Manhattan Real Estate

Perks – Visualized!

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Our Inspiration

When looking for an apartment there are more things to consider beyond the usually searchable options. We wanted to give New Yorkers an easy way to search for additional perks when deciding on where to live in Manhattan! And what two things are more important than Citi Bike and Laundromats!

Our website is designed to help New Yorkers find a place to live based on how close the apartment is to a Citi Bike and Laundromat.

Data Sources

- The data came from https://opendata.cityofnewyork.us/ - we found data for Citi Bike Stations – live, as well as data for Laundromats, garages, bingo, and storage throughout NYC.

- We used BingMaps API to tell us which Manhattan neighborhood a set of coordinates belonged to (the above data provides coordinates but not locality).

- We used Wikipedia to build a csv file of neighborhoods belonging to Upper, Lower, and Midtown Manhattan. We then used this csv with the localities provided by the BingMaps API to categorize the markers into different layer groups which are toggleable via MapBox layer controller.

Coding Approach

- **What map are you using?** The map we are using is provided by MapBox, used in conjunction with Leaflet.js which helps us to initialize the map and populate it with markers and layers.

- **How did you obtain the polygon lines for the Manhattan regions?** At first we spent a considerable amount of time searching the web to see if the polygon coordinates were publicly available, but we could not find anything for the regions we wanted. So then, a Google search of "Upper Manhattan" actually displays a Google Map with Upper Manhattan outlined. Unfortunately, the outline coordinates could not be scraped, so we clicked coordinates all along that boundary and collected the polygon data manually this way.

Coding Approach

- **How did you populate the graphs?** The graphs are powered using d3, very similar to the bubble plot we created for Poverty vs. Healthcare in a previous assignment. The median rent for 2-br data came from www.streeteasy.com from their data dashboard. The region polygons you see by default are actually created using d3 in this step. The polygons were created together with the graphs.

