Image Source :
https://www.axisrooms.com/Airbnb-effect-hotel-industry/

FUTURISTIC AIRBNB – EXPLORING IN LONDON

Data 230 - Data Visualization | Saranya Pandiaraj

INTRODUCTION

Airbnb is a vacation rental platform where the user can rent a home for tourism experiences.

User can also list their properties in Airbnb for renting it out.

MOTIVATION

To find a better accommodation for the guests in London

To improve host's business in Airbnb London

TOPICS COVERED IN THIS PRESENTATION

DATA SOURCES

DATA CLEANUP AND EXPLORATION

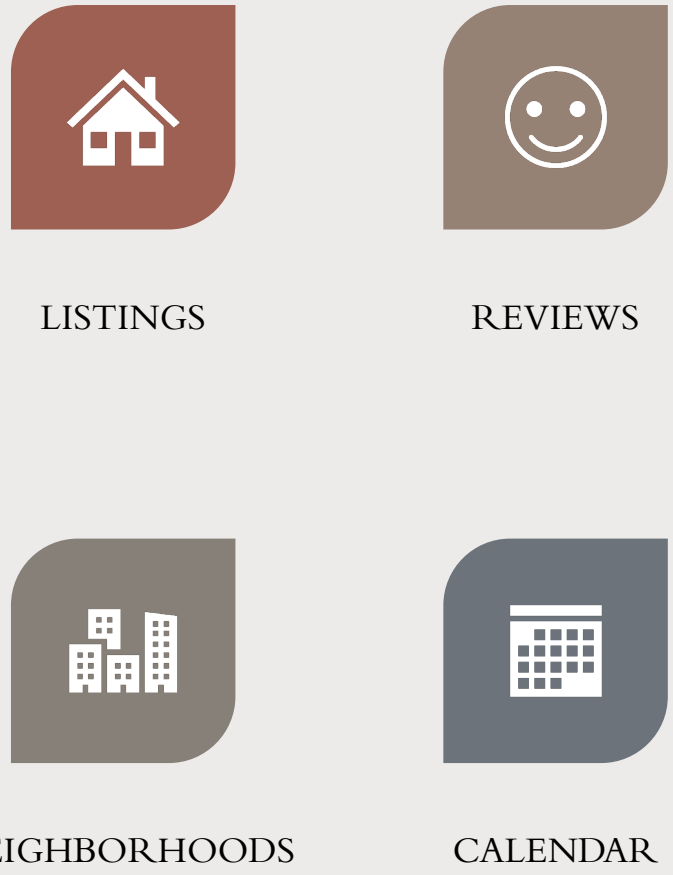
DATA VISUALIZATION

TAKEAWAYS

DATA SOURCES

Insideairbnb.com – London, England, United Kingdom

Sourced from publicly available information in the Airbnb Site



Data Files

OVERVIEW OF THE DATASET

listings.csv

This file contains about the Airbnb Host, listing and Property Information's. It also contains about the reviews scores & availability details of the property.

reviews.csv

This file contains about the review information of the property.

neighbourhoods.geojson

This file contains the geographical features of the London neighbourhoods having the Airbnb listings.

calendar.csv

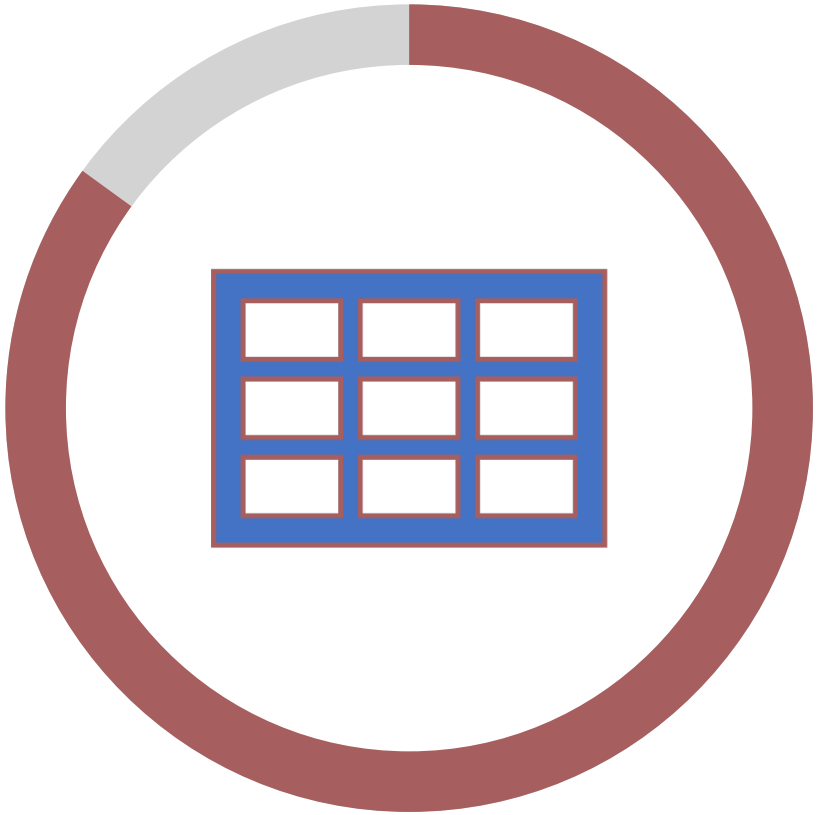
This file contains about the Property availability and its price information for the future year.

