airbnb

How has Airbnb in London been affected by Covid-19?

Data: 2019, 2020, 2021 Airbnb Review/ Listing Data

DSO510 Final Project - Team 10
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Findings

1 Area:
The demand, supply and price in the center of London decrease the most after the outbreak of Covid-19

2 Room Type:
The price of hotel room differs the most after the outbreak of Covid-19

3 Review Content:
Lockdown leads to more negative comments

4 Host Type:
The number of superhosts decreased while its quality declined slightly

Introduction - Business Problem

Airbnb is an **online accommodation rental platform** that allows people list, find and rent short-term lodging

Before the COVID-19 pandemic, Airbnb has **disrupted the hotel industry** Millions of guests and hosts are continually growing

However, the **pandemic has triggered an unprecedented crisis** in Airbnb

How has Airbnb in London been affected by Covid?

—— Area │ Room Type │ Review Content │ Host Type ——

Introduction - Dataset

Before COVID	After COVID	After COVID
outbreak (2019/11)	outbreak- UK 1st lockdown (2020/06)	outbreak - UK 3rd lockdown (2021/02)

Listing
- ID
- Score(Overall/Subcategory)
- Price
- Room Type
- Host Type
- Response Rate
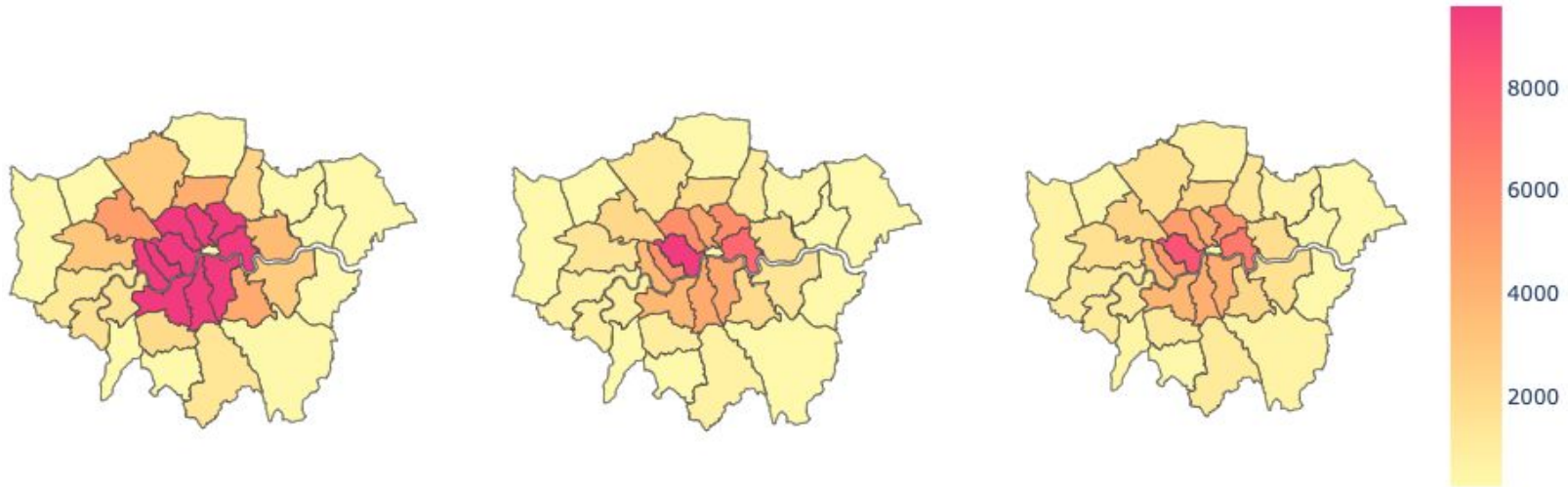
Review
- Listing ID
- Date
- Comment