- **Is the Available Bikes counter for the bike markers updated live?** Currently no, the data is static. The reason for this is that we could not use d3.json() to obtain the file via a HTTP request. The data has a no-cors header which blocked our attempts to get the data dynamically. Instead of downloaded the json file manually so the data is definitely out of date.
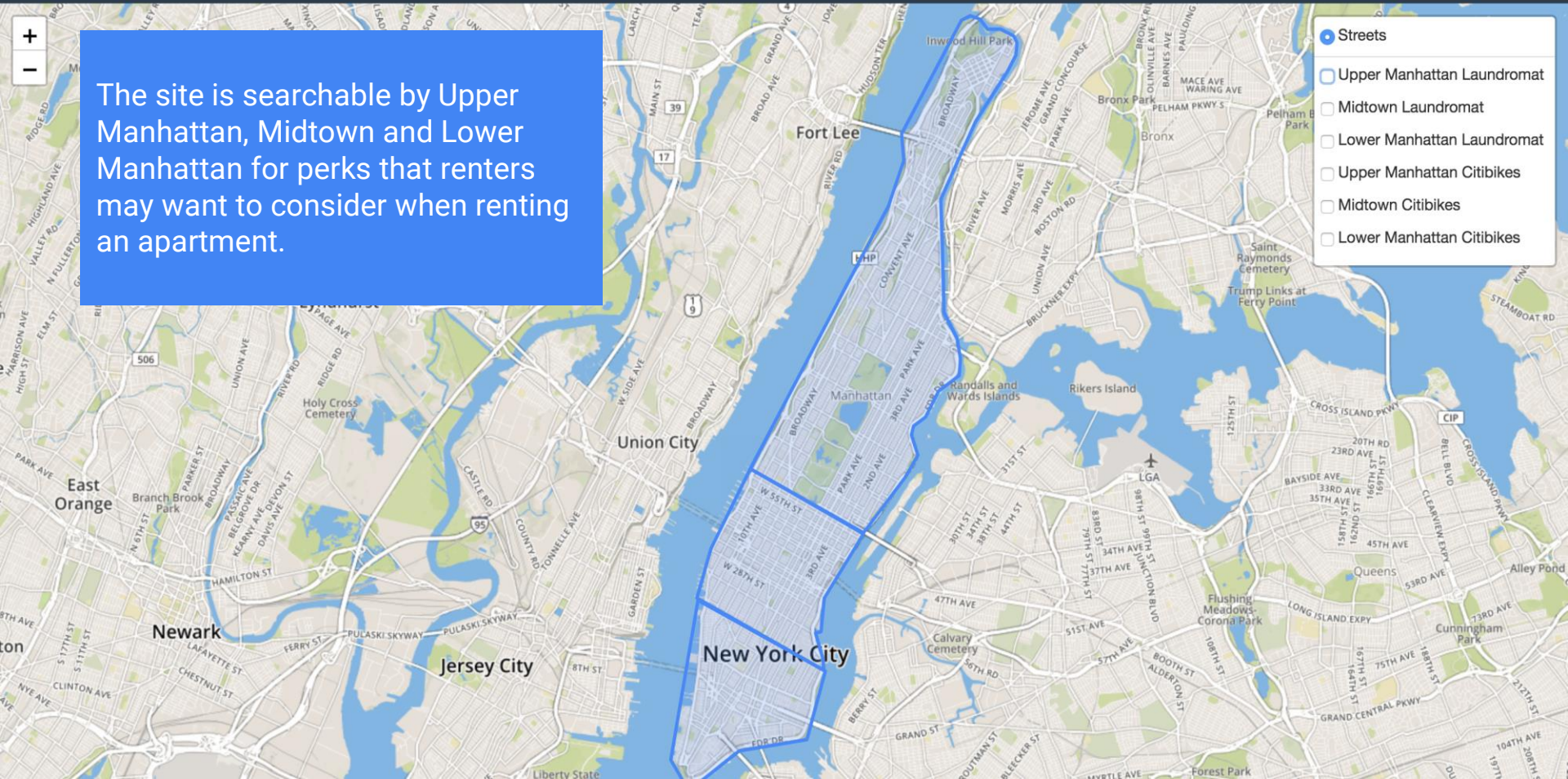
Challenges We Faced

- Polygons for regions, Citi Bike station data not updating live

- BingMaps API categorizes a large number of points are simply "New York" instead of the appropriate neighborhood. As such, these points are unable to be labeled properly as Upper, Lower, or Midtown Manhattan. Consequently, a large number of points are missing from our graph. A future task would be to create logic to categorize these missing points.

- D3 reader functions like json() and csv() are asynchronous. This means when we tried to use the data from these functions we encountered an error because it didn't exist yet. Hence we used a 200ms hard timeout to wait for the asynchronous function calls to complete. This way all the data we need has ample time to load.

The Results!

Manhattan Real Estate Perks - Visualized

Use the map below to visualize a large variety of features desired by renters

The site is searchable by Upper Manhattan, Midtown and Lower Manhattan for perks that renters may want to consider when renting an apartment.

