Dessert Shop Location Selection

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Background

This project is to help a retiring marketing and sales executive in Shanghai to select a location in Hong Kong for her own dessert shop.

The executive was born in Hong Kong and has a good understanding of different neighborhoods there. She has decided on 17 neighborhoods and would like some help to compare them to maximize her chance of success.

Approach

We used several tools to conduct analysis for the executive. We used location data from Foursquare to get the location data. We used k-means to cluster the neighborhoods to see if there are any similarities among them. We then evaluated each neighborhood based on ability to attract large crowd of people such as shopping malls, park, train station, etc. and then selected a few potential neighborhoods for her. We also looked at the number of dessert shops in each of them and selected one with the minimal number of dessert shops to minimize the competition. We also considered the rental costs to make sure we selected the most cost-effective location.

Analysis

Folium was used to draw a map of Hong Kong with marker for those 17 neighborhoods to visualize the locations of those neighborhoods in Hong Kong
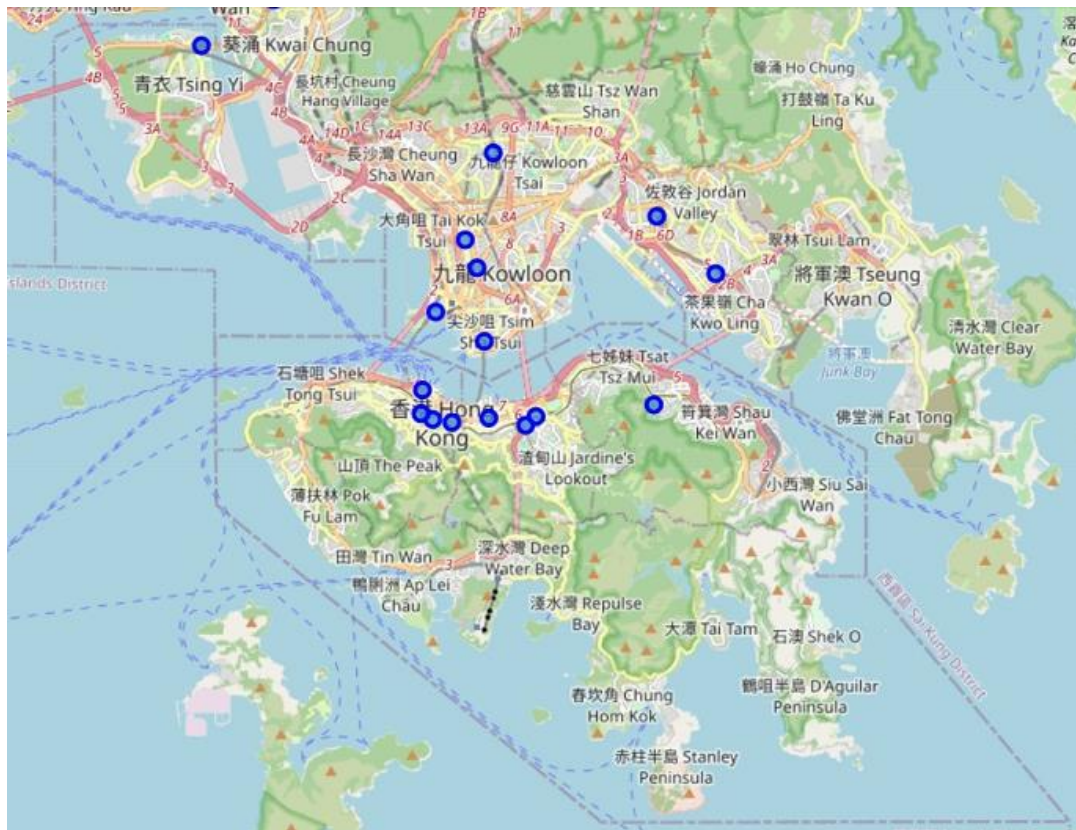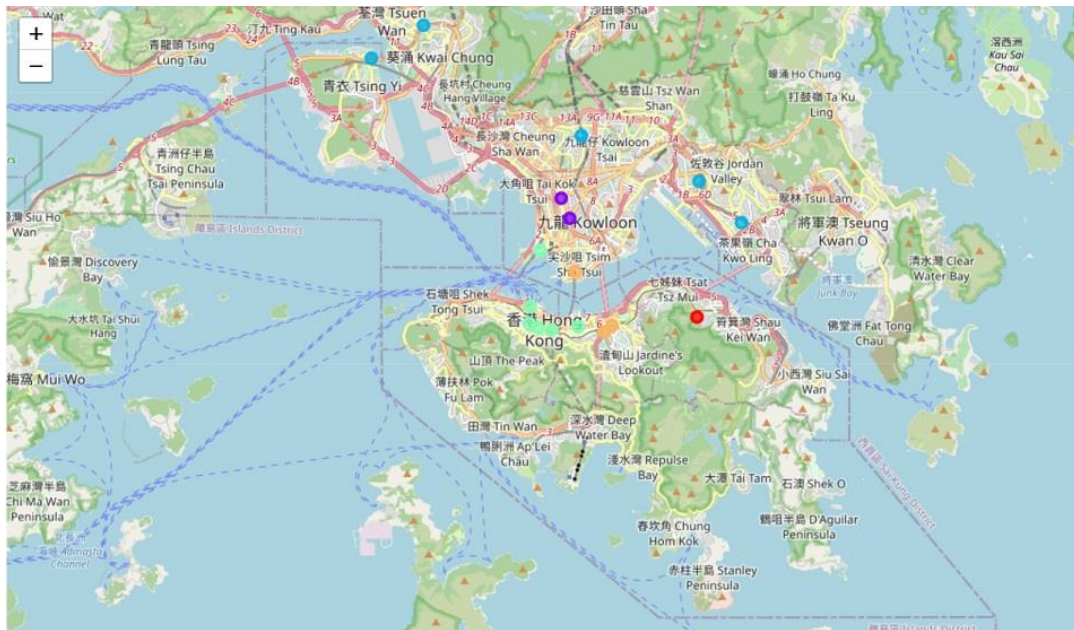
Analysis

