presented by **Group O**

AIRBNB PRICE PREDICTION

PRESENTATION

https://th.airbnb.com/

OUTLINE

1. Get to know us
2. Get smart with modelling
3. Get into action

PAST → PRESENT → FUTURE

1

Get to know us

CONCEPT

American Online Platform with “Anything, anywhere”

OUR COMPANY

You can
host
anything, anywhere,
so guests can
enjoy
everything, everywhere.

OUR LEADER

“ Culture is so incredibly important because it is the foundation for all future innovation. People with passion can change the world. “

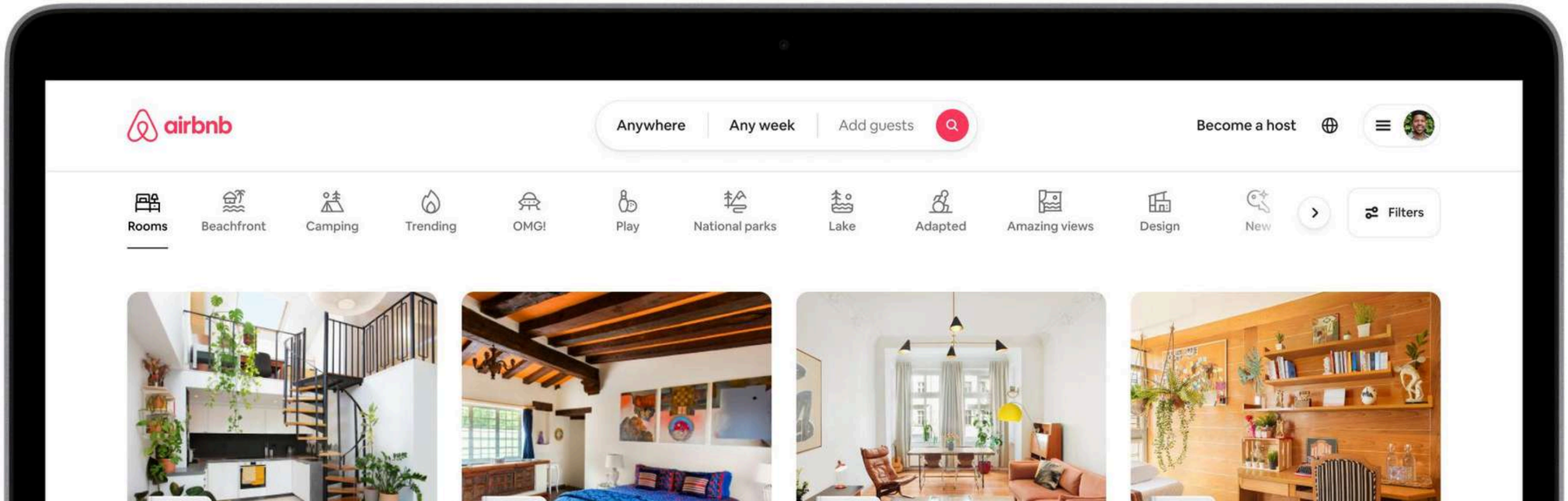
BRIAN CHESKY
CEO Of Airbnb

UNIQUE SELLING POINT

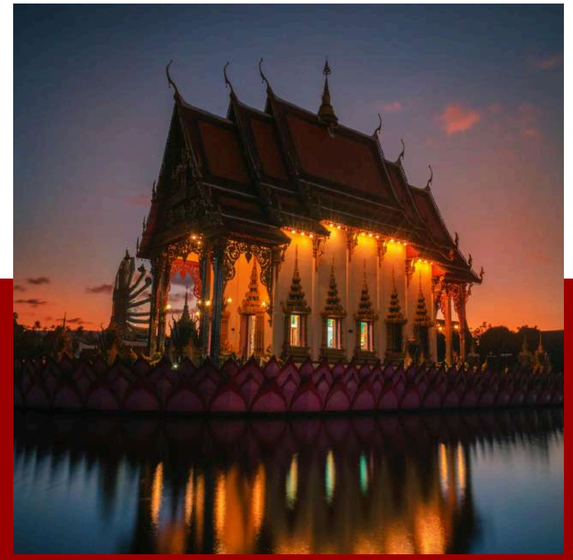
Unique stays,

Experiences,

Adventures, and more



WHAT'S ABOUT IN THAILAND ?



