Coursera Applied Capstone Project

Battle of neighborhoods

Module – 4 (week 4)

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Place: Bengaluru

Bengaluru

Problem description:

Background:

Bengaluru (or Bangalore), silicon city of India and City of many dreams is a popular booming city, and why?

Refer here: https://www.thenewsminute.com/article/projected-gdp-85-bengaluru-be-world-s-fastest-growing-city-report-116556

The city is going to be one of the fastest growing Cities in world with GDP of 8.5%. This means a positive sign for starting many business and real estate.

So, if it is definitely a good destination for investing? Then where to invest? That is very confusing.

Problem:

As almost all areas seem to be better than each other for a human mind. How can a normal human mind even with lot of Experience predict which area would be popular for investing such that the choice results in High Gains?

A confused mind would be wandering around, looking for all possible growth areas in Bangalore. And in such tiresome work, first of all if some areas are missed, it would be a great future loss of profit.

So clearly, the stakes are high due to **two** reasons:

1.) It is difficult to choose given so many parameters to consider
2.) If some area is missed, there will be huge future loss of profit.

The problem is further diversified to **Major possible investment strategies**:

1.) **Residential investments**
2.) **Fast growth and return investments**
3.) **Small businesses**

How can this problem of Investing in Bengaluru be solved so that the returns are most and which areas are most suited to the possible investment strategies?

Problem Background: Investment in land and business is the best form of earning quick money. Investment is money intensive, a lot of money is needed.

If this money is invested at wrong place, it results in LOSS. This may make the investor Bankrupt also. In some cases due to extreme bankruptcy, the investors have even committed suicide.

Hence a right approach **is must.**

Data Description:

Data required for this method would be Residential and commercial real-estate rates along with all the localities of Bangalore.

One particular website was used to scrap data. The link is listed below.

https://bengaluru.citizenmatters.in/615-real-estate-rates-615

This is a recent data. Hence most applicable. The data consists of Localities in Bangalore with both the Commercial and Residential rates if applicable. Some areas seem to be completely commercial while some are completely residential. This means the currently available Residential/ Commercial spaces are none.

How Data can be used to solve this problem?

The Data covers almost entire localities of Bangalore. First, **data of localities** is created from the scrapping of website. And two dataframes of **Residential and commercial spaces** exclusively are also generated.

Missing values of any data/ inappropriate Rates **are dropped** to create a unison data.

The Data is then used to fetch Coordinates of Each location using **Geocoder**.

After which, **Foursquare** is used to get all the venue data **with in 2km range**.

By using **KMeans** clustering, the Localities are clustered into 5 clusters.

The clusters are observed for **most frequently** occurring venues.

The Residential and Commercial rate data **is then used** to find the **Average** rates of each cluster.

As **land rate and the locality matter** a lot for both Residential and commercial spaces, using the Analysis, meaningful observations about which clusters are best suited for which type of investment is decided upon.

Using the data**, hence, the Best land investment strategy and area(from cluster) can be determined**.