



# **LOCATION RECOMMENDATION FOR STARTING INDIAN RESTAURANT IN SINGAPORE**

# PROBLEM BACKGROUND

## Singapore's Eat Out Culture

- In Singapore, food is viewed as crucial to its national identity and a unifying cultural thread.
- **90% of people eat out at least once a week**
- Indian cuisine is very popular in Singapore



## Public transport is the key mode of transportation

- In Singapore, MRT or Mass Rapid Transport is the primary mode of transport. Most businesses and malls are centered around MRT stations



# BUSINESS OBJECTIVE

My client is keen on opening an Indian restaurant and would like to know the best locality for opening up his restaurant.

She'd like to find a suitable place near some MRT station to ensure the best possible footfall

In general the target audience of this analysis could be  
any individual or  
chain restaurants

who are keen to open a medium scale Indian restaurant targeting people using public transport

# DATA USED

## ● Singapore MRT stations location data

The MRT location data was sourced from a kaggle notebook by LY Xuan and provides the MRT station Latitude and Longitude data

Neighborhood	Type	Latitude	Longitude
Jurong East	MRT	1.333207	103.742308
Bukit Batok	MRT	1.349069	103.749596
Bukit Gombak	MRT	1.359043	103.751863
Choa Chu Kang	MRT	1.385417	103.744316

## ● Foursquare location data using Foursqaure API

Key features extracted from this data were

1. Top visited places
2. Number of Indian restaurants within 500M of MRT stations

# METHODOLOGY

1. Using the MRT location data and Foursquare API, details of neighbourhood within 500M of each MRT station will be collected
2. This data will be then clustered using K-Means clustering algorithm to group similar neighbourhoods
3. Using Foursquare data find the number of Indian restaurants near each MRT station
4. Combine the results from steps b & c to identify similar neighbourhoods with less number of Indian restaurants
5. Make a recommendation based on the results from step e

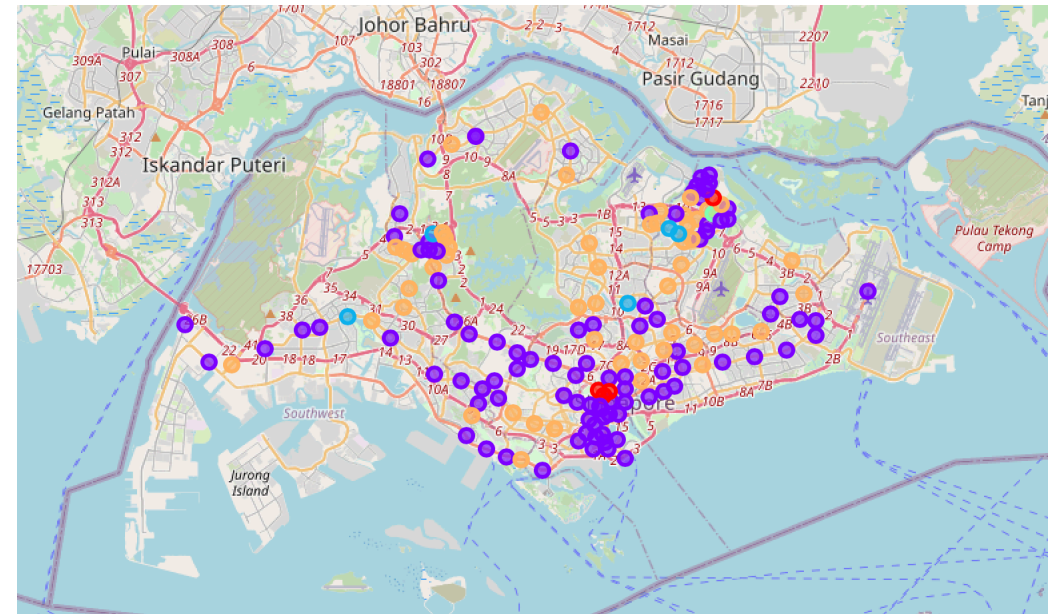


# EXPLORATORY DATA ANALYSIS

There are only 17 Indian restaurants within 500M of MRT stations in Singapore

	Neighborhood	Indian Restaurant
0	Admiralty	2
7	Beauty World	2
15	Boon Lay	2
20	Bugis	2
24	Buona Vista	4
35	Commonwealth	2
46	Expo	2
49	Farrer Park	7
60	Jalan Besar	20
63	Jurong East	2
69	Kembangan	3
78	Lavender	3
80	Little India	20
114	Rochor	6
124	Sixth Avenue	2
132	Tampines	3
150	Woodlands	2

The clusters are in sync with the actual conditions



# RESULTS

The analysis returned 5 key clusters

1. Residential Areas
2. Small towns
3. Medium sized towns
4. Emerging new towns
5. Downtown and nearby suburbs

All Indian Restaurants are located either in Medium sized towns or near CBD

	Neighborhood	Indian Restaurant	Cluster Labels
0	Admiralty	2	2
1	Beauty World	2	4
2	Boon Lay	2	2
3	Bugis	2	2
4	Buona Vista	4	4
5	Commonwealth	2	4
6	Expo	2	2
7	Farrer Park	7	4
8	Jalan Besar	20	4
9	Jurong East	2	2
10	Kembangan	3	4
11	Lavender	3	2
12	Little India	20	4
13	Rochor	6	4
14	Sixth Avenue	2	2
15	Tampines	3	2
16	Woodlands	2	2

# DISCUSSION

Based on the analysis results, my recommendation of locations are

- a. Buona Vista-** As an MRT interchange and with it's high proximity to Science Park (a business hub) this station has very high footfall and has only 4 Indian Restaurants within it's 500M proximity
- b. Jurong East-** This MRT station is a busy interchange and is expected to become the CBD of west Singapore. This neighbourhood is extremely busy, and in spite of having 3 malls connected to the station , there are only 2 Indian restaurants within 500M of the station