

Best Neighbourhood to start a New Restaurant in Calgary

Background:

Not every available space is right for a restaurant. A good restaurant location is harder to find. What may look like the perfect spot- say a bustling pedestrian street in the heart of Calgary downtown may turn out to be a dud.

Other times a spot that you would never think to put a restaurant may be a success.

Problem:

Of course, food and service are important to the success of a restaurant, but the location can be just as crucial.

When looking for a restaurant location, consider who else is doing business in the neighborhood. Is it a Residential or Industrial area? Is it a Populated area? Are there already half a dozen restaurants with the same concept as yours?

Data acquisition:

Sources: Calgary Neighborhoods with Population and Type can be found from https://en.wikipedia.org/wiki/List_of_neighbourhoods_in_Calgary. I can combine these data with Foursquare data about Calgary Neighborhoods.

Data cleaning:

I am sorting data order by 2012 population and extracting top 5 Residential Neighborhoods. Since coordinates are not available as a list on the internet, I am manually adding the coordinates for these Neighborhoods. I have renamed column names and removed unnecessary data.

| | index | Name | lat | long | Quadrant | Sector | Ward | Type | 2012 PopulationRank | 2012 Population | 2011 Population | % change | 2012 Dwellings | Area(km2) | Populationdensity |
|---|-------|----------------|-----------|-------------|----------|-----------|------|-------------|---------------------|-----------------|-----------------|----------|----------------|-----------|-------------------|
| 0 | 150 | Panorama Hills | 51.154167 | -114.071389 | NW | North | 3 | Residential | 1 | 22247.0 | 19851.0 | 12.1 | 7398.0 | 6.3 | 3531.3 |
| 1 | 74 | Evergreen | 50.914167 | -114.117222 | SW | South | 13 | Residential | 2 | 20110.0 | 19487.0 | 3.2 | 6961.0 | 4.6 | 4371.7 |
| 2 | 15 | Beltline | 51.039722 | -114.071389 | SW/SE | Centre | 8 | Residential | 3 | 19681.0 | 19556.0 | 0.6 | 14456.0 | 2.9 | 6786.6 |
| 3 | 236 | Tuscany | 51.123889 | -114.246389 | NW | Northwest | 1 | Residential | 4 | 19013.0 | 18838.0 | 0.9 | 6492.0 | 6.9 | 2755.5 |
| 4 | 233 | Taradale | 51.118333 | -113.936667 | NE | Northeast | 3 | Residential | 5 | 16841.0 | 16110.0 | 4.5 | 4559.0 | 2.9 | 5807.2 |

Methology:

Using Calgary Highest populated Residential Neighbourhood Coordinates, I am taking current restaurant information by an API Call to FourSquare App. Then Analysing the data to get final conclusion

Result:

Using results from FourSquare Appl have created a new dataframe to show most Common top 10 Restaurant Categories for each Neighborhood and group rows by neighborhood and by taking the mean of the frequency of occurrence of each category

| | Neighborhood | American Restaurant | Bar | Bookstore | Brazilian Restaurant | Breakfast Spot | Brewery | Burger Joint | Bus Station | Café | ... | Restaurant | Sandwich Place | Seafood Restaurant | Southern / Soul Food Restaurant | Steakhouse | Toy / Game Store | Vietnamese Restaurant | Wine Bar | Wine Shop | Yo Stud |
|---|----------------|---------------------|----------|-----------|----------------------|----------------|----------|--------------|-------------|----------|-----|------------|----------------|--------------------|---------------------------------|------------|------------------|-----------------------|----------|-----------|---------|
| 0 | Beltline | 0.0 | 0.058824 | 0.019608 | 0.019608 | 0.019608 | 0.019608 | 0.019608 | 0.0 | 0.019608 | ... | 0.058824 | 0.000 | 0.019608 | 0.019608 | 0.019608 | 0.000000 | 0.019608 | 0.019608 | 0.019608 | 0.0588 |
| 1 | Evergreen | 0.0 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.0 | 0.000000 | ... | 0.000000 | 0.000 | 0.000000 | 0.000000 | 0.000000 | 0.333333 | 0.000000 | 0.000000 | 0.000000 | 0.0000 |
| 2 | Panorama Hills | 0.1 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.1 | 0.000000 | ... | 0.000000 | 0.100 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.0000 |
| 3 | Taradale | 0.0 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.0 | 0.000000 | ... | 0.000000 | 0.000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.0000 |
| 4 | Tuscany | 0.0 | 0.125000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.0 | 0.000000 | ... | 0.000000 | 0.125 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.0000 |

| | Neighborhood | 1st Most Common Venue | 2nd Most Common Venue | 3rd Most Common Venue | 4th Most Common Venue | 5th Most Common Venue | 6th Most Common Venue | 7th Most Common Venue | 8th Most Common Venue | 9th Most Common Venue | 10th Most Common Venue |
|---|----------------|-----------------------|------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|
| 0 | Beltline | Pub | Restaurant | Yoga Studio | Bar | Coffee Shop | Lounge | Gym / Fitness Center | Cocktail Bar | Pizza Place | Dessert Shop |
| 1 | Evergreen | Home Service | Toy / Game Store | Gym | Convenience Store | Hardware Store | Gym / Fitness Center | Grocery Store | Gift Shop | Gastropub | Gas Station |
| 2 | Panorama Hills | American Restaurant | Sandwich Place | Grocery Store | Gas Station | Mexican Restaurant | Movie Theater | Fast Food Restaurant | Bus Station | Pizza Place | Hardware Store |
| 3 | Taradale | Playground | Residential Building (Apartment / Condo) | Convenience Store | Home Service | Brazilian Restaurant | Dessert Shop | Hardware Store | Gym / Fitness Center | Gym | Grocery Store |
| 4 | Tuscany | Convenience Store | Pet Store | Bar | Grocery Store | Liquor Store | Sandwich Place | Coffee Shop | Pharmacy | Gym / Fitness Center | Gym |

Observations:

When taking decision about the location to start restaurant based on highest populated area top restaurant categories , below points can be taken in to consideration

Beltline have Pubs,Bars and Coffee shops mostly and Tuscany take second place for the same categories.

Conclusion:

In this study we can get a better idea where and how different types of restaurants mostly popular and based on that can identify which type of restaurant can be started in selected location.