



THE BATTLE OF NEIGHBOURHOOD

Dubai – Gift Shop

ABSTRACT

This is a report of the battle of neighbourhoods project which is a data science study of the opportunity to start a gift shop in Dubai, United Arab Emirates

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Applied Data Science Capstone
Course

Gift Shop in Dubai

1. Introduction and Discussion of the Business Objective

There must be few who must have not heard about 'Dubai'. To many (and rightly so), Dubai means lots of shopping at the Dubai shopping festival, tons of adventure in the desert safaris, enjoying charismatic panoramic views from the deck of the iconic Burj Khalifa.

Dubai certainly has something for everyone. But behind all this excitement and adventure lies the backbone of it all the strong economy of this city. Dubai has a reputation for being a visionary city; a first-mover that shapes its own destiny. The spirit of possible and wise foresight of its leaders have been hallmarks of Dubai's economic progress over the past decades. And what once was a tranquil town has rapidly grown into a premier leisure and business tourism destination, becoming the record-breaking and innovative city it is today - the crossroads of opportunity. As I'm living in one of the world's fastest growing economies and one of the world's lowest crime rates city push me to take the decision to build my capstone project on it.

This project explores gift shops and related opportunities in Dubai, United Arab Emirates. It will help make data-driven decisions about the new locations that are best suited to their existing Dubai flower shops, and this will be a big part of the decision-making process. This project will help any client who is interested in starting flower shop business in Dubai.

2. Data acquisition and cleaning

In this project the data regarding the cities in Dubai needs to be researched, as I retrieve it from <https://www.citypopulation.de/en/uae/dubai/admin/>, data wrangling and cleaning will have to be performed.

The cleansed data will then be used alongside Foursquare data, which is readily available. Foursquare location data will be leveraged to explore or compare cities around Dubai, identifying the high traffic areas where consumers go for shopping, dining and entertainment - the areas where the clients are most interested in opening new stores.

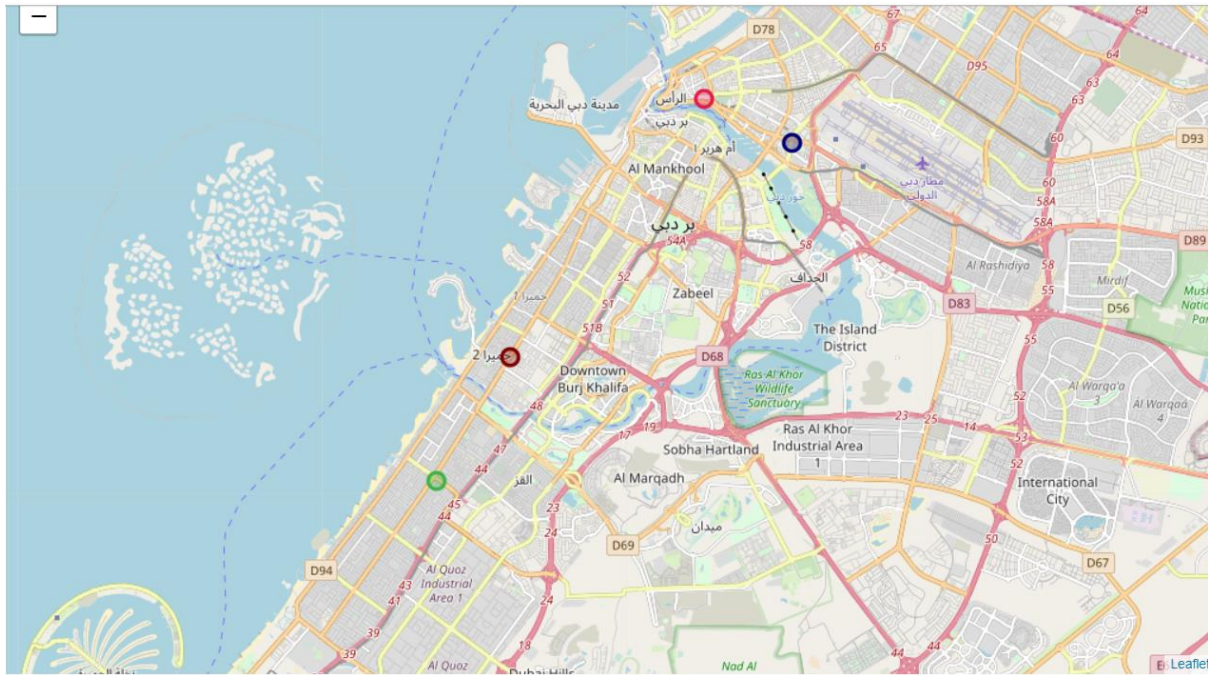
3. Methodology

- After scraping the html webpage, the data is cleaned, and unnecessary columns are dropped.
- I use geopy to get latitude and longitude for each city in the dataframe.
- To make it easier to search the dataframe I limited the list of cities to cities of more than 15 thousand population's count.
- I relied on Foursquare API to retrieve all venues of the first neighbourhood of the dataframe.
- I retrieved all venues of Dubai cities with the category of each one.
- Venues are grouped based on the neighbourhood.
- I then filtered the top 10 most common venue types of each neighbourhoods.

- The neighbourhoods will be then put in different clusters based on similar or common attributes using K-means clustering.
- The venues filtered to get the dataframe of gift shop only.
- I used Folium map to show the locations of the available gift shops in Dubai.

4. Result

According to the data analysis I did, I find that there are only 4 gift shops in Dubai.



5. Discussions and further Improvements

- In the FourSquare API, I have queried the Venues of a locality by specifying the LIMIT and Radius of my choice. I have chosen less LIMIT as the number of API calls that can be done using a free account in Four Square are less. I can increase the limit for more accurate results.
- As we are talking about an area that attracting the tourists they would like to get a gift from it. Burj Khalifa is a highly attracting neighbourhood and it will be great if the gift shop is established there.

6. Conclusions:

- Based on the given constraints, a gift shop can be installed in a place closer to Burj Khalifa to attract more number of diverse customers and get huge revenue.