

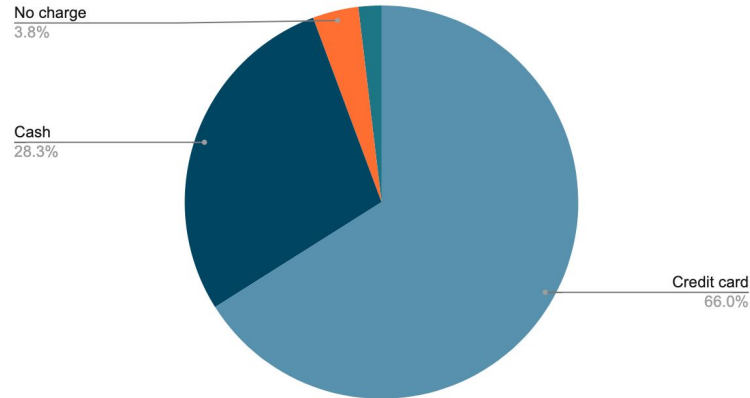
Yellow Taxi Task

Insights into Payment Methods

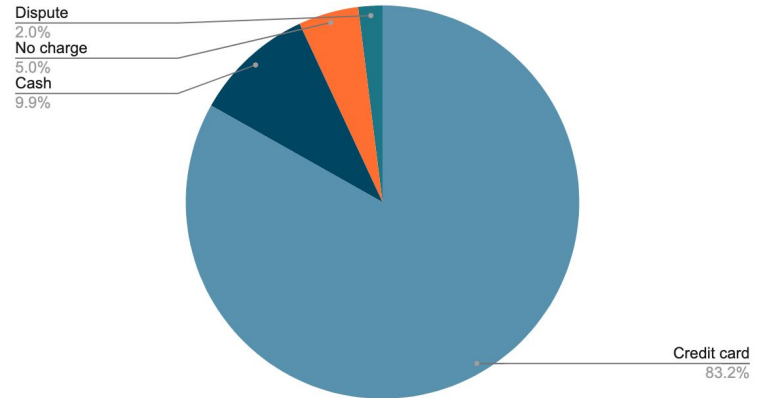
Business objective 1: identify the most common payment methods to improve customer satisfaction

Observation: increase interest in credit card payments from one year to the other

Payment methods - 2018



Payment methods - 2019



Identifying Most Profitable Days

Business objective 2: Identify areas of improvement to increase customer satisfaction

- Analyze the correlation between trip duration, tip amount and volume (number of rides) for each weekday to identify the revenue increase opportunities

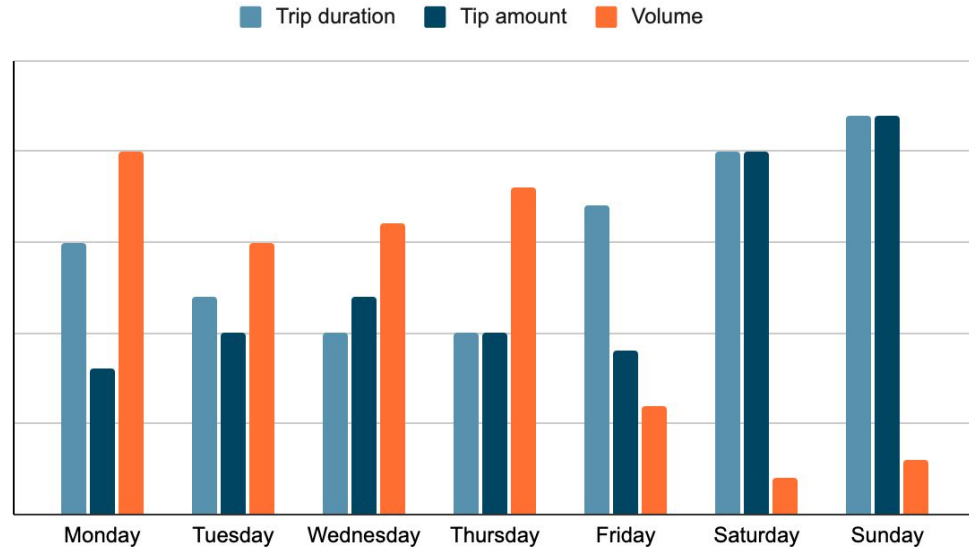
Observations weekdays vs. weekend:

- weekdays: high volume, lower average tip amount and trip duration (short trips to/from work, low customer satisfaction reflected by the average tip amount)
- weekends: low volume, high duration and tip amount (customer satisfaction is high, but there is low demand)

Business conclusions:

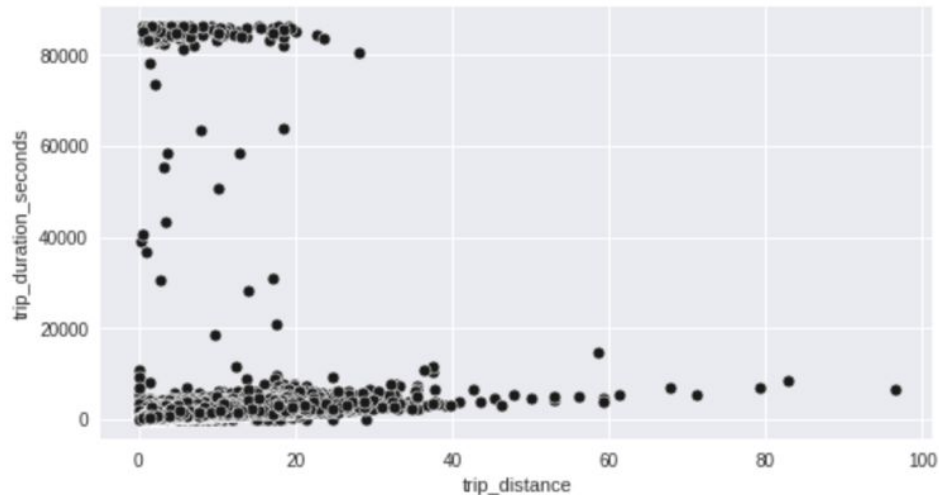
Areas of improvement - improve customer satisfaction (tip amount) during the weekdays, and identify strategies of attracting customers during the weekends

