

Location of John's Ice Cream and Pizza Shop

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Description of the data

In order to identify the towns that meet John's criteria for his shop location (i.e., the three largest towns in McLean County, Illinois that have neither an ice cream shop, nor a pizza restaurant), two sources of data will be used: Foursquare data (for venues information) and data from Wikipedia (for town names, populations, and locations).

Foursquare data

The Foursquare API provides location based data with diverse information about venues, users, etc. We have been using Foursquare data in various assignments in this course. Through these earlier assignments, I already have the credentials to retrieve data from Foursquare.

```
CLIENT_ID = 'OTVHEHACLVFKWMQAAEARJ2PGX1SZAWEI2Y1V5Y4JQPUEZZZ3 '  
CLIENT_SECRET = 'QQIEDAOXB4VDE5DMGFQ0ZGEZ3PJUQ0S2UIEIZZGRNNNE3BUQ '  
VERSION = '20180605'
```

McLean County data

McLean County is located in central Illinois, about 2 hours south of Chicago. It is a fairly rural area with lots of farms. According to Wikipedia, McLean County is the largest county by land area in Illinois and has a population of 169,572. It has a total of 19 incorporated towns and cities.

To identify the three most ideal towns for John, a list of all 19 towns in McLean County along with their respective populations and locations (latitudes and longitudes) must be created.

However, unlike the vast amounts of data available for big cities like NYC or Toronto, I have not found, after much extensive online search, a single file or webpage that provides all necessary data for all towns in McLean County. Therefore, I manually gathered information from the Wikipedia pages for each town and compiled it in a CSV file that includes the following data for all 19 incorporated towns in McLean County:

- Town (name)
- Population
- Latitude
- Longitude

We will calculate the total number of ice cream and pizza restaurants for each town in McLean County (using Foursquare venues data) and produce a list of towns that have neither type of restaurants. Then, we will sort these towns based on their populations (from the McLean county dataset) and identify the 3 towns with the largest population.