Improving Success Rates of Restaurants

Capstone Project I, Juichia Holland

What is the problem I want to solve?

Restaurants are a big part of modern life and they make up a significant portion of small businesses everywhere. They are known for high turnover and failure rates, especially within the first year of business.

Who is my client and why do they care about this problem?

Failed restaurants are costly to both the restauranteurs as well as to the industry and the diners. When restaurants fail as businesses, the restauranteurs themselves bear economic burden, the food services industry lose potential growth from the contribution of new ideas and economy, and the diners lose out on opportunities for new enjoyable experiences. With my analysis, restauranteurs will be able to incorporate more success factors into their strategies when opening new restaurants.

What data am I using? How will I acquire the data?

Yelp dataset from Kaggle.

How will I solve the problem?

1. Resample business data by category to obtain just restaurants.
2. Resample checkin data for only restaurants.
3. Clean the resampled datasets.
4. Index and slice the dataset of restaurants based on whether they are currently in business, length of time in business, and sort by rating and number of ratings/popularity.
5. Visualize each subset of restaurants by cuisine, time business opened, location, pricing, and other attributes of interest.
6. Take restaurants in good standing and visualize against their reviewers' attributes of age, nationality, gender.
7. Identify factors from restaurants in good standing and present them in visualizations to suggest actionable items for potential restauranteurs.

What are my deliverables?

- Code for data wrangling and visualization performed in Github repository
- Presentation of the analysis in html webpage