Battle of The Neighbourhood's

Finding best neighbourhood in the city of Bangalore

This project aims to utilize all the concepts learned through IBM Data Science Professional Course. We define a domain problem, the data that will be used and using this we are able to analyse it by applying various ML tools. Analysis of data is step by step procedure, involves Data Gathering, Data Cleaning, Exploratory Data analysis, Data Modelling and interpreting (final output). In this project we will go through all these process and provide a conclusion that can be leveraged by the business stakeholders to make their decision.

Data acquisition:

Source 1: Neighborhoods of Bangalore and Geographical Location via Kaggle

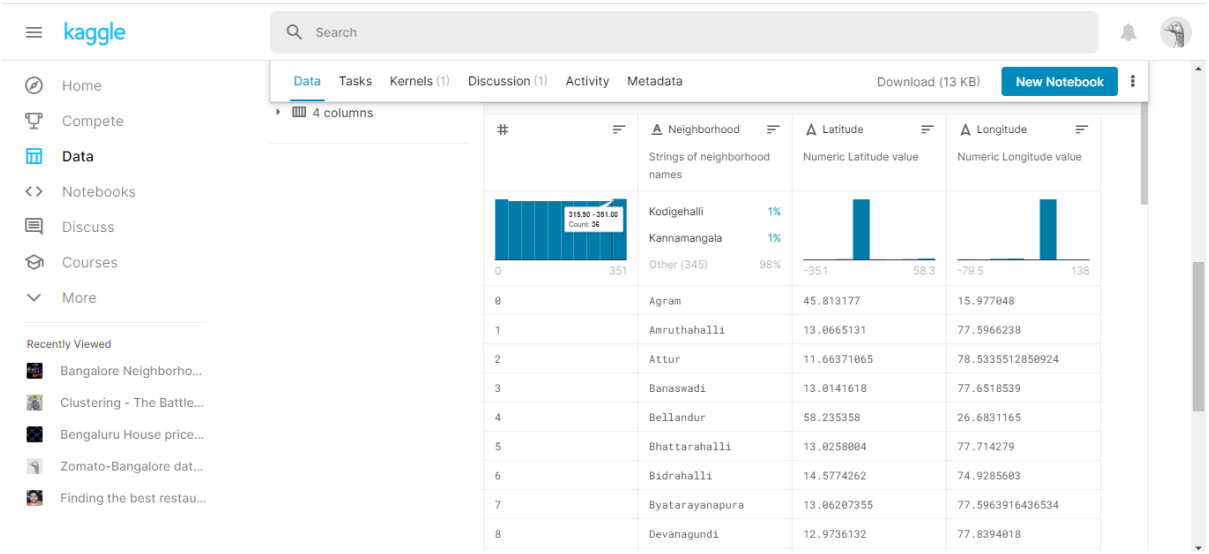

Figure - 1

1. https://www.kaggle.com/rmenon1998/bangalore-neighborhoods?select=blr_neighborhoods.csv

The Kaggle site shown above (Figure -1) provided all the information about the neighbourhood's, latitude's and longitude's present in Bangalore. The file was in the CSV format, so we had to attach to a pandas data frame (Figure – 2).

	City	Neighborhood	Latitude	Longitude
0	Bangalore	Agram	45.813177	15.977048
1	Bangalore	Amruthahalli	13.066513	77.596624
2	Bangalore	Attur	11.663711	78.533551
3	Bangalore	Banaswadi	13.014162	77.651854
4	Bangalore	Bellandur	58.235358	26.683116

Figure -2

Source 2: Venue Data using Foursquare:

	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	venue	venue_categories	venue Latitude	venue longitude
0	Agram	45.813177	15.977048	Amélie	Dessert Shop	45.813842	15.979011
1	Agram	45.813177	15.977048	Corner bar	Bar	45.812930	15.979440
2	Agram	45.813177	15.977048	Trg bana Josipa Jelačića	Plaza	45.813032	15.976868
3	Agram	45.813177	15.977048	Tržnica Dolac	Farmers Market	45.814070	15.977261
4	Agram	45.813177	15.977048	Cremme Zagreb	Dessert Shop	45.814987	15.976296

Figure – 3

We performed a bit of data cleansing. It is seen through above figure (Figure -3) that the neighbourhood's are grouped by the name of the neighbourhood, so data clustering is made easier later on.