- ● Streets
- ☐ Upper Manhattan Laundromat
- ☐ Midtown Laundromat
- ☐ Lower Manhattan Laundromat
- ☐ Upper Manhattan Citibikes
- ☐ Midtown Citibikes
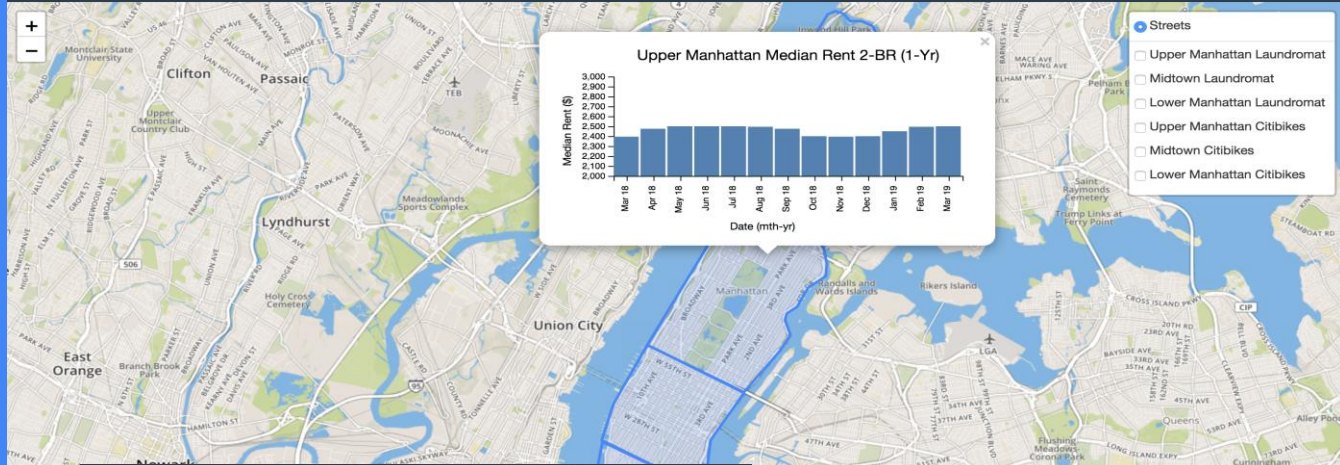- ☐ Lower Manhattan Citibikes

Median Rent

The site is searchable by Upper Manhattan, Midtown and Lower Manhattan. The median rent month over month for the past year is displayed for each area.
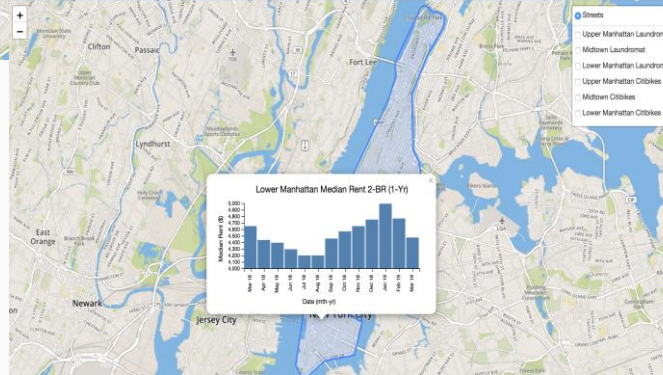
Laundromats

Renters can select to view the location of laundromats in Upper Manhattan, Midtown and Lower Manhattan. The results are displayed on the map.

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- Streets
- Upper Manhattan Laundromat
- Midtown Laundromat
- Lower Manhattan Laundromat
- Upper Manhattan Citibikes
- Midtown Citibikes
- Lower Manhattan Citibikes

Citi Bike

Renters can select to view the location of Citi Bike in Upper Manhattan, Midtown and Lower Manhattan. The results are displayed on the map
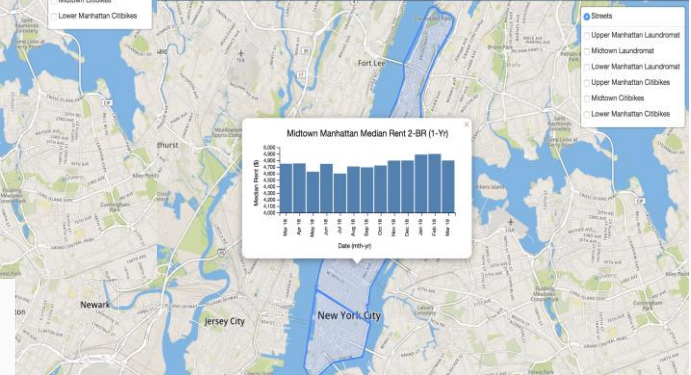

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Manhattan Real Estate Perks - Visualized

