Team 17

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Topic Question

- How do the frequencies of Uber ride change across time?
- How do the frequencies of Uber ride differ between 5 boroughs?
- How do frequencies of Uber ride compare with Green Cabs?

Finding about Uber

- The frequency of rides has a periodic pattern. The period is one week
  - It might be the fact that Uber drivers do not work at all days during the week
  - The peak of frequencies are at Thursday, Friday and Satursday.
- On Jan. 27th and Jan 26th, there is a significant decrease number of rides. And surprisingly, Jan 27th is the Chinese New Year(!).
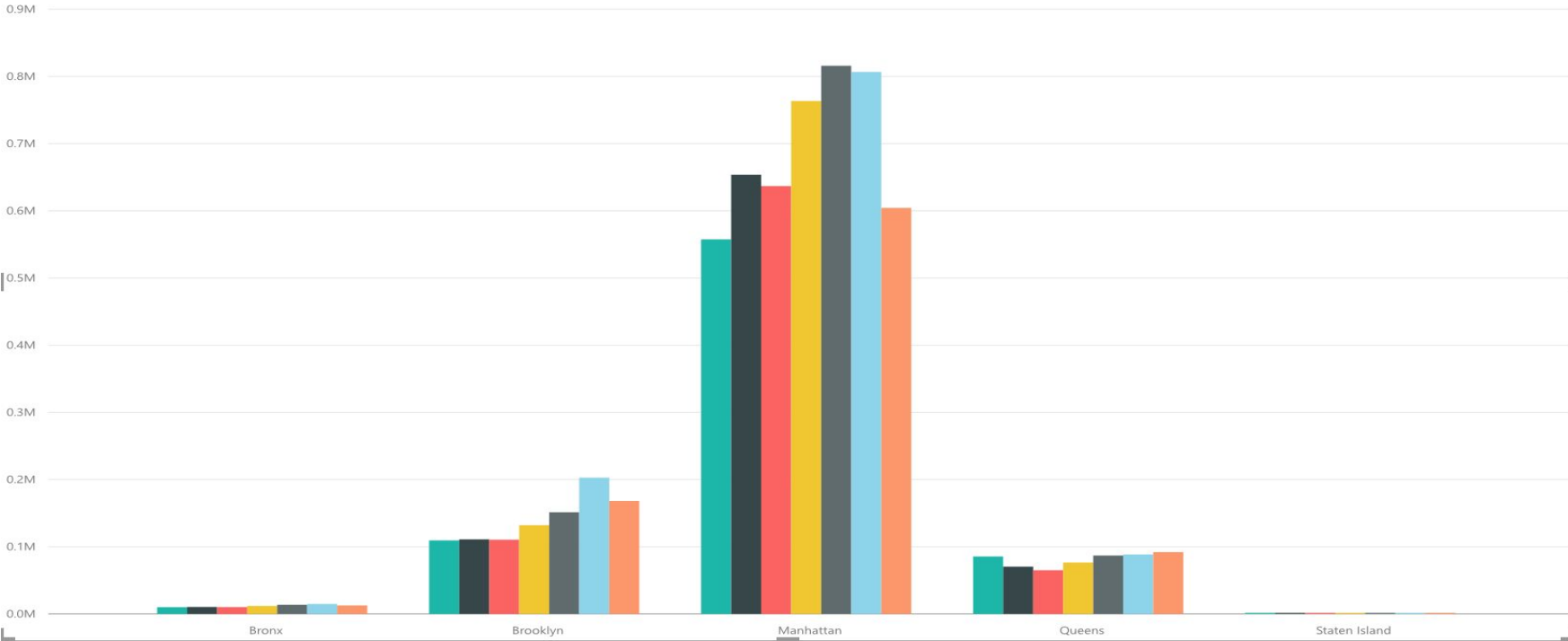- People in Manhattan use Uber more frequently than other boroughs.