DATA CLEANUP AND EXPLORATION

- There were around 76 features in the listings file consisting of various descriptive, categorical, numerical, Boolean, etc. fields.

Below are the few data cleaning process implemented using Pandas and Tableau as part of this Dataset.

- ✓ Dropping Columns having more than 85% of null values
- ✓ Similar type of columns having same values
- ✓ Data type conversion
- ✓ Similar column values were replaced with the respective values for a better plot



AFTER CLEANING?

There were around 76,534 Airbnb listings in 33 neighborhoods of London

The Average Price of the Listing is £ 113.90

There were around 50,764 distinct hosts

Average Reviews per month was around 31,064

Average Ratings – 4.79

DATA VISUALIZATION

Research Questions based on Guest and Host perspective

Choosing the best property according to our requirements?

Most and Least Expensive time to visit London

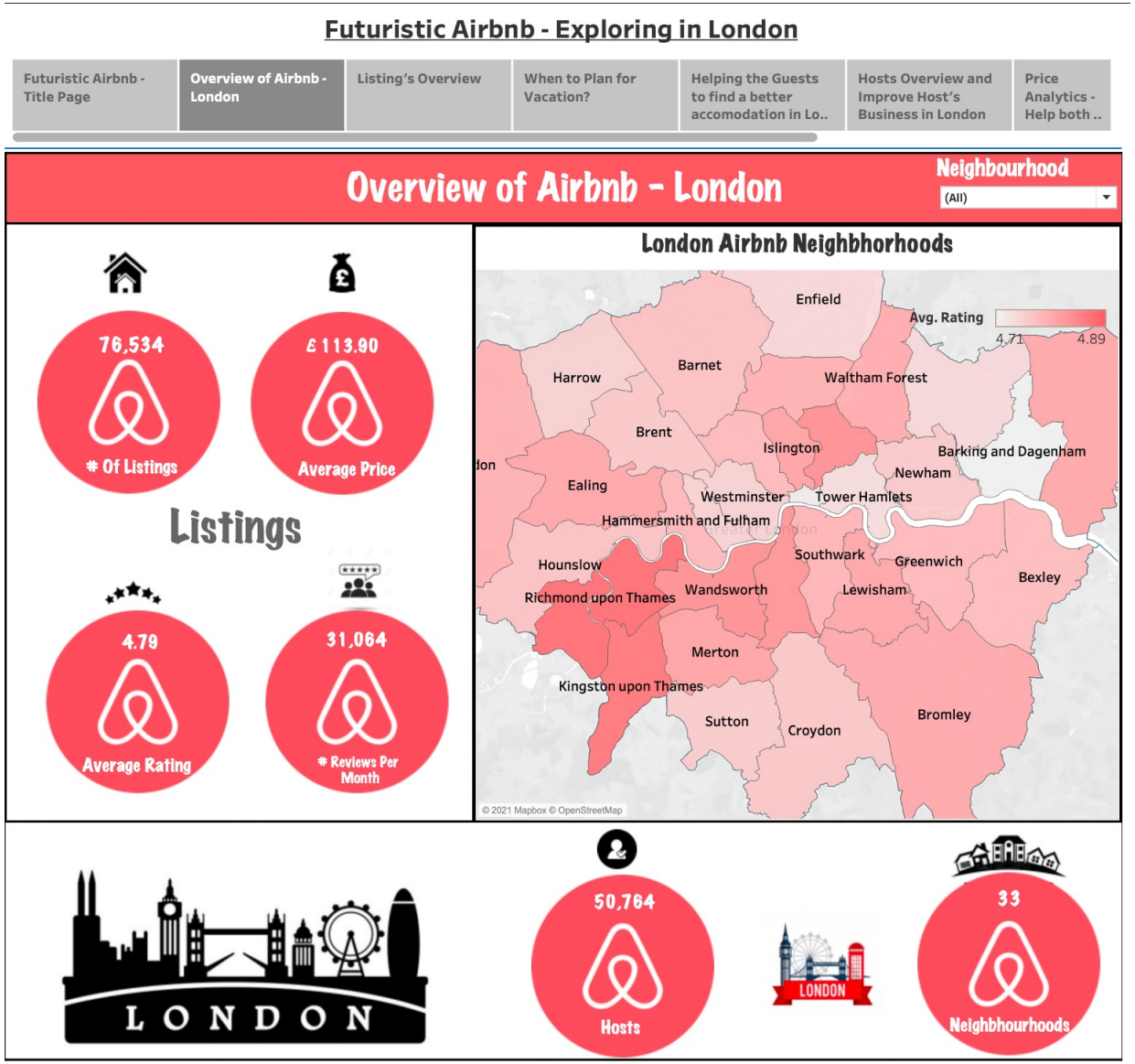
Finding the Busiest Month By Listing Availability? When to plan for vacation?