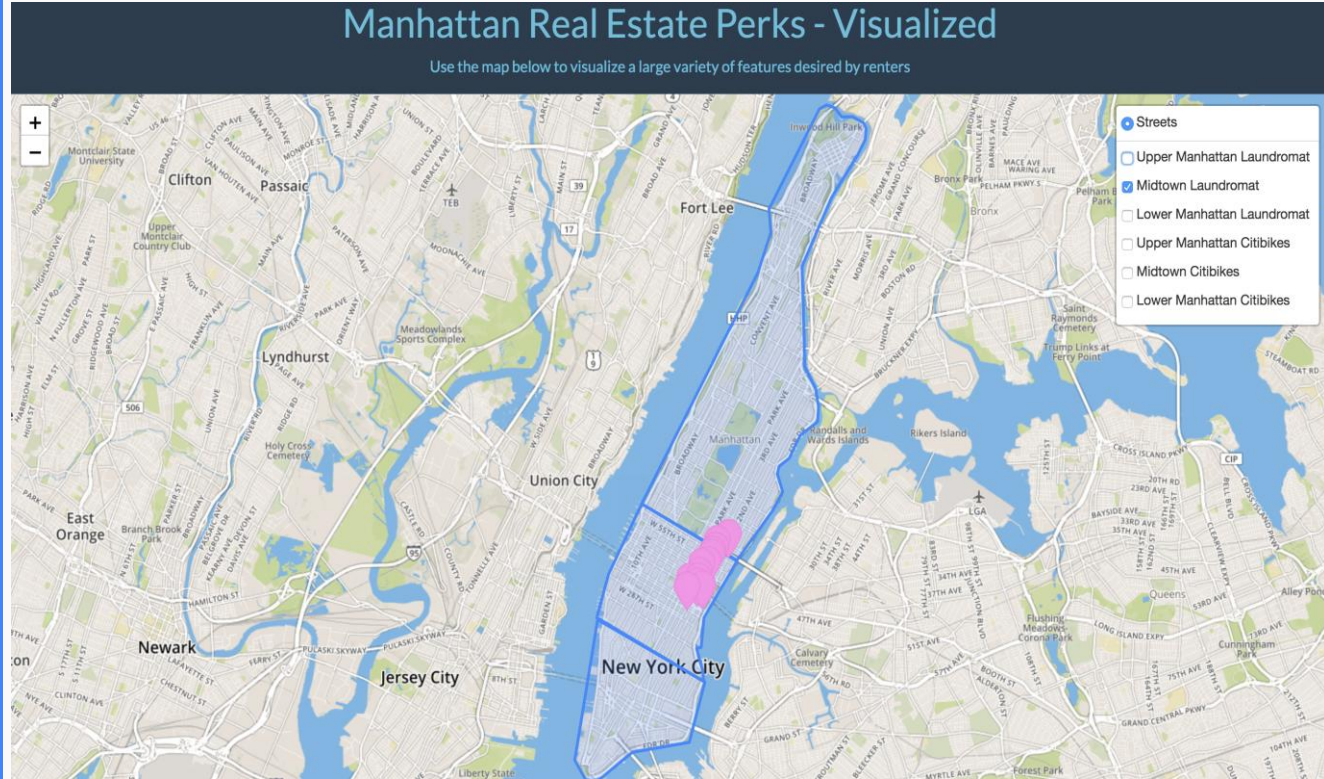Use the map below to visualize a large variety of features desired by renters

