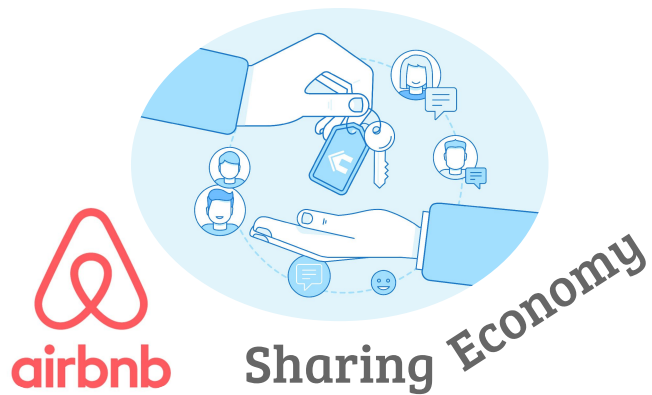


Airbnb in Singapore

How to maximise rental?



Background



**3 month
minimum**

How many people stay in Airbnb rentals
per night worldwide?

1) 250k

2) 500k

3) 1 million

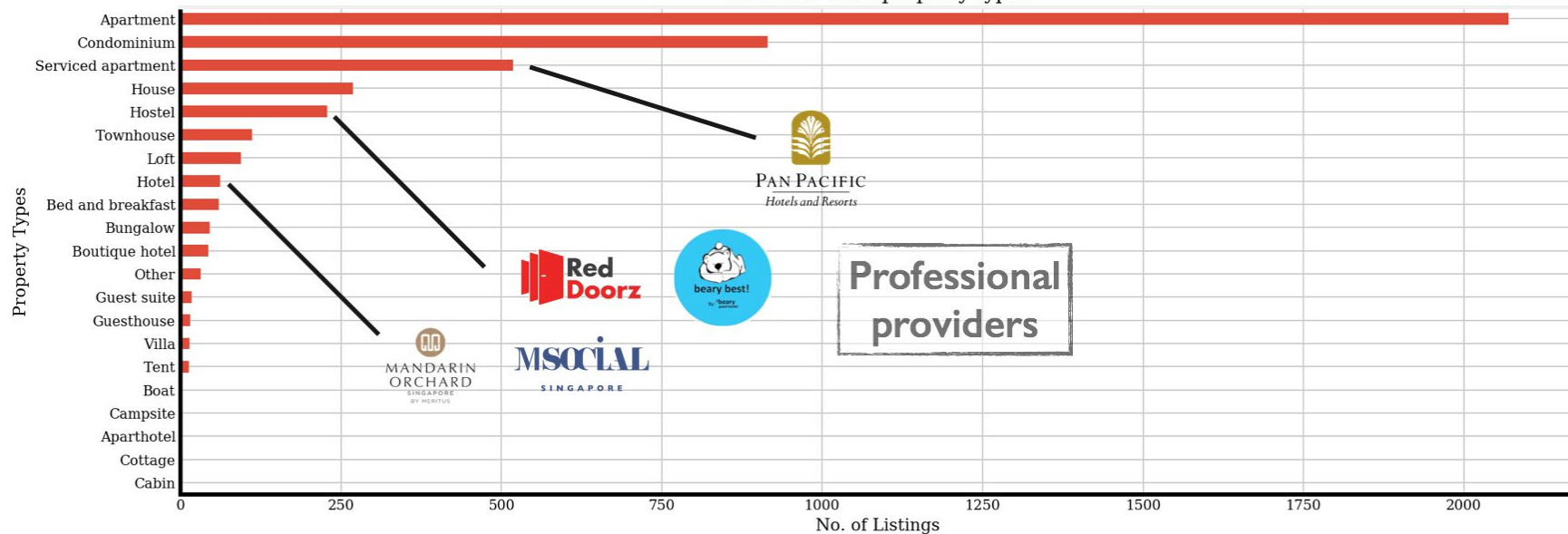


4) 2 million

**Fun
Fact!**

Airbnb in Singapore

Counts of each property types



Target Audience

Alternative Accommodation Providers



**Serviced
Apartments**



Hostels



**Boutique
Hotels**