- Use Foursquare to get location data

- Use k-means to cluster similar neighborhoods.
Key observations:
  - Light blue and red are farther away from city central
  - All western Hong Kong Island (green) neighborhoods have similar features

Analysis

For further analysis, we looked at neighborhoods that would have most traffic. We used the below 20 venues from Foursquare.

Hotel	Gym / Fitness Center	Zoo
Park	Gym	Supermarket
Shopping Mall	Department Store	Sports Club
Metro Station	Skating Rink	Farmers Market
Mountain	Trail	Monument / Landmark
Performing Arts Venue	Historic Site	Train Station
Scenic Lookout	Pier	

Neighborhood with Big Crowd Venues
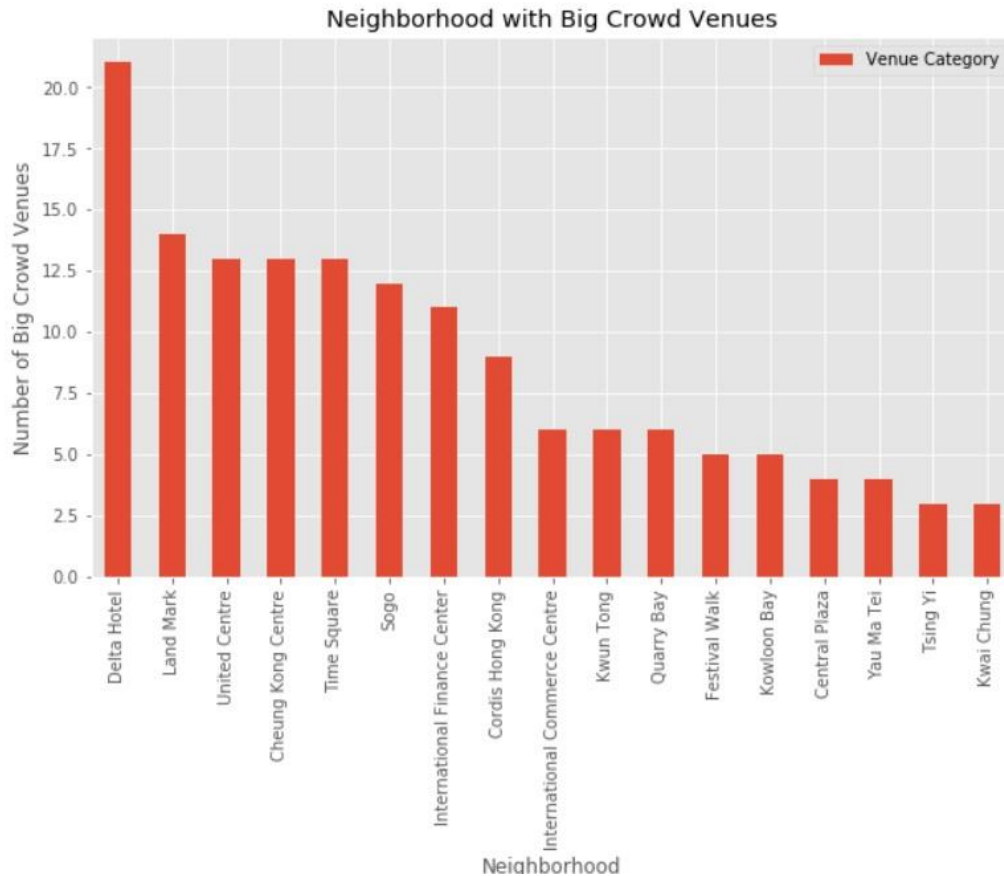
Analysis

