Setting up F&B business in Singapore

1. **Introduction**

Singapore being multi-racial country offers a wide variety of food from Indian cuisine to even Japanese cuisine. Despite being crown as the world's most expensive city for the fifth year in a row by The Economist Intelligence Unit, there are still many affordable food and cuisine available for Singaporeans. Using the skills and tools to use location data to explore geographical location (in this case Singapore), I will carefully review and select an area of choice to open up my food business which sells Hainanese chicken rice.

1. **Data**

The data needed to make the decision to set up my F&B business include the number of districts in Singapore, geographical location of respective districts, venues category within each district and also the population in the district as well. All these data were sourced from several websites that include official website from the government in Singapore and other unofficial websites.

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Statistics on the number and names of the districts obtained accounted for 28 districts in Singapore. However, from the plotting of these districts using folium map, it was found that the one of the district Beach Road was found to be far away from the rest of the districts on map. This could be due to the information being outdated. Hence, instead of 28 districts, I had evaluated 27 districts to set up my business instead.

Table 1. Table below are an example of the geographical locations of the 5 districts in Singapore

|  |  |  |
| --- | --- | --- |
| District | Longitude | Latitude |
| Raffles Place | 103.8513 | 1.2830 |
| Tanjong Pagar | 103.8468 | 1.2763 |
| Tiong Bahru | 103.8253 | 1.2864 |
| Clementi | 103.7649 | 1.3162 |
| Beach Road | 103.5113 | 1.1725 |

Table 2. Table below are an example of the population of 5 districts in Singapore.

|  |  |
| --- | --- |
| District | Estimated population |
| Ang Mo kio | 163950 |
| Bedok | 279380 |
| Bukit Panjang | 139280 |
| Bukit Timah | 77430 |
| Changi | 1830 |

1. **Methodology**

The only and main way to obtain the venues and venues categories in this project was through using the Foursquare API. After defining my Foursquare credentials and version, we explore the top 100 venues in the first district of the map named Raffles Place. A function that returns the category of the venue were called to return the category, name, longitude, latitude of nearby venues. The same function will be applied to the rest of the districts. Lastly, the top 10 venues were displayed for all districts.

Last but not least, we use bar plot to better visualize the population for all districts and eventually eliminate districts with population of less than 100,000 residents.

1. **Results**

Since the criteria to set up the F&B business was to find a district with least competition and high volume of customers, there is a need to evaluate the district population and venues category for all district simultaneously.

It is noted that since Hainanese chicken rice (which is the dish I’m planning to sell) is extremely common due to its affordability, it can be found almost everywhere in Singapore. Places selling chicken rice include Food Court, Shopping Malls and Coffee Shop. Hence, in order to reduce competition from selling the same cuisine, I have decided to eliminate districts with these 3 venues. This criterion greatly reduces the districts available for me to set up my business.

Furthermore, another criterion to determine where to set up my business is the volume of potential customers of my business. In this report, I had decided to source most of my potential customers from the residents of the district. Hence, population size of the district is of a paramount importance. In my case, I had decided to eliminate district with populations less than 100,000 residents. This allows the 27 districts to be narrowed down to 8 districts.

Taking into account previous criterion of reducing competition, these 8 districts had been further narrowed down to 2 districts: Punggol and Serangoon.

1. **Discussion**

There are several improvements that can be made to refine the criteria to select the district to set up my business.

Putting aside the outdated information on the population in all the districts as well as the number of districts in Singapore, criteria such as the demographic of the population can be looked into. Many other factors such as annual income of the population and even monthly gas bill can also be factored in because this will shape their spending habits and tell us the probability that these residents will eat out on a daily basis.

1. **Conclusion**

Taking into account the population size and the common venues in 27 districts, the district Serangoon had been evaluated to be the best option to set up my F&B business.