



# Airbnb Listings Bangkok Analysis

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# OUTLINE



## INTRODUCTION

- Project Stakeholder
- Problem
- Project Goal
- Business Task



## DATA PREPARATION

- Data Collection
- Data Wrangling



## DATA ANALYSIS

- How's the performance of Airbnb property in Bangkok?
- How's the characteristics of high-performances property?



## CLOSING

- Conclusion
- Recommendation





# INTRODUCTION



# Introduction

## Project Stakeholder

- Business Development Manager
- Account Manager

## Problem

- Airbnb want to *increase the revenue* in Bangkok
- High-performance property *more profitable*
- High-performance property is the key for *Airbnb's future growth*

## Project Goal

Add new property which have **high-performance** characteristics

## Business Task

“Analyze AirBnb Listings Bangkok data to identify the **characteristics** of the high-performance property to **enhance** the number of **high-performance property** through **business development strategies** to **increase profit** and **grow** the company”

## Business Question

1. How's the performance of Airbnb property in Bangkok?
2. How's the characteristics of high-performances property?





# DATA PREPARATION



# DATA PREPARATION

## 1

### DATA COLLECTION



Airbnb Listings Bangkok - main dataset (1)  
(15854 rows, 17 columns)



Listings – additional dataset (2)  
(15854 rows, 75 columns)



Famous\_place\_in\_bkk – additional dataset (3)  
(11 rows, 3 columns)

Markers in Location Analysis

## 2

### DATA WRANGLING

Data Merging

Check Data Type

Check Duplicate Data

Check Missing Values

Check Ambiguity

Check Outliers

Create New Features

Clean Data

- (1)  
- All Columns  
(2)  
- Id  
- host\_response\_time  
- host\_response\_rate  
- accommodates  
- amenities

**last\_review**  
-> object to date time

No duplicate data

**reviews\_per\_month**  
-> fill with 0

**price**  
-> 0 values - drop rows

**price**  
-> discretization

- **Estimated\_booking\_per\_month**  
-> from reviews\_per\_month
- **property\_performance**  
-> from estimated\_booking\_per\_month
- **price\_class**  
-> from price

15846 rows, 27 columns  
Essential Columns (15 columns):  
- id  
- neighbourhood  
- latitude  
- longitude  
- room\_type  
- price  
- reviews\_per\_month  
- host\_response\_time  
- host\_response\_rate  
- accommodates  
- amenities  
- accommodates\_type  
- estimated\_bookings\_per\_month  
- property\_performance  
- price\_class

Notes for listings data:

- data scope: scraped in 28 December 2022
- Raw data was stored in [this website](#). The data was provided by insideairbnb.com.

Data Limitation

Booking count is estimated using number of reviews  
This practice is also used by insideairbnb team ([here](#))

