



NEW YORK CITY TAXI AND LIMOUSINE COMMISSION

YELLOW TAXI TRIPS RECORD ANALYSIS

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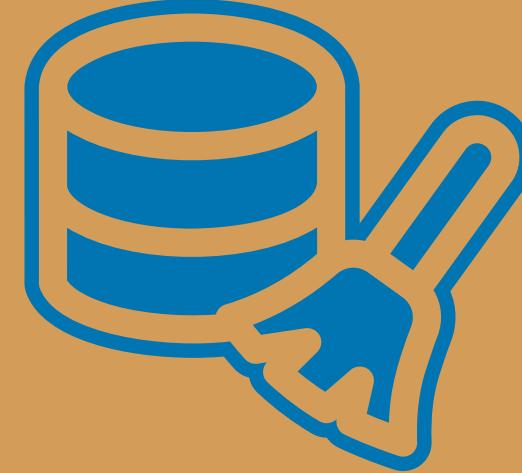
EXPLORATORY DATA ANALYSIS

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CONCLUSION &
RECOMMENDATIONS

BACKGROUND

NEW YORK CITY



- USA Most populous city !
- Consist of 5 borough.
- A global city and center of entertainment, fashion, cultural, and financial.

TAXI AND LIMOUSINE COMMISSION



often referred to as the "yellow cab," is **an iconic symbol of New York City**



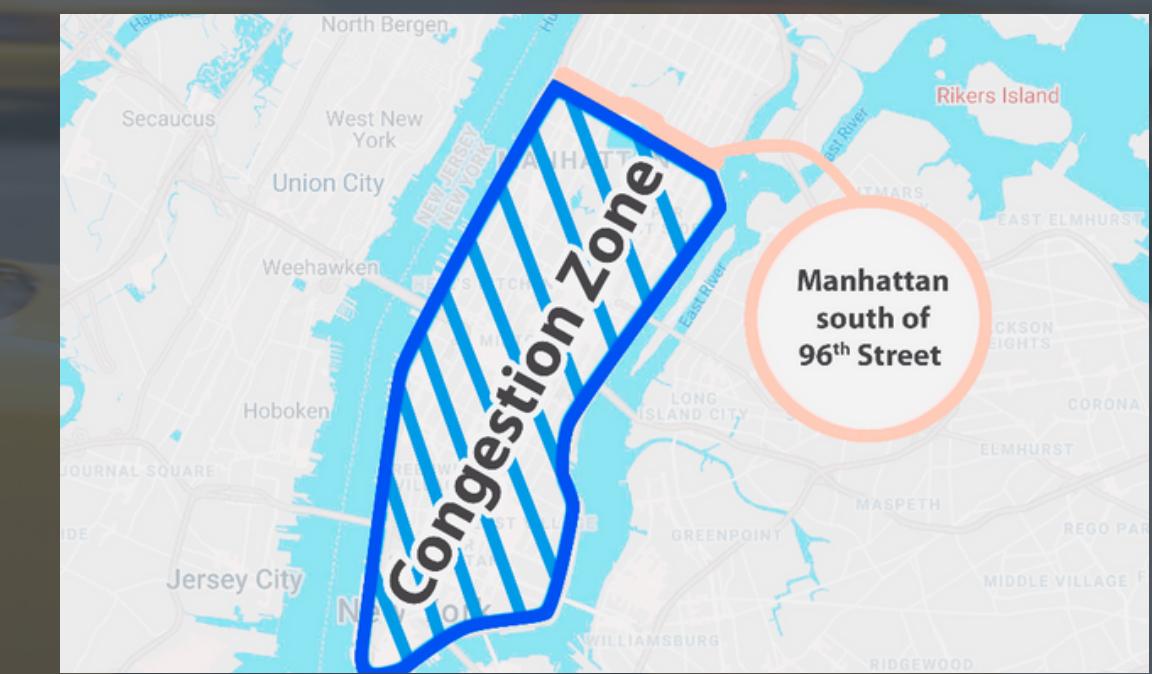
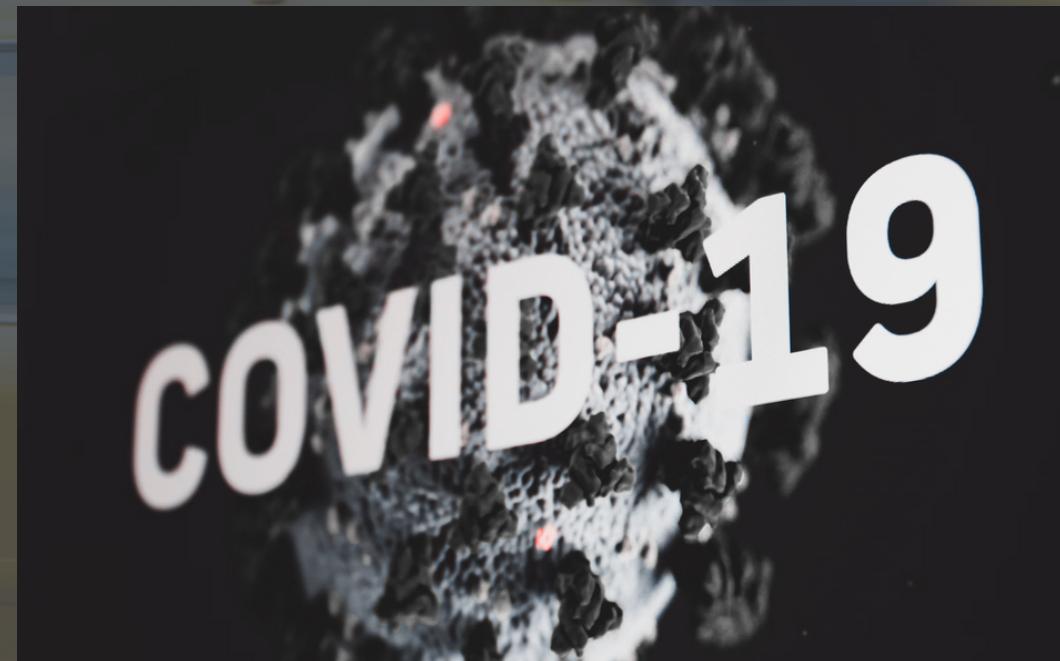
- owned and operated by the government
- regulator and overseer
- mission to creating a high-quality transportation services for passengers and drivers