Uber frequency for different boroughs (Jan-Mar)
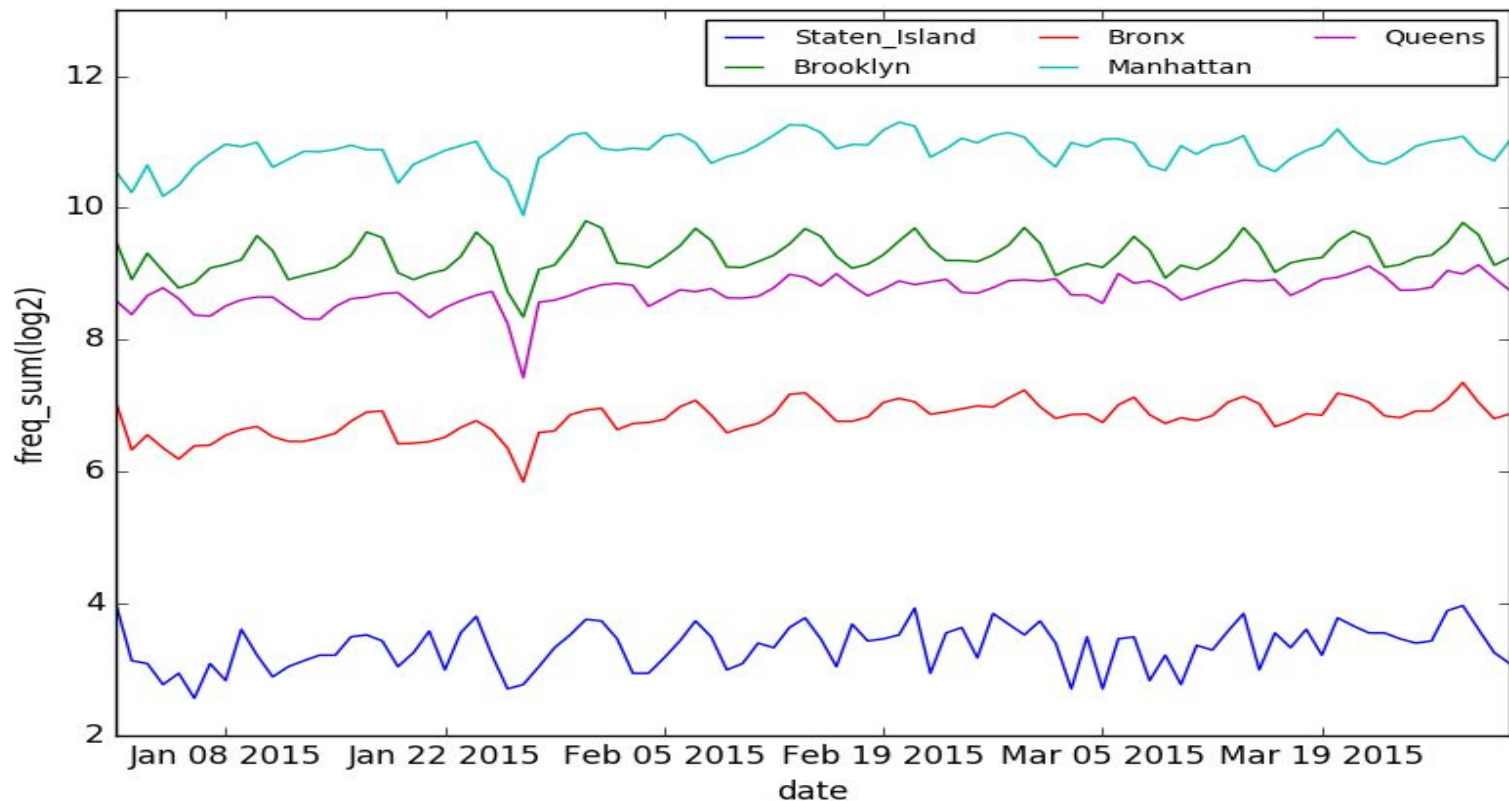
Uber Weekday Distribution