## 3

### DATA ANALYSIS







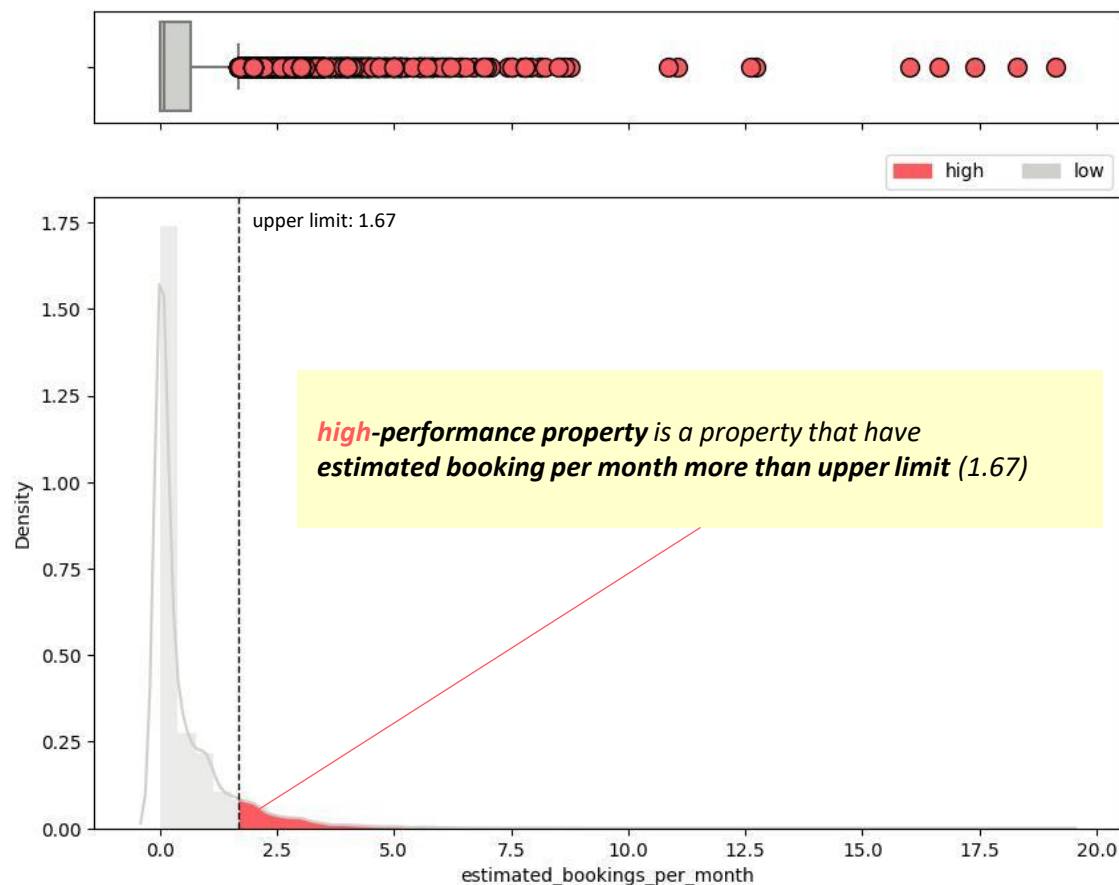
# DATA ANALYSIS



# 9.3% property in Bangkok are high-performances

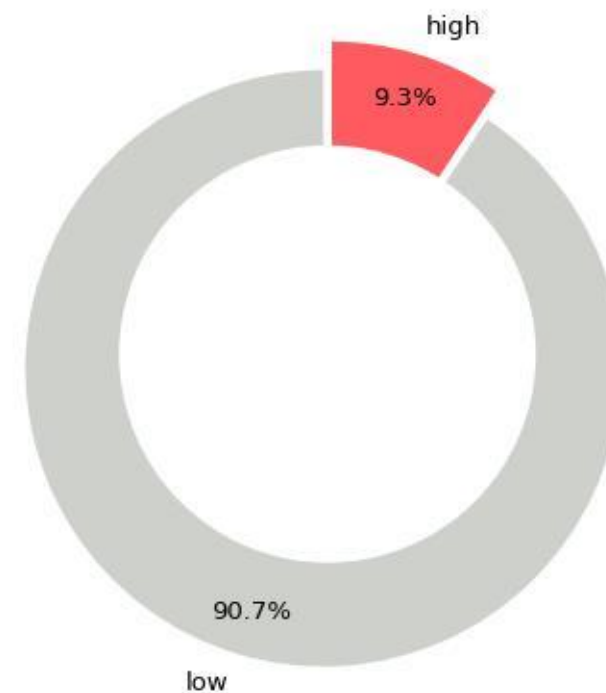
## Distribution of Property Performances

estimated\_bookings\_per\_month (avg count per motnh)



## Proportion of Property Performances

% of Population







# Family Accommodation is a key for growth

Property Performance  
■ high ■ low

## Proportion of Property Performances by Accommodates Type



High performance property in **family** type **beyond** single/couple.