Home Owners

**> 3 months
or Future**

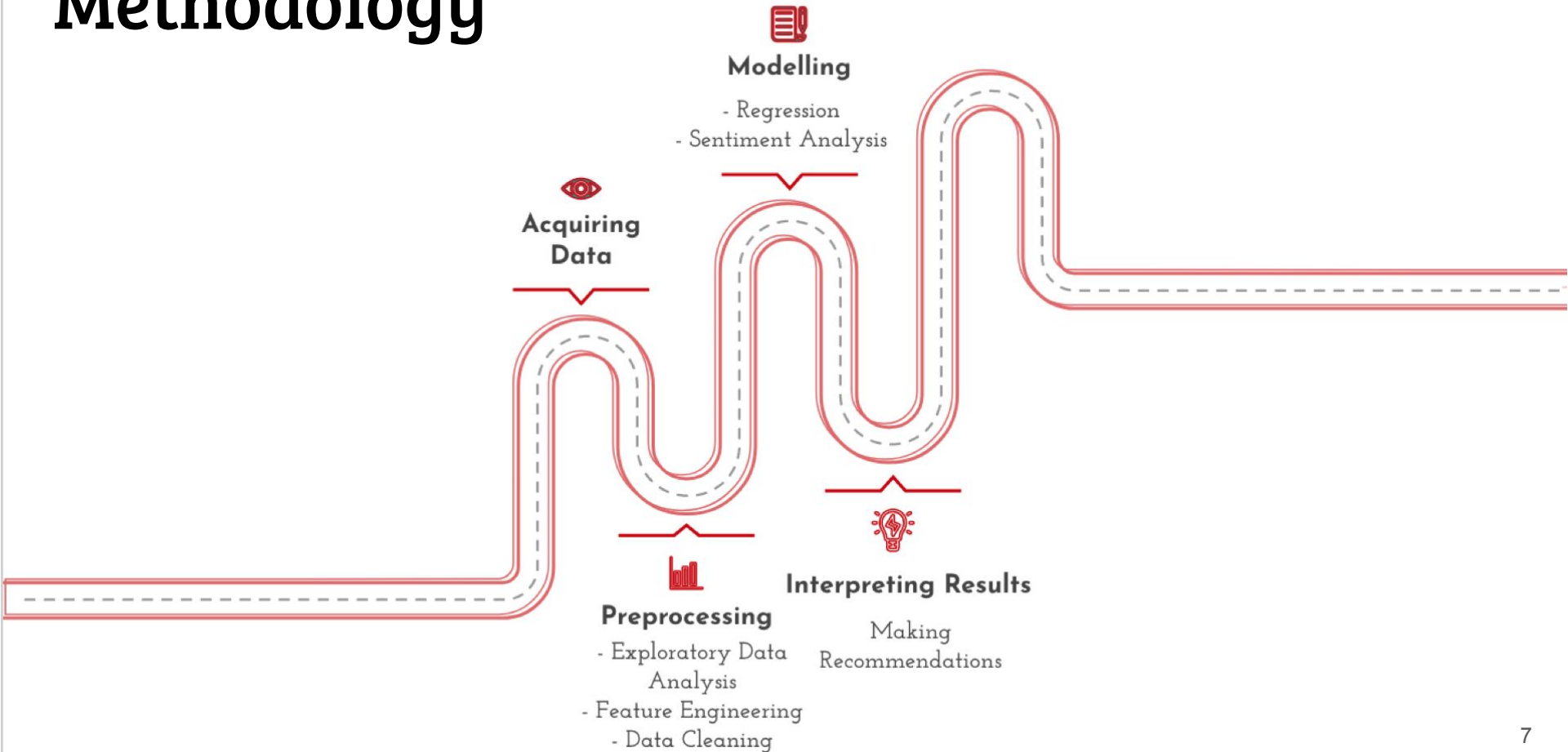
Objectives

**Predict price &
Identify price
determinants**

**Analysis on
Guest Reviews**

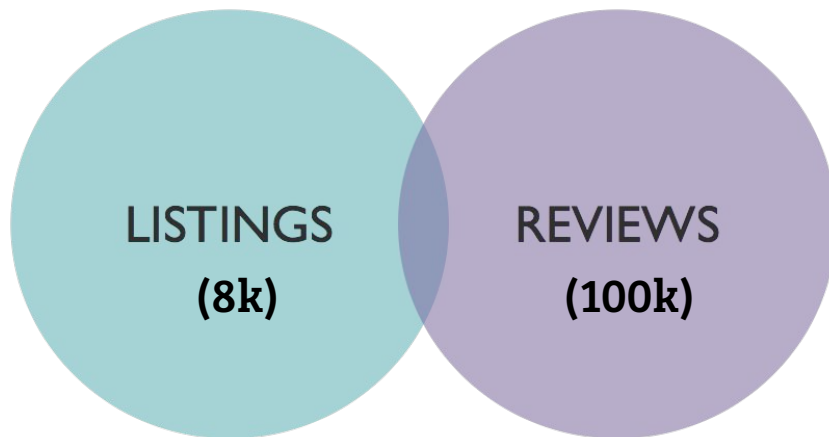


Methodology



Data Set

Listing Name
Listing Description
Location
Apartment Set-up
Room Type
Property Type
Minimum Nights
Guests Allowed
Guest Verification
Instant Book
Host Name
Superhost
Host Verification
No. of reviews
Security Deposit
Price



