



BUSINESS OPPORTUNITIES PROPERTY IN SINGAPORE

by Sukri Alfian

JUNE, 2023

**DQLab Bootcamp Data
Analyst with
Python and SQL**



Sukri Alfian

Fresh graduate from the Electrical Engineering study program. Starting from learning about Machine Learning self-taught, then decided to pursue a career in Data Science and Data Analyst



Sukri Alfian



sukrialfians3103@gmail.com



Introduction

Airbnb is a popular online marketplace and hospitality service that allows individuals to rent out their properties or spare rooms to guests. In this context, as a data analyst, I am tasked with **analyzing Airbnb property data in Singapore to generate appropriate strategies**. The analysis results are expected to provide the best possible benefits from rental activities.



Objective

Identifying profitable pricing strategies, understanding factors that influence booking trends, identifying popular neighborhoods or property types, and improving the overall guest experience.



DISCLAIMER

**The presented data has undergone
cleansing and validation processes, ensuring
that the analyzed listing data is indeed from
Singapore**

Business Overview

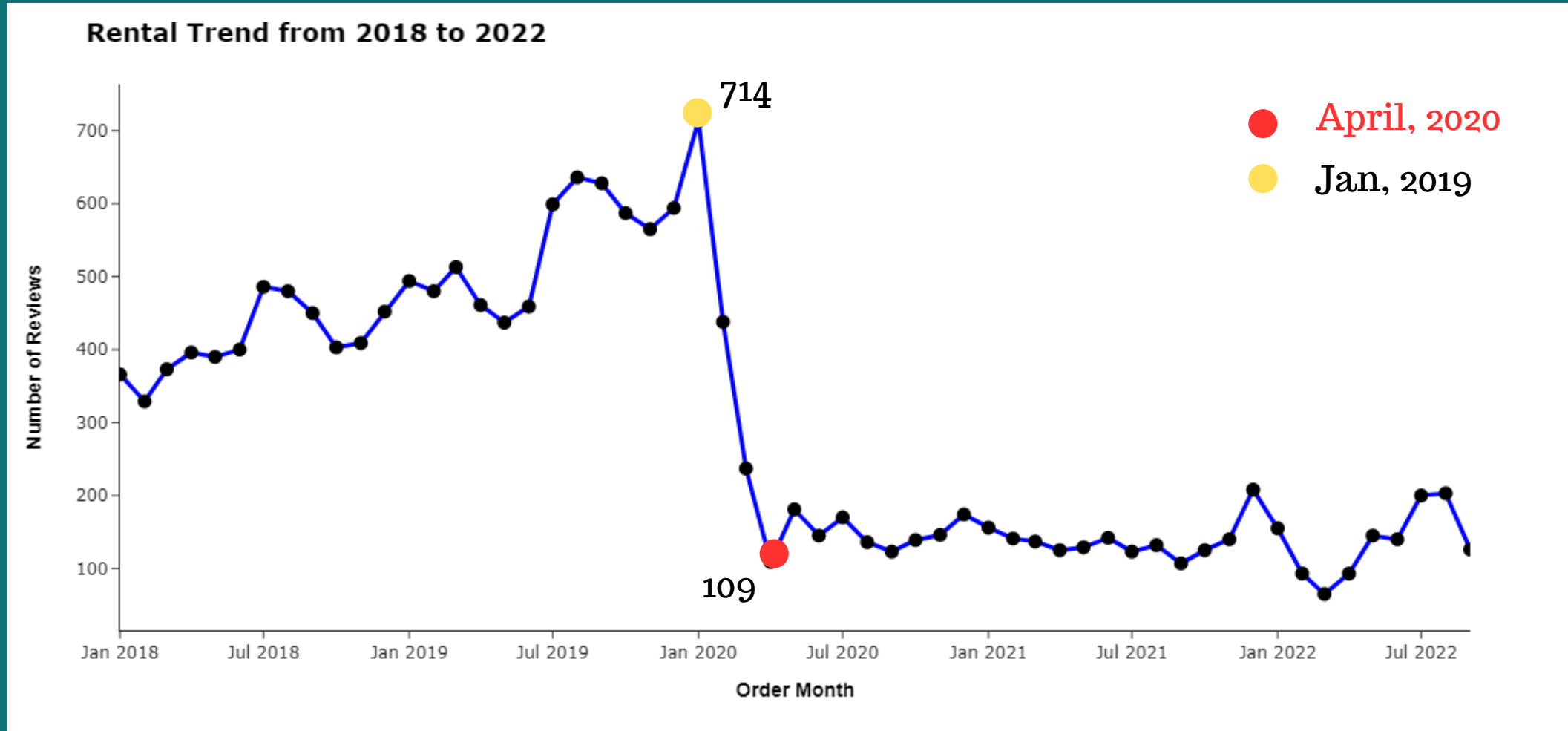


Figure 1

Airbnb Rental Trends in Singapore from 2018 - 2020

- Based on the data in Figure 1, rental trends tended to increase from **Jan 2018 - Jan 2019**. The average percentage **increase** in the number of reviews at that time was **25%**.
- The most significant **decrease** occurred from **Feb 2019 - April 2020**. The number of reviews in Jan 2019 was 714 reviews. Then it plummeted sharply to 109 visitors in April 2020 with a percentage decrease of minus **85%**. This could have happened due to the imposition of lockdown regulations worldwide, including Singapore, due to the Covid19 pandemic.