Land of smile

ROLE PLAY

Situation :

- imagine you’re about to partner up with Airbnb
- Your asset is perfectly decorated and ready to be rented

what’s about PRICING ?

HOST’S ‘PRICING’

There are many factors that can affect host’s pricing strategy

business strategy

Competitiveness

Price

facilities

FACTORS AFFECT HOST’S ‘PRICING’

Target group

services

property type

Location

number of room/bed/etc.

BAD PRICING STRATEGY

- Sales drop -> decline in profit
- Bad reputation
- Loose competitiveness

ROLE PLAY

Situation :

- imagine you're a traveler seeking for perfect ways to enjoy your time
- looking through Airbnb to find a perfect match !

Does this price worth it ?

TRAVELER'S 'DECISION'

There are many factors that can affect traveler's decision.

Purpose

Accomodates

Activities

Price

facilities

FACTORS AFFECT TRAVELER'S 'DECISION'

Location

services

High ratings?

Trust

number of room/bed/etc.

BAD DECISIONS

- Dissatisfaction
- Money go to waste
- price gouging

BUSINESS PROBLEM

What’s about PRICING ?

- Price
- Number of bedrooms/bathroom
- Services
- Location
- Room type
- Facilities
- Market price
- Competitiveness . . .

Does this price worth it ?

- Price
- Accomodates
- Services
- Location
- Purpose
- Ratings
- Number of reviews
- Host verifications . . .

THAT'S WHERE

WE CAME IN !!!

WITH OUR PREDICTIONS

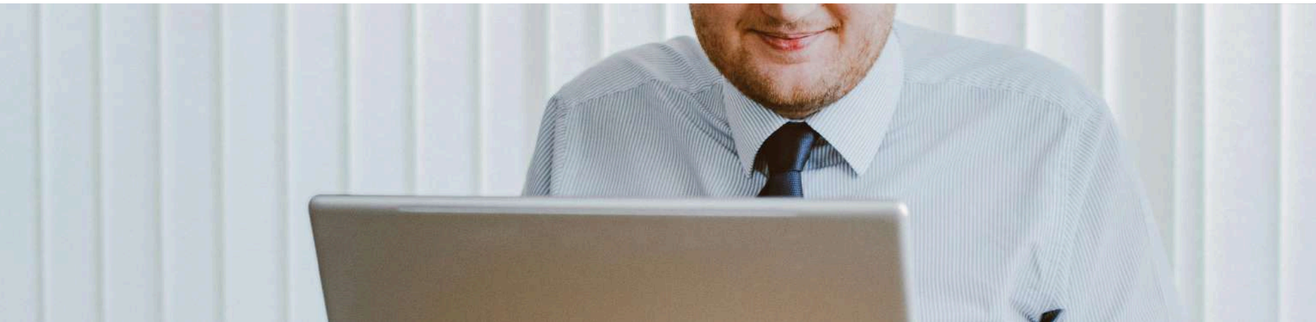
will help reduce the discomfort in both host and traveler's sides.