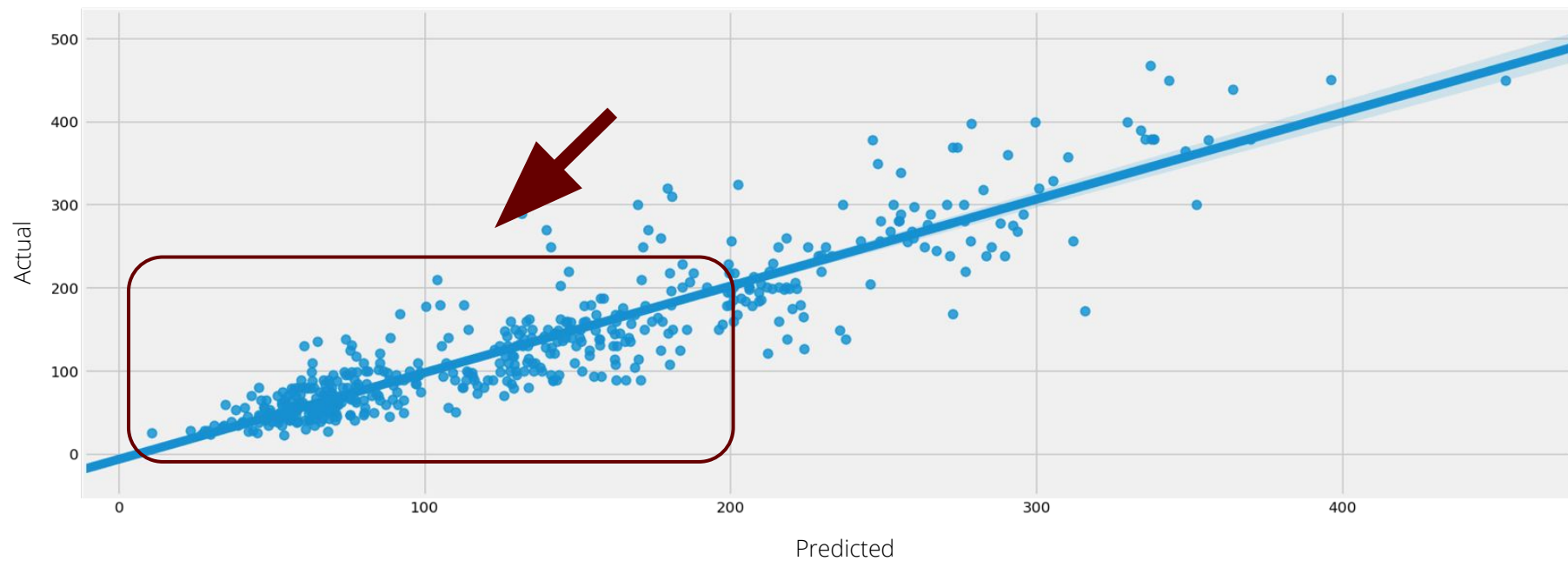
Name of Reviewer
Listing ID
Date
Review

Predicting Price

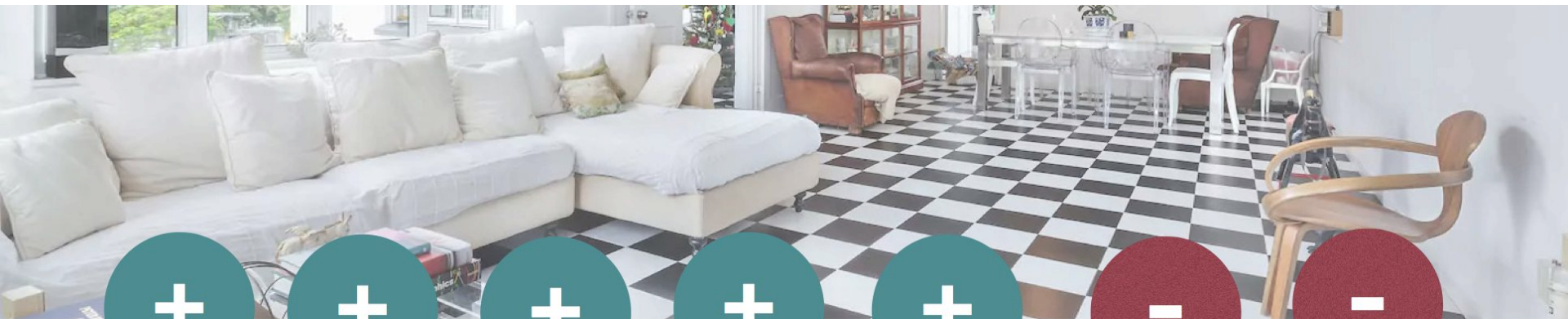
Regression Models

	Lasso	Ridge	Random Forest	XGBoost	Ensemble
R2 Score	0.80	0.80	0.822	0.82	0.84
MSE	1,622.17	1628.92	1466.18	1,470.14	1,359.63
RMSE	40.27	40.35	38.29	38.34	36.87

Predicting Price



Price Determinants



+

**Entire
Home**

+\$61

+

**No. of
Guests**

+\$22

+

**Super
Host**

+\$20

+

**Recent
Reviews
Available**

+\$8

+

**Instant
Book**

+\$5

-

**Super
Strict
Cancellation**

-\$26

-

**Shared
Room**

-\$37

Analyzing Reviews



“ The location is accessible. A few minutes walk from the house to nearest bus stop which can bring you to town. ”

“ Good place, good hosts, good price. ”