- Using bar chart to show the number of big crowd venues in each neighborhood.

- The below neighborhoods have the largest number of big crowd venues
  ◦ Delta Hotel (21)
  ◦ Land Mark (14)
  ◦ United Centre, Cheung Kong Centre, and Time Square (13)

	Neighborhood	Venue Category
0	Delta Hotel	1
1	Land Mark	1
2	United Centre	1
3	Yau Ma Tei	1
4	Festival Walk	2
5	International Finance Center	2
6	Kowloon Bay	2
7	Kwai Chung	2
8	Time Square	2
9	Sogo	3
10	Cordis Hong Kong	4

Analysis

- Now look at the number of dessert shop in each neighborhood

- The below neighborhoods have the lowest number of dessert shop
  - Delta Hotel (1)
  - Land Mark (1)
  - United Centre (1)
  - Yau Ma Tei (1)

Other Consideration

Rental price is usually the largest expense for a dessert shop. We also looked at the average retail rental price for the three large districts.
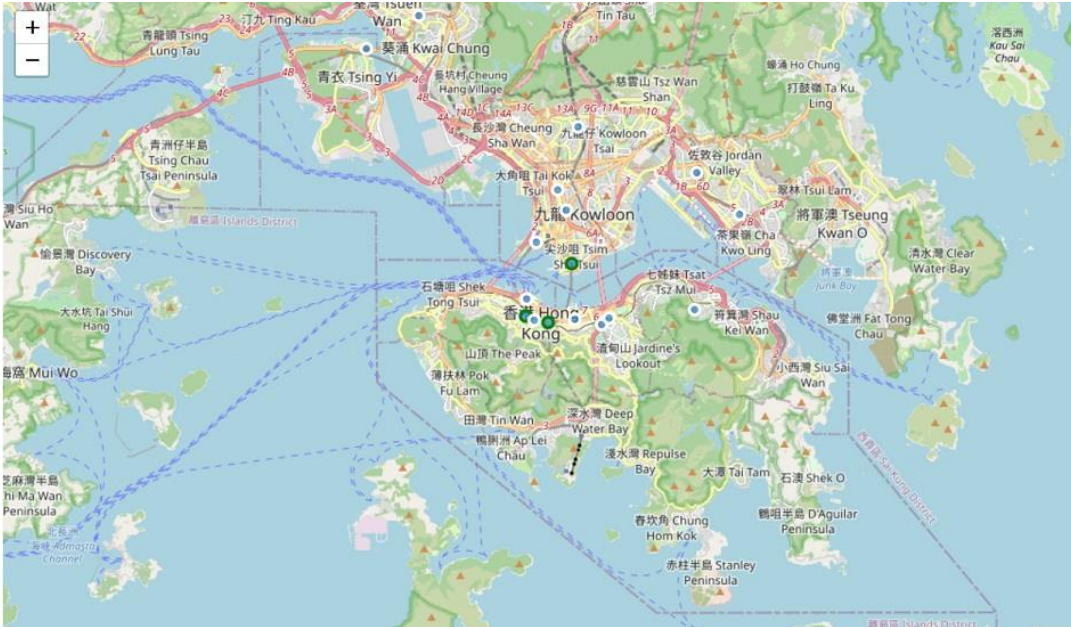
Hong Kong Island: HK$1,633/m^2

Kowloon: HK$1,009/m^2

New Territories: HK$ 1,301/m^2

Recommendation

Based on the number of big crowd venues, the number of competitors, and rental cost, below is the neighborhood recommended.

- Delta Hotel
- Land Mark
- United Centre

Summary

NEIGHBORHOOD	NO. OF BIG CROWD VENUES	NO. OF COMPETITORS	RENTAL COST
Delta Hotel	21	1	HK$1,009/m^2
Land Mark	14	1	HK$1,633/m^2
United Centre	13	1	HK$1,633/m^2