



Coursera Capstone

WHERE TO OPEN A HOTEL IN SHANGHAI,
CHINA

Business Problem

- Location of a new opened Hotel is very important for it's success as competition is high
- To minimize the risk of business failure surroundings should not be saturated with competition (other Hotels)

Question to answer:

- As a potential business owner/hotelier, where would be the best and worst area to open a hotel in Shanghai

Data

- Data Required:

- Neighborhood Names in Shanghai
- Latitude and Longitude coordinates of neighborhoods
- Fourspace Venue Data showcasing Hotels

- Data Sources

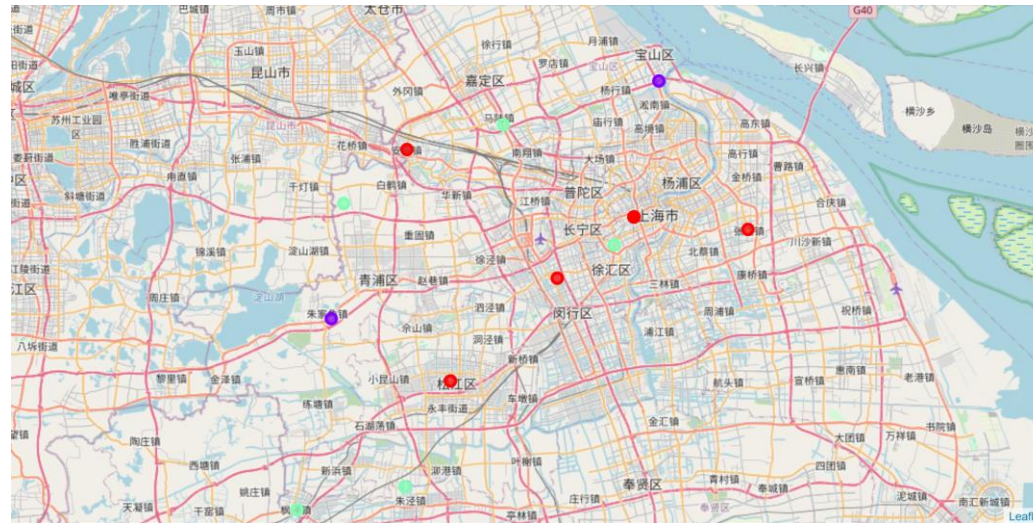
- Wikipedia Info Page for Shanghai Neighborhoods (https://en.wikipedia.org/wiki/Category:Neighbourhoods_of_Shanghai)
- Geocoder Python Library to get Coordinates
- Foursquare API to get venue data
- Folium Python Library to be able to create visualization (maps)

Methodology

- Data Scraping Wikipedia for Shanghai neighborhoods
- Using geocoder, getting coordinates
- Getting Venue Data using Foursquare API
- Grouping Data by neighborhood and taking the mean of occurrence of Hotels for each venue category
- exclude other categories as Hotel from the Dataset
- cluster the data by using k-means clustering
- visualize in maps using Folium Library

Results

- Three different Clusters identified for neighborhoods:
 - Cluster 0 (red): Neighborhoods with moderate hotel amount
 - Cluster 1 (purple): Neighborhood with low to almost no existing Hotels
 - Cluster 2 (green): Neighborhood with high amounts of Hotels in that area



Discussion

- most Hotels are located in the west and center of Shanghai
- Cluster 2 seems to be a bad choice for setting up a new Hotel as competition is very high
- Cluster 1 is the better area as especially the coast area has a very minor competition by other Hotels
 - Recommendation:
 - A new Hotel should be opened in the area of Cluster 1 as it's showcasing the lowest amount of competitors
 - Avoid opening a Hotel in Cluster 2 as the competition will already be very high which makes it difficult for a new venue to start successfully

Conclusion

- The neighbourhoods in cluster 1 are the best/ to be preferred area to open a new Hotel business

Thank you!

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