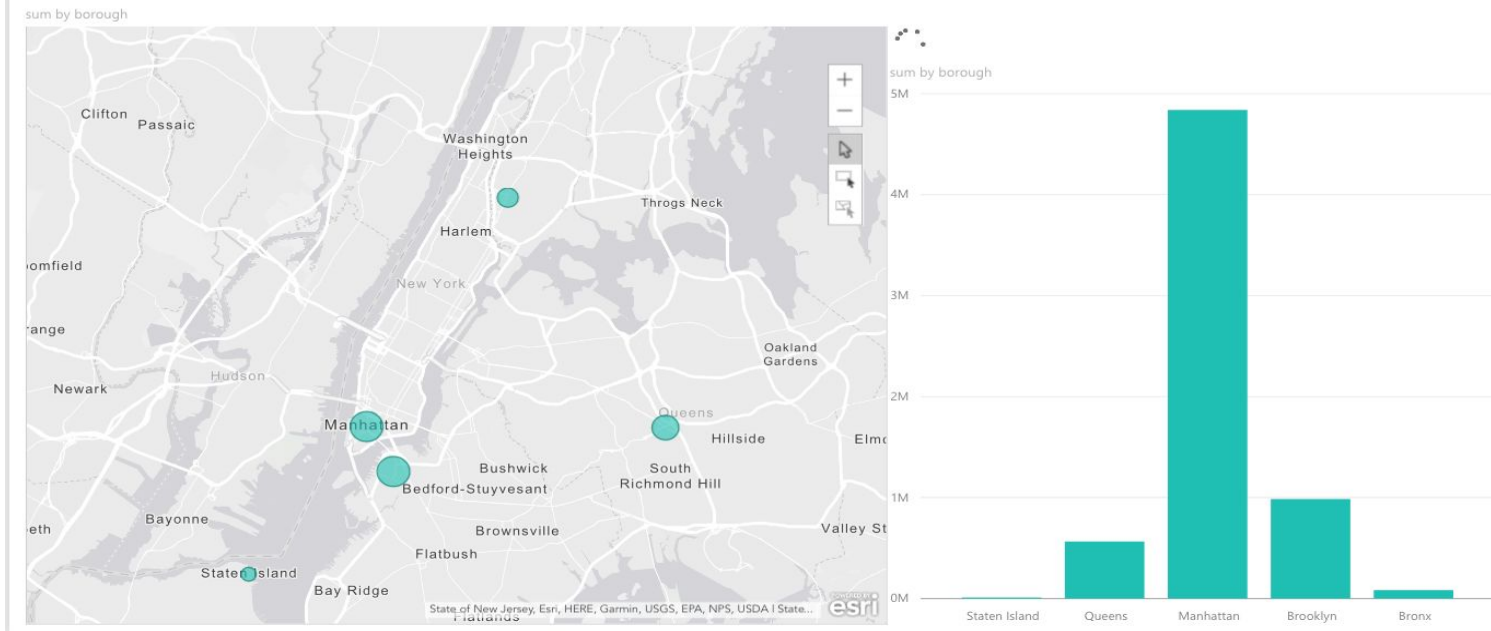
Monday, Tuesday, Wednesday, Thursday, Friday, Saturday and Sunday by borough

● Monday ● Tuesday ● Wednesday ● Thursday ● Friday ● Saturday ● Sunday
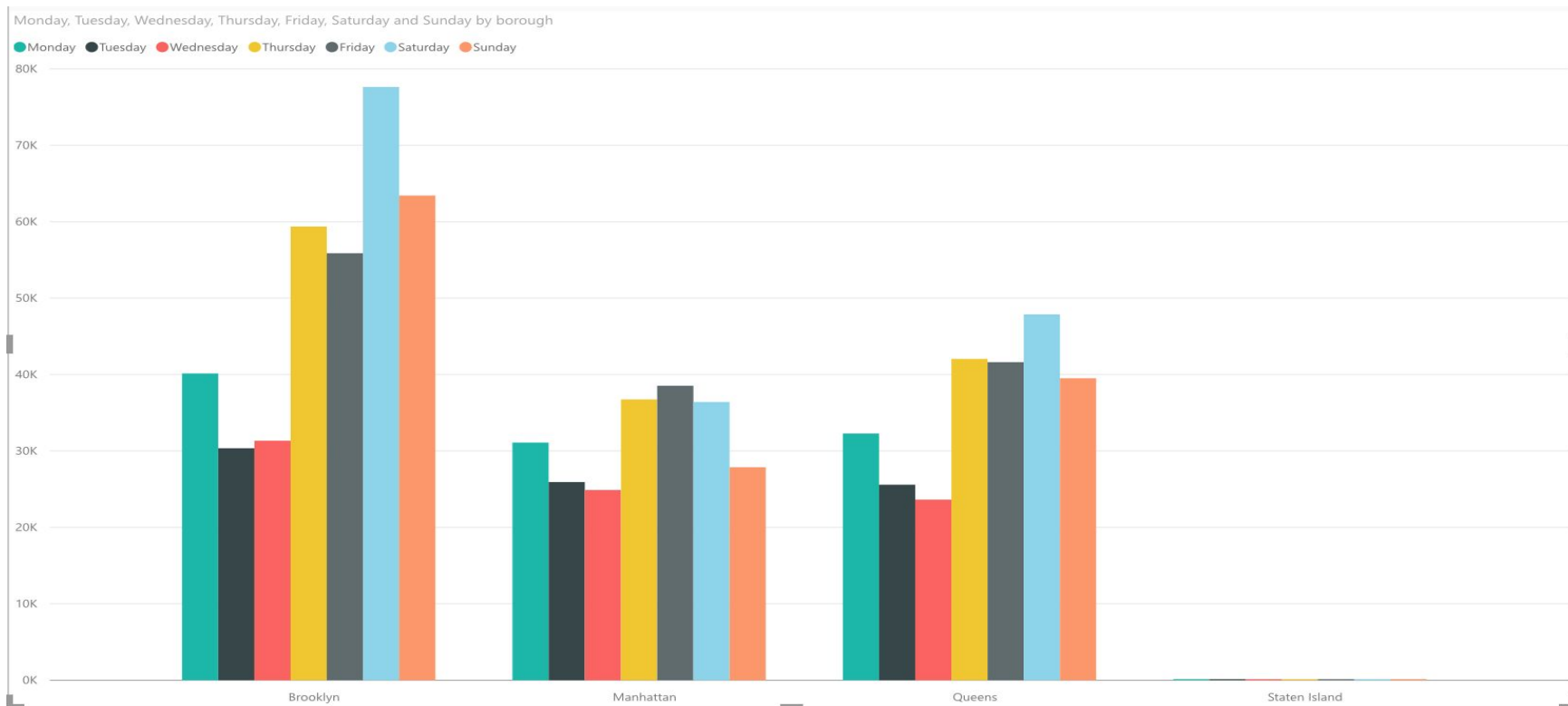
Uber Frequency of Jan 2015 on map