## Proportion of Property Performances by Room Type



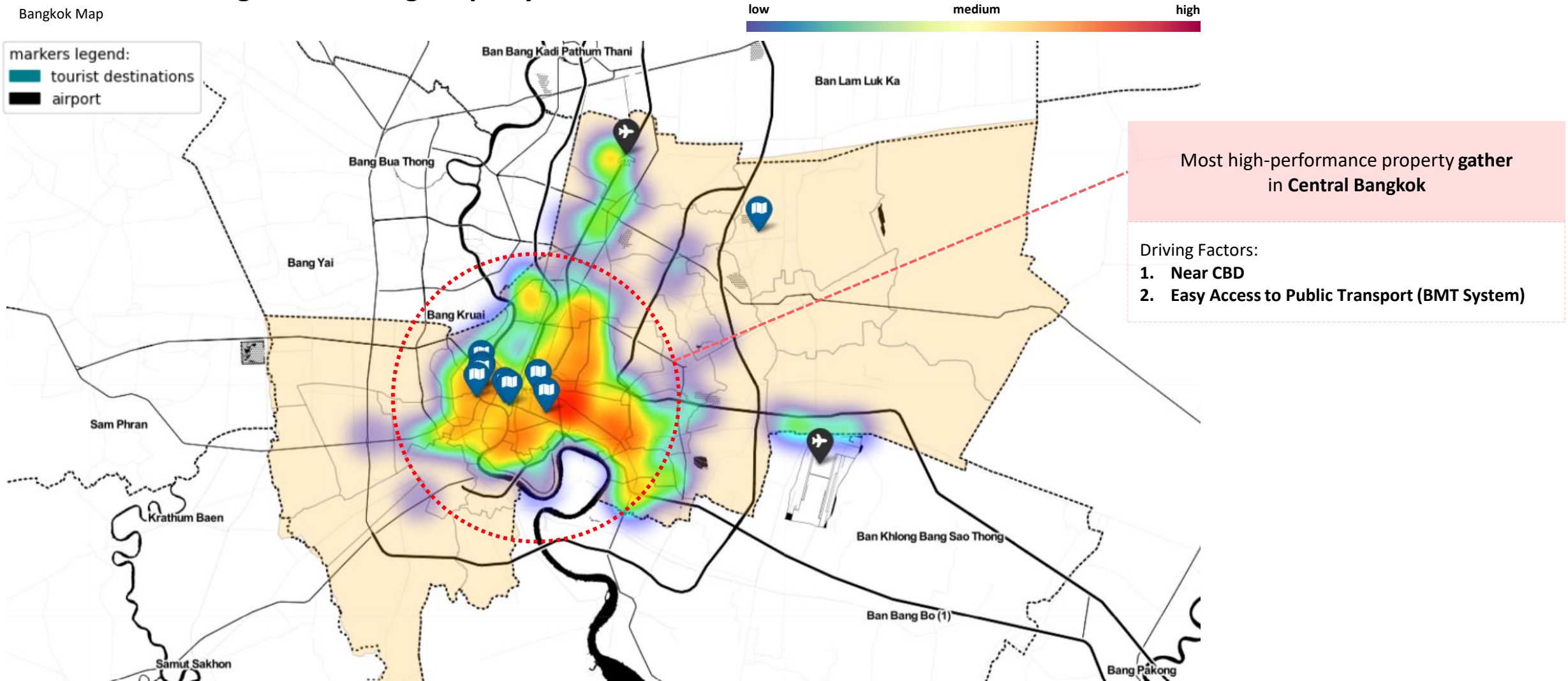
Travelers **more interest** in **entire home/apt** room type



