

Common Venues, House Pricing and Rent in Singapore

Description & Discussion of the Background

Singapore is an island country off the southern tip of the Malay Peninsula in Southeast Asia which has a strategic location for Southeast Asian sea routes. As a foreigner who graduated from a university in Singapore recently and is trying to look for a job here, renting a house with fair price and learn more about surroundings would be something needed to be done. On the other hand, the population density in Singapore is 8358 per square kilometer which makes it one of the most crowded countries in the world. Therefore, in addition to rent and location, we also want to know the population density of the relevant area before making decision. At the end, we may also consider buy a house in the future when we are ready, although there are mainly 3 housing type HDB, Condo and apartment with totally different price distribution, regional average housing price would be a good start for us before we proceed to next step.

Data Description

To consider the problem we can list the data as below:

- 1.Area Division: 1) Planning Areas, also known as DGP areas or DGP zones, are the main urban planning and census divisions of Singapore, therefore, I use planning areas as the division method in this project. List of Planning Areas can be found from Wikipedia. 2) The boundaries data of planning area (a KML file) is available on the Singapore official data portal: data.gov.sg. I transform the KML file to geojson format before I insert it to the code. And then use it to create choropleth map. 3) The latitude and longitude data of planning area and Singapore is obtained by using geopy library.
- 2.Common Venues: I use Foursquare API to get top 10 most common venues with respect to planning areas.
- 3.Population density: The population density of different planning areas can also be found from Wikipedia.
- 4.House pricing and rent: The relevant data I found come from an article on website ggg.sg, it is instructive although not quite official.