

BATTLE OF THE NEIGHBORHOODS

IBM-Coursera Capstone
Vindhya Aiyagari

INTRODUCTION

- * The purpose of this project is to explore, analyze and cluster different neighborhoods of a city to determine the best location for a business owner to open a new venue
- * In this project I will be exploring the city of Chicago, Illinois in the United States, but the methods used can be applied to any city with sufficient data
- * For this project the chosen venue will be a bar

BACKGROUND

- Chicago is the third most populous city in the United States
- An international hub for finance, culture, commerce, and tourism
- Extremely diverse population and well balanced economy
- Multiple distinct districts for dining and nightlife
- Divided into 77 well-defined community areas



BUSINESS PROBLEM

A business owner wants to open a new bar in the Chicagoland area and needs to determine the optimal location for the bar to be successful

The business owner may consider the following conditions in selecting the best neighborhood

- Nearby venues: Is there a balance between complimentary businesses but also minimal competition?
- Demographics: Does the target audience frequent the area?
- Popularity: Is this a lively area where the business is accessible to many people?

STAKEHOLDERS

Business Owner

- Minimal competition is vital to the success of the business
- Accessibility to target audience

Target Audience

- Young/Middle age adults are more likely to visit a bar frequently
- Surrounding venues may also have the same target audience

DATA REQUIREMENTS

- In order to assess the best locations for a new location, data about the Chicagoland area is required
 - A breakdown of the various neighborhoods will be scraped from Wikipedia
https://en.wikipedia.org/wiki/List_of_neighborhoods_in_Chicago
 - The postal codes corresponding to the various neighborhoods
<https://data.cityofchicago.org/Facilities-Geographic-Boundaries/Boundaries-ZIP-Codes/gdcf-axmw>
- The Foursquare APIs will be used to retrieve specific information about venues in each neighborhood
 - **Venue category:** A new bar may want to be located around complimentary establishments
 - **Venue hours (popular):** An active nightlife in the area is important in selecting the location
 - **Venue details:** Ratings, likes/dislikes can indicate how popular the area is