AIRBNB PRICE PREDICTION

BASE PRICE

Host's Productivity

Traveler's Satisfaction



2

Get smart with modelling

Choose the best to do model evaluation

MODELLING

1
XGBoost

2
Support Vector Regression

3
Multiple Linear Regression

FEATURE ENGINEERING

Drop row

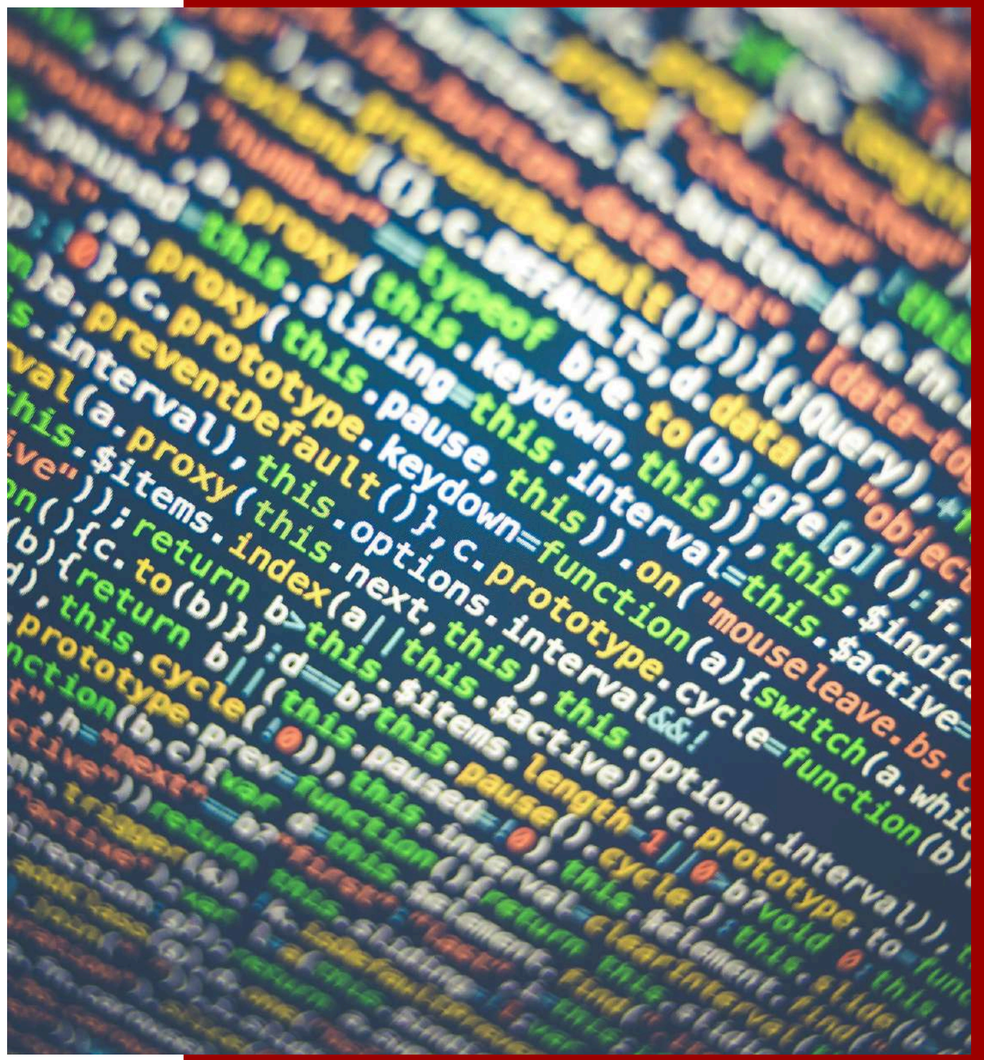
- example: Room type ‘shared room’

