

The NGO path of events on Social Life Awareness in Cincinnati, Ohio

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1. Introduction

A Non-Government Organisation (NGO) plans to create a new path of events to grab donors to increase awareness of social life. The NGO that stands in the city of Cincinnati, Ohio will partnering with venues where people are present to have social life such as bar and café. The goal is not only for charity but also to lift visibility and increase sponsorship interest. To make this path of events run succes, the NGO set criterias as below:

1. The selected venues proximity must consist at least 2 bar and 2 cafés. The cluster of venues as availabe planned budget and location distance is max 7 venues.
2. All the venues candidate must have open hours around 3pm –10pm on every Saturdays as the day is considered the right time for having optimum participants.
3. The venues must also have a well-known reputation
4. The candidates for venues must not classified expensive.

A data scientist is needed to answers the requirement as part of the responsibility for the sponsors and donors involved. The methodology of analysis can be generalized to define recommendations for further NGO plan on the path of events in other cities.

2. Data Usage Description

A data scientist then digs credible data sources that will be used to meet the need by using the following data source:

- a. List of Neighbourhoods in Cincinnati, Ohio. There are 50 neighbourhoods that source comes from the “Cincinnati Area Geographic Information System”
<https://data-cagisportal.opendata.arcgis.com/datasets/cincinnati-sna-boundary>
This dataset provides land area in acres and boundary coordinates which we need to parse for the center point of the business district.
- b. Use the Foursquare API to get list of neighborhood venues with hours, reviews and approximate prices. Then, set the “venues-explore” endpoint with the parameters: latitude, longitude, radius = 1000 meters, limit = 100, section = drinks and coffee. We will explore the geo-location, name, and category.

The data parameters set as below:

- **VENUE_PRIME** = ['bar', 'pub', 'brewery', 'lounge'], bar patterns categories.
VENUE_SECONDARY = ['caf', 'coffee', 'tea', 'desert', 'ice cream', 'donut'], cafe patterns categories.
- **MAX_VENUES** = 7, maximum of venues per event.
- **MAX_WALK** = 0.8, around 0.5 miles
- **MAX_PRICE** = 3, the Foursquare ranks for prices range 1 to 4.
- **MIN_PRIME** = 2, minimum number of venues that match bars. **MIN_SECONDARY** = 2, minimum number of cafes.
- **WEEK_DAY** = 6, Saturday.
- **START_TIME** = 1500, 3 PM. **END_TIME** = 2200, 10 PM.
- **PRIORITY_ORDER** = {'Rating': 4, 'Count': 2, 'Likes': 1}, provides weighting scale.

To some extend of limitation, anything labeled as coffee shop, teahouse, pastry shop and similar ones will be defined as café. As the data also comes from the Foursquare API, beyond cleaning and formatting datasets, prediction is also needed due to missing data on prices and ratings review in some of the neighbourhoods. That condition can also be found, as new venues appear on the available data.