Business Overview

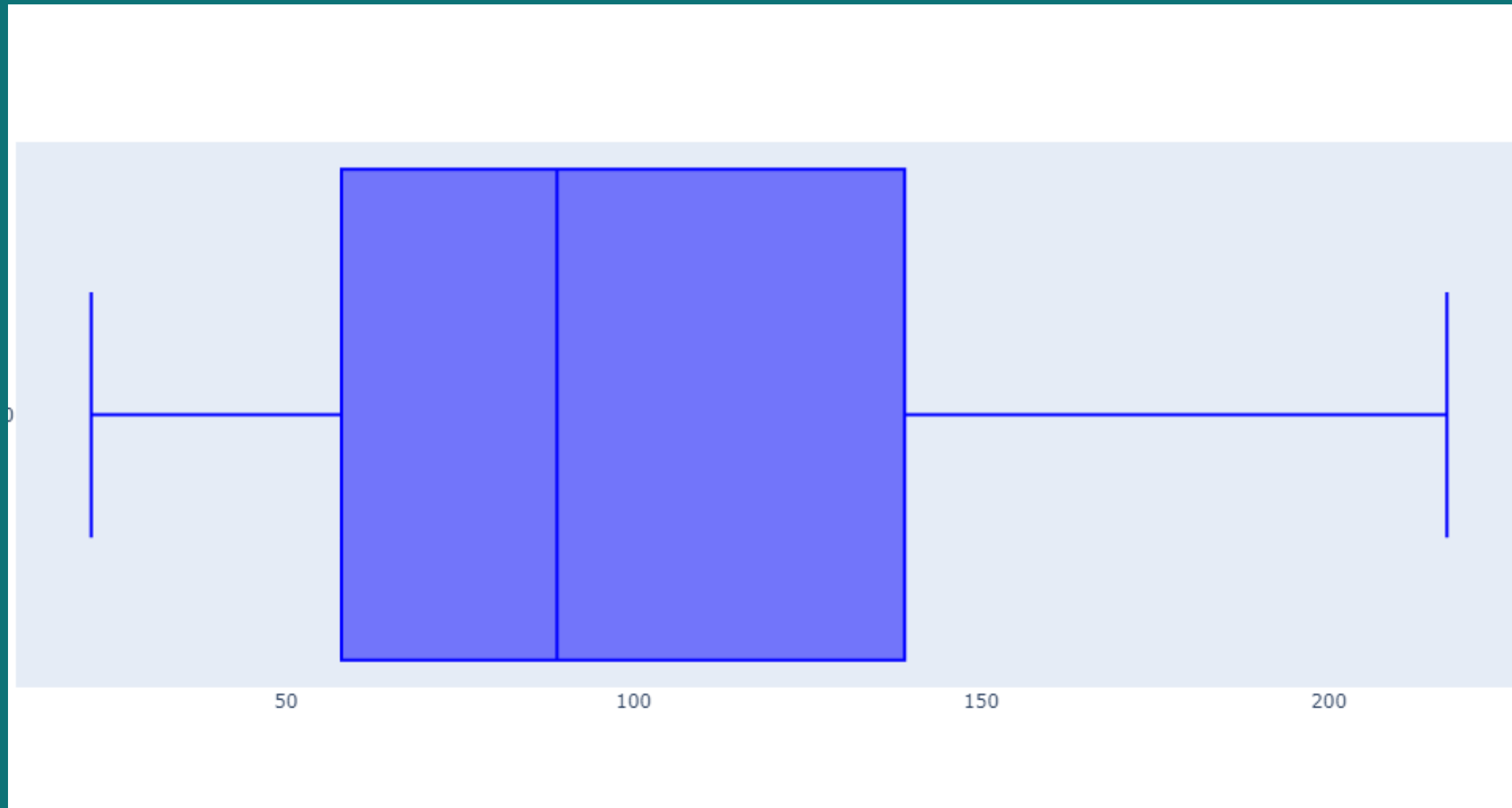


Figure 2

AirBnb Listings Prices Distribution in Singapore

In Figure 2, it provides an overview of the pricing for Airbnb listings in Singapore. Based on Figure 2, the price range for Airbnb listings in Singapore is known to be between 22 to 214 USD, with the highest priced listing being 12,000 USD. **The majority** of listings fall within the median and Q3 range, which is between **89 to 138 USD**.

Business Overview

Before calculating the distance between the listings and the beach, I have selected 10 famous beaches around Singapore as references. Here it is the list of beach names that are used as references:

- **East Coast Beach**
- **Sentosa Island**
- **Palm Spring Nongsa**
- **Siloso Beach**
- **Punggol Beach**
- **Tanjong Beach**
- **Lazarus Island**
- **Kusu Island**
- **Pasir Ris Beach**
- **St John's Island**

