

None

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MACS 30122 Section 1

Github: [git@github.com:cs-ssa-w22/final-project-none.git](https://github.com/cs-ssa-w22/final-project-none)

## Progress Report

### Goal

Despite the fact that neighborhood security represents an important factor in individuals' choice of housing, average rental websites do not reflect crime rates information, probably due to a conflict of interests with landlords. The main purpose of this project is to provide an aggregated rental information in Chicago City incorporating both rental information and past neighborhood crime rates in 2021 for future tenants. The final output will be an interactive map where users can click on geographical points to access both crime rates and housing features including bedroom type, price range, air-conditioning, fitness center and furnishing. With the aggregated information and interactive map, we wish to provide a user-friendly interface to facilitate future tenants' decision-making on housing.

### Data

<https://www.apartments.com>. The website does not provide a public API for housing information. We will use html scraper to gather information.

<https://data.cityofchicago.org/Public-Safety/Crimes-Map/dfnk-7re6>. The website provides a csv file for all incidents in 2021.

### Tasks

#### **Task 1.** Data Collection (Chongyu Fang & Feihong Lei)

Subtask 1: grab information from the rental website using html scraper. Create a csv output file compiling features discussed above.

Subtask 2: export the crime rates information in the csv format.

**Task 2.** Data Cleaning (Feihong Lei)

Subtask 1: For each of the house listing, calculate police report incidents in the neighborhood (defined as a 3-mile radius to the housing location) and add an extra column to the housing csv file.

**Task 3.** Data visualization (Juno Wu & Coco Yu)

Subtask 1: create an interactive map using the folium package in python. Pinpoint all the datapoints on the map and attach aggregated information on the markup.