Capstone Data Science Report

Property Rates and location Features

1. Introduction Section

Description of the Problem and Background

Problem:
I am a resident in the city of mumbai. Looking for property in this city can be a very daunting task. Through this project I am aspiring to create a model that would individuals in analysing and making a decision in the process of the renting out of property. A number of factors need to be taken into account while creating this model like the cost of rent, neighbouring facilities like restaurants, markets, educational institutes, entertainment facilities, transport connectivity, etc. This model would assist an individual in making the right decision based on his preferences.

Interested Audience:
I believe this is a relevant challenge with valid questions for anyone moving into the city. It is also applicable to residents of mumbai who are interested in relocating within the city. The same methodology can be applied in accordance to demands as applicable. This case is also applicable for anyone interested in exploring starting or locating a new business in any city. Lastly, it can also serve as a good practical exercise to develop Data Science skills.

2. Data Section

Description of the data:

The following is the data required to answer the problem described above:
- location data of the city
- Information regarding the amenities of the various locations in the city
- The property prices of various locations within the city
- The accessibility of various locations in the city

How will the data be used to solve the problem:

The data will be used as follows
- Use Foursquare and geopy data to map the venues for the city and cluster it in groups
- Use foursquare and geopy to map the various ammenities on top of the clustered map inorder to be able to easily explore various locations
- Use the data concerning property prices of the various locations to map it linking it to the foursquare data.
- To analyse various trends and habits of the prices and features concering the ammenities of each location.
- The required data will be searched for in open research channels and data sources

The processing of data will allow to answer the following questions
- What is the cost of property in a particular location.
- What are the various ammenities available in each location
- What are the various trends in the property prices and various features of te locations

3. Methodology Section

The processing of these DATA and its mapping will allow to answer the key questions to make a decision:

- What is the cost of available rental places that meet the demands?
- What is the area of Manhattan with best rental pricing that meets criteria established?
- Are there tradeoffs between size and price and location?
- Any other interesting statistical data findings of the real estate and overall data.

4. Results

Thus we could do a deeper study to create a model to better analyse the rental situation in the city of manhattan

Using the above map makes it much more easier to explore all the possibilities in the city of manhattan.

5. Discussion

In general, I am positively impressed with the overall organization, content and lab works presented during the Coursera IBM Certification Course

I feel this Capstone project presented me a great opportunity to practice and apply the Data Science tools and methodologies learned.

I have created a good project that I can present as an example to show my potential.

I feel I have acquired a good starting point to become a professional Data Scientist and I will continue exploring to creating examples of practical cases.

6.Conclusion

I feel rewarded with the efforts, time and money spent. I believe this course with all the topics covered is well worthy of appreciation.

This project has shown me a practical application to resolve a real situation that has impacting personal and financial impact using Data Science tools.

The mapping with Folium is a very powerful technique to consolidate information and make the analysis and decision thoroughly and with confidence. I would recommend for use in similar situations.

One must keep abreast of new tools for DS that continue to appear for application in several business fields.