One-Hot Encoding

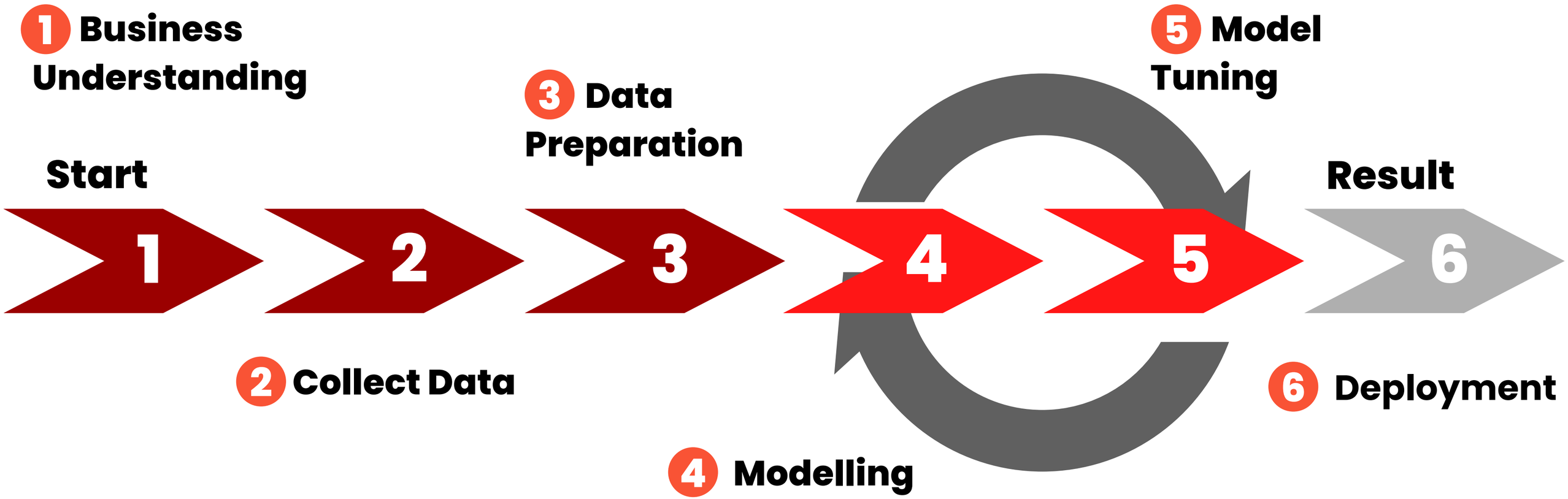
- Support Vector Regression
- Multiple Linear Regression model

