PROBLEM DESCRIPTION

Problem: As people continually shift from one region to another, they often run into problems with the absence of basic amenities close by the cities they end up in.

Background: The Economic Survey of 2017 concluded that Indians are much more mobile that perceived to be. Census 2011 data on changes in population, too, had corroborated this view—the migration is much higher than NSS had declared. A simple Google search reveals that people most often visit sites that enumerate what one should look into when shifting to another city—among them are crime rates, amenities, school, location of stations. Clearly, to a representative man, these are important considerations while moving cities. For women, however, additionally, safety is also a crucial consideration. No matter how great the city is if it is in a state with very high crime rate, there's be hesitation. So how does one decide?

Objectives: This project will aim at giving the user a comprehensive map of all the cities in India (barring those with *very* sparse population), colour-coded according to the crime rate and amenities available nearby (restaurants, shops, stations), so that the user can make an informed choice of the city she/he wishes to shift to.

DATA DESCRIPTION

The datasets that will be required for this project:

1. Location of all cities in India
2. Population density of states (more reliable than the data available for cities)
3. Ranking of crime rate of states
4. Amenities near each city

Population density will first be used to eliminate the cities with very low value. Here, I assume that someone is shifting for greater opportunities and higher standard of living, and studies have shown that as population is sufficient, corporations find it profitable to establish a base in the regions.

Then, FourSquare API will be used to explore places around each city. Will eliminate places that have no shops, restaurants *or* stations nearby—because these are very basic amenities that exist around any city that has a commercial sector, and add to the standard of living.

The crime rates will help group the cities into 3—low crime rate, moderate crime rate and high crime rate. The final comprehensive Folium map will contain indication of the group each city belongs to.

Finally the number of venues and types of venues (station, train or station) will be used to colour code the pop-up bubble on the cities. If a user knows the legend, she/he can easily choose places to her/his liking.

This project can be very easily extended to include availability of schools, the weather or any other amenities or considerations that are important to the users.