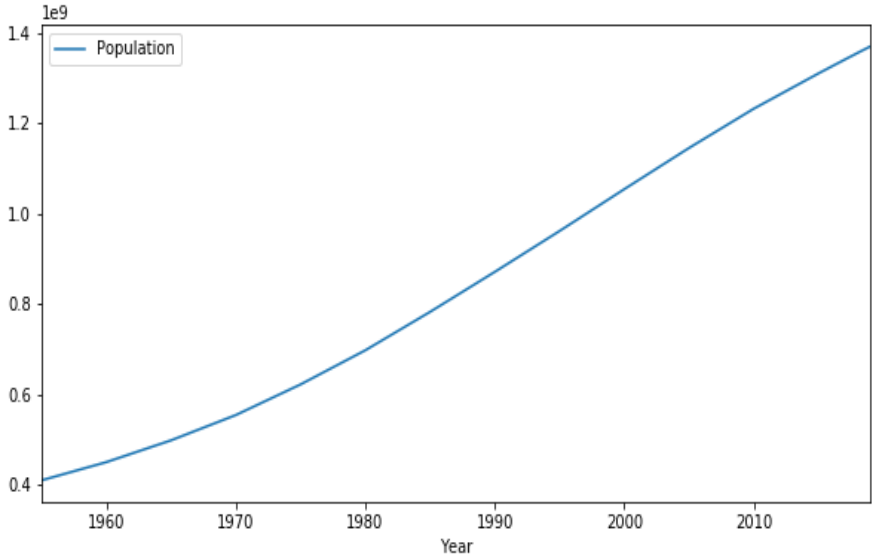
Capstone Project

Building a Recommender for a Restaurant in India

- Dipro Mondal

Interest

- Population in rise
- Too few restaurants with respect to number of people
- Investors/businessmen look for opening new restaurants

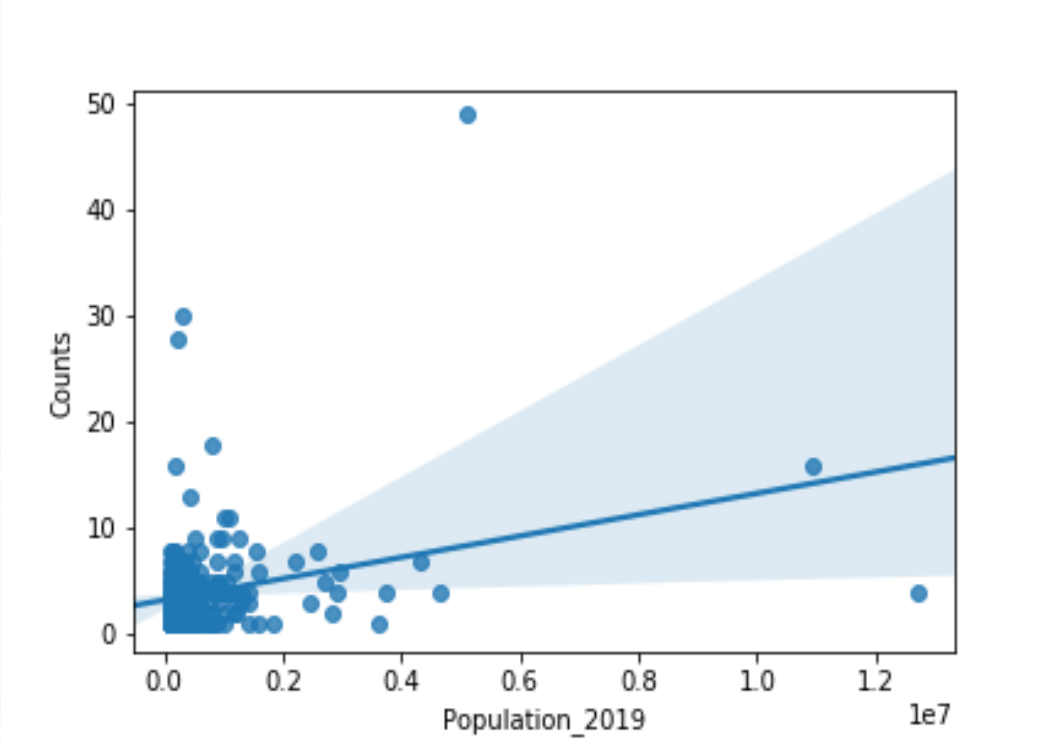


Data Acquisition and Cleaning

Data obtained from various sources and cleaned

- Population (2019) and city location has been scraped from http://worldpopulationreview.com/countries/india-population/cities/
- Restaurant data has been obtained from Foursquare
  - 1246 venues obtained of which 315 restaurants and 30 unique categories of restaurants

Relation between population and number of restaurants



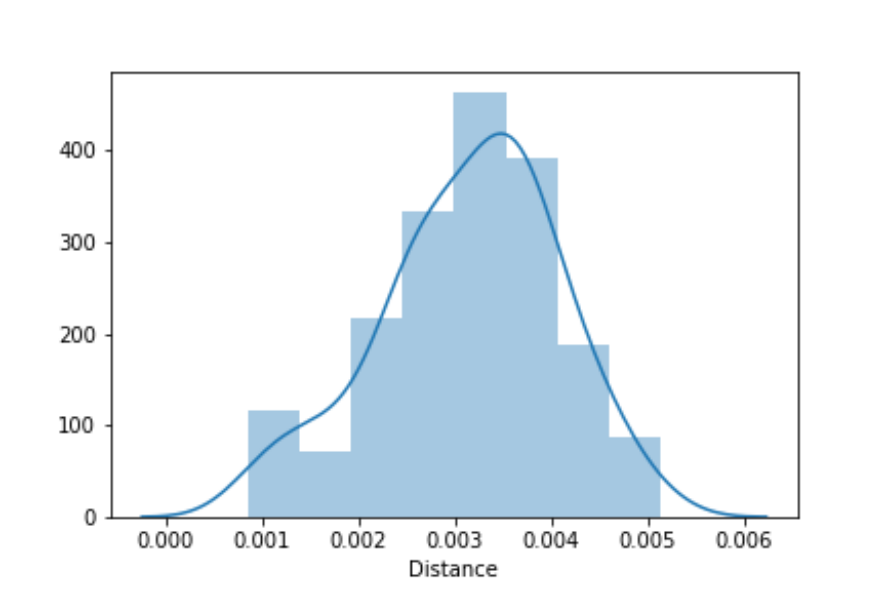
- Population of a city has a linear relation with the number of restaurants in the city.

In which city restaurant to be built?

Based on the ratio of the total population of the city and the number of restaurants that are currently available (with respect to FourSquare data), Hyderabad has the highest ratio.

So in order to choose a place where a restaurant is to be built, Hyderabad would be the best choice.

How far from the city center the restaurant to be built?



Most restaurants lie at a distance between 0.003 to 0.004 degrees from the city center which is also recommended for opening our recommended restaurant.

What type of restaurant should it be?

Based on the most frequent type of restaurant of the cluster which contains the city for the recommended restaurant, the suggested type of restaurant should be fast food type.

Conclusion and Future Direction

- The recommender system recommends the building of a new restaurant in the city with the highest ratio of population vs number of restaurants, the type is predicted by the most frequent type of restaurant available.
- With the current data available, the recommender system recommends building a fast food restaurant in Hyderabad.
- This recommender system is intelligent in the sense that it will immediately update its recommendation based on new or updated data available which can be used for DevOps.

Thank You