OPENING A NEW SHOPPING MALL

BANGKOK, THAILAND

INTRODUCTION

Opening a shopping mall in a city like Bangkok requires multiple criterias to take into account like;

- Developing areas

- Standard of living of the crowd visiting the mall

- Attracting investors

- High income

CHECKING FOR DEVELOPING AREAS

Neighborhoods of an city can be easily found on web links like Wikipedia. This pages are open sourced and uses open communities to update the same.

To get a list of neighborhoods near Bangkok city, such Wiki page can be used for reference. Using *Beautiful Soup,* a library in python the pages can be read and the content can be extracted from it.

https://en.wikipedia.org/wiki/List_of_neighbourhoods_in_Bangkok

GEOCODING – ARCGIS GEOCODER

After extracting the list of neighborhoods, those are saved in an pandas data frame which can be easily analyzed further. Further, a geocoder is used to get the coordinate values for each neighborhood and then adding to the dataframe against each neighborhood name.

FOURSQUARE API

Now, we have the extract lat/longs for each neighborhood, we can use foursquare API to get nearest venues, specifically *"Shopping Malls"* and then perform our analysis.

*Foursquare API can be used to explore nearby places, locations, etc. and get the top reviews by visitors.
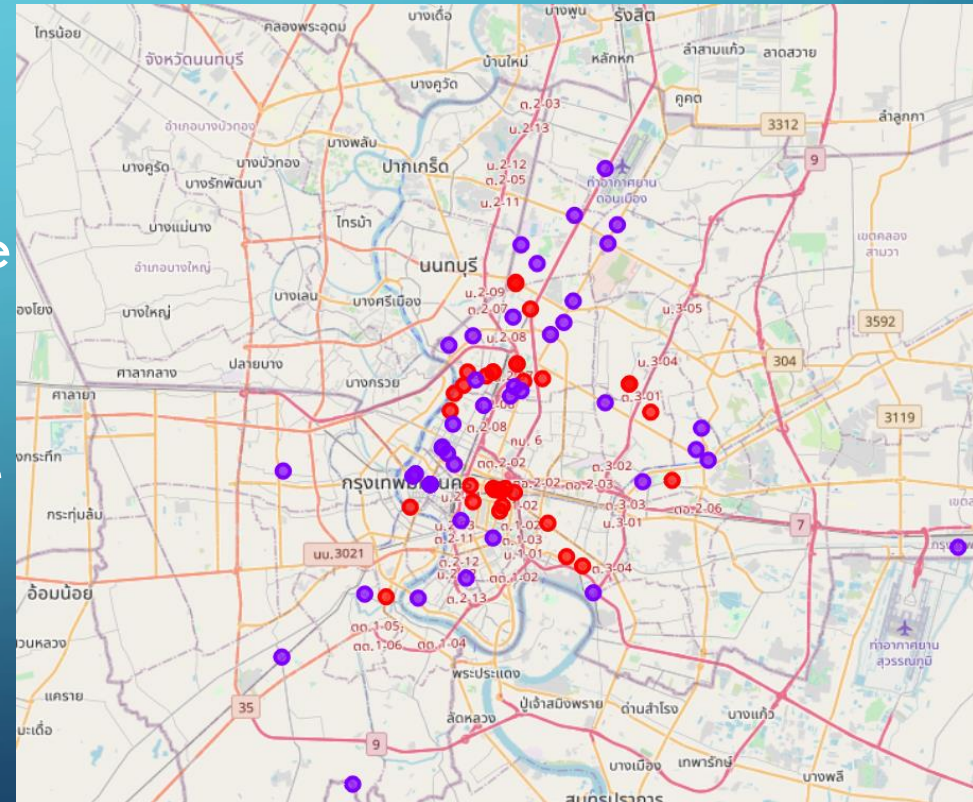
CLUSTERING AND DISPLAYING THE DATA ON MAP

• Exploring nearby venues with an limit of 100 venues and searching within an

   radius of 2000 meters, we get some

   list of malls which are plotted on a map

Using *folium*. Using *k-means* the data is the

Is then clustered as seen.

Red – Cluster 0, concentrated in city centre

Blue – Cluster 1, extended city

CONCLUSION

Referring the results after clustering, it seems that cluster 1 area fits our requirement as;

- The area is in developing phase

- Away from city crowd

- Attracting investment groups

- Less competition