EDA-Area

Demand

- The areas in the center of London have the highest monthly demand at all time
- Monthly demand **decreases** after the outbreak of Covid, especially the areas in the center of London
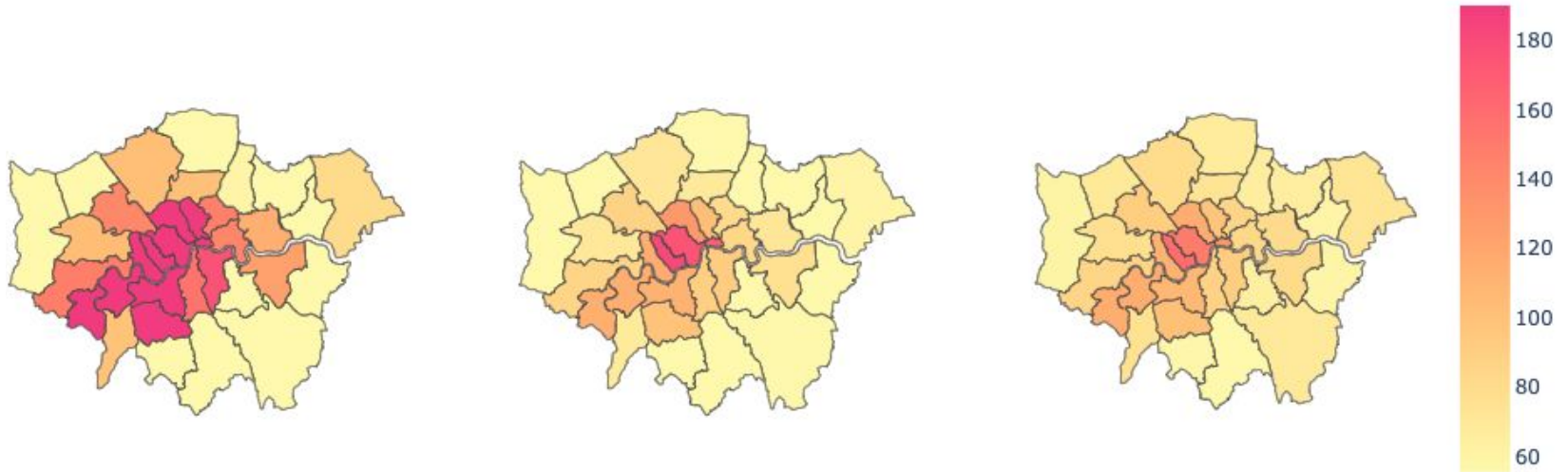
EDA-Area

Supply

- The areas in the center of London have the highest supply at all time
- Supply **decreases** after the outbreak of Covid, especially the areas in the center of London

EDA-Area

Price

- The areas in the center and southwest of London are the most expensive at all time
- Price **decreases** after the outbreak of Covid, especially the areas in the center and southwest of London
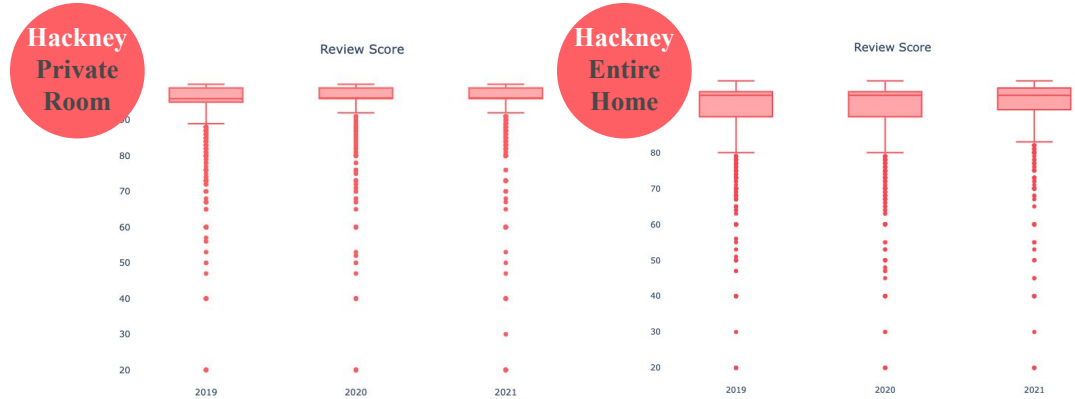
EDA-Area