Min-Max Scaling

- Support Vector Regression
- Multiple Linear Regression model



DATA SCIENCE PROCESSES

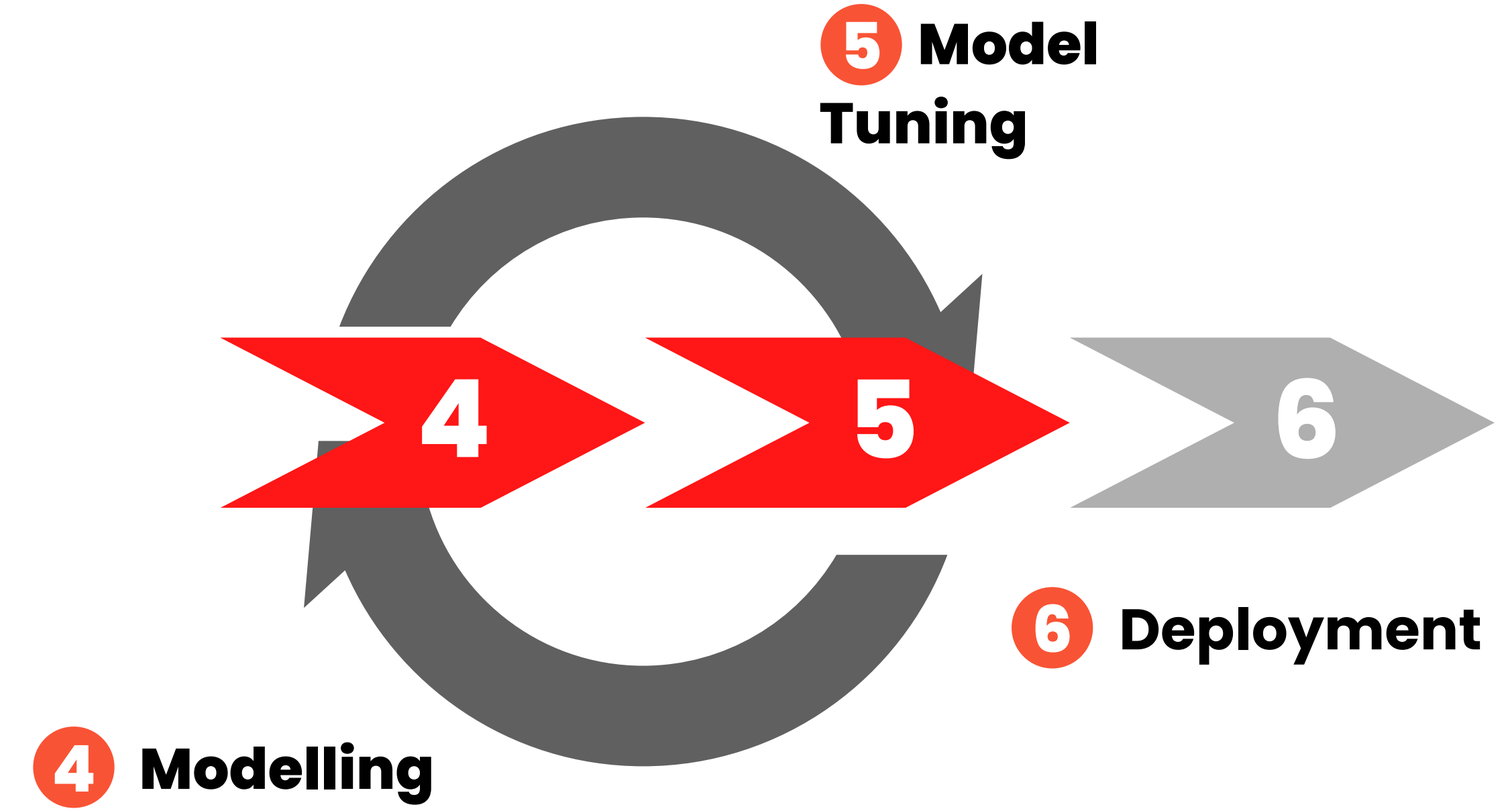


FINAL MODEL & RESULTS

XGBoost

eXtreme Gradient Boosting

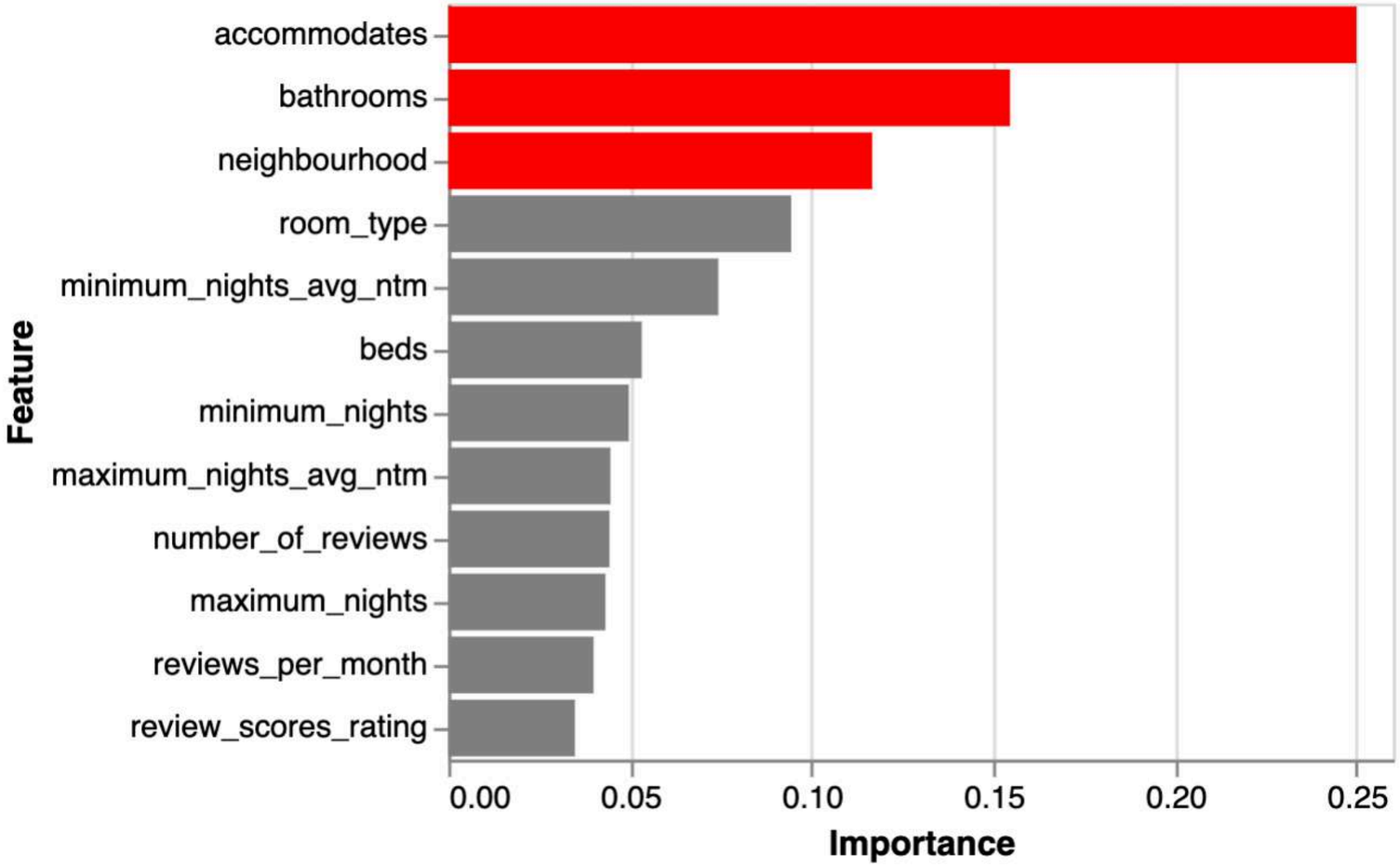
- **Feature Importance**