Renting Price based on the Accommodates

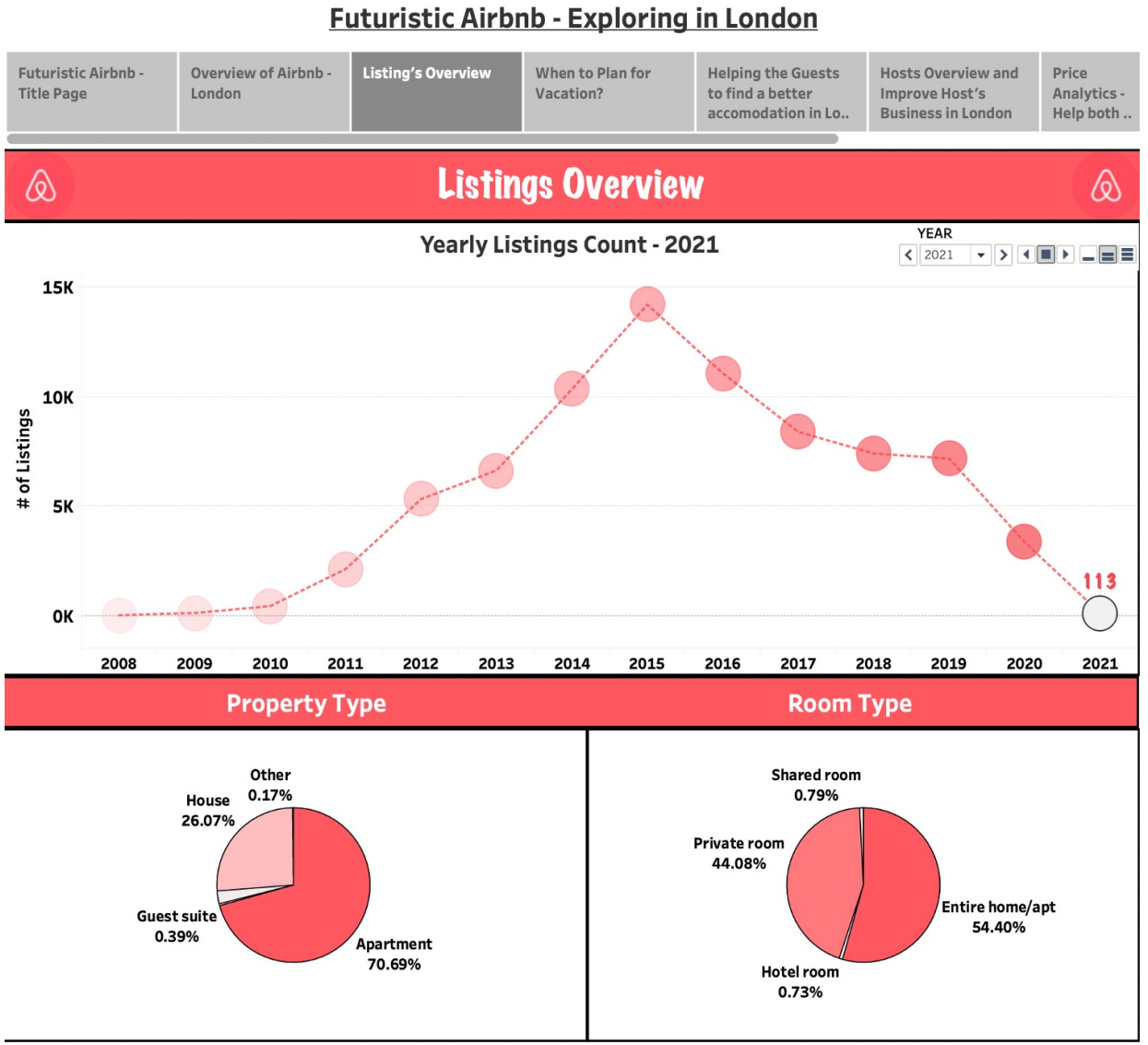
Judging the Host Response and Acceptance Rate?

