BostonProject

A data science exploratory study....

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Motivation

There are more than 200,000 students at colleges and universities across the Boston area, with 75% of them attending four-year institutions inside the city limits, from Boston University to Northeastern as noted in the Department of Neighborhood Development, which tracks the Hub's student population.

Boston has the dreaded move-in period. Every year, new and returning students move into dorms or new apartments near the city's universities. While move-in week is a common occurrence every year, that doesn't stop the annoyance of dealing with streets flooded with furniture, traffic delays, and extra trash.

The city's landlords long ago adopted the September-to-September lease cycle, meaning most Boston renters are tied to a schedule that's just perfect for college students, but miserable for everyone else.

Planning begins as early as June in the Inspectional Services Department, which convenes meetings of its housing, building, environmental sanitation and constituent services staff. City officials also track major sporting events and collaborate with BC, BU and other schools with large student populations to predict the activity around September 1.

With the September 1st move-in comes college kids who are ramping up for the year. Please explore the website to show that there is a correlation between the move-in dates of college kids and largest amount of noise, trash, and rodents/pests complains.

Data Used

- We used data from data.boston.gov
  - Neighborhood boundaries
  - 311 service requests
  - Colleges and Universities
- Our project cleans up a 311 service log in Boston and focuses on noise, trash and rodents/pests complaints in each month.
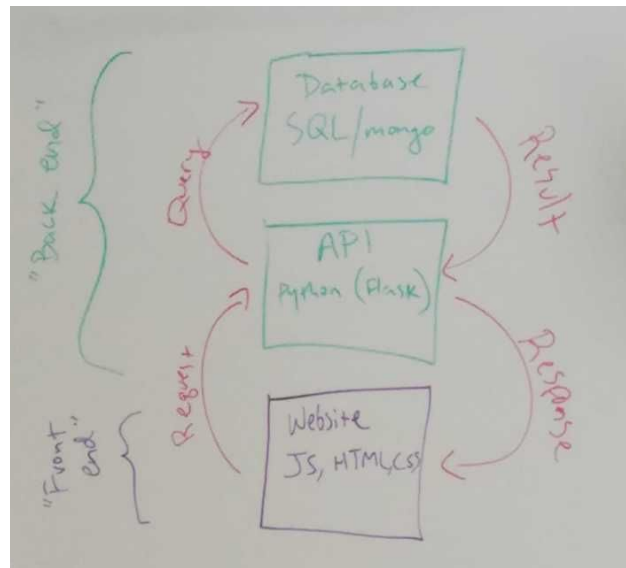- We chose this data source because we perceive it to be reliable, consistent and complete.

What we wanted to make...

Full stack web application with:

- Front End: JS, D3, HTML
- Back End: SQLite
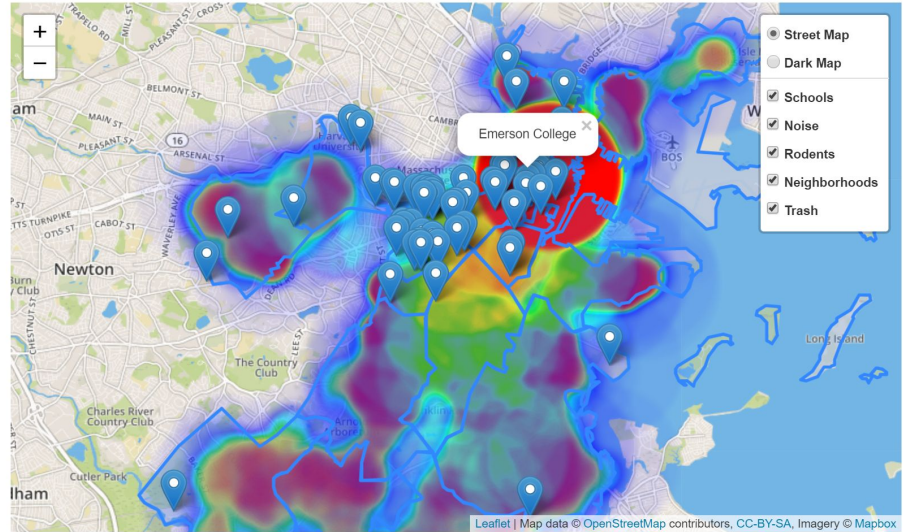- API: Flask

Conclusion...

- Working with Leaflet, Javascript and D3 together can be cumbersome and time consuming
- D3 visualizations and interactivity can be rewarding but are complicated
- Time management and team coordination are key in a broad based project like this

Live Demonstration

BostonCityProject

Boston, with 200,000+ students at colleges and universities across the city area, has the dreaded move-in period. Please explore the website highlighting the correlation and the number of 311 complaints....

Emerson College

- Street Map
- Dark Map
- ☑ Schools
- ☑ Noise
- ☑ Rodents
- ☑ Neighborhoods
- ☑ Trash

Noise Complaints

Trash

Rodents

Improvements

- D3 visualizations could have been more interactive.

- Heat-maps could represent monthly data with slider/selection bar.

- Leaflet and D3 could be made to work together.