Business Overview

Histogram of Amount Orders by Distance to The Beach

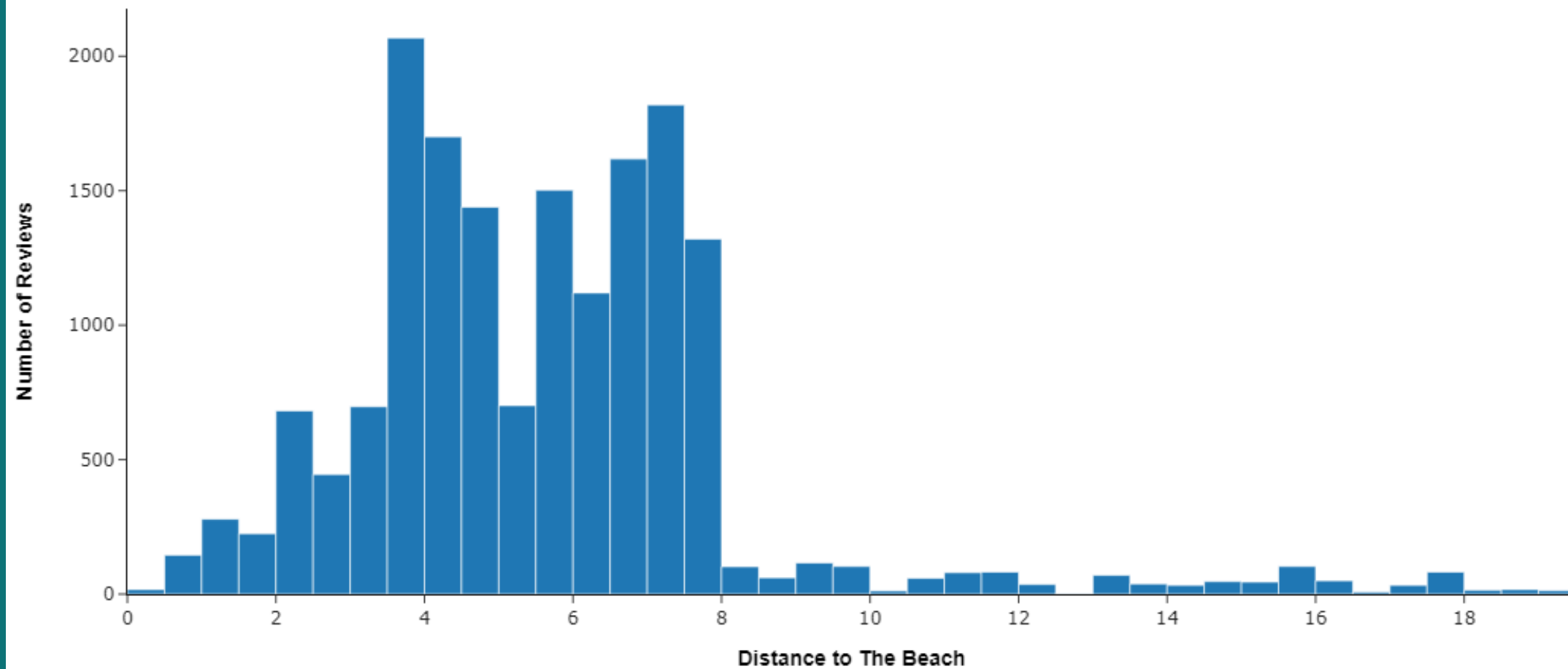


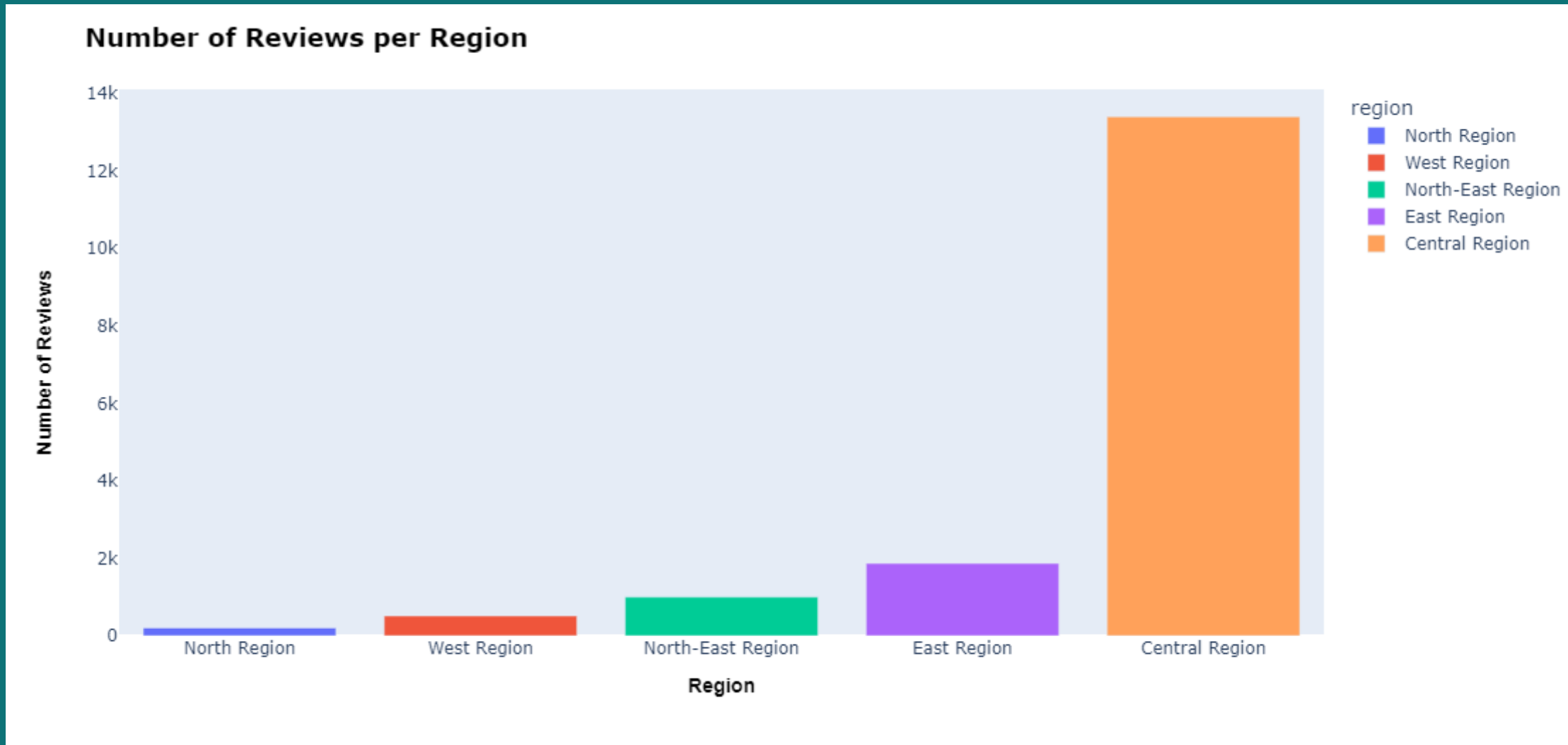
Figure 3

Amount of Orders by Distance to The Beach

In Figure 3, it shows the frequency of reviews to a tourist destination based on the distance of the listing from the beach. Based on Figure 3, we can observe that visitors prefer tourist destinations that are closer to the beach. The preferred **distance range** for visitors is between **2 to 8 kilometers**.

