IBM Data Science Professional Certificate

Capstone Project

Finding the Best Area to Start a Restaurant Business in San Francisco

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I.   Introduction

Restaurant is one of the most common small business entrepreneurs start. It is also one of the business with least technical barrier of entry. At the same time, the restaurant business has very low profit margins, with the average number between three to five percent. Also, opening a new restaurant requires quite an amount of initial capital investment if renting or buying a venue. Therefore, it is very important to start off on the right foot by choosing the best area to open the restaurant.

This project offers an infographic view of the demographics and restaurant competitions in each neighborhood of San Francisco, alongside with some examples of where different types of restaurant should best be started. Anyone who wants to start a new restaurant in San Francisco can use the report or the interactive tool on the Jupyter Notebook as a guide to find the optimal place to start a restaurant based on the two elements.

II.   Data Description

Data used in the project are demographics and restaurant competitions, and each comes from a different source.

Demographics data come from the United States Census Bureau (https://www.census.gov/smallbusiness/html/my-customers.html). Demographics data are found for each neighborhood, and combined to form the overall dataset. Some features in the dataset are ethnicity, education level, and median income.

Restaurant competition data come from Foursquare. Restaurant venue data are collected via Foursquare location API, and then taken the total of each type of restaurants within each neighborhood to form the overall competition dataset.