- **MAPE**



MOST IMPORTANR FEATURE

accommodates, bathrooms, neighbourhood and so on . . .

FEATURE IMPORTANCE



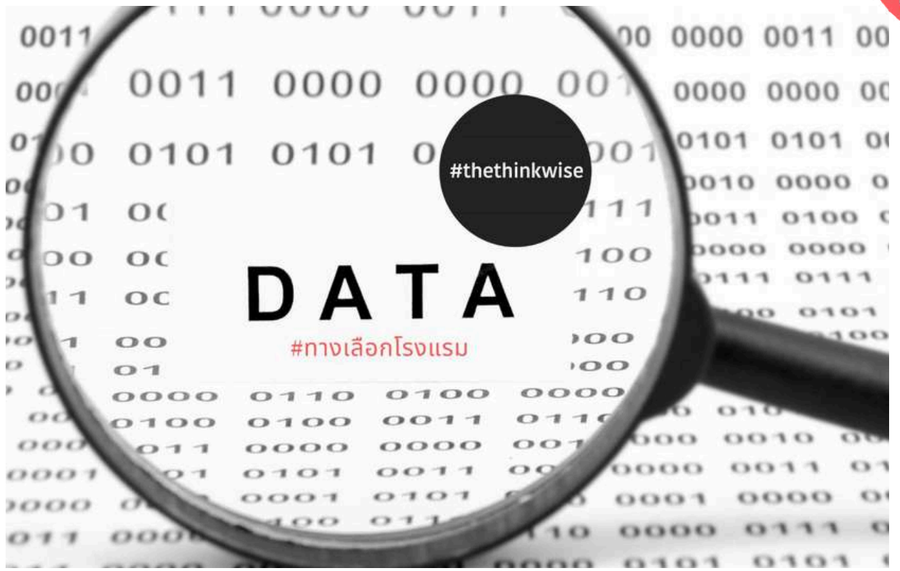
3

Get into action

IS IT POSSIBLE ?
DATA-DRIVEN HOTEL

ดาต้ามาร์เก็ตติ้งโรงแรมเล็ก
(จะ)ใช้ได้จริงหรือเปล่า ?