Business Plan

Find Strategic Location



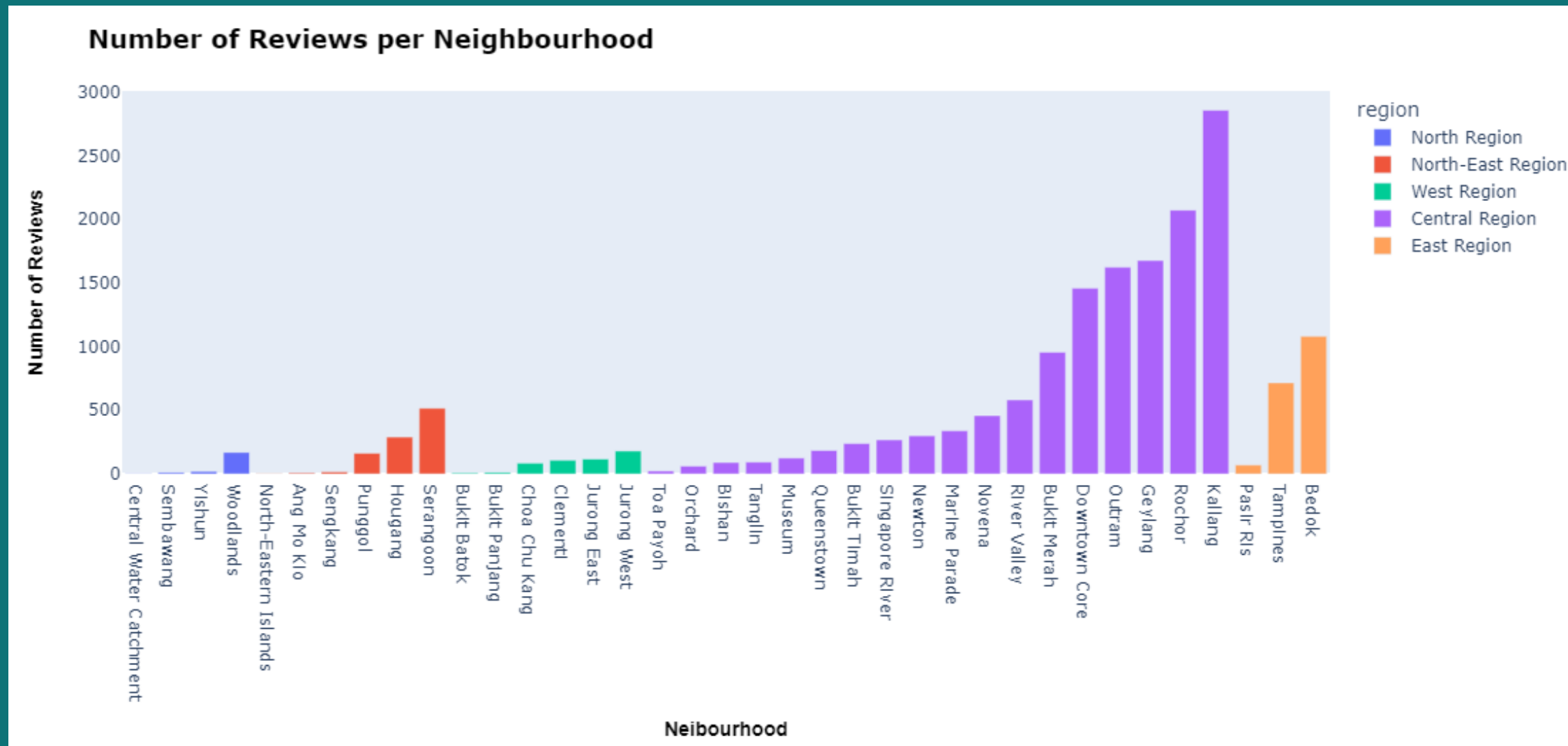
Number of Reviews in Each Region

Based on Figure 4, the **number of reviews** is divided into 5 regions. Among these 5 regions, the **Central Region** is the most popular among renters. The second most preferred region is the **East Region**.

Figure 4

Business Plan

Find Strategic Location



Number of Reviews in Each Neighbourhood

Based on Figure 5, we can see the number of visitors based on neighbourhood. The legend on the chart is divided based on regions. On average, the number of visitors is **dominated by neighbourhoods located in the Central Region**. Then it's followed by East Region.

Figure 5

Business Plan

Find Strategic Location

Can we conclude that the
Central Region is the most
popular region?

Or

We should take a look for
another potential ?



Business Plan

Find Strategic Location

Let's do this !!



- Calculate the distance from the listing into the nearest beach
- Calculate the number of listings in that region and compare it with the number of visitors.
- Calculate the number of listings in that neighbourhood and compare it with the number of visitors.