# More Strategic More Potensial

## Distribution of High-Performing Property Locations

Bangkok Map



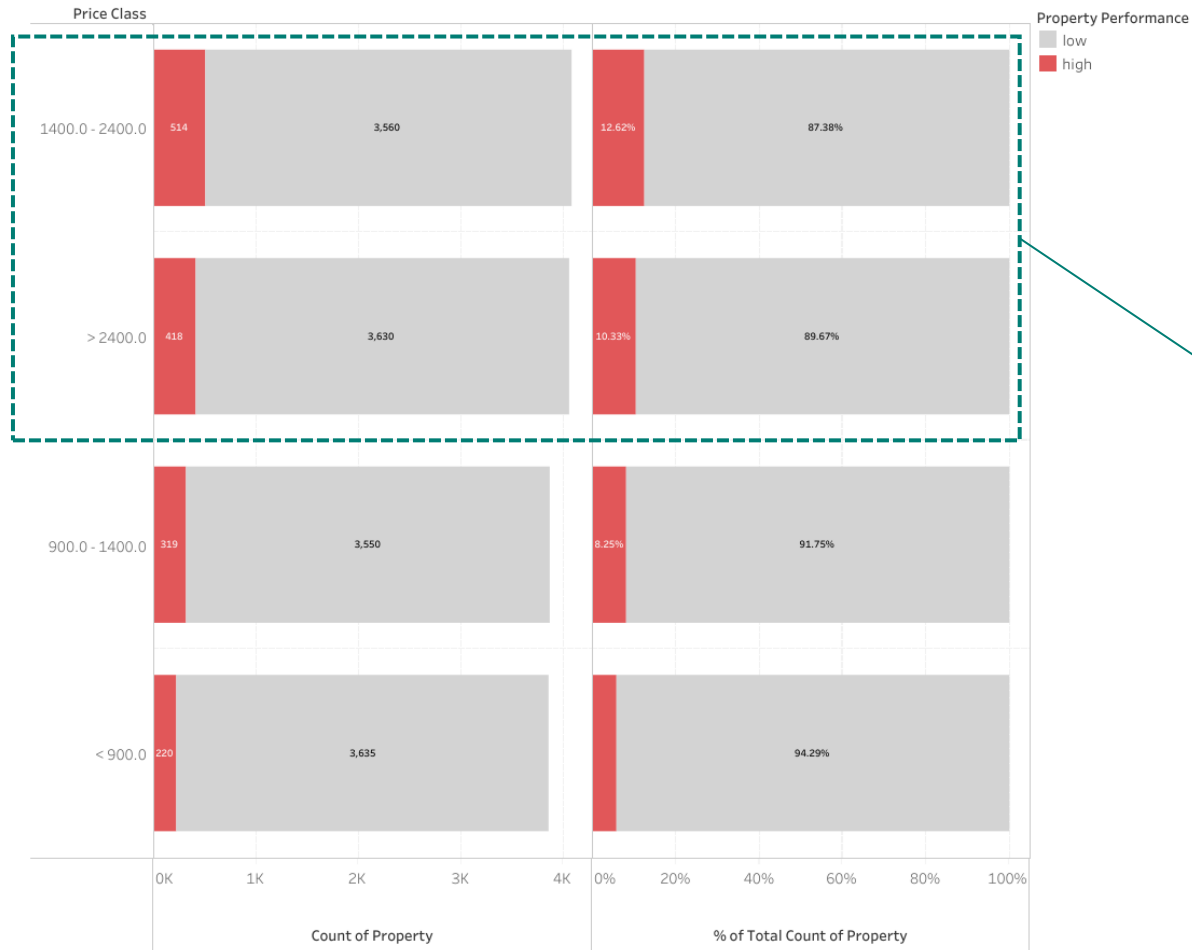




# Travelers are willing to pay more

## Proportion of Performance by Price Class

Count, % of Class Population



2 top price class (1400-2400 & >2400) have **highest** proportion of **high-performances** property



# Hot water and Dishes and silverware are game changer

## Table of Facilities Rank Comparison

Top 10 rank in high-performance vs rank in low-performance

facilities	rank in high-performance	rank in low-performance
Long term stays allowed	1	1
Essentials	2	4
Hair dryer	3	7
Wifi	4	3
Hangers	5	5
Shampoo	6	6
Hot water	7	11
Smoke alarm	8	9
Dishes and silverware	9	17
Kitchen	10	8

*hot water* and *Dishes and silverware* are facilities that **not present** in top 10 low-performance property facilities

