Classifying two major cities in Australia

Main idea of this project is to help new immigrant to identify best suburbs for settlement where preferred facilities are available. This Project would help the immigrant take a better decision on choosing the best neighborhood out of many suburbs to rent their houses in Sydney/Melbourne based on the distribution of various facilities in and around that neighborhood. As an example, this project would compare all the suburbs neighborhoods and analyse the distribution of facility.

Also, this project uses K-mean clustering unsupervised machine learning algorithm to cluster the venues based on the place category such as Train/Bus stop, Shopping mall, movie, gym etc. This would give a better understanding of the similarities and dissimilarities between the suburbs neighborhoods to retrieve more insights.

Immigrants are much more likely to settle in capital cities, especially in inner city suburbs or suburbs near universities, than the Australian-born population. Settlement patterns also vary by visa type and country of origin.

Objective

The objective of this project is to find best suitable suburb in Sydney and Melbourne given that new settler have some priority of facility in the suburb. using suburb location data along with Foursquare data and machine learning segmentation and clustering, this project will recommend cluster of suburbs where new settler will be able to get preferred facility (1. Movie 2. Shopping Mall 3. Turkish Restaurant 4. Bus 5. Train 6. Fish 7. Gym)

Aim of this project:

1) Classify Sydney suburbs' based on given preferences and find best suburb that will meet requirements

2) Reclassify Sydney suburb given that house rent, travel time and distance will be minimized, and also meet requirements as per preference and weight

3) Predict Sydney house rent for given facility requirement

4) Classify Melbourne suburbs' based on given preferences and find best suburb that will meet requirements