Coursea Capstone Presentation

Opening a new hotel in Singapore

Business Problem

- Want to find the best location in Singapore to set up a hotel which is essential to a developer's success or failure

- Need to analyze and find where is the best location especially in a country so land scarce such as Singapore

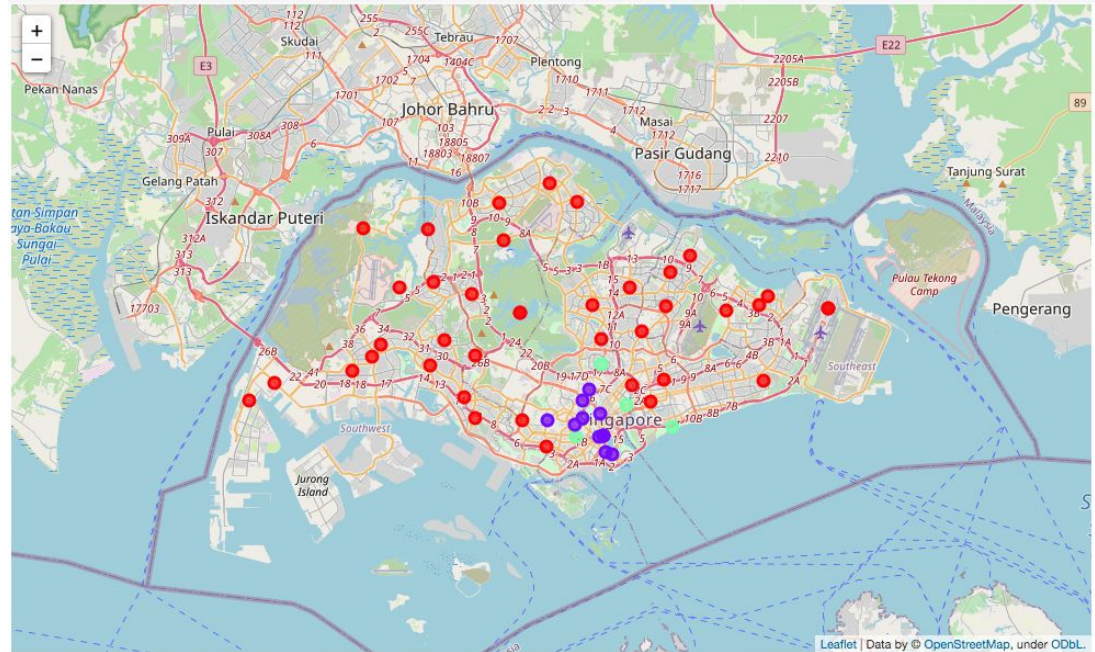- Will need to analyze each district in Singapore to find a suitable location

Data

- What data is needed?
  - List of districts in Singapore
  - Coordinates of the districts
  - Venue data/What is around the district?
- Where do I obtain such data?
  - Wikipedia
  - Geocoder package on Python
  - Foursquare API

Methodology

- Web scrape the Wikipedia page for a list of districts

- Obtain the coordinates using the Geocoder package

- Use Foursquare to obtain the venue data

- Group the data based on the frequency of occurrence

- Filter out the results, looking only for "Hotels"

- Perform clustering using K-means clustering

- Visualise the results

Results

- Cluster 1 (Red): High concentration of hotels

- Cluster 2 (Purple): Moderate concentration of hotels

- Cluster 3 (Light Green): Low concentration of hotels

Discussion

- Most of the hotels are in cluster 1

- Cluster 2 and 3 have a lower number of hotels in the area

- Undersupply of hotels in the southern part of the city

- Cluster 3 has the highest potential due to its low concentration

Recommendations

- Open new hotels in either cluster 2 or cluster 3

    - No significant difference considering the close proximity of both clusters

- Not ideal to open in cluster 1 as there is a high concentration of hotels which would lead to fierce competition for a new developer to enter the market

Conclusion

- With regards to the business problem:

  - Hotel developer should consider building a hotel in cluster 2 or 3

- More groundwork has to be done to figure out why the southern part has no hotels

  - Especially in a densely populated country such as Singapore

Thank you!