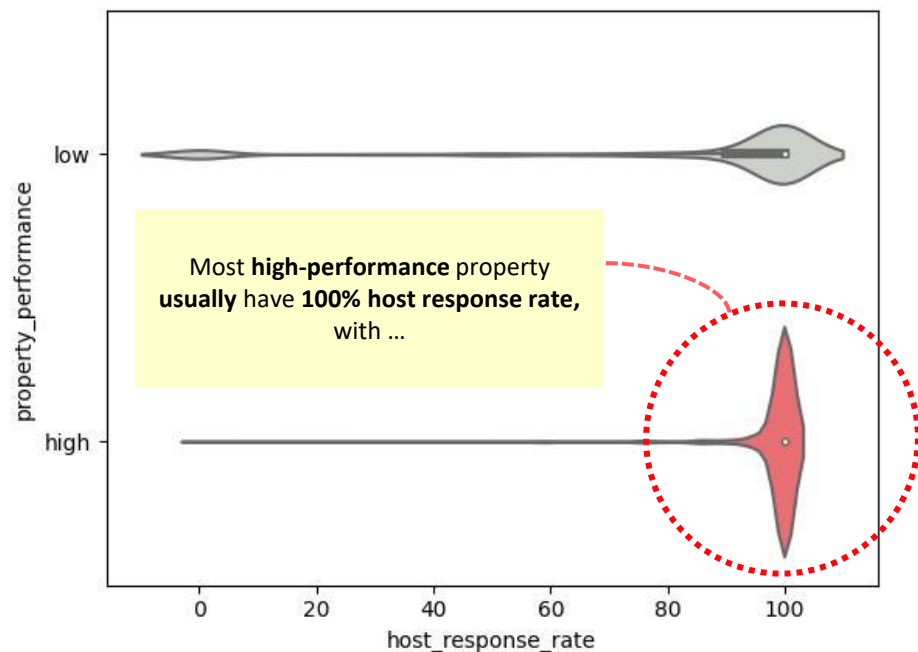




# More responsive More Potential

## Distribution of Host Response Rate

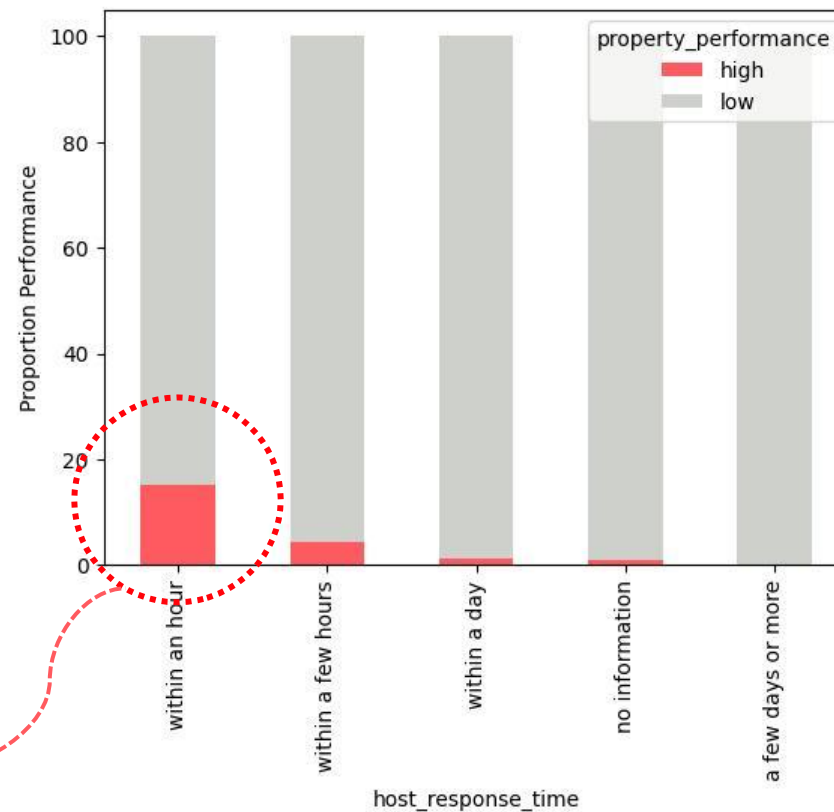
High-performance vs low-performance, %



... the response time **within an hour**

## Proportion of Host Response Time

High-performance vs low-performance, % of host\_response\_time Population





# CLOSING





## 2 RECOMENDATION

To support Airbnb business goal, I recommend:

- Prioritize to searching property that can provide **family** accommodates type, with **entire home/apt** room type
- Focus on searching property in the neighbourhood **near with CBD and BMT Public Transport**
- Don't afraid to set **price above median** price
- Ensure the property **have all top 10 facilities** that present in high-performances property, especially *hot water* and *Dishes and silverware*
- Maintain **host response rate > 97%**, with the **response time of within an hour**

## 1 CONCLUSION

### 1. How's the performance of Airbnb property in Bangkok?

- Only 1471 (9.3%) property in Bangkok are **high-performer**

### 2. How's the characteristics of high-performances property?

- Most high-performance property coming from **family** accomodates type
- Most high-performance property coming from **entire home/apt** room type
- Most high-performance property are located **near CBD of Bangkok**
- The **price is above median** (Travellers are willing to pay more)
- There are some **differentiation between top facilities** that are present in high-performance and low performance, *hot water* and *Dishes and silverware* are top facilities that present in high-performance but not in low-performance
- Most **Host response rate** from high-performance property host is **100%** (higher than low-performance property host)
- Most high-performance property **host response time** is ***within an hour***



# THANK YOU