

CAPSTONE PROJECT
THE BATTLE OF
NEIGHBOURHOODS
WEEKS 4 & 5

PREDICTING THE MOST SUITABLE LOCATION
FOR A TRAVEL AGENCY BUSINESS IN SINGAPORE

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Introduction

Singapore is an island nation located in Southeast Asia. For over two decades, Singapore has been a thriving global hub and one of the most successful financial hubs of Asia. It is a multicultural nation with a population of over 5 million people and a Gross Domestic Product (GDP) of over 360 billion USD.

As Singapore faces land scarcity and with the increasing numbers of businesses, economic competitiveness grows among businesses in Singapore. For this project, we are going to focus on finding the best possible location for our main office, with efforts in avoiding competition with other businesses in the same sector.

Suppose we want to start a travel agency business in Singapore as we know that people residing in Singapore travel overseas quite often. We would want to locate our main office in a strategic location so that people could drop by our office easily to make a booking for their trip or for someone else. This means that we must locate our office as close as possible to means of transportation or landmarks of a targeted area. Moreover, we would want to avoid areas with many travel agencies and also not to locate our office closely to existing travel agencies.

The project objective is to advise those who want to start a travel agency business in Singapore, on where to best locate their main office depending on factors such as competition and accessibility. Other factors such as land pricing and area popularity are not accounted for in this project and will serve as future improvements.

Data

For this project, we require the following data:

- › List of regions and areas of Singapore.
 - › Source: <https://data.gov.sg/dataset/master-plan-2019-planning-area-boundary-no-sea>
 - › Description: This dataset contains area boundary data.
 - › Usage: This dataset contains complete area boundary data; however, we are only interested in the list of regions and areas of Singapore. We will extract this information from the above dataset.
- › Geographical coordinates of each area.
 - › Source: Google Maps Platform – Geocoding API
 - › Description: This API facilitates the conversion between addresses and geographical coordinates.
 - › Usage: We will be using this API to generate geographical coordinates for a given area. The output coordinates will mostly be near any means of transportation or landmarks of a certain area. This API is preferred over OpenStreetMap Nominatim as it outputs more accurate results.
- › List of existing travel agencies in each area.
 - › Source: Foursquare API
 - › Description: This API allows us to interact with Foursquare.
 - › Usage: We will be using this API to retrieve lists of existing travel agencies in each area. Moreover, we can retrieve details of each travel agency in a particular area.

List of References

1. https://en.wikipedia.org/wiki/Economy_of_Singapore
2. <https://developers.google.com/maps/documentation/geocoding/st>
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