Review Score

- The differences of review score between different areas decrease
- The changes in average review score does not follow the certain pattern, so we cannot assure whether Covid has impact on review score
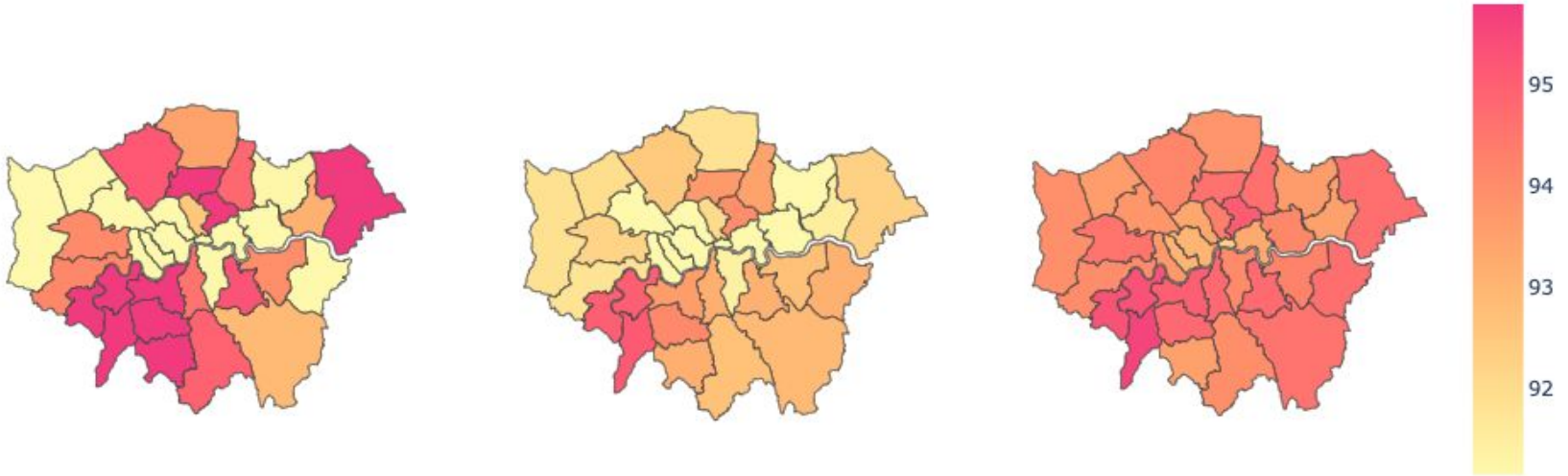
EDA-Room Type

Review Score

In each area, the review scores of different room types did not differ a lot before and after the outbreak of covid

Price

In each area, the price of **hotel room** may differ greatly before and after the outbreak of covid, especially the hotel room in Southwark. However, the price of other room types did not differ a lot
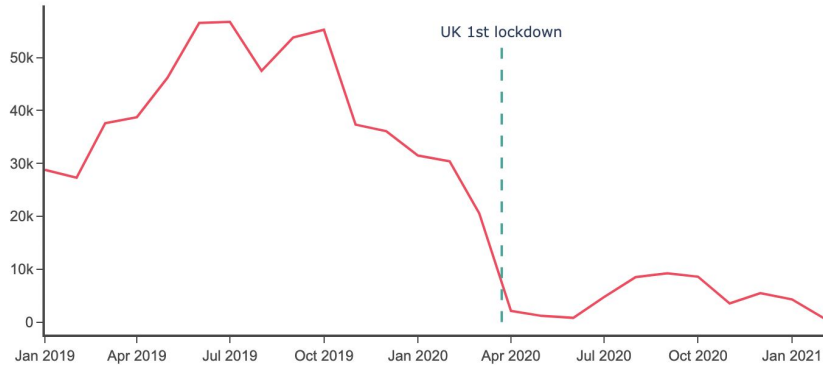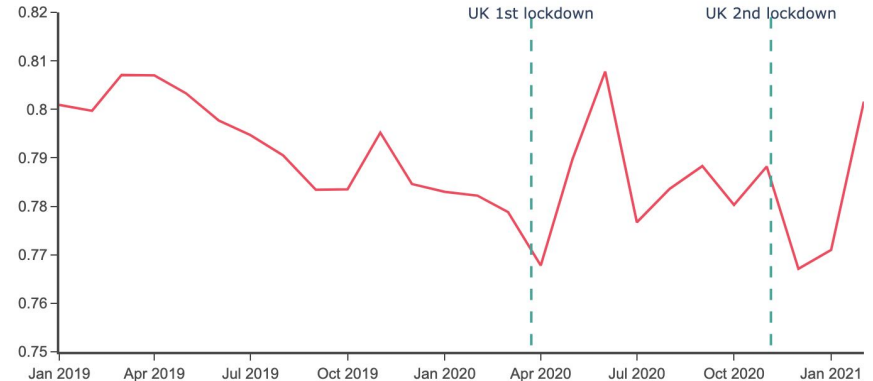
EDA-Review Content