Link to interactive map for Uber frequencies

https://app.powerbi.com/view?r=eyJrIjoiOTYyNDJkZWMtNTExYy00MzIzLWIyMWEtMjVmZGMxNWRmNjcyIiwidCI6IjQzNjNiMzdjLTVmM2MtNGZkNy1hNTYxLTk0MzEzMWRiNzhiYyIsImMiOjF9
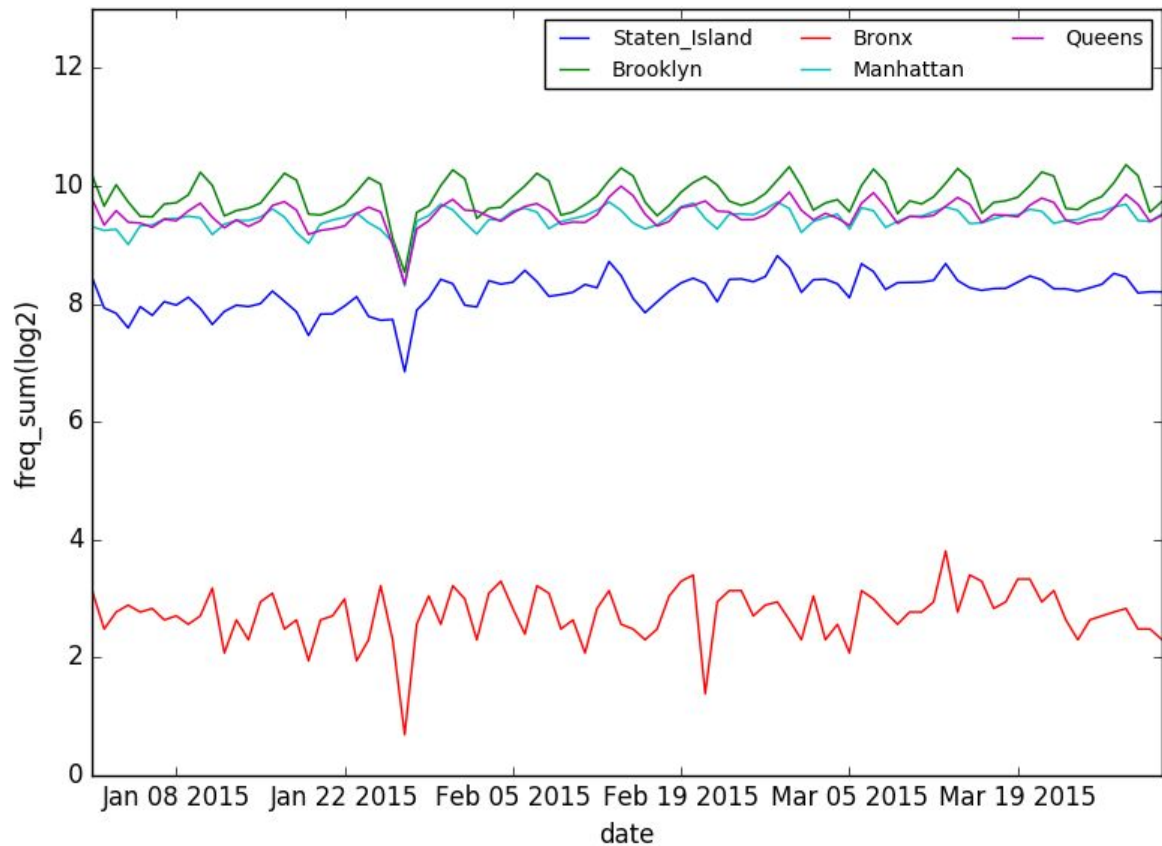
Finding about Green Car

