

CAPSTONE PROJECT

Battle of the Neighbourhood

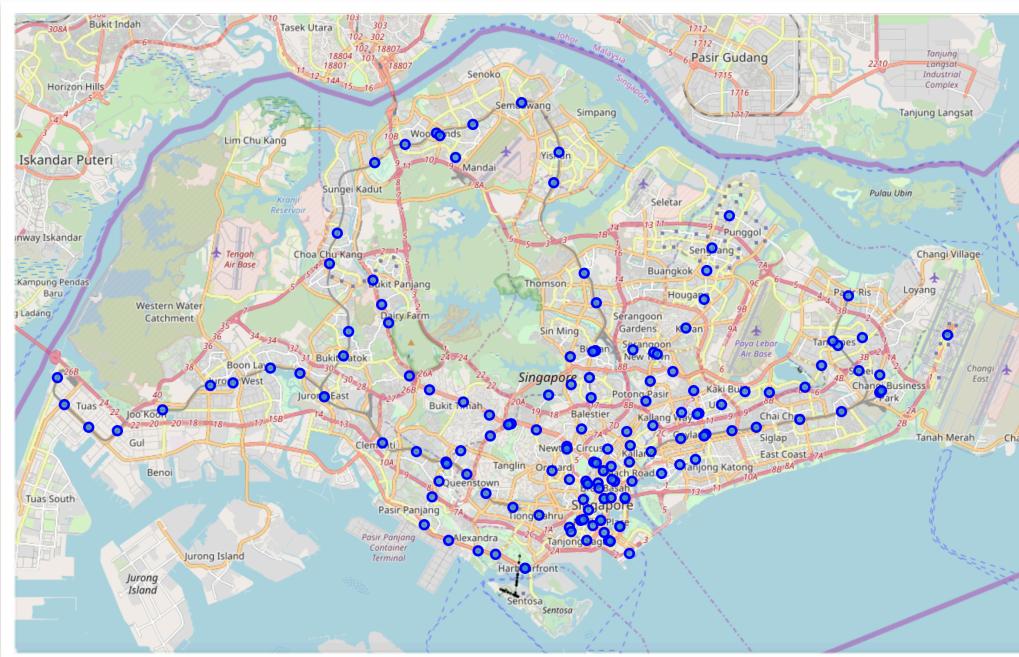
INTRODUCTION

Being a Certified Personal Trainer, I dreamt of owning my own Gym in future. One major success of running a Gym is selecting its location. You can have a world-class Gym but if it is in an inaccessible area, the Gym will not be visited and it will hardly take off. Thus, I would like to take this opportunity to find the most suitable location to set up a Gym. So this report is for anyone who is interested in setting up a fitness facility around Singapore.

DATA

Since Singapore is well-connected by the Mass Rapid Transit (MRT) System, one key data is a pre-consolidated locations (Longitude & Latitude) of all MRT Stations in Singapore. This data was consolidated and made available on GitHub, link provided below. An enquiry to Foursquare will locate the nearby fitness facilities and identify which MRT Station lack fitness facilities and will be a suitable Gym location. As the Venue Category in Foursquare might refer to fitness facilities as "Climbing Gym", "Yoga Studio", etc., it will be necessary to consider them as well before analyse and concluding on the location.

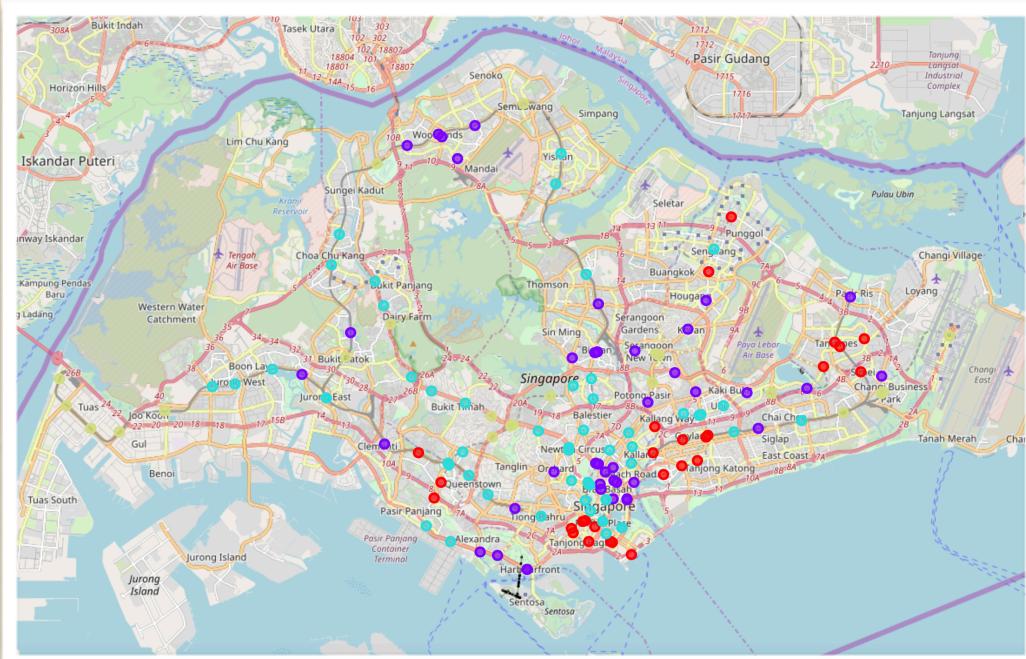
METHODOLOGY



- MRT Stations are first plotted with their Latitude and Longitude.
- We then map data on fitness facilities that are around these MRT Stations from Foursquare.
- The MRT Stations are then clustered into 4 groups (results next slide) to show which MRT Stations lacks fitness facilities.

Note: the fitness-related venue categories were renamed and grouped as one category in the analysis.

RESULTS



- This map shows the different clusters based on how well-equipped they are with fitness facilities
- Legend
 - Red - Well-equipped
 - Blue - Sufficiently-equipped
 - Purple - Equipped
 - Green - Not equipped
- With the exception of the Eastern part of Singapore, most of the fitness facilities seem to be focused in Central Singapore.

DISCUSSION & CONCLUSION

- Based on the analysis, Cluster 0 (Red) is the most well-equipped with fitness facilities while Cluster 3 (Green) lacks fitness facilities. Cluster 2 (Blue) is sufficiently equipped, while Cluster 1 (Purple) is probably just equipped. The results suggest that the western part of Singapore might have opportunities for a new Gym.
 - Areas in Jurong East, Chinese Garden MRT Stations are probably good real estate for such venture.
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