- Lockdowns lead to a **decrease** in Airbnb's demand
- Customers tend to leave a more negative comment right after lockdown starts
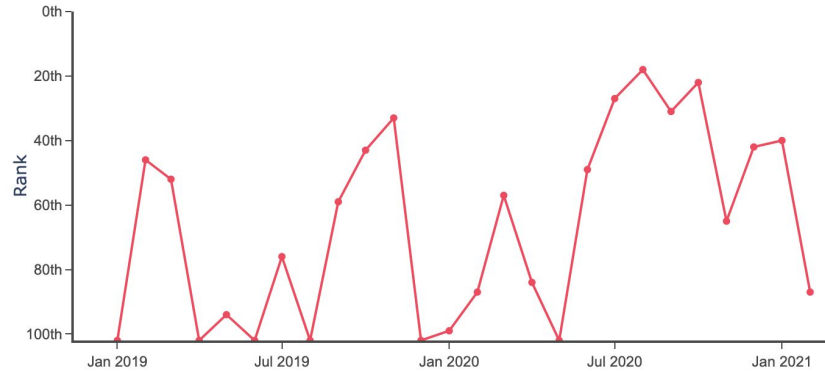
Number of Review
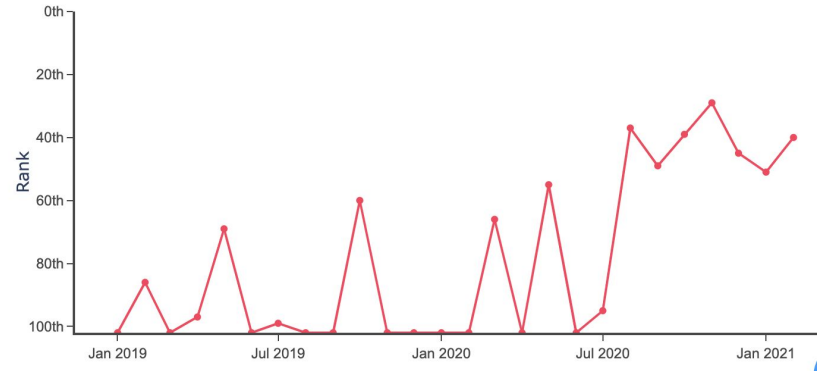

Average Sentiment Score

EDA-Review Content

- Due to covid, more customers choose Airbnb as their destination for staycations
- Demand for conducting online meetings in Airbnb **increases**

Trend of 'Staycation'

**Trend of 'Zoom'**

EDA-Host Type

Overview
Number of hosts:
- Host: The number of normal hosts remained consistent, dropping slightly in 2021
- Super Host: Superhosts shrank in 2020 and 2021
- Percentage wise, hosts went from 85% in 2019 to 87.7% in 2021