Business Plan

Find Strategic Location

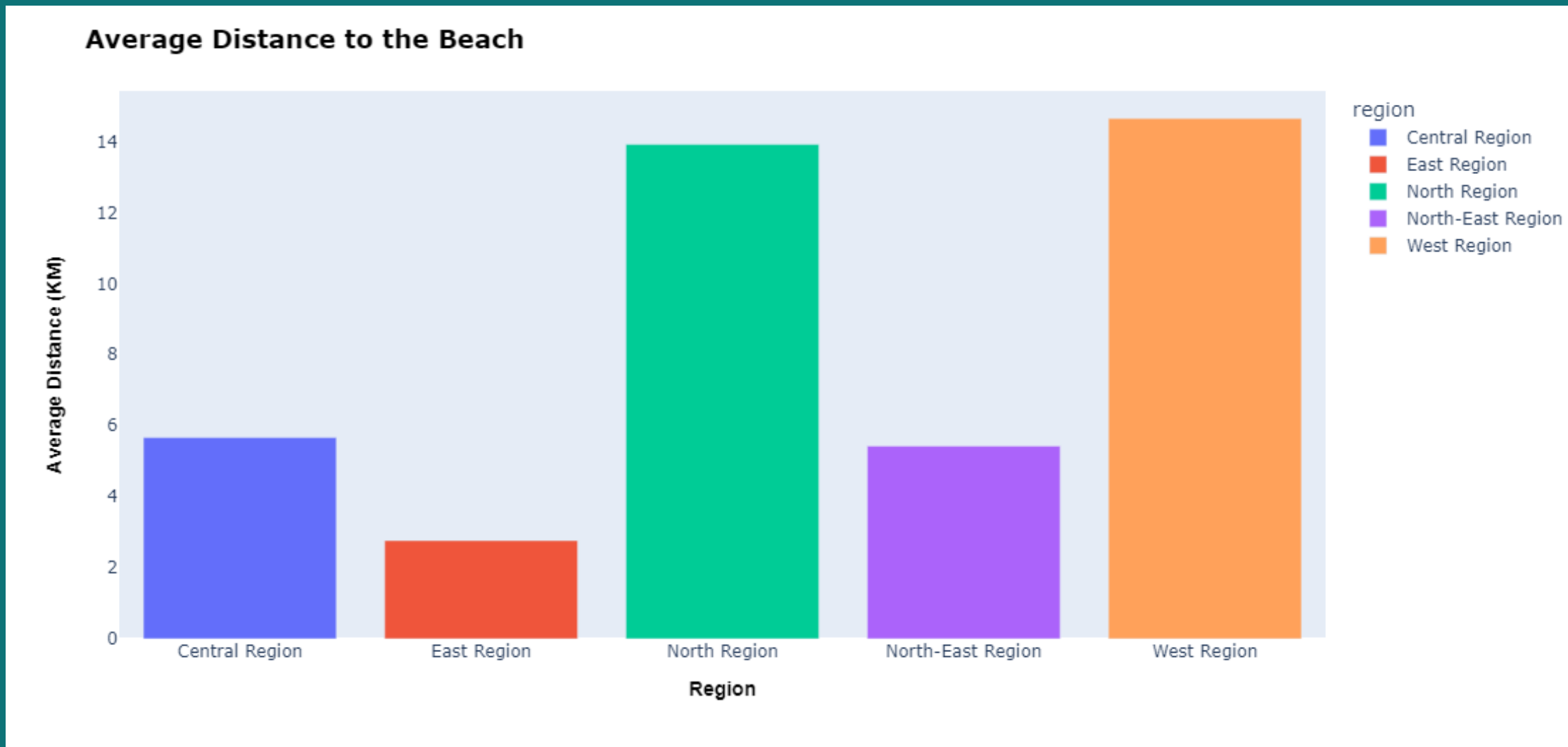


Figure 6

Average Distance to The Beach in each region

In Figure 6, the average distance of listings from the beach is shown per region. Based on the figure, we can see that the **East Region** has the **closest proximity** to the beach with an average distance of **2.8 KM**.