Future Price Prediction?

OVERVIEW OF AIRBNB - LONDON



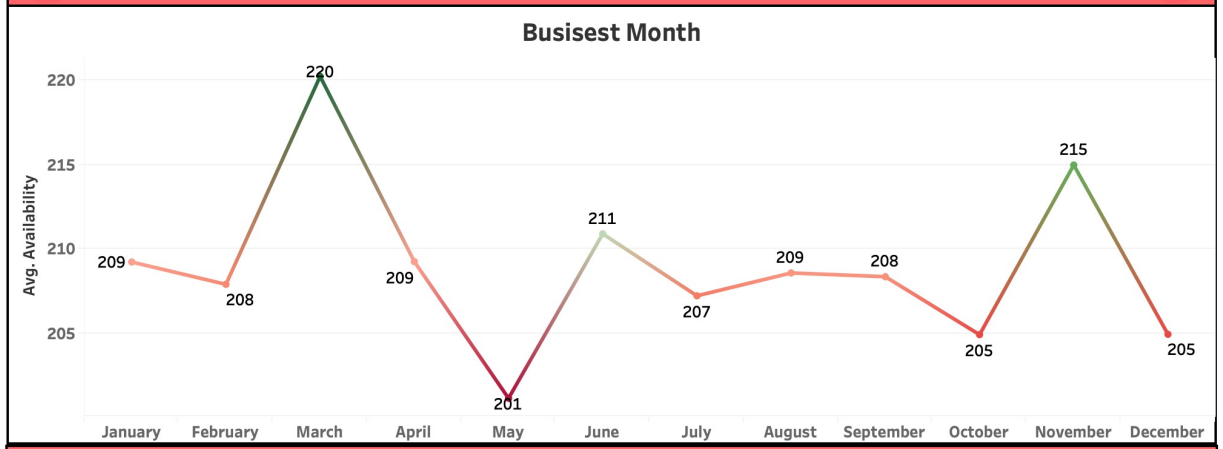
LISTINGS OVERVIEW



WHEN TO PLAN FOR VACATION?

Futuristic Airbnb - Exploring in London

When to Plan for Vacation?



Most/Least Expensive Time to visit London

Weekday of Date ..	January	February	March	April	May	June	July	August	September	October	November	December
Sunday	129.10	117.62	117.00	121.74	123.21	126.99	129.62	128.03	127.90	128.24	127.01	130.54
Monday	127.58	119.14	116.77	121.57	123.34	126.88	129.30	127.82	127.84	127.97	127.02	130.50
Tuesday	127.46	122.06	117.00	121.73	123.34	126.88	129.57	127.99	128.09	128.17	127.27	130.90
Wednesday	127.55	121.21	117.27	121.85	123.49	127.01	129.65	128.13	128.03	128.20	127.32	130.24
Thursday	127.38	121.59	116.82	122.06	123.65	127.59	129.60	128.18	128.13	128.26	127.52	131.92
Friday	128.74	123.69	118.91	124.13	125.61	130.21	131.36	129.77	129.65	129.93	128.96	134.21
Saturday	131.08	119.28	119.20	124.25	125.70	130.22	131.58	130.20	130.03	130.24	129.18	132.54