MEDALLION

- must have to legally operate in NYC
- buy or lease !!!!

YELLOW TAXI OBSTACLE



RIDEShare SERVICES

- Outnumbering yellow taxi
- Causing Medallion value drop

COVID PANDEMIC

Shutdowns of various cities

CONGESTION PRICE

Will raise from 2.5 to 9-23 USD per trips in the spring of 2024

IMPROVING TAXI DRIVER'S INCOME



Improving the Driver Experience.

"Drivers are the core of the Taxi industry. TLC focuses on to make driving a Taxi a more desirable livelihood and ensure a stable and sustainable Taxi industry."



- TLC want understand the yellow taxi activities such as :
- which areas and what time or day are the busiest
 - which areas are more generous for tipping
 - **AND to give some recommendations that might improve taxi driver's income**

DATA PREPARATION

Dataset contains information about New York City
Yellow Taxi Trips Record in January 2023

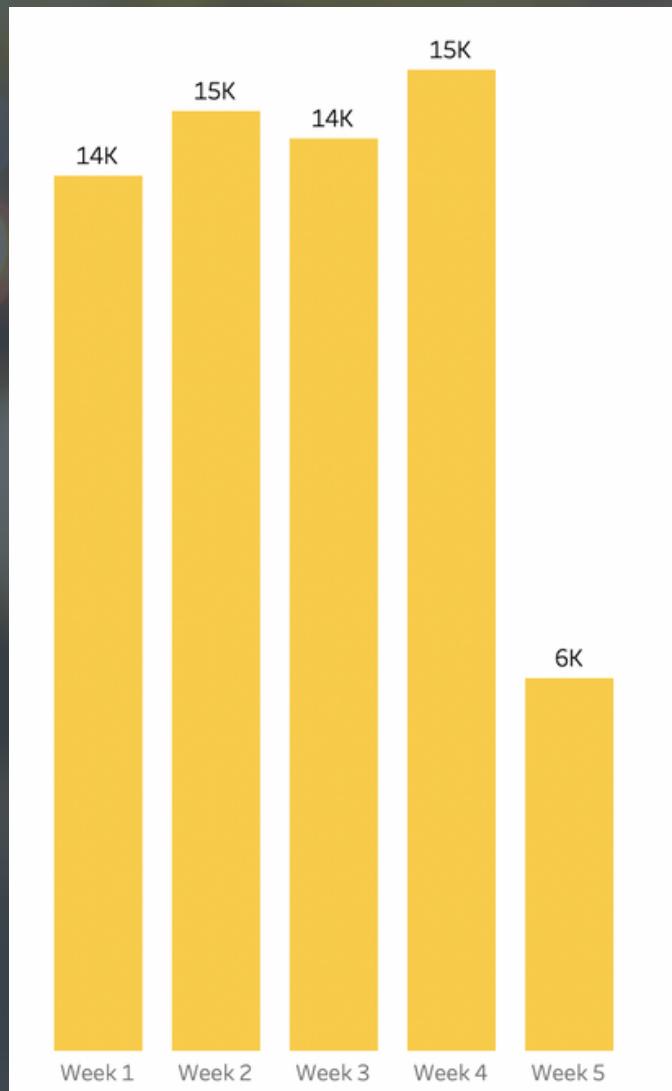
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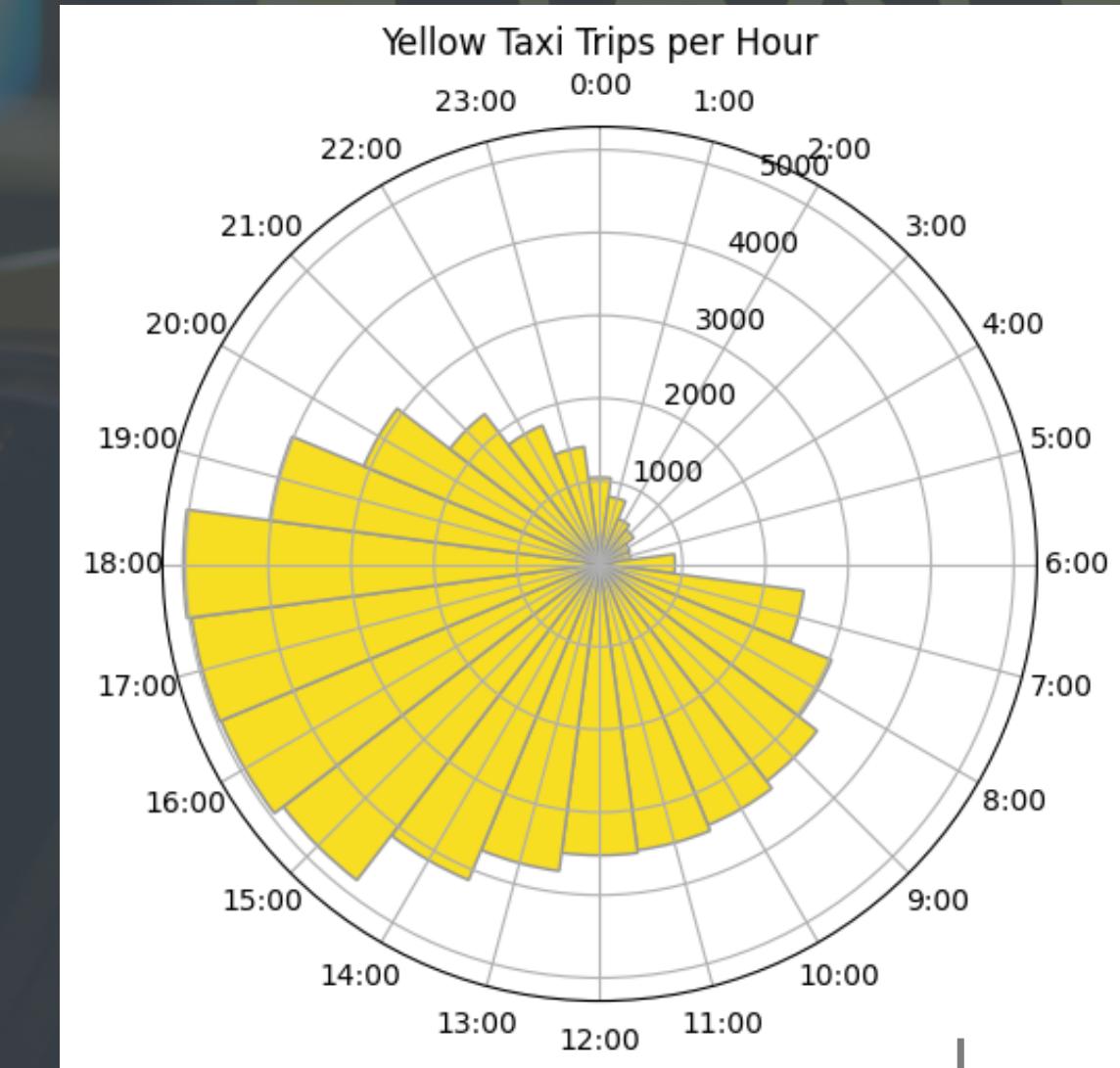
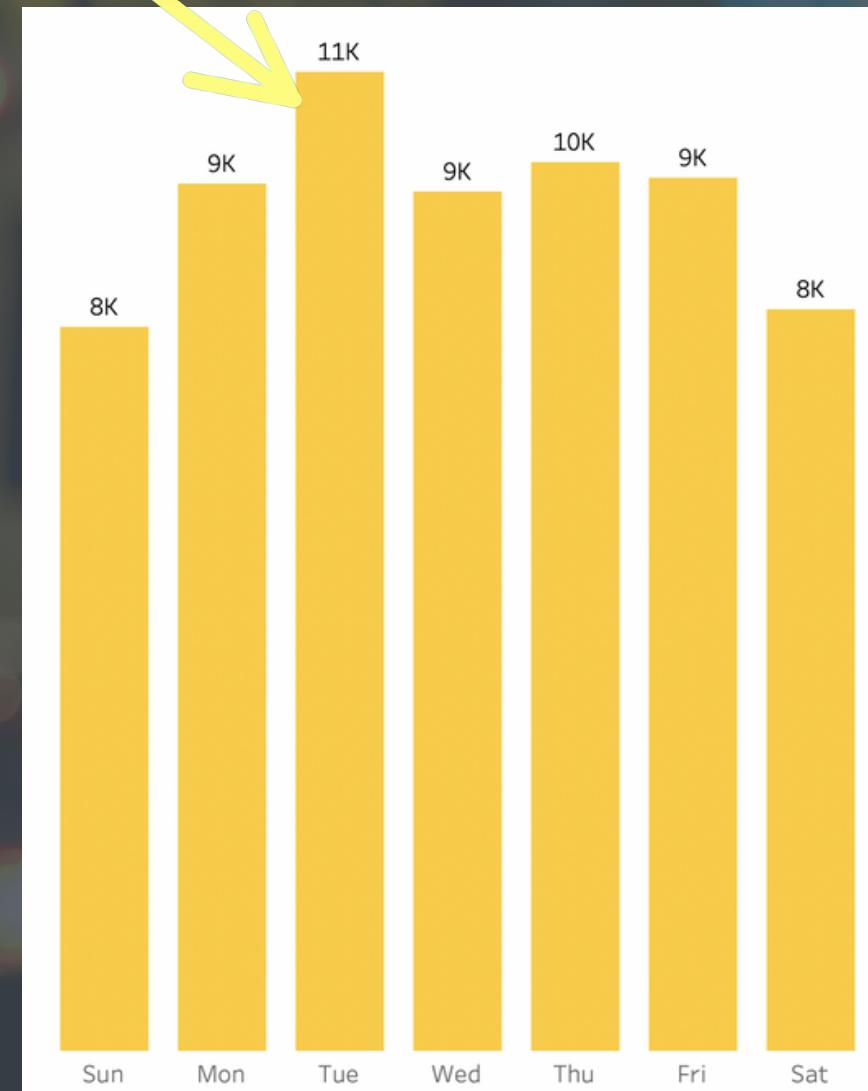
DATA ANALYSIS

