

Developing a new restaurant in the Calgary Zone

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Introduction

Eating out at restaurants is a very common and popular activity in the city of Calgary. Calgary is home to many ethnic backgrounds, which drives the city's diverse style of restaurants – these include restaurants serving Chinese, Italian, and Korean cuisines, to name a few. New restaurants are continually popping up around the city to meet high demand. Although eating out is a popular activity, there are also restaurants that are unfortunately unsuccessful in implementing their business – perhaps due to a poor choice in restaurant location. When opening a new restaurant, there are many factors to consider before selecting where you set up shop.

Problem

This research project aims to provide a recommendation for the style and location of a new restaurant in Calgary. There are many factors to consider when creating this recommendation such as: the number of existing restaurants in Calgary areas and their popularity, the popularity of different types of cuisines offered in Calgary, and information on the customers being served such as age and income.

Data Acquisition and Utilization

Data Sources

To explore the city of Calgary and get an understanding of the neighborhoods it includes, a table of neighborhoods and their corresponding locations was scraped from Wikipedia [1]. The following table provides a snapshot of the data collected:

Postal Code	Borough	Neighborhood	Latitude	Longitude
T1A	Medicine Hat	Central Medicine Hat	50.036460	-110.679250
T2A	Calgary	Penbrooke Meadows, Marlborough	51.049680	-113.964320
T3A	Calgary	Dalhousie, Edgemont, Hamptons, Hidden Valley	51.126060	-114.143158

Postal Code	Borough	Neighborhood	Latitude	Longitude
T4A	Airdrie	East Airdrie	51.272450	-113.986980
T5A	Edmonton	West Clareview, East Londonderry	53.5899	-113.4413
T6A	Edmonton	North Capilano	53.5483	-113.408
T7A	Drayton Valley	Not assigned	53.2165	-114.9893
T8A	Sherwood Park	West Sherwood Park	53.519	-113.3216

Table 1: Calgary neighborhood data scraped from Wikipedia

[FourSquare](#) information services were also utilized, via API connection, to retrieve data on popular venues across Calgary. This dataset returned all recorded venues in the searched proximity, including restaurants, gas stations, convenience stores, bars, etc.

Calgary community demographic information has also been scraped from a *Great News* demographics page [2]. This web page provides census data in different communities in Calgary, including: median household income, and median age. A sample of the information scraped from this webpage is provided in Table 2 below.

Community	Median Household Income	Median Age	City Quadrant	Median Home Sale Price
Abbeydale	\$55,345	34	SE	\$305,000
Acadia	\$46,089	42	SE	\$447,000
Albert Park / Radisson Heights	\$38,019	37	SE	\$349,900
Altadore	\$53,786	37	SW	\$925,000
Applewood Park	\$65,724	33	SE	\$380,000

Table 2: Calgary demographic data scraped from Great-News.ca

How the data will be used

The Calgary neighborhood data scraped from Wikipedia will be utilized to retrieve venue information from the FourSquare API. With this API, we can easily match neighborhoods with available venues, and filter out the venues we are interested in – restaurant venues.

With the FourSquare data, we can understand the different types of restaurants that currently exist in Calgary, which neighborhoods have the most and least number of restaurants, and which restaurants are the most popular based on occurrence frequency. This information allows us to cluster popular restaurants, and get an idea of how restaurant tastes vary across the city quadrants (NE, SE, SW and NW).

City census data will also be used to get a better understanding of the population throughout the city, and analyze metrics that might affect the constituent's frequency of eating out. Analysis may include looking at the median household income, and median resident age across different neighborhoods. It has been found that younger populations are more likely to spend their time eating out at restaurants than are older constituents that are more likely to have families at home. Additionally, as Calgary has been in an economic downfall for the past five years, much of the population has increased the portion of their disposable income that they reserve for savings, and limiting spending on luxuries, such as eating out at restaurants.

References

- [1]: Wikipedia: "*List of postal codes of Canada: T*", Table 2: "*Alberta – 157 FSAs*". Retrieved: Nov 20, 2020. URL: https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_T
- [2]: Great News: "*Calgary Community Demographics*". Retrieved Nov 23, 2020. URL: <https://great-news.ca/demographics/>