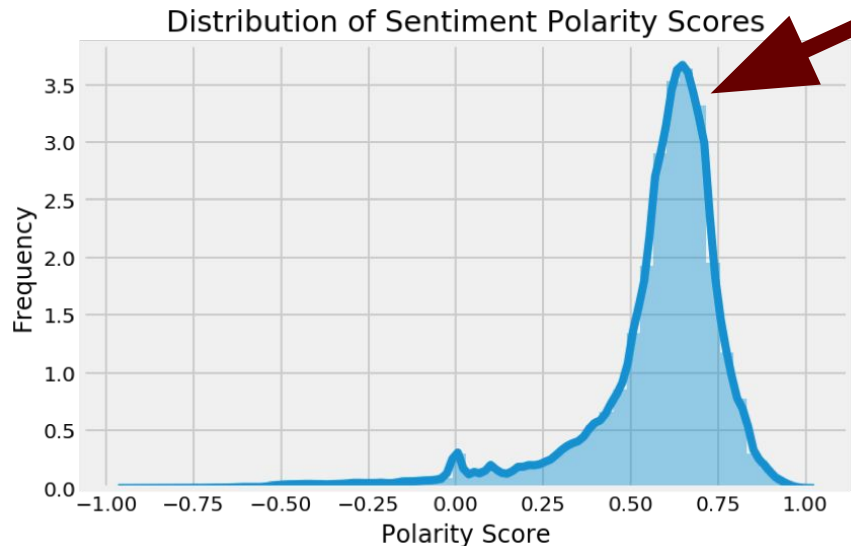


Analyzing Reviews

Sentiment Analysis

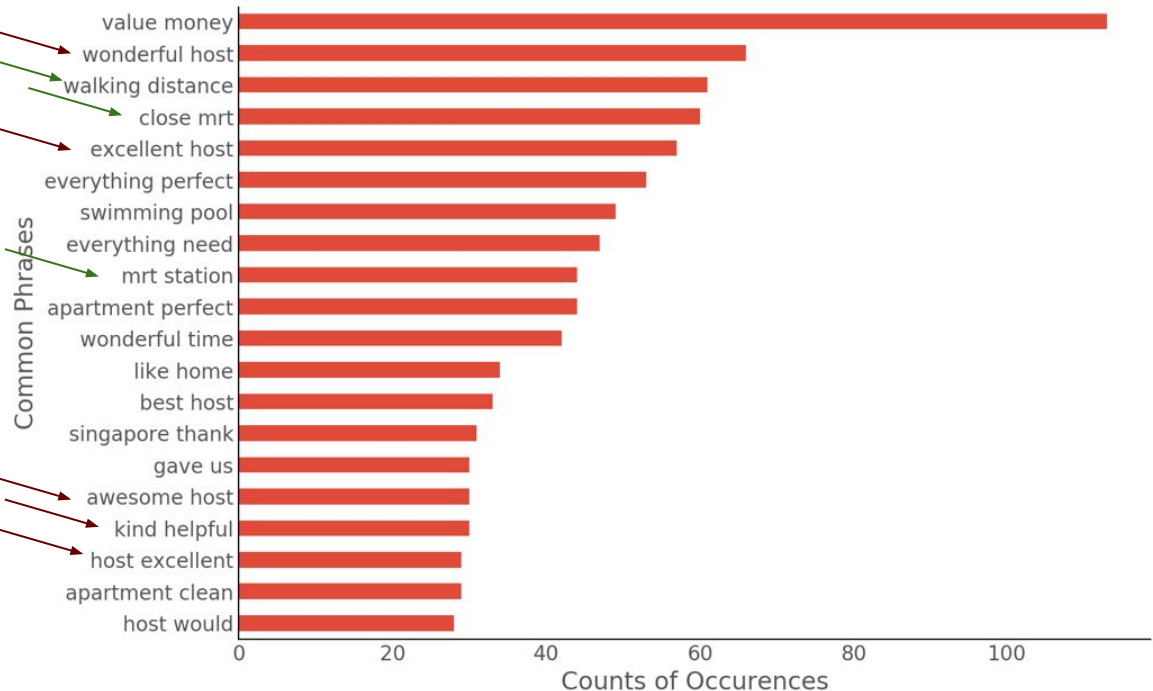
Vader Sentiment Analysis
+
TextBlob Text Processing

Average
Polarity Score:
0.574



Analyzing Reviews

Result of CountVectorizer on Positive Reviews



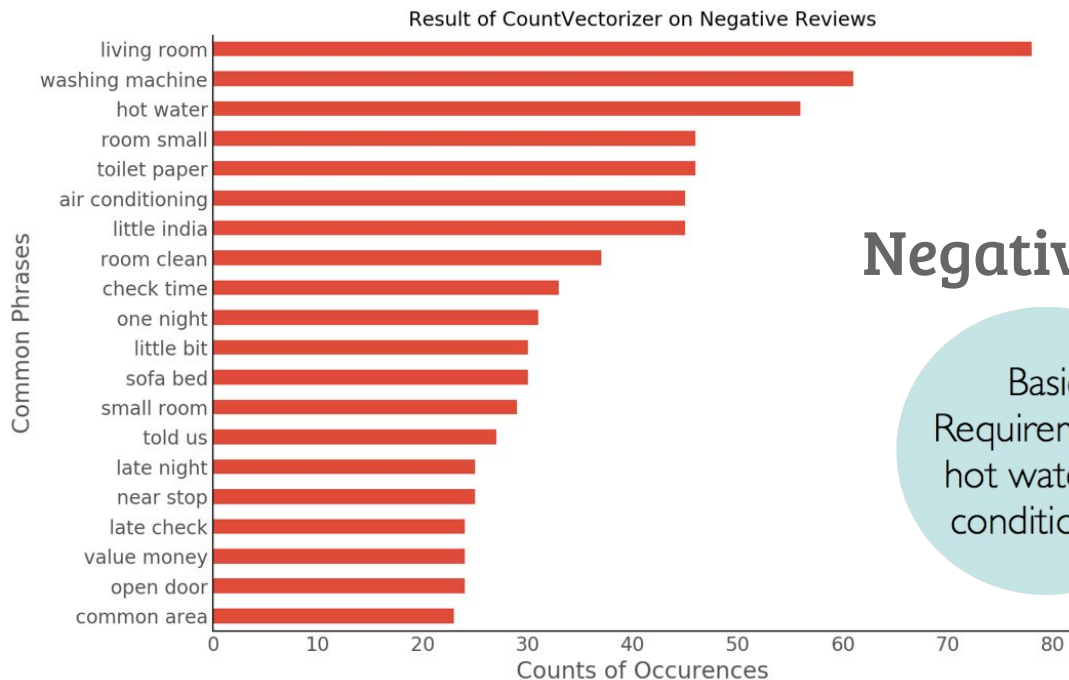
Positive (>0.85)

Host
Service

Location



Analyzing Reviews



Negative (<0)

Basic
Requirements:
hot water, air
conditioning

Limitations & Future Improvements

A hand is shown placing a wooden block on top of a staircase made of wooden blocks. The staircase is composed of four blocks, each slightly offset to the right and up from the previous one. The hand is holding a fifth block, ready to place it on top of the fourth one. The background is white.

- Does not consider seasonality in pricing
- Prices in data are set by individual hosts, who may not list at optimal rates
- Only studies English language reviews



Questions?