NUMBER OF TRIPS

WEEKLY TRIPS



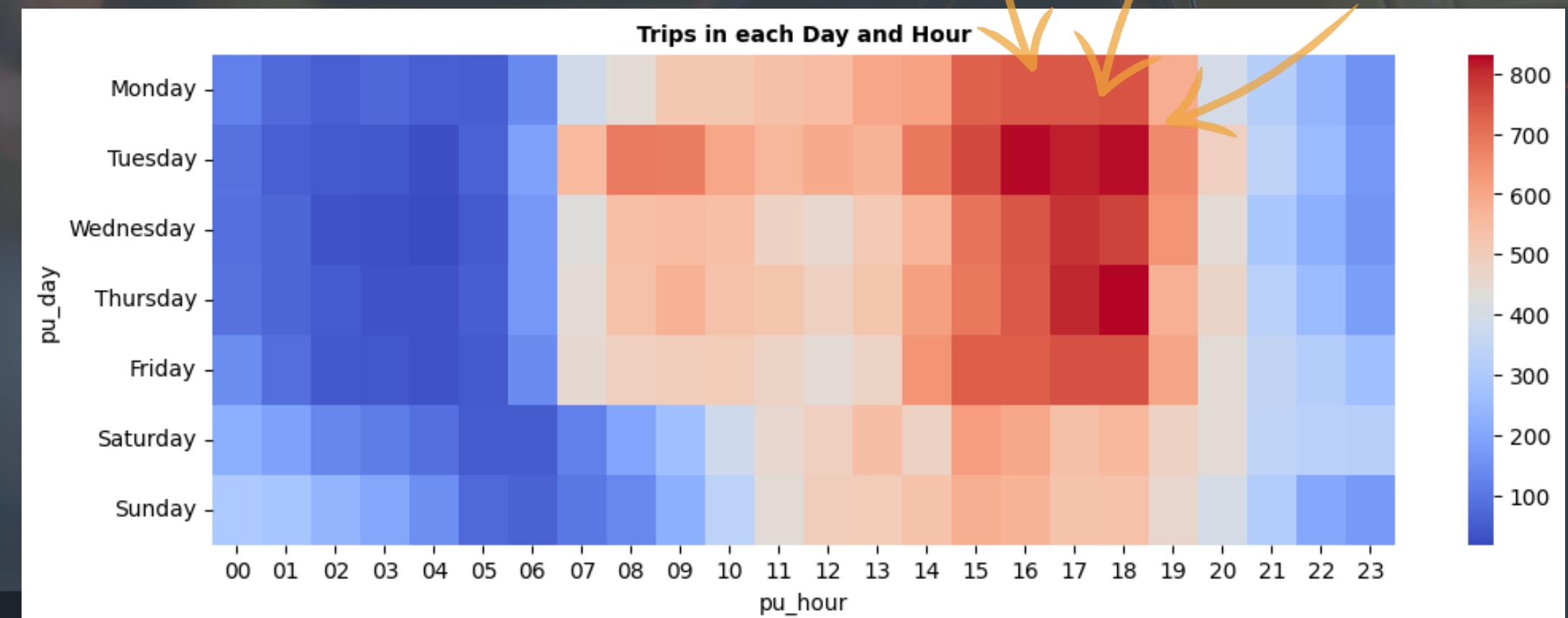
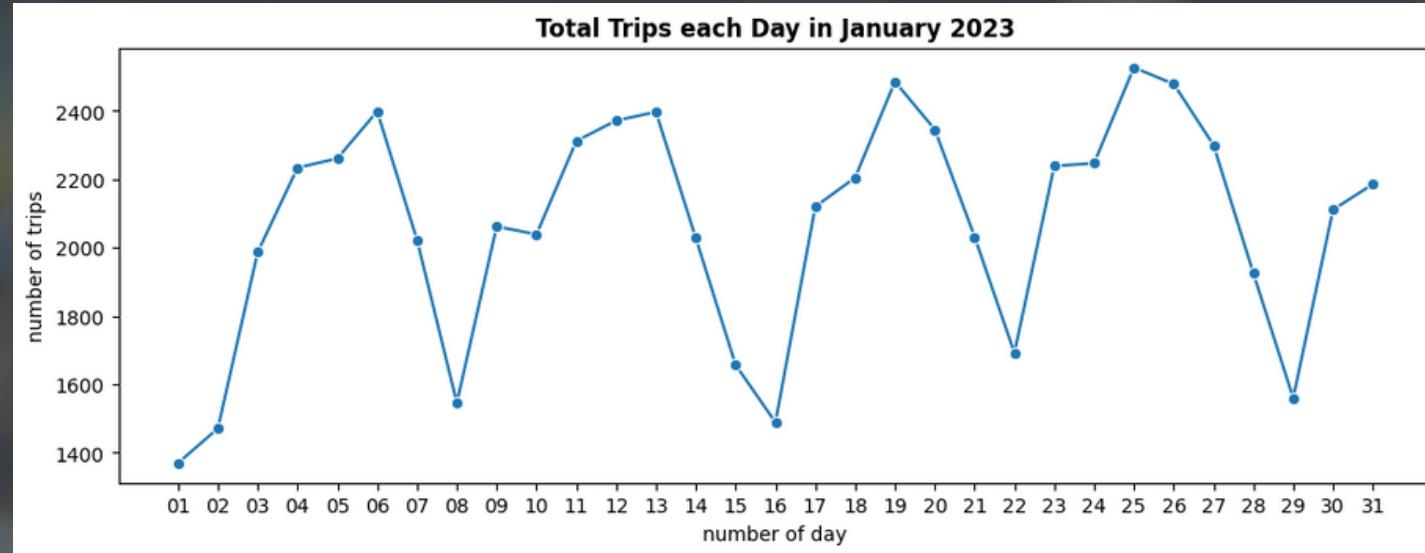
DAILY TRIPS