Business Plan

Find Strategic Location

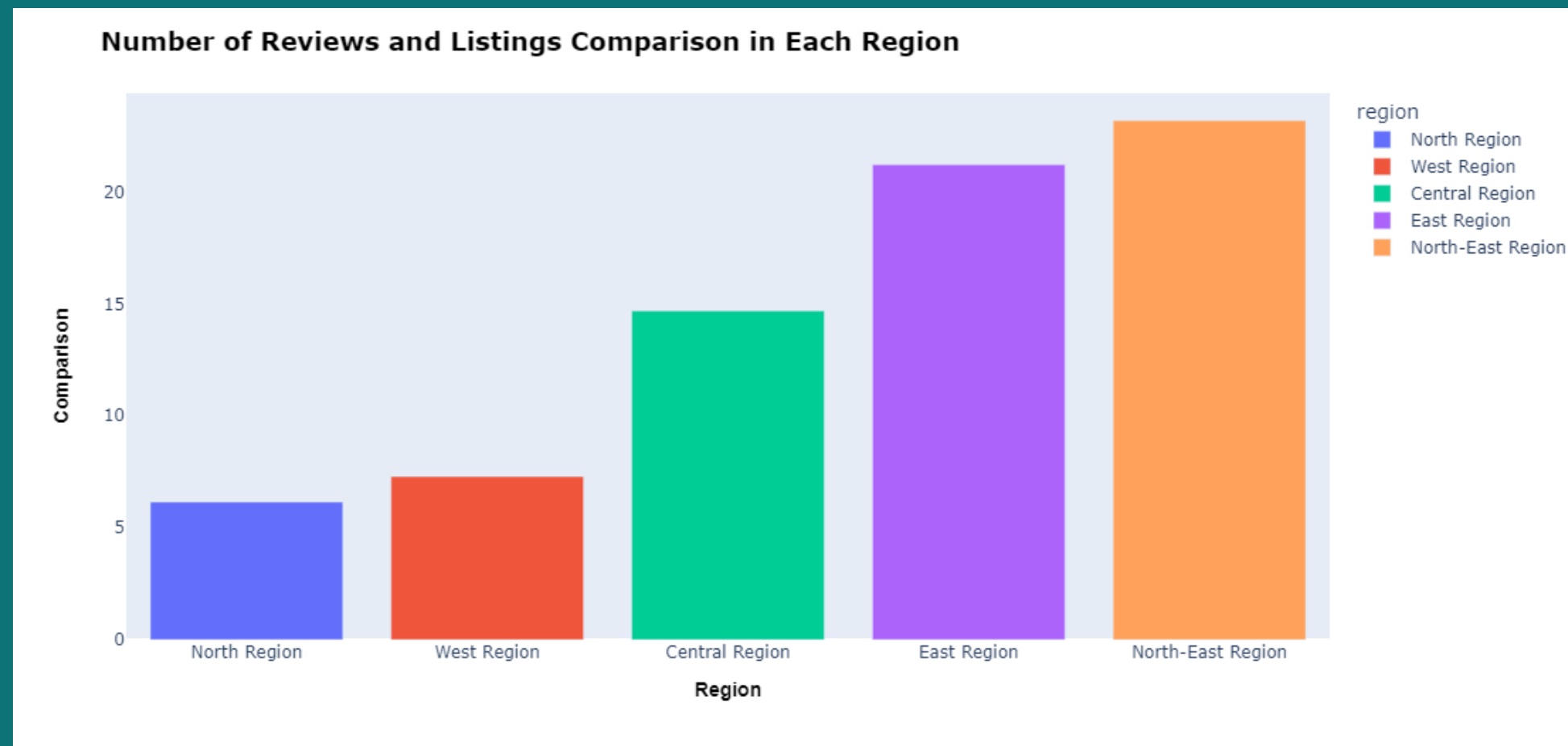


Figure 8

Number of Reviews and Listing Comparison in Each Region

In Figure 8, the **North-East and East Regions** are identified as the most potential areas. This is because they have the highest number of rental activities per listing, with 23 and 21 rental activities respectively. These regions can be attractive spots for property business development.

