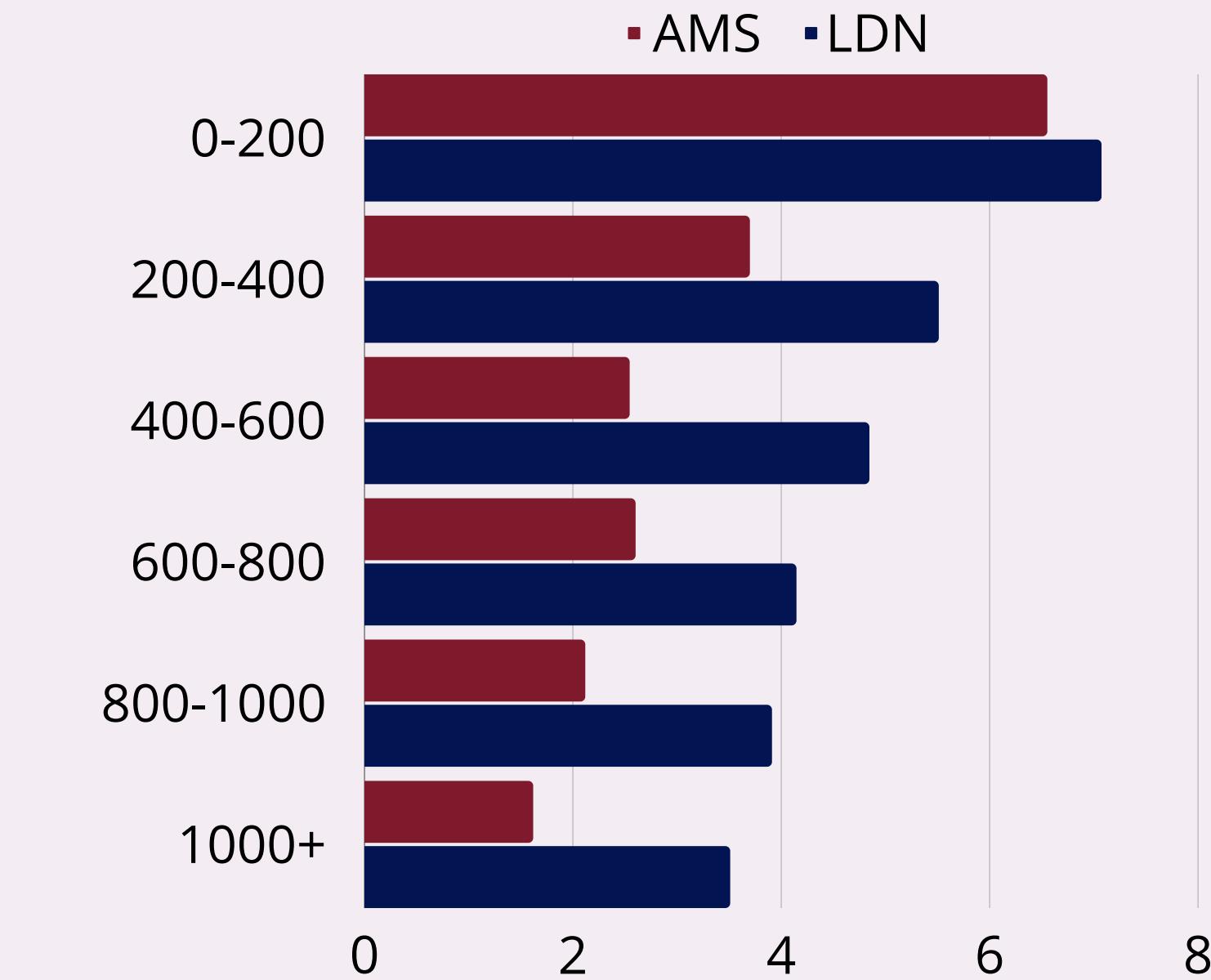


DASHBOARD CREATION

CENTRE DISTANCE

From the graph it's possible to notice that the cheapest Airbnb accommodations are located at the greatest distance from the centre in both cities (around 7 km).

The average distance from the centre decreases as the price increases, however the values in Amsterdam are always lower than in London, as Amsterdam is far smaller.