- Trips during the weekend is lower.
- the 5th week is only 3 days.
- peak hour is occurring between 4 pm to 6 pm

DATA ANALYSIS

NUMBER OF TRIPS



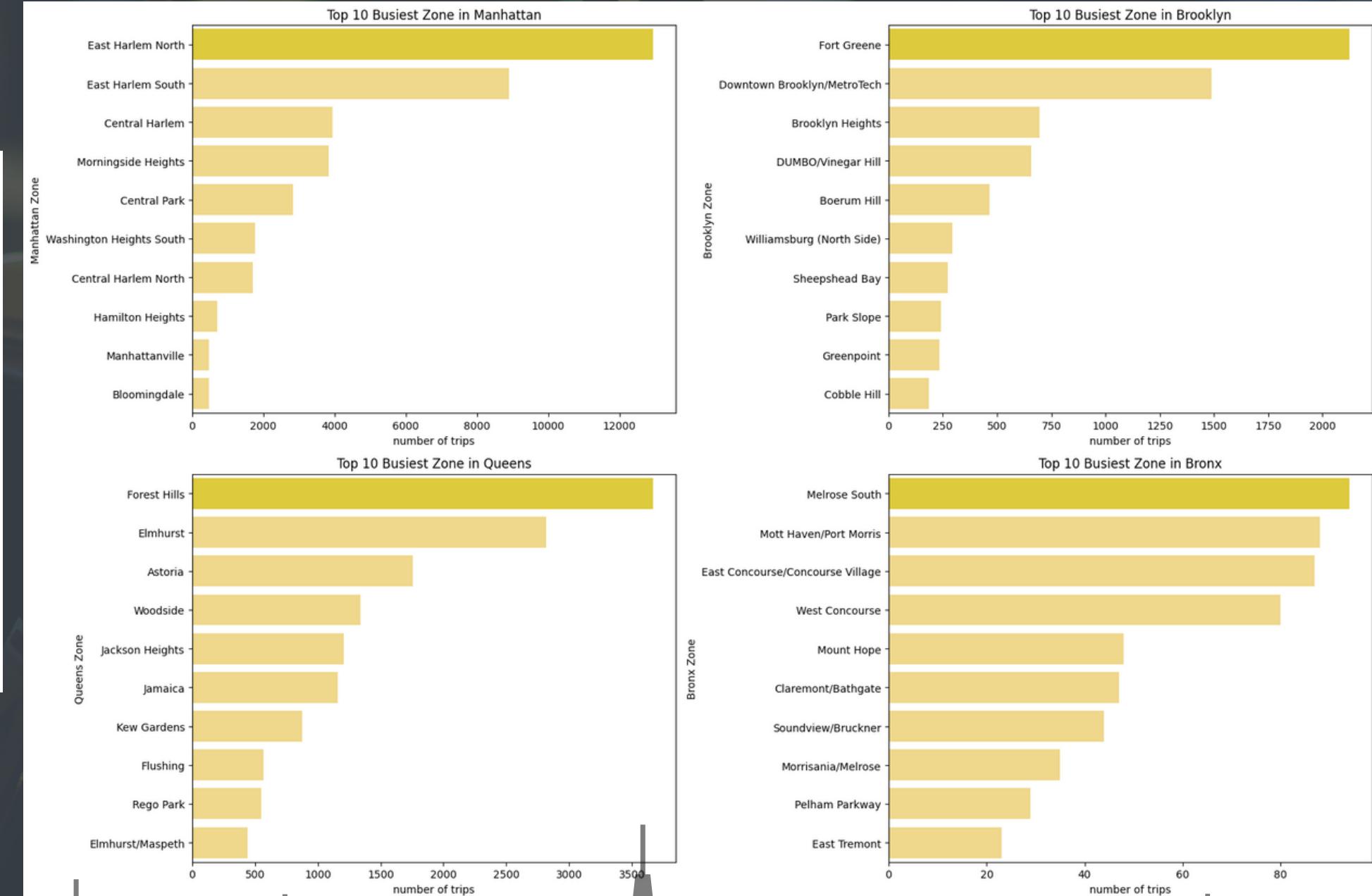