- Unlike Uber, the frequencies of green car does not follow a periodic pattern. The number are stable across the weeks.
- Unlike Uber, people in Manhattan, Brooklyn and Queens have similar frequencies in the use of the Green Car
  - Comparing this with the number of people in those Buroughs, it might be the case that Manhattan people use Green Car less often.
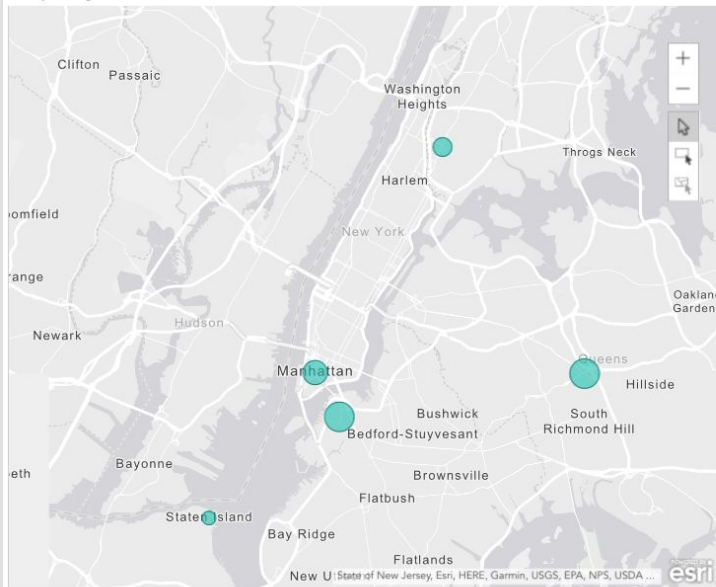
Green Trip Weekday Distribution

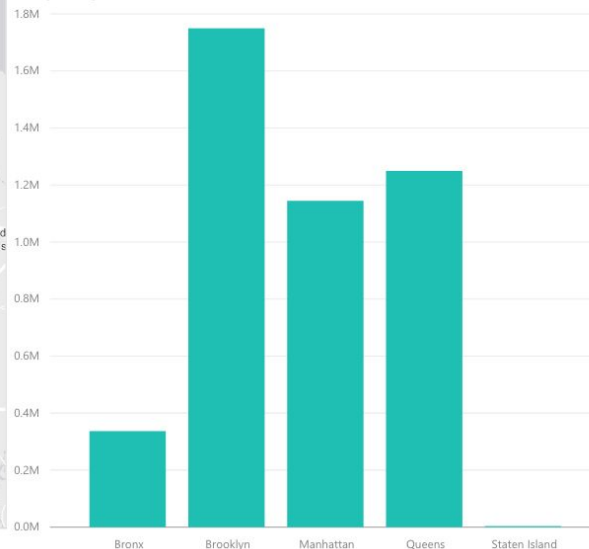Monday, Tuesday, Wednesday, Thursday, Friday, Saturday and Sunday by borough

● Monday ● Tuesday ● Wednesday ● Thursday ● Friday ● Saturday ● Sunday

Green frequence sum

2015 Q1 Green Cab Sum Request

Methods

- We compute the aggregate of data across different zones, we then map them into different boroughs.
- For Green Car data, we compute the centroid of each zone (in geometric) and use 1-nearest neighbor in sklearn to locate each ride