



How has the Airbnb market in LA changed after COVID ? (2018/19 vs 2020/21)

Yes, price obviously went up.
But what's more?

We noticed the minimum nights of staying set by the host seems to increase. We would like to know:

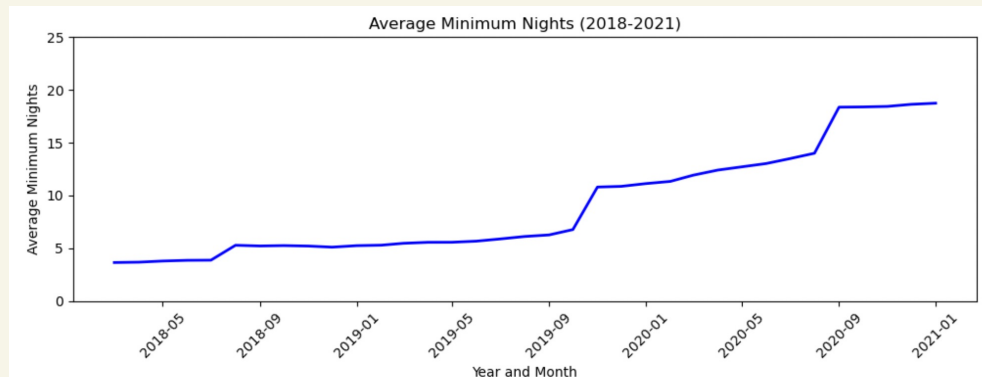
Q1. if this trend really exists.

Q2. if geographical location affects this trend.

Q3. if the size of the host affects this trend.

Q1 We would like to see if this trend really exists.

| Steps | Approach |
|--|--|
| Obtain time data from 'Scrape File' column | Use filename.split('_')[2:4] to extract 'year_month' from 'Scrape File' column |
| Clean data to ensure all data is usable | Use <code>airbnb_data.dropna</code> to remove invalid data |
| Plot line chart to see trend | Use 'year_month' and 'minimum_nights' to plot |

