Project Proposal - Nashville Airbnb

Context

To lower the barrier of entry for new AirBnb hosts, Airbnb is launching an app so that new hosts can get an estimate of how much they can get per night for their listing. This will solely be based on the features of the house. The app will first be tested with Nashville, TN and then be expanded to other parts if this is a successful launch.

Problem statement formation

Airbnb's goal with this app is to lower the barrier of entry by freely providing pricing data to potential hosts that may value that extra information. Airbnb hopes to attract 10% more hosts to join Airbnb and list a property this year than what was originally expected.

Criteria for success

Lower the barrier of entry so that 10% more hosts join airbnb and list a property this year than what is expected.

Scope of solution space

Use regression analysis to calculate the predicted one night price based on the house features:

- Neighborhood
- Room type
- Minimum night stay
- # of people who can stay
- Bathrooms
- Bedrooms
- Beds
- amenities

Constraints

This does not include things that the host can do on their profile to increase the associated value of the house or the value of good word of mouth. Variables that can be used in a secondary analysis include:

- Number of houses they've listed
- Superhost - (yes/no)
- Description content

- Profile pic included - (yes/no)
- Ratings on the property

Stakeholders

Airbnb, Airbnb hosts, and Airbnb customers… provides more available houses.

Data sources

Data available on insideairbnb.com. This site has Airbnb listings for several cities. The data I will be using is for Nashville, TN. It was scraped on December 21, 2022.