North Region = 1 : 6

West Region = 1 : 7

Central Region = 1 : 15

East Region = 1 : 21

North-East Region = 1 : 23

Business Plan

Find Strategic Location

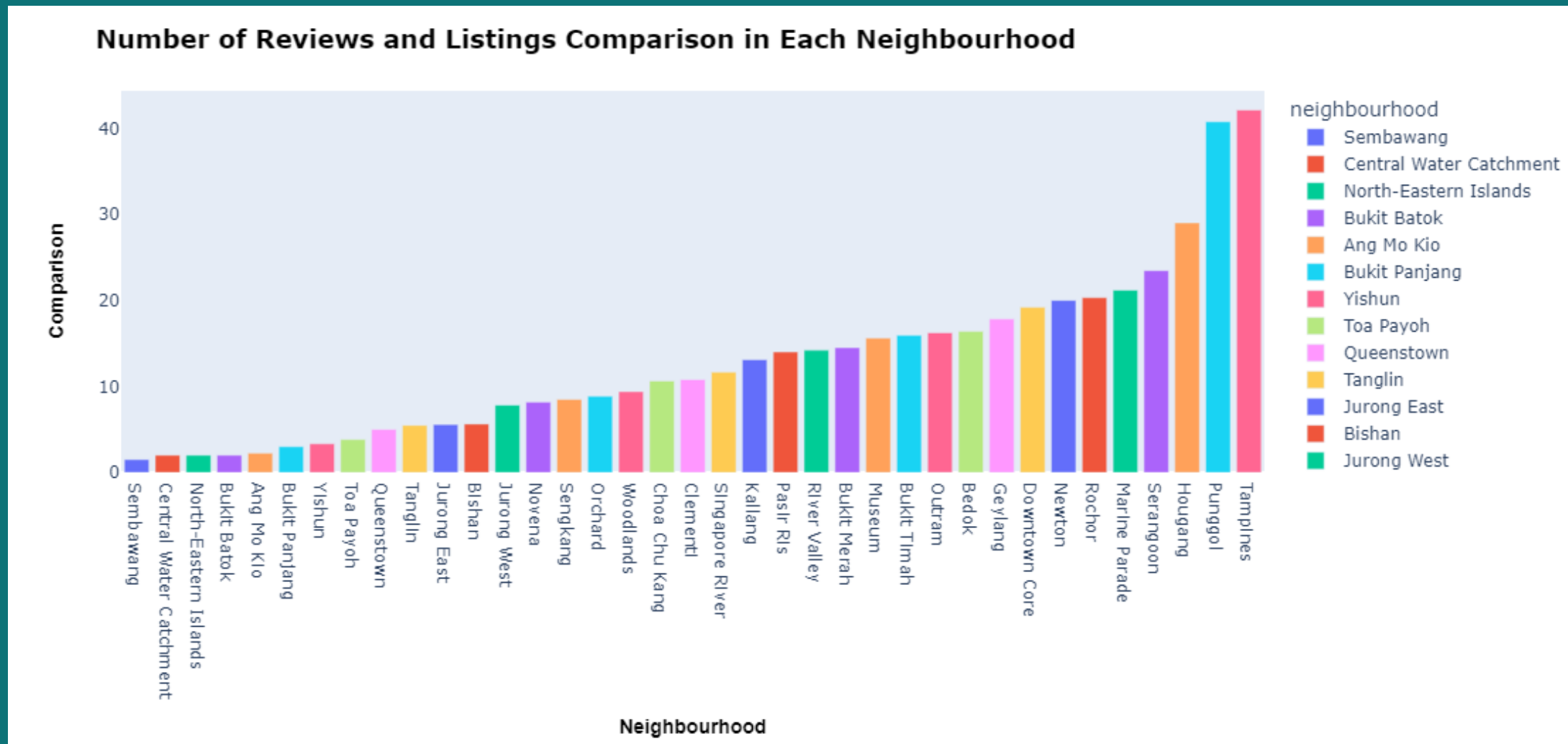


Figure 9

Number of Reviews and Listing Comparison in Each Region

In Figure 9, **Tampines and Punggol** are identified as the most promising neighbourhoods. This is due to the significantly higher rental activities per listing, with **42 and 40 rental activities** respectively. These neighbourhoods present attractive opportunities or the most potential locations for property business development.

Central Region - Marine Parade = 1 : 21

North-East Region - Serangoon = 1 : 23

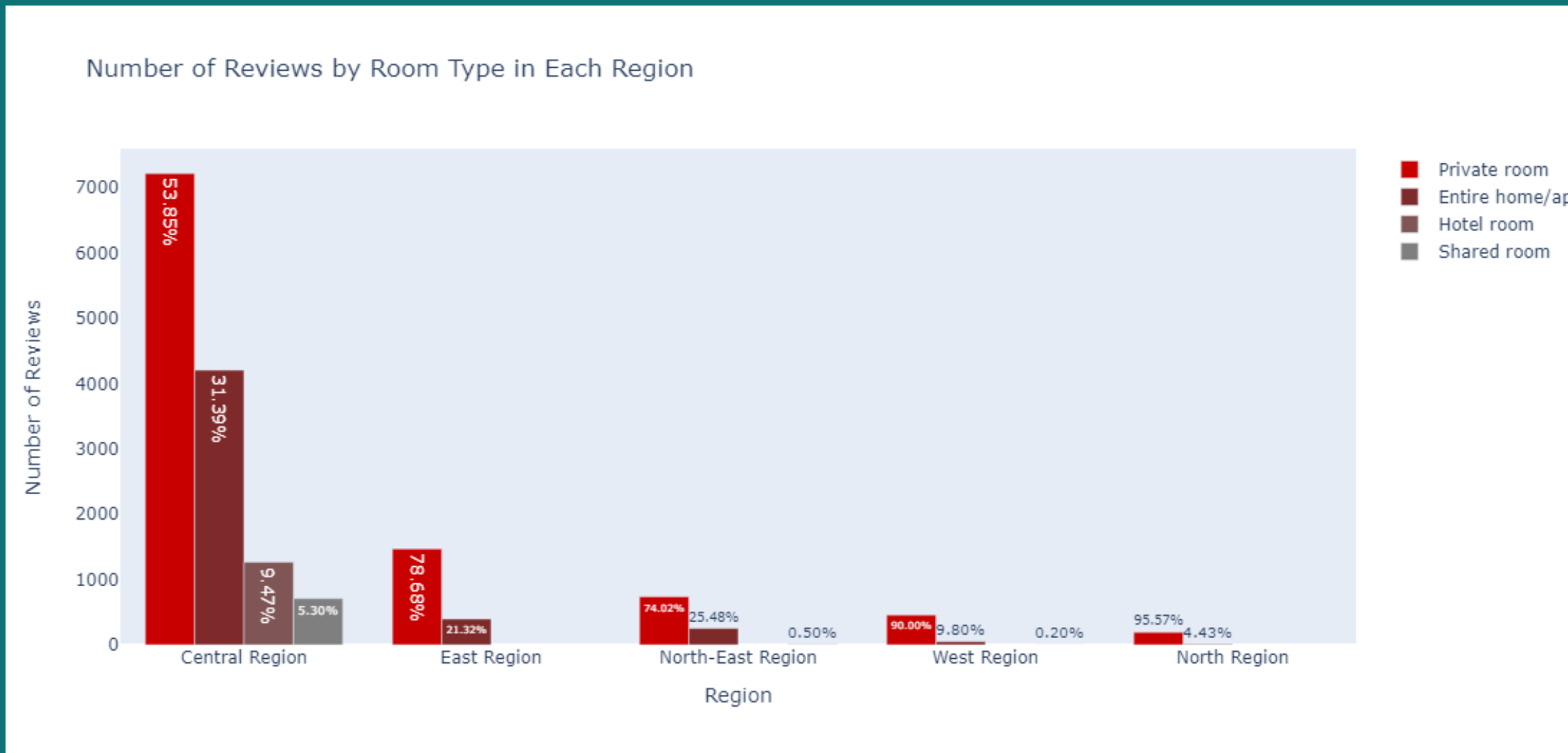
North-East Region - Hougang = 1 : 29

North-East Region - Punggol = 1 : 40

East Region - Tampines = 1 : 42

Business Plan

Find Most Favorable Room Type



Number of Reviews by Room Type in Each Region

Private room is the most favorable room type based on Figure 10 in each region in Airbnb Singapore.