go-today
Travel your way

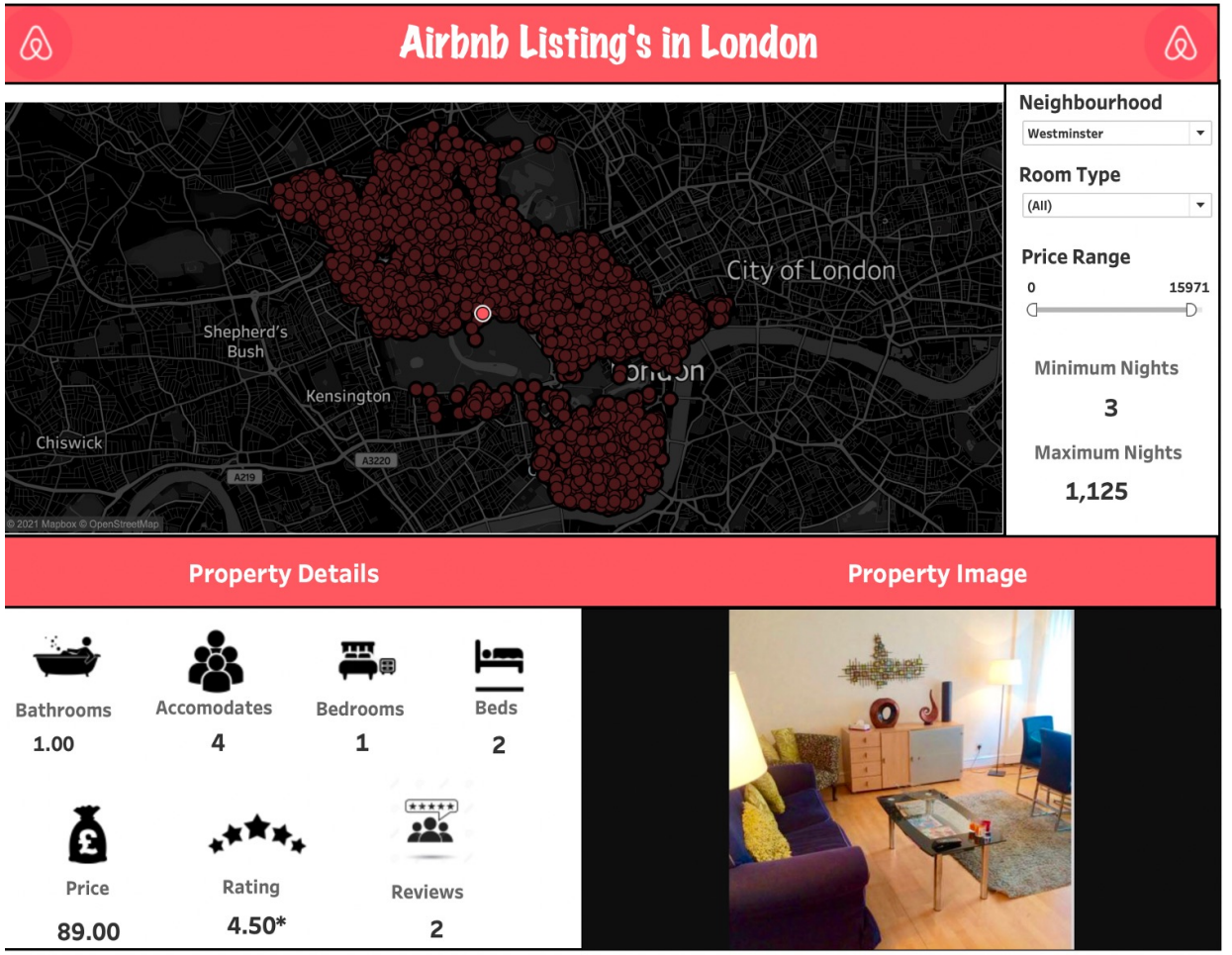
Looks like - the best time to visit London is during summer (April - June)
May being the busiset month to travel to London

The rates starts to increase from May throughout December month.
December being the costliest.