Number of listings:
- The number of listings for both hosts and superhosts diminished
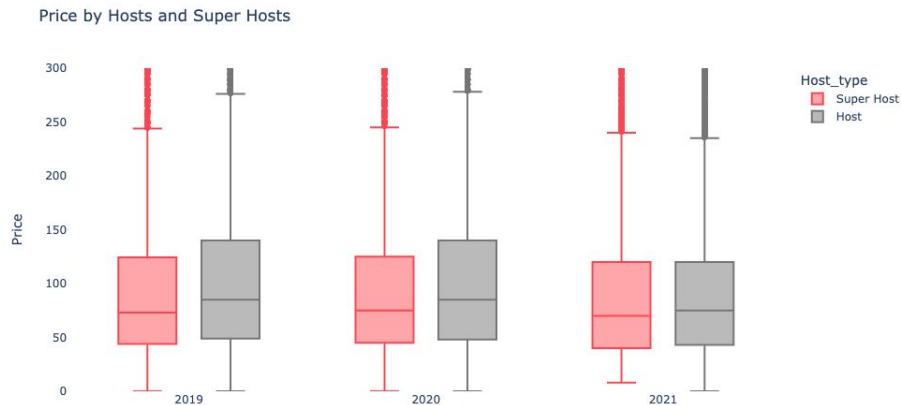- Percentage rise, from 2020-2021 hosts went from 85% to 86%

Response rate
- Host: Experienced a sharp drop, falling by 6% each year
- Super Host: Dropped slightly in 2020, but remained at a consistent level afterwards
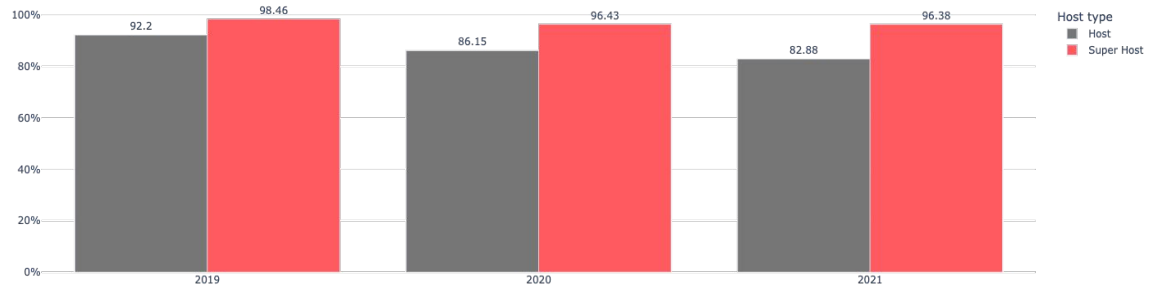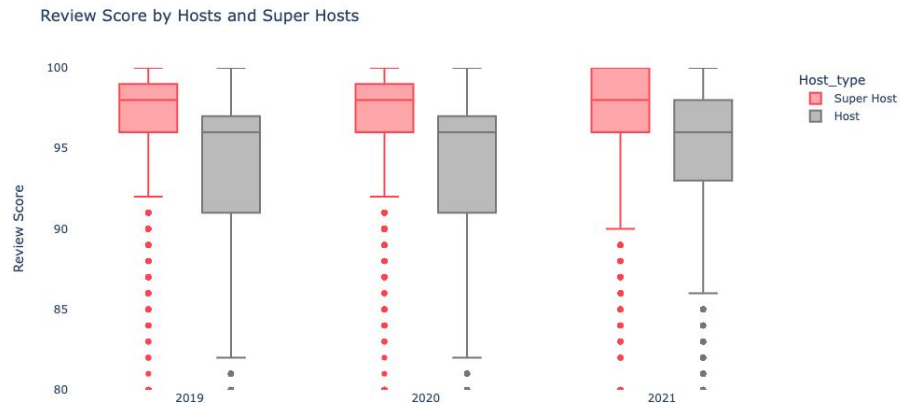
EDA-Host Type