Figure 10

Business Plan

Find Most Favorable Room Type

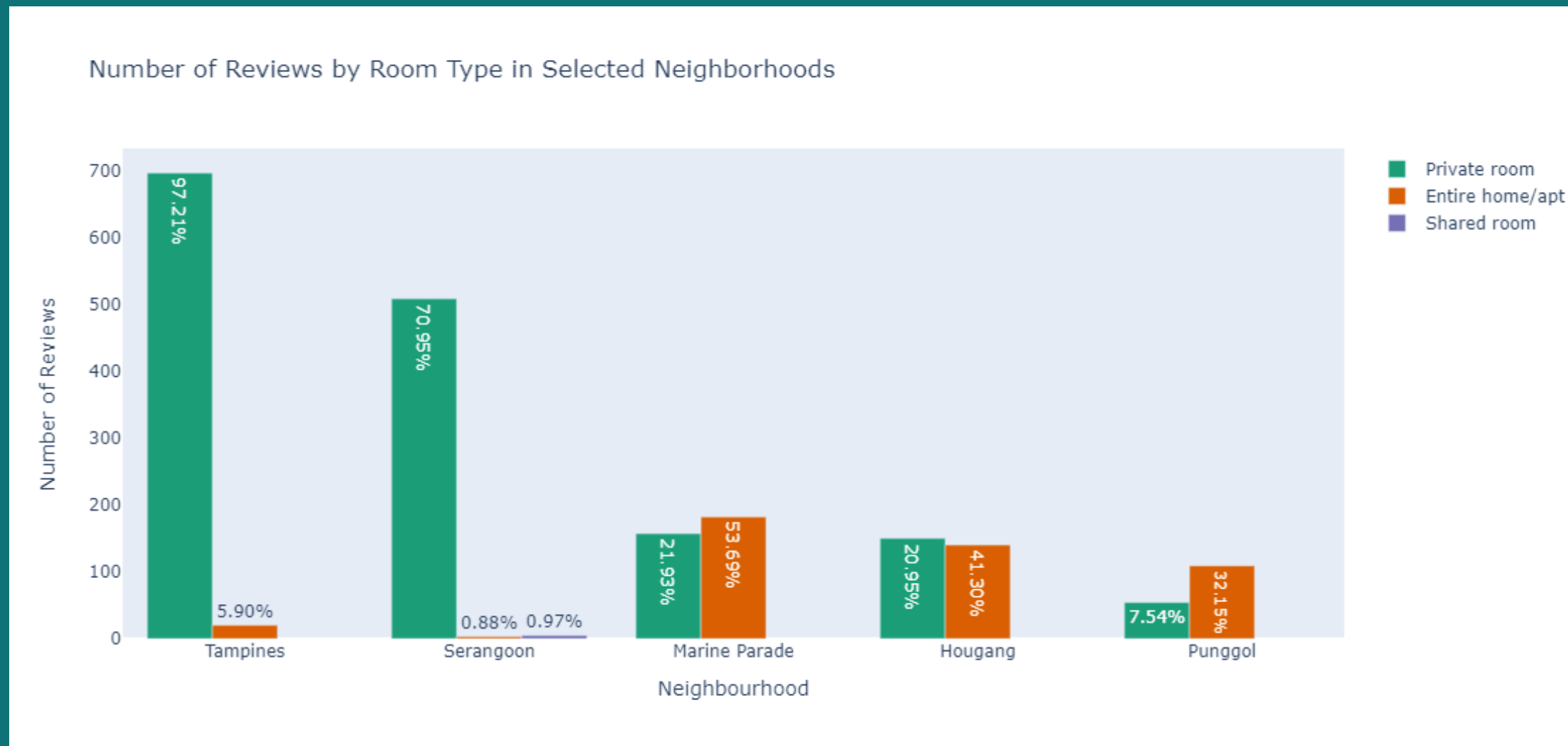


Figure 11

Number of Reviews by Room Type in Each Region

Figure 11 shows the most favorable room type in the selected neighborhood. This selected neighborhood was chosen based on its potential for being a great opportunity for business property development. Based on Figure 11, it shows that the most favorable room type is private room.

Business Plan

Find The Recommended Price



Figure 12

The Distribution Prices in Each Region

Figure 12, is a boxplot chart that displays the interquartile range for Airbnb prices across different **regions**. The price range within the interquartile range can serve as a comprehensive benchmark for pricing recommendations for Airbnb listings in various **regions**.

Here are the price recommendations based on the interquartile range for each region. The recommendations are **based on the quartile range that is most dominant, which falls within the range of median to Q3**.

East Region = 70 - 105 USD

Central Region = 94 - 140 USD

North-East Region = 60 - 90 USD

North Region = 40 - 85 USD

West Region = 58 - 90 USD

Business Plan

Find The Recommended Price



Figure 13

The Distribution Prices by Room Type

Figure 13, is a boxplot chart that displays the interquartile range for Airbnb prices across different **room type**. The price range within the interquartile range can serve as a comprehensive benchmark for pricing recommendations for Airbnb listings in various **room type**.

Here are the price recommendations based on the interquartile range for each **room type**. The recommendations are **based on the quartile range that is most dominant, which falls within the range of median to Q3**.

Private Room = 68 - 98 USD

Entire Hom/Apt = 140 - 173 USD

Shared Room = 43 - 63 USD

Hotel Room = 68 - 120 USD

Business Plan

Summary

- **Airbnb rental trends tended to increase from Jan 2018 - Jan 2019 with the average percentage increase in the number of reviews at that time was 25% and had majority decreased occurred from Feb 2019 - April 2020 due to the imposition of lockdown regulations worldwide, including Singapore.**
- **In the Central region, although there is a high number of reviews, there is also a large number of available listings. Therefore, the potential for property business in this region is low**

Is the East Region and Tampines Neighbourhood the best location to build a property business?

Yes, because this region is close to the beach and has the highest potential for building a property business compared to other regions.

Business Plan

Recommendation

- **Choose East Region - Tampines**
- **Choose Private Room**
- **The recommended price range is 68 - 98 USD. This price range is chosen based on the room types and is below the overall price range for the East Region**

The code I have written has been provided in the link below



Google Colaboratory

[google.com](https://colab.google.com)