HELPING THE GUESTS TO FIND A BETTER ACCOMMODATION IN LONDON

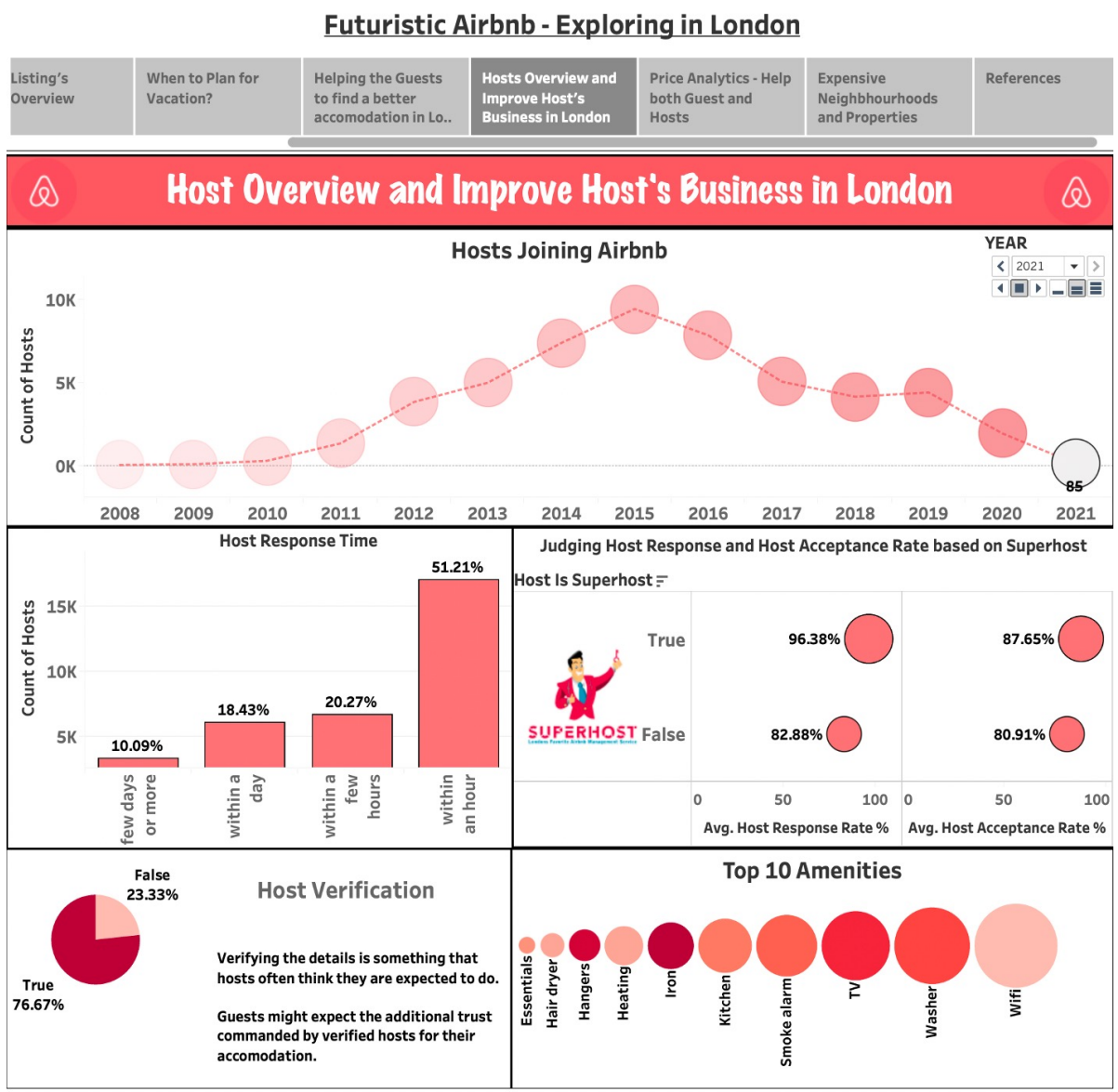
Futuristic Airbnb - Exploring in London

Overview of Airbnb - London | Listing's Overview | When to Plan for Vacation? | Helping the Guests to find a better accomodation in Lo.. | Hosts Overview and Improve Host's Business in London | Price Analytics - Help both Guest and Hosts | Expensive Neighbhourhoods and Properties