Price

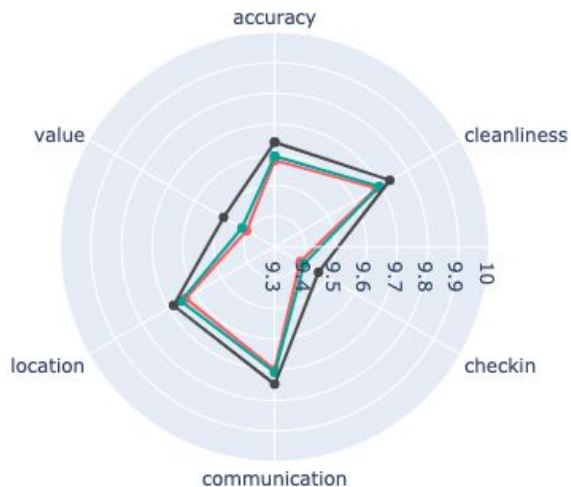The prices for host and superhosts decrease in 2021, with normal hosts having a more drastic impact

Review Score

The review scores for host and superhosts rise in 2021. However, the rise was stronger for normal hosts

Price by Hosts and Super Hosts

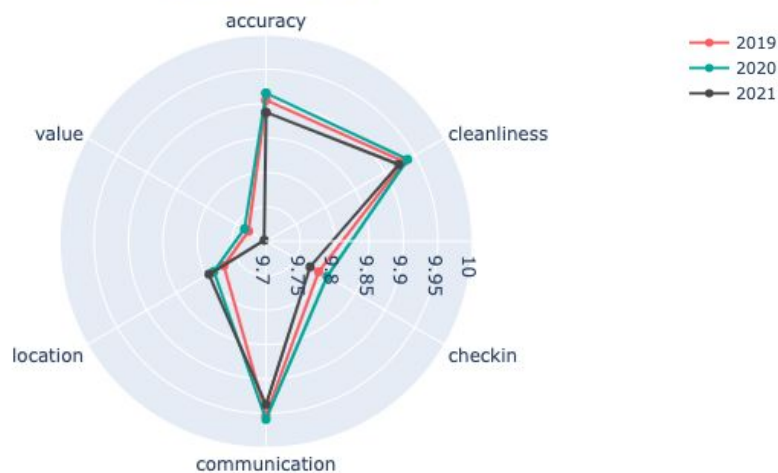Review Score by Hosts and Super Hosts

EDA-Host Type (Category Review Scores)

Hosts

Scores increased in all categories
throughout the 3 years

Super Hosts

In 2021, scores fell in
all categories except location

Dashboard - Potential Users' Persona

Occupation

Company: Airbnb

Job: Business Insights Analyst

Responsibilities:

- Identify and solve for business problems
- Define and monitor metrics
- Drive decisions for a three sided marketplace
- Build the business insights platform

Dashboard - Area

Dashboard - Room Type

Dashboard - Review Content

Dashboard- Host Type
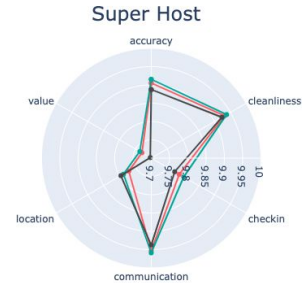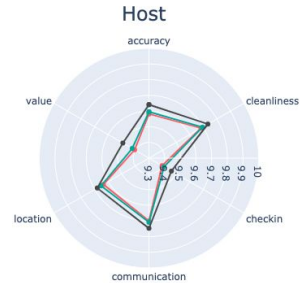
Conclusion - Opportunities & Suggestions

Market	The areas in southwest London have high review scores and possess competitive price than other areas	Airbnb could increase listing properties in southwest London for planning their business development strategy in post Covid
Customer	Instead of traveling far for trip, customers tend to plan their vacation nearby	Airbnb could optimize their search algorithm by prioritizing the listings with potential destination for staycation
Host	The strengths of superhost are accuracy and communication	Airbnb could suggest hosts to provide sufficient information for customers and improve communication skill to become super hosts, who can get more exposures for the listing

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Thank You