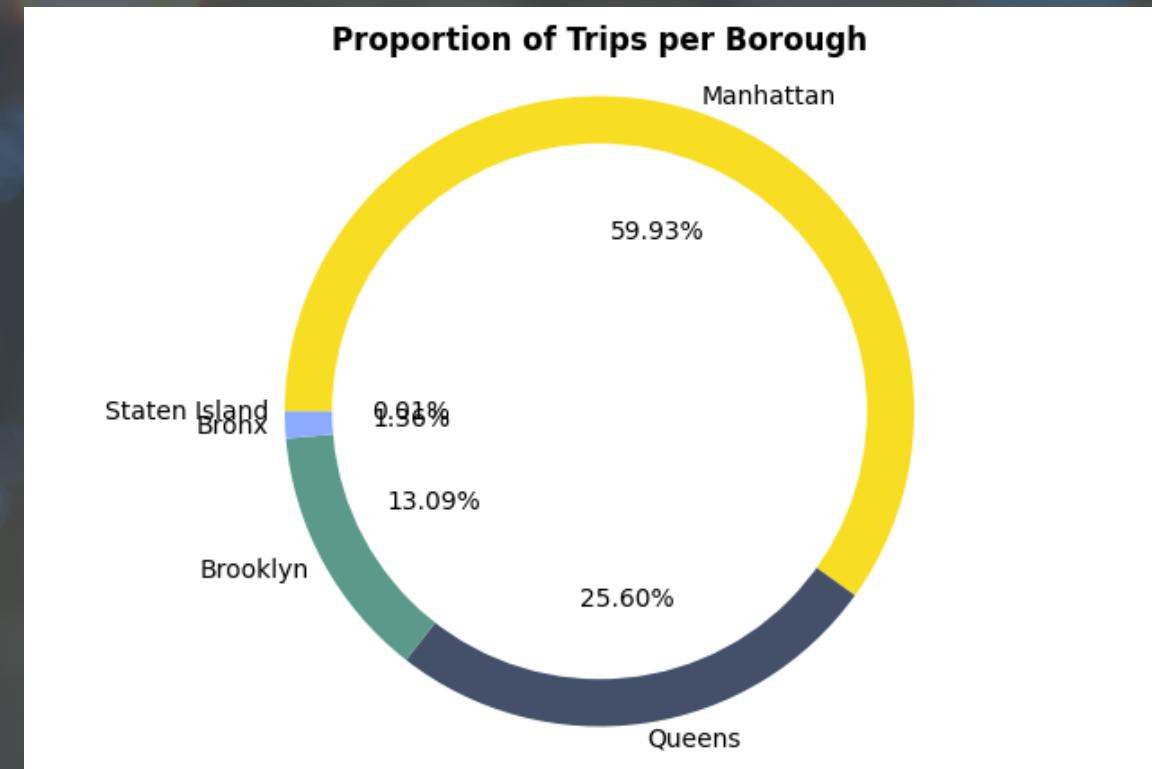
- Trips has a consistent pattern throughout each week.
- Taxis predominantly operate in the afternoon hours, generally until just before 8 pm.