Average Trip duration and Tip amount per weekday



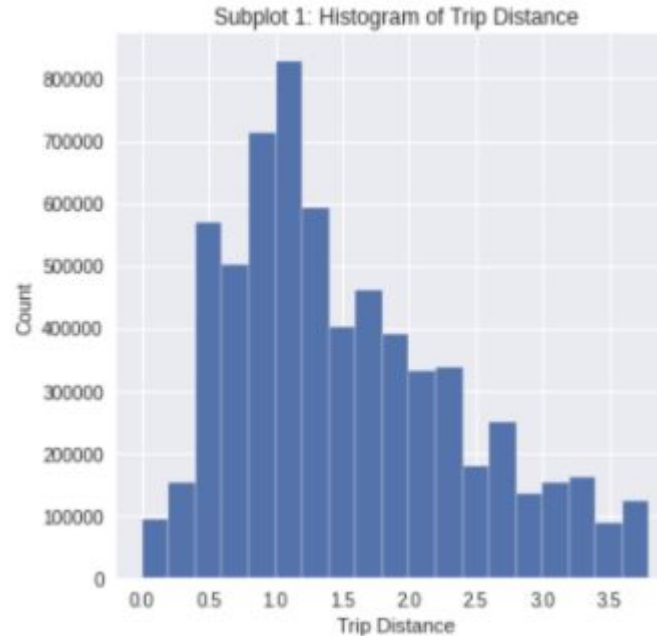
Closer look at the trip duration (1)

- There are short trips (short distance), with high trip duration - which indicates potential traffic jams
- This chart justifies the lower tip amounts during the weekdays



Closer look at the trip duration (2)

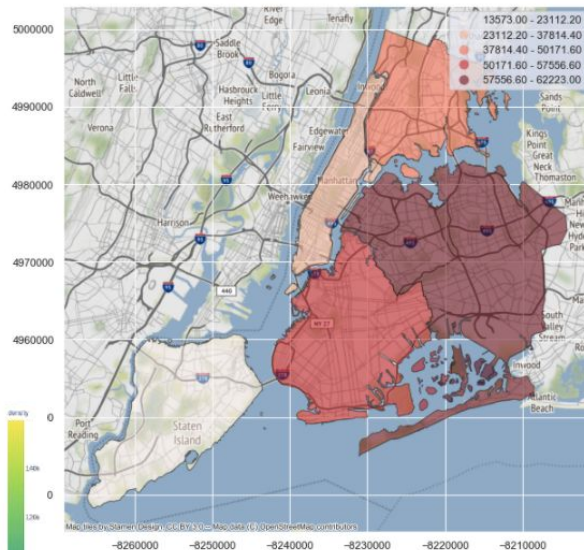
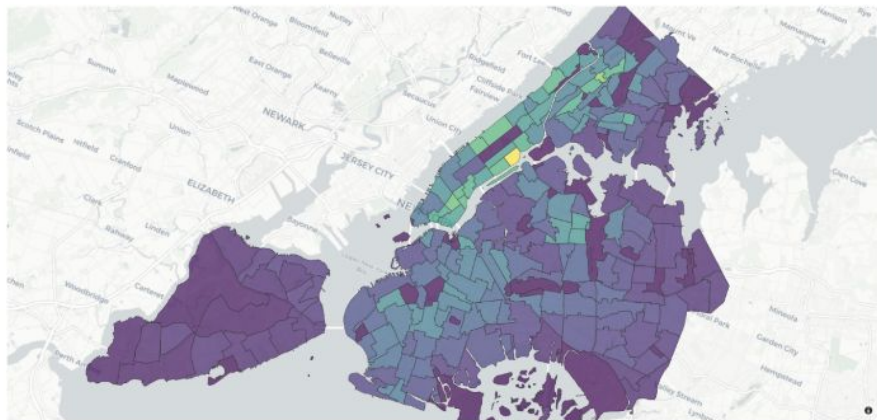
- The volume distribution of the trips according to their distances is skewed towards short trips
- Short trips would bring more value when the customers are paying higher tips



Closer look at the high-demand areas

Weekends vs. weekdays

The identified high demand areas for the weekdays confirm the hypothesis that those trips are work-related (commute to and from work places), while during the weekends the recreational sites are preferred (longer trips towards the local attractions - parks, beaches etc.)



Conclusions from the data

Areas of improvement that would lead to a higher customer satisfaction and revenue increase:

- need to facilitate and improve the payment methods using credit cards;
- taxi volume increase in the high demand areas (to minimize the distance to the potential customers);
- create attractive programs to increase the number of customers during the weekend for popular destinations (around NYC, such as parks, recreational spaces, etc).