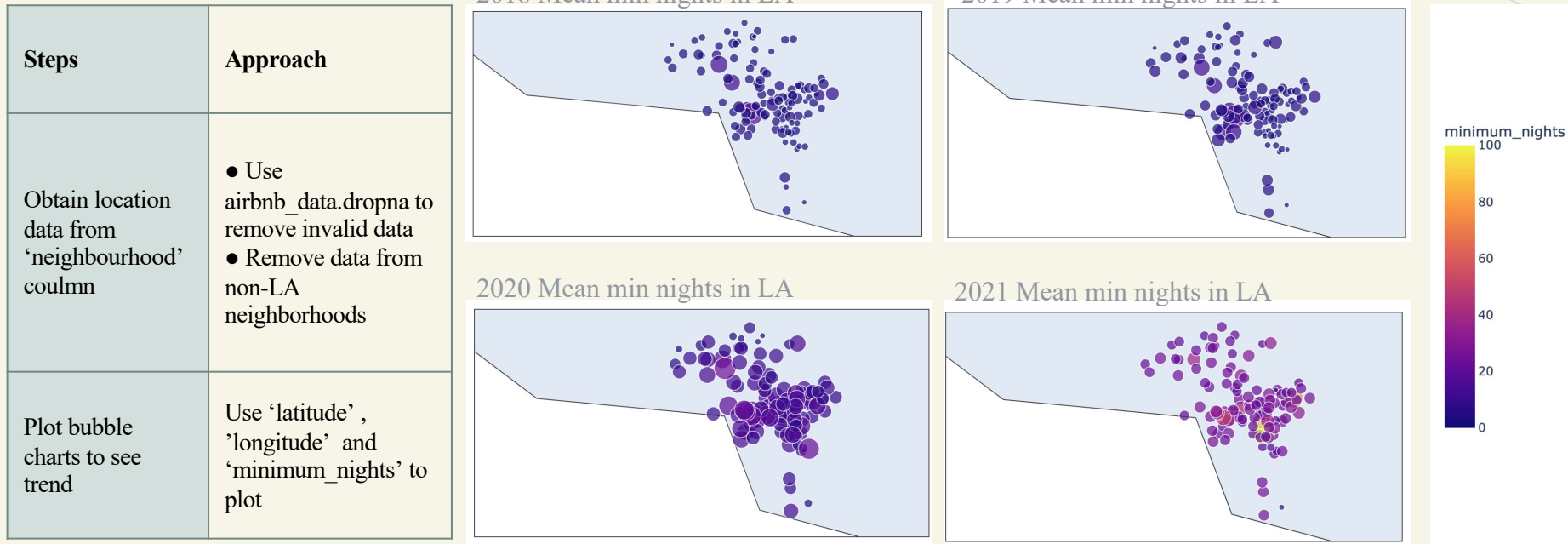


A1

Yes, we can see the minimum nights of staying shows an upward trend in 2020/21 compared with 2018/19.

Q2

Next, we would like to clarify if geographical location of the listings affects this upward trend of minimum nights.



A2

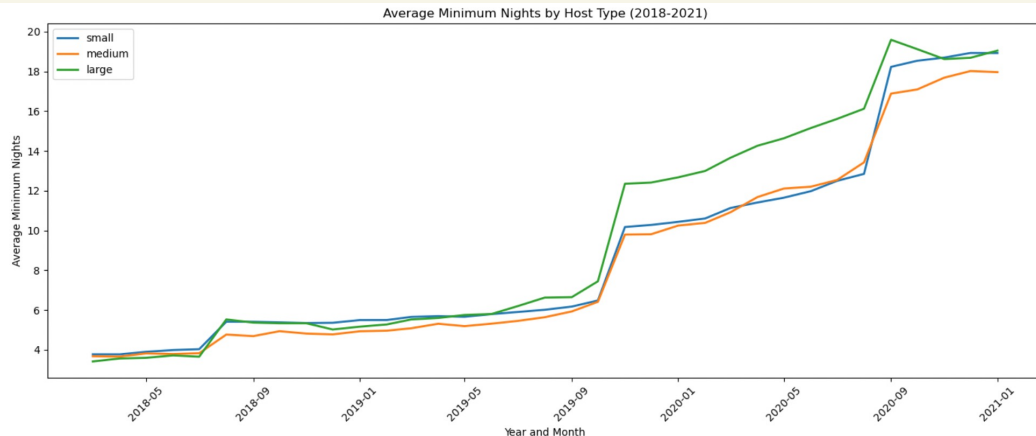
We can see the shades of the bubbles get lighter over time, indicating the overall minimum nights has increased.

However, we do not see listings in specific geographic locations experienced more significant increases in minimum nights changes.

Q3

Moreover, we would like to know if hosts with more listings are more likely to increase minimum nights?

| Steps | Approach |
|--|--|
| Classify hosts into large, medium and small groups | <ul style="list-style-type: none"> ● Use <code>airbnb_data['calculated_host_listings_count'].describe()</code> to have an overview of numbers of listings owned by hosts ● According to data description, we categorize hosts into 3 groups as 'host_type': <ol style="list-style-type: none"> a. Small: 1 listing on Airbnb b. Medium: 2-3 listings on Airbnb c. Large: over 4 listings on Airbnb |
| Plot line chart to see trend | Use 'host_type', 'year_month' and 'minimum_nights' to plot a line chart |



```
count    1.633610e+06
mean      6.309192e+00
std       1.741204e+01
min       1.000000e+00
25%       1.000000e+00
50%       2.000000e+00
75%       4.000000e+00
max       3.080000e+02
Name: calculated_host_listings_count, dtype: float64
```

A3

Yes, with minimum nights increasing throughout all types of hosts, we can see the large hosts tend to experience a more drastic rise.