DATA ANALYSIS

NUMBER OF TRIPS

- 85% of the trips take place in Manhattan and Queens.

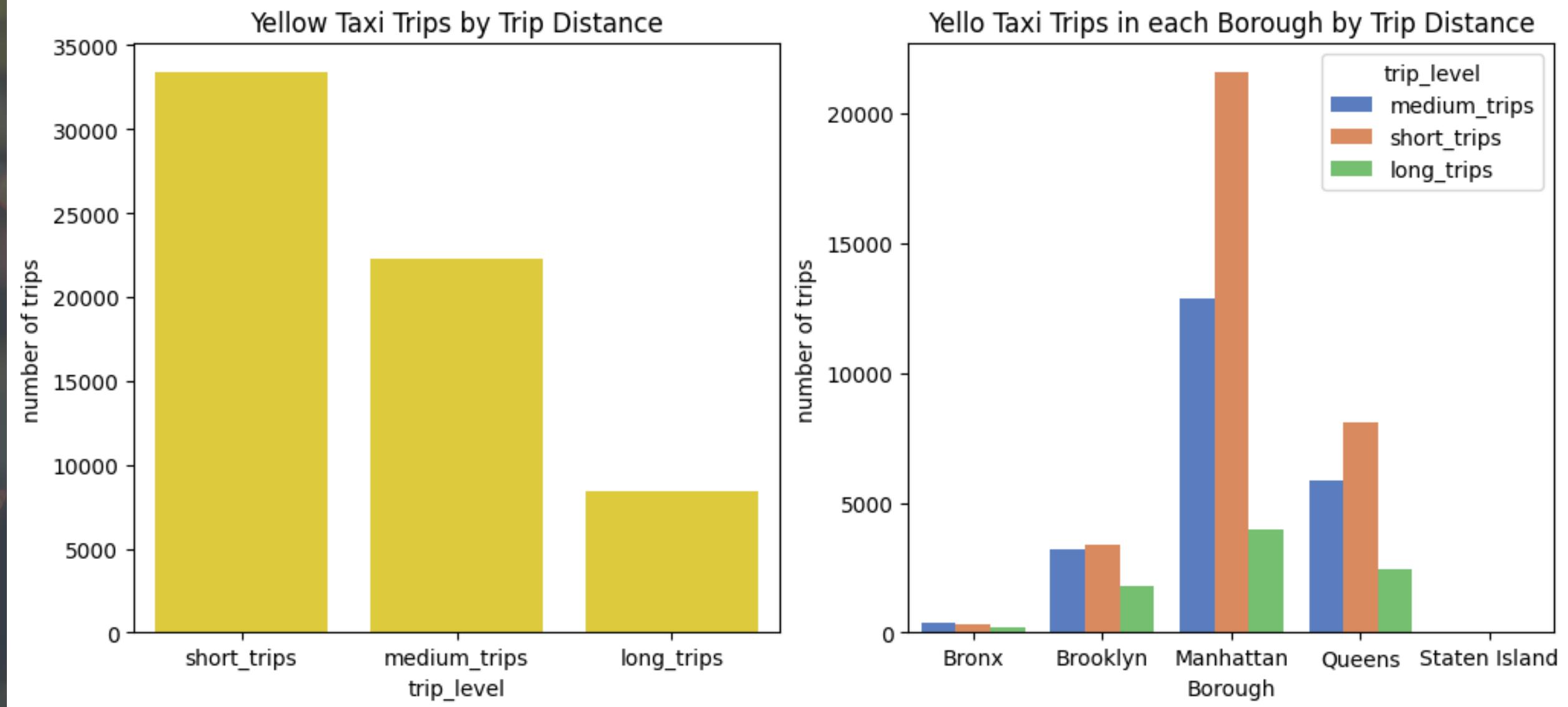
- Trips in Central Park is the 5th in overall zone of Manhattan, but it is outnumber all the highest trips in other boroughs.



DATA ANALYSIS

NUMBER OF TRIPS