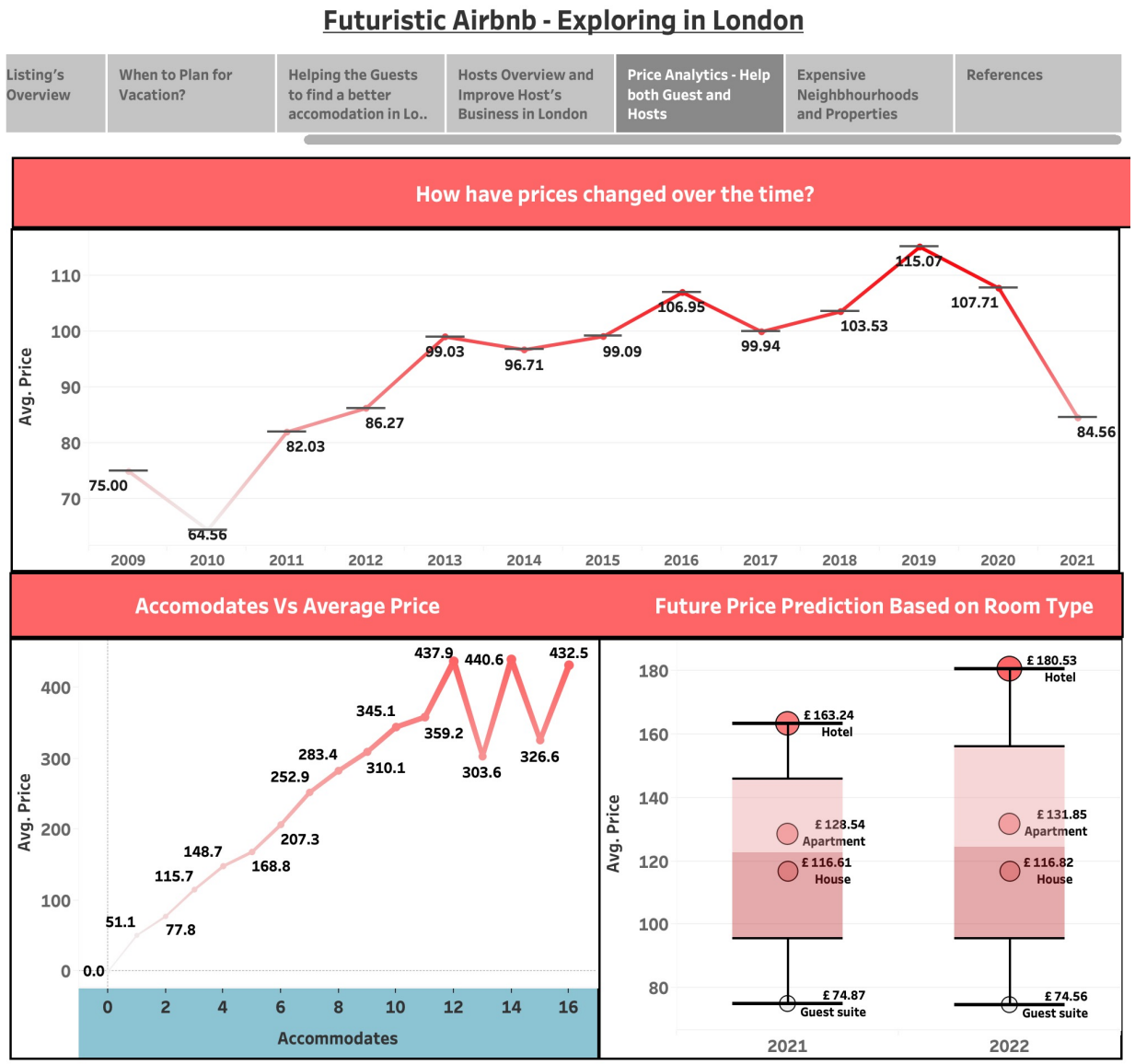


Note : Please select the listing on the map to view the respective listing image

HOST OVERVIEW AND IMPROVE HOST'S BUSINESS IN LONDON



PRICE ANALYTICS – HELP BOTH THE GUESTS AND HOSTS



MOST EXPENSIVE PROPERTIES AND NEIGHBORHOOD

Futuristic Airbnb - Exploring in London

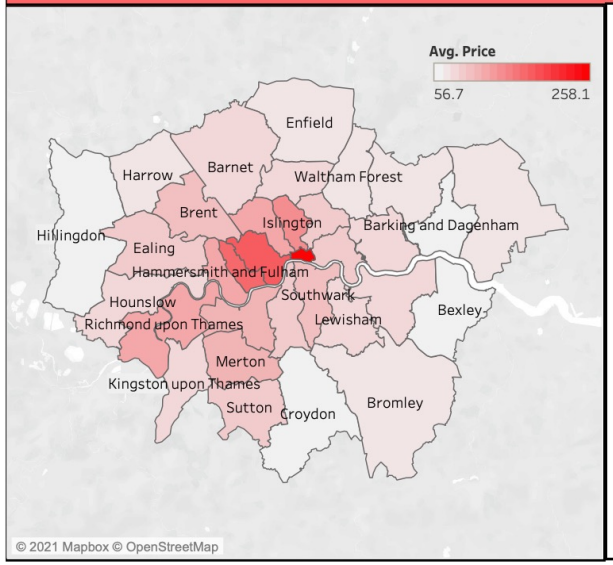
Listing's Overview | When to Plan for Vacation? | Helping the Guests to find a better accomodation in Lo.. | Hosts Overview and Improve Host's Business in London | Price Analytics - Help both Guest and Hosts | **Expensive Neighbhourhoods and Properties** | References

Most Expensive Properties and Neighbhourhood

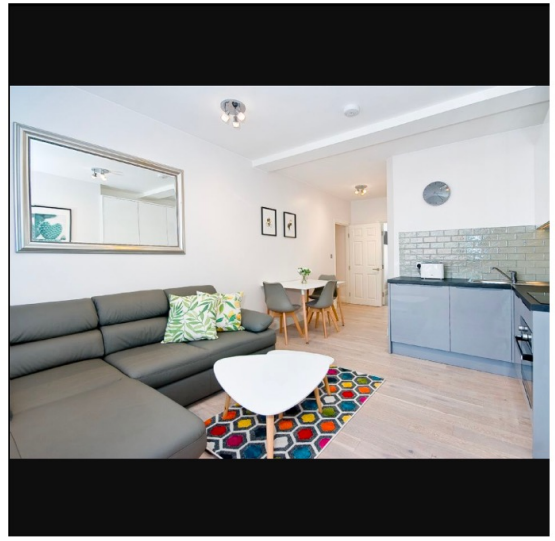
Top 5 Expensive Properties

Thames Historic 1920s House | Mulberry Flats | F2 Greek Street | F1 Greek Street | Eldon Chambers Flat

Average Price - Neighbourhood



Property Image



Dashboard Demo

TAKEAWAYS

- ***From Guest Perspective :***

✓ Renting Price based on the Accommodates

Can decide on the rent prices based on the accommodates

✓ Finding the Busiest Month By Listing Availability? When to plan for vacation?