-thethinkwise

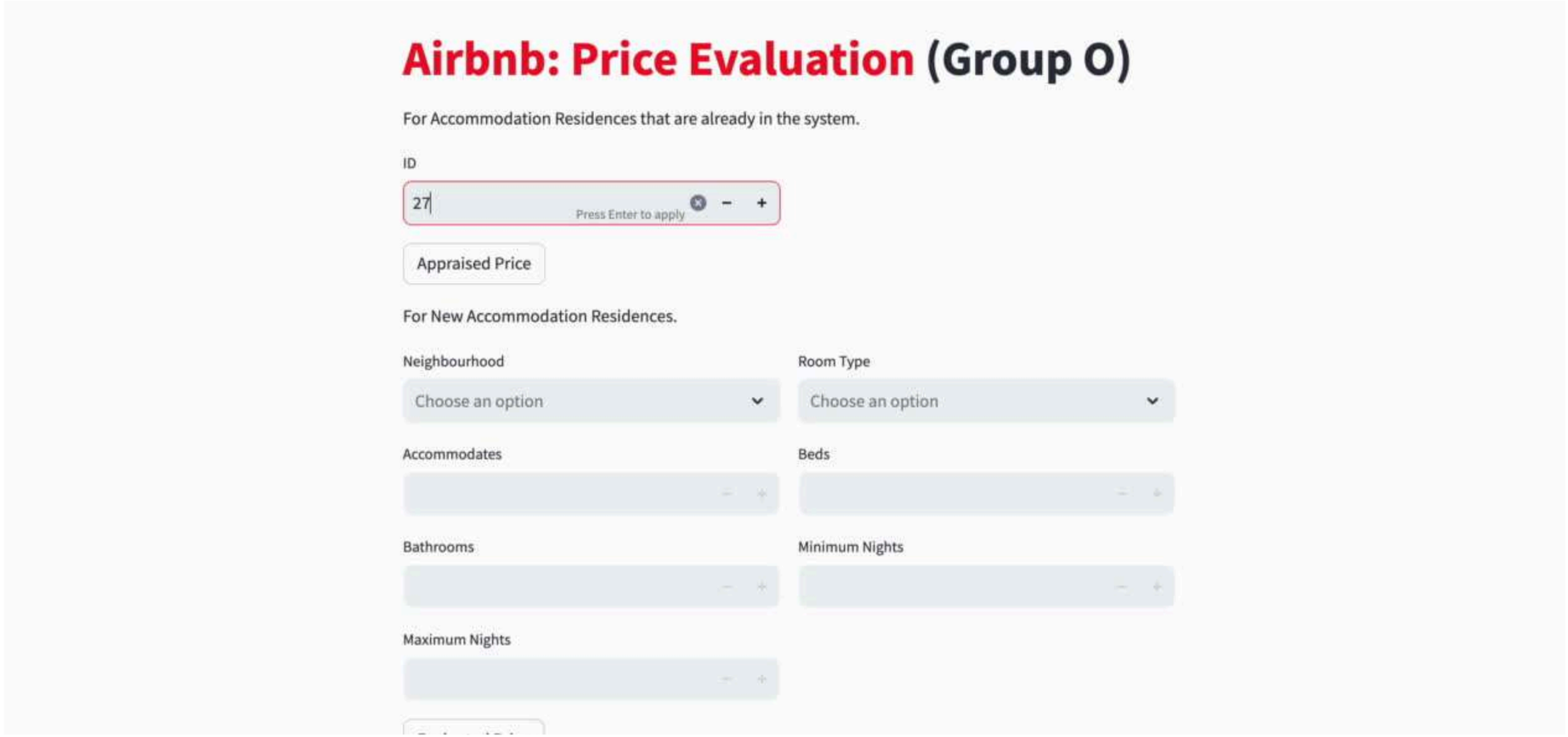


"สุดท้าย data marketing โรงแรมเล็กจะใช้ได้จริงหรือเปล่านั้น คงไม่ใช่เรื่องโรงแรมเล็ก หรือโรงแรมใหญ่ ไม่ได้อยู่ที่จำนวนห้องพัก ไม่ได้อยู่ที่ขนาดของโรงแรม แต่อยู่ที่คุณให้ความสำคัญกับข้อมูลมากหรือน้อย ละเอียดหรือหยาบอย่างไรมากกว่า"

Amornpan Somsawasdi
Hotel consulting in Thailand

Demonstrate how our model will come in handy for real world

PROTOTYPE



presented by Group O

DATA IS NOT JUST A COLLECTION OF NUMBERS; IT'S THE SILENT STORYTELLER THAT SHAPE OUR UNDERSTANDING OF THE WORLD.

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