- ◉ Streets
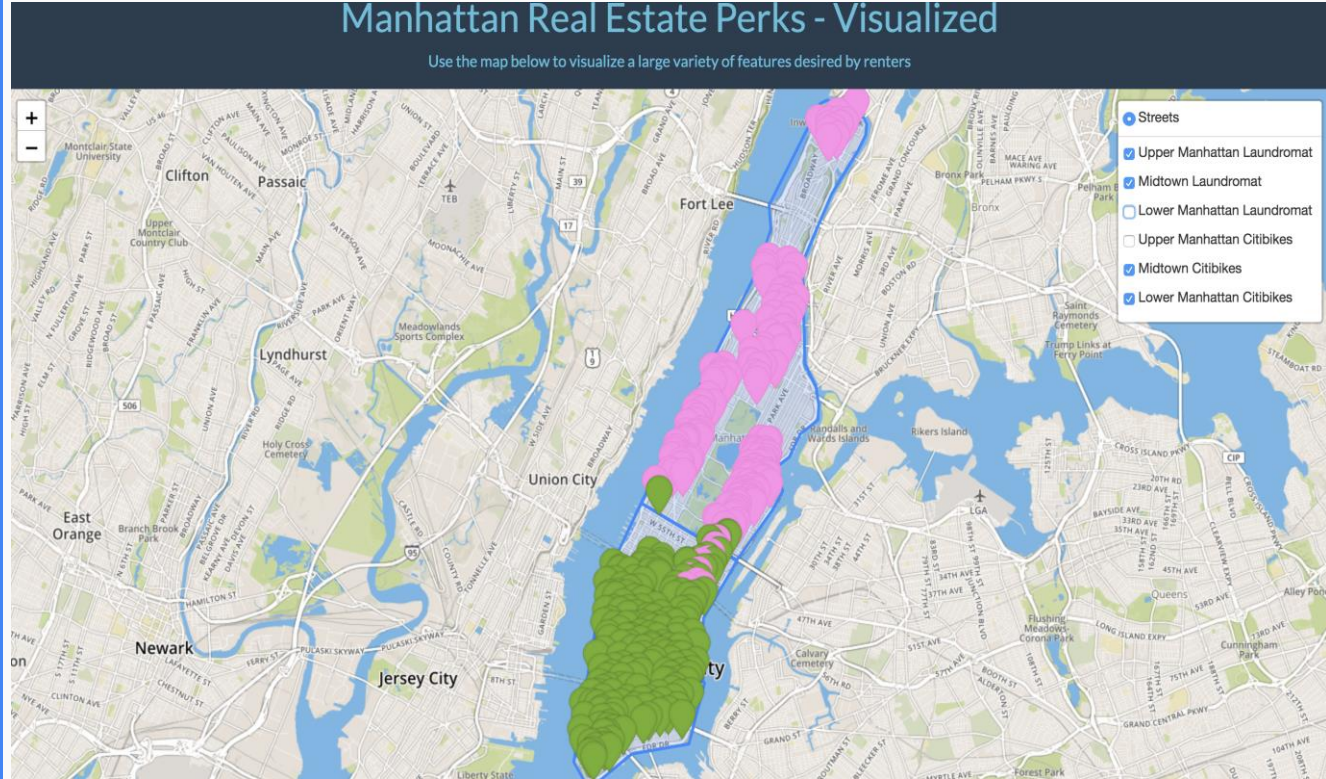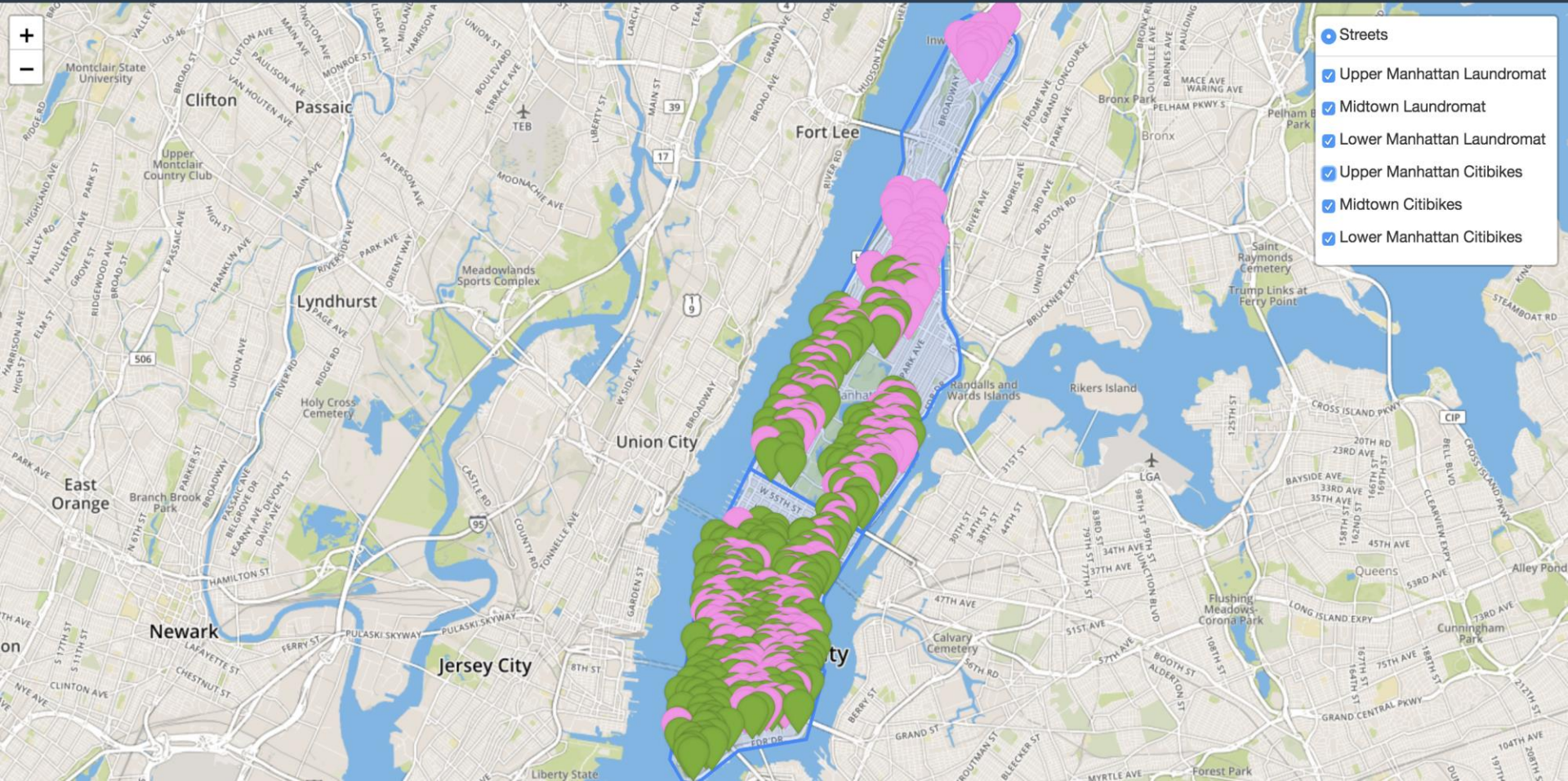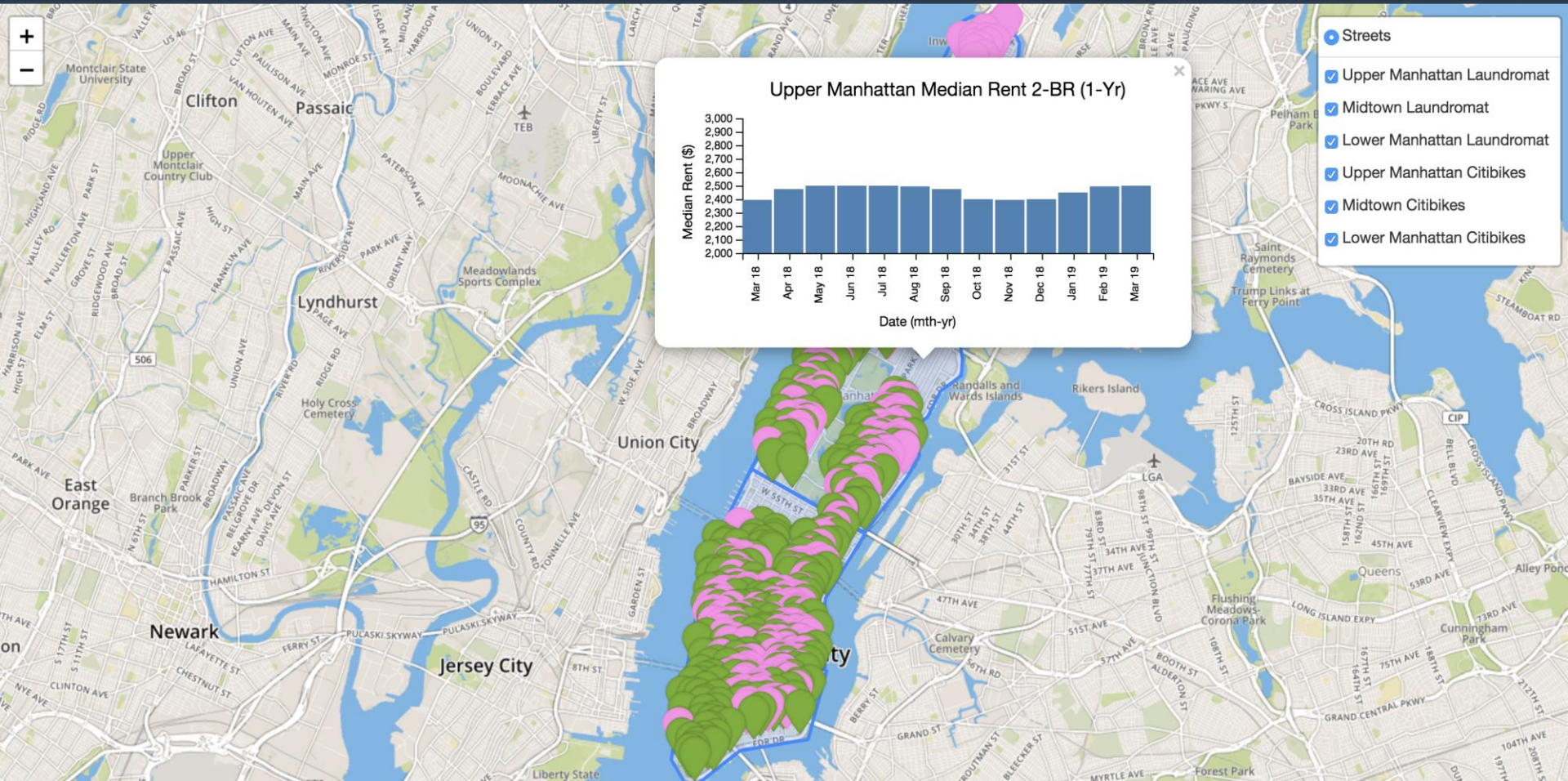- ☑ Upper Manhattan Laundromat
- ☑ Midtown Laundromat
- ☑ Lower Manhattan Laundromat
- ☑ Upper Manhattan Citibikes
- ☑ Midtown Citibikes
- ☑ Lower Manhattan Citibikes

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Upper Manhattan Median Rent 2-BR (1-Yr)

Chart axes:
- Y-axis: Median Rent ($), ranging 2,000 to 3,000
- X-axis: Date (mth-yr): Mar 18, Apr 18, May 18, Jun 18, Jul 18, Aug 18, Sep 18, Oct 18, Nov 18, Dec 18, Jan 19, Feb 19, Mar 19

Legend:
- ⦿ Streets
- ☑ Upper Manhattan Laundromat
- ☑ Midtown Laundromat
- ☑ Lower Manhattan Laundromat
- ☑ Upper Manhattan Citibikes
- ☑ Midtown Citibikes
- ☑ Lower Manhattan Citibikes

If we had more time…

- If we had more time we would have continued to add additional perks to the site that renters may want to consider. Data is available for parking, bingo, restaurants, dog parks, etc.

Questions?