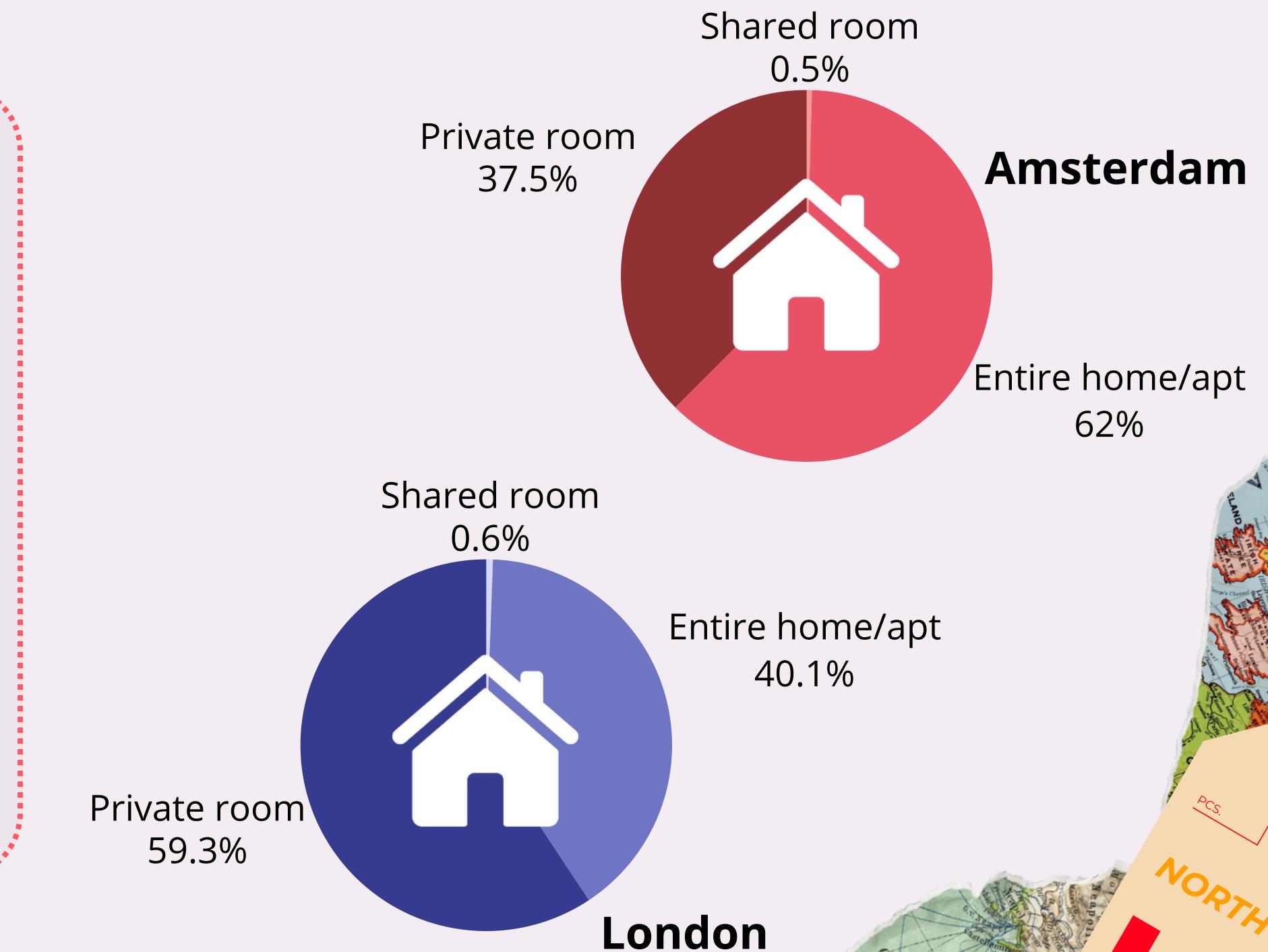


DASHBOARD CREATION

ROOM TYPE

The graphs show that in both London and Amsterdam the percentage of shared rooms is very low and tends to zero.

As far as private rooms or entire homes are concerned, these change depending on the city: in Amsterdam it's more likely to find an entire home available, while in London it's easier to find a private room.



