

BEST PLACE TO BUY CONDOMENIUM FLAT FOR AIRBNB BUSINESS IN KAMPALA UGANDA

Applied Data Science Capstone by IBM/Coursera
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Background

- Kampala is Uganda's national and commercial capital bordering Lake Victoria, Africa's largest lake. Hills covered with red-tile villas and trees surround an urban centre of contemporary skyscrapers. In this downtown area, the Uganda Museum explores the country's tribal heritage through an extensive collection of artefacts. On nearby Mengo Hill is Lubiri Palace, the former seat of the Buganda Kingdom

Problem

- An investment club wishes to buy several condominium flats and list them on Airbnb and the location of the flats should meet the following criteria:
 - (1) Should be within 7km radius off the Kampala Central Business District.
 - (2) Should be close to the best Restaurants located within the defined area in (1) above since majority people who use Airbnb are tourists and conference participants .

Data acquisition and cleaning

- To obtain data on Restaurants , I signed up for Google Places API . I parsed the Json data and saved it an excel file and added it to my github repository.([link to data](#)). Google places Api limits the search to only 60 restaurants and i had run it several times to obtain more data and it is what is presented in the dataset. Data was also obtained on Kamapala venues using Four-square API

Data overview

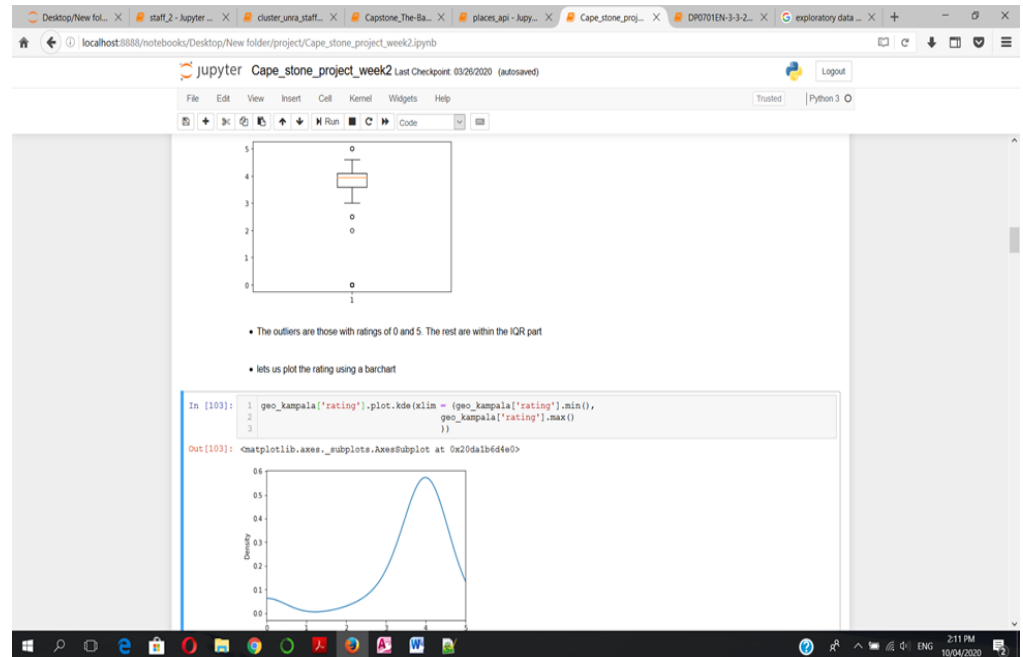
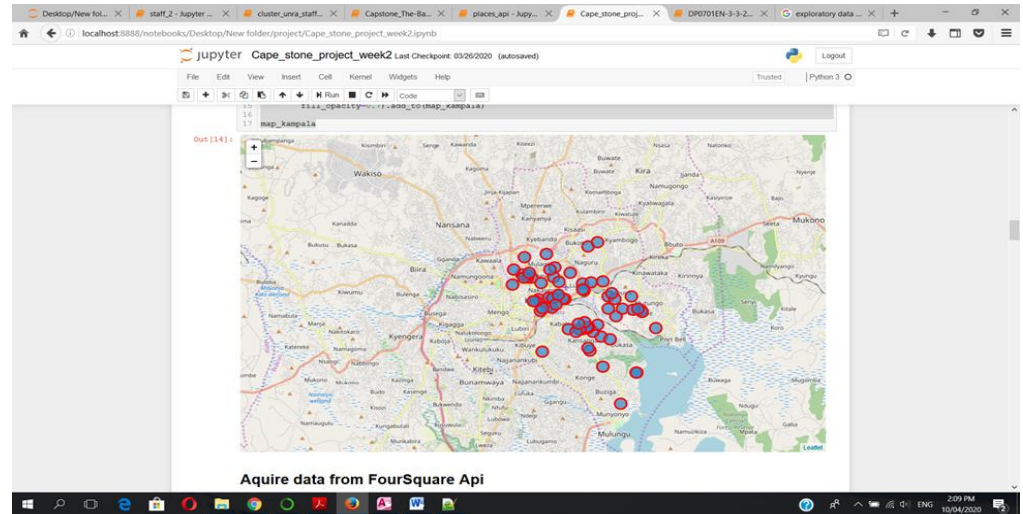
- Using this data let us properly answer all question and see a full picture of Kampala Restaurants. Data will enable us to properly group restaurant based on ratings and locations.

Data on Kampala venues will be obtained from Four-square Api, parsed into a dataframe and visualize using Folium. Since the two Apis return different sets of data, clustering will be done on each dataset and best locations (those with best restaurants) recommended.

Exploratory Data Analysis

The maps show locations and ratings showed not much outliers in the dataset.

- This involved data visualization using boxplot and maps



Clustering using K-mean algorithm

- Since the purpose of the study was to find best locations to buy property, I clustered the two data set using K-means and presented the clusters on the map.
- Clustering of Google Places API data using K-mean .

Discussions and Recommendations

(1) Using Google places API data, the best rated restaurants were found in Kololo and Nakasero.

(2) Using Four Square Api venues data, most clusters of restaurants were found in Kololo, Nakasero, Wandegeya and Bugolobi.

- Recommendation:
- The best place to acquire property from is Kololo, Nakasero, Wandegeya and Bugolobi subject to availability of funds.