

## CS 122 Project Proposal

### Description:

This project aims at 1) finding the average costs for one person to eat a meal in different areas of Chicago, 2) finding the average rent per square foot in different areas of Chicago (additionally, finding the distribution of personal income in each neighborhood, and 3) determining whether a correlation exists between these two costs. To achieve these goals, we are going to crawl necessary data from Yelp.com and Apartments.com. Then, we are going to calculate the average spending at restaurants and rent for each neighborhood of Chicago based on zip code. Additionally, we may also fetch personal income data by zip code from the IRS website. After ranking the neighborhoods by dining spending, rent/house price, and/or average personal income respectively, we hope to explore the correlation between these variables in any way.

### Goals:

1. Rank the Chicago neighborhoods according to the average prices of their restaurants.
2. Find out whether the ranking of the average price of restaurants in a neighborhood complies with the ranking of the average personal income/average rent of the neighborhoods.

### Data sources we plan to use:

[Yelp.com](#) (for restaurant price)  
[Apartments.com](#) (for rent price)  
[Zillow](#) (for rent/ sold homes price)  
[IRS SOI Tax Stats](#) (for personal/household income)

### List of tasks and timeline:

Task	Estimated to finish by
Get the needed data of Chicago restaurants from Yelp (location by neighborhoods, price)	Week 6
Calculate the average restaurant price of each neighborhood and rank	
Project Check-in #1	Week 6, 02/15-02/19
Get the needed data of houses for rent in Chicago (location by neighborhoods, price per square foot)	Week 8, 03/01
Calculate the average rent of each neighborhood and rank	
Compare the two ranks and draw conclusions	
Project Check-in #2	Week 8, 03/01-03/05

**Group:** Foodie

**Members:** Caroline Jiang, Julie Fan, Laurinda Zhang, Michelle Liu

**Repository:** <https://github.com/rxliu99/cmssc12200-restaurant-project.git>

Project due	Week 9, 03/12 4PM
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