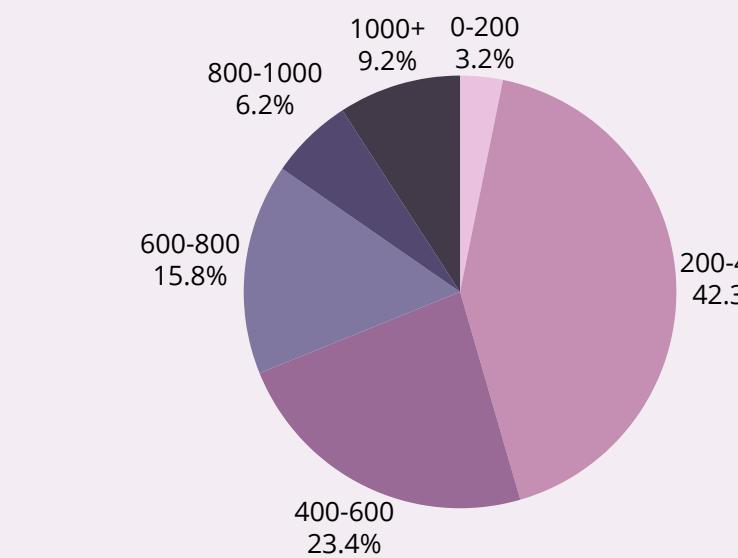
DASHBOARD CREATION

PRICE OF THE WEEK

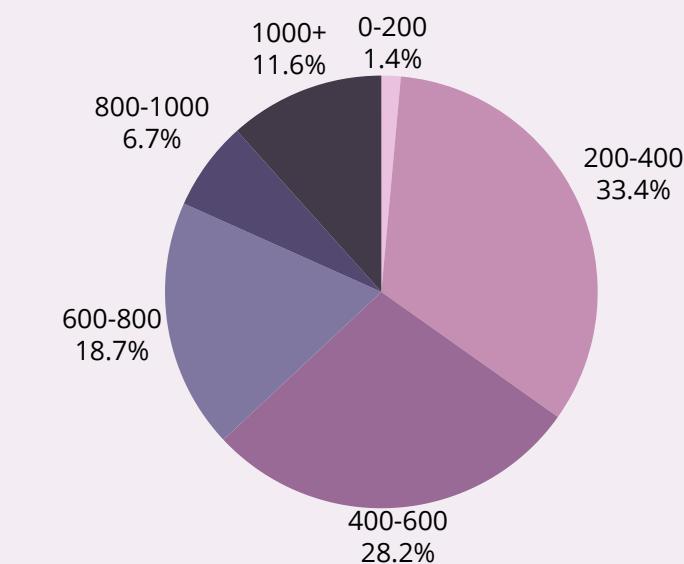
The data analysis has revealed that there is no substantial difference between weekends and weekdays in the same city as the datasets are for the August holiday period.

Nevertheless, it emerges that Airbnb prices in Amsterdam are much higher than in London. For example, the price range 0-200€ in the Amsterdam graph is barely visible, while it occupies a good slice of the pie chart in the London graph.

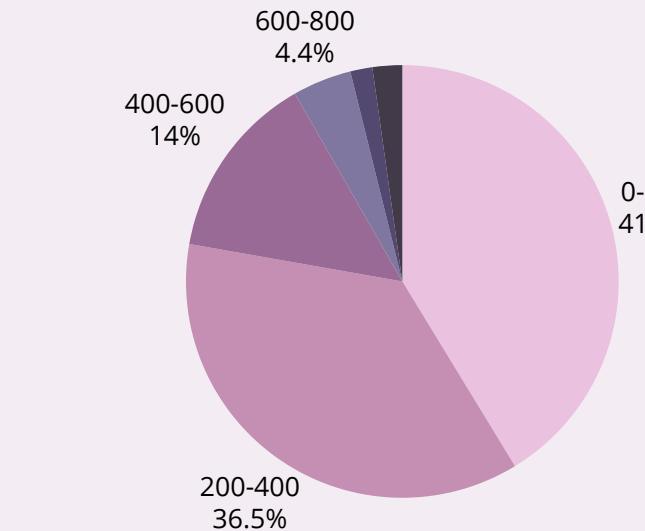
Amsterdam W/D



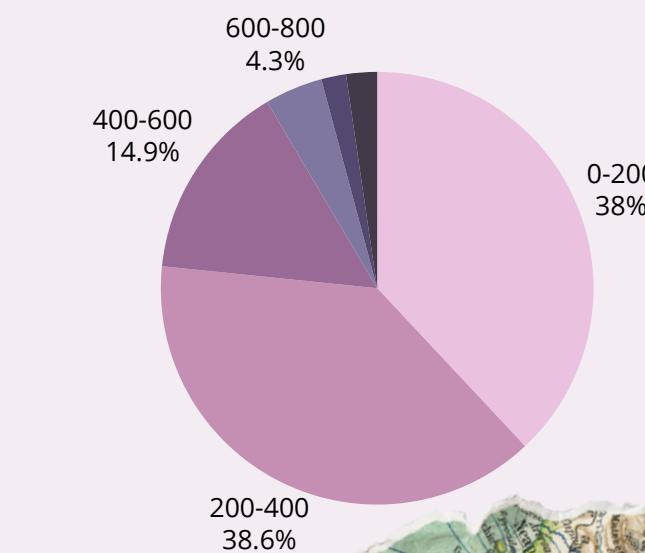
Amsterdam W/E



London W/D



London W/E



USEFUL LINKS

kaggle

The dataset chosen for this project is available on *Kaggle* platform at the following [link](#)



Preprocessing and cleaning activities were carried out with *RStudio* software

+ a b l e a u®

The development of the dashboard was performed with *Tableau* at the following [link](#) on Tableau Public

Thank
you!

