Predicting Business Location

Alejandro Damian Lozano

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1. Background

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In this project we will try to find an optimal location for a restaurant. Specifically, this report will be targeted to stakeholders interested in opening a Mexican restaurant in San Jose, CA United States.

1.2 Problem

Since there are lots of restaurants in San Jose we will try to detect locations that are not already crowded with restaurants**.** We are also particularly interested in areas with no Mexican restaurants in vicinity. We would also prefer locations as close to downtown as possible, assuming the first two conditions are met.

1.3 Interest

We will use our data science to generate the most promising neighborhoods. Then, Pros and Cons will be provided, so that can stakeholders can make the final decision.

2. Data

Based on definition of our problem, factors that will influence our decision are:

- Number of existing restaurants in the neighborhood (any type of restaurant).
- Number of & distance to restaurants in the neighborhood (if any).
- Distance of the neighborhood to San Jose downtown.

We decided to use regularly spaced grid of locations and around downtown to define neighborhoods. The below data sources will be use to generate the required information:

- Centers of candidate areas will be generated algorithmically and approximate addresses of centers of those areas will be obtained using Google Maps API reverse geocoding.
- Number of restaurants, type of cuisine and location in every neighborhood will be obtained using Foursquare API.
- Coordinates of San Jose downtown will be obtained using Google Maps API geocoding.