To plan a trip for a cheaper accommodations (time when less people travel)

Best time to visit London (April and May)

✓ Judging the Host Response and Acceptance Rate?

Knowing about the best hosts for ease of communication

✓ Most and Least Expensive time to visit London

December – Costliest , Jan-April (Minimal Rate)

TAKEAWAYS

- ***From Host Perspective,***

✓ Amenities

Wi-Fi, Heating, Essentials, Kitchen and Washer are the most important amenities to be considered for the successful of listing. For those who are already in the business and don't have those amenities, make sure the facility of installing all or some of the amenities to grow your business

✓ Renting Price based on the Accommodates

Can decide on the rent prices or rent out the property based on neighbourhoods

✓ Judging the Host Response Rate?

For improving their response rate

✓ Future Price Prediction

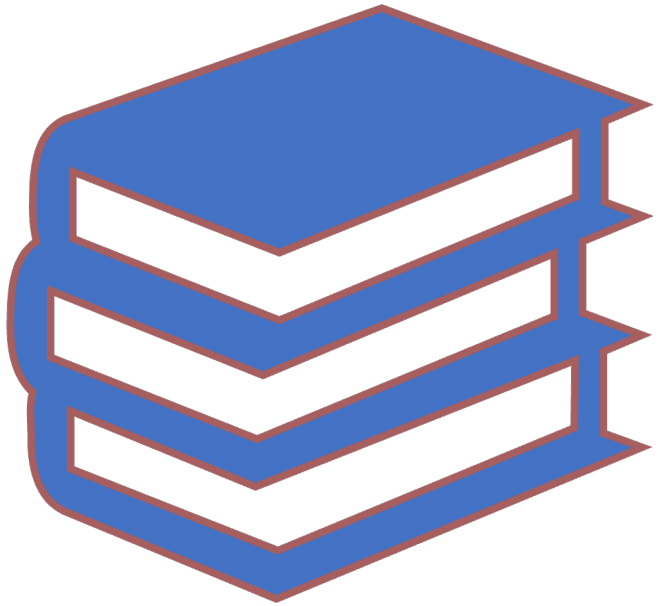
For the Hosts to set their prices based on the predicted result

CONCLUSION

- From the London Airbnb Data we can conclude the below points :
- The average price of the listings in London are around the rate of £113.90
- The average rating of the listings in London is 4.79 and they get around 31084 reviews per month
- The listings count is very less in London considering the current situation because of the pandemic
- Most of the property and room type belong to Apartment and Entire Home/apt respectively
- The Peak season to travel in London is during their summer season (April and May), where May is the busiest month for travel
- The price range of the listings is very high during December month
- Using Airbnb's listing data, it helps the guests to find better accommodation in London
- The Hosts joining Airbnb count is very less in London considering the current situation because of the pandemic
- Host Response time, Host Acceptance and Response rate are actually good in London Airbnb in the margin of above 80%. Additionally, most of the hosts are verified in the margin of about 77%
- The Price change over time is keep on fluctuating in London. The future price prediction is also high in the case of apartments.

FUTURE WORK

- Covering more countries to know the actual Airbnb business strategy
- Work on reviews texts by generating word clouds to know what the customers are thinking about it?
- To determine the future predictions based on the neighbourhoods
- To implement more design principles as discussed in the class



REFERENCES

Dataset Resource:

http://insideairbnb.com/get-the-data.html

Dashboard Design Resource:

https://help.tableau.com/current/pro/desktop/en-us/buildmanual_shelves.htm
https://help.tableau.com/current/pro/desktop/en-gb/actions.htm
https://help.tableau.com/current/blueprint/en-us/bp_visual_best_practices.htm
https://senturus.com/blog/tableau-dashboard-design-10-best-practices/
https://www.tableau.com/learn/articles/data-visualization-tips
https://help.tableau.com/current/pro/desktop/en-us/what_chart_example.htm

Image Source:

(Dashboard Title Page) https://www.axisrooms.com/Airbnb-effect-hotel-industry/
(Icons Used) Google Search In images and inbuilt PPT templates

General References:

https://www.airbnb.co.in/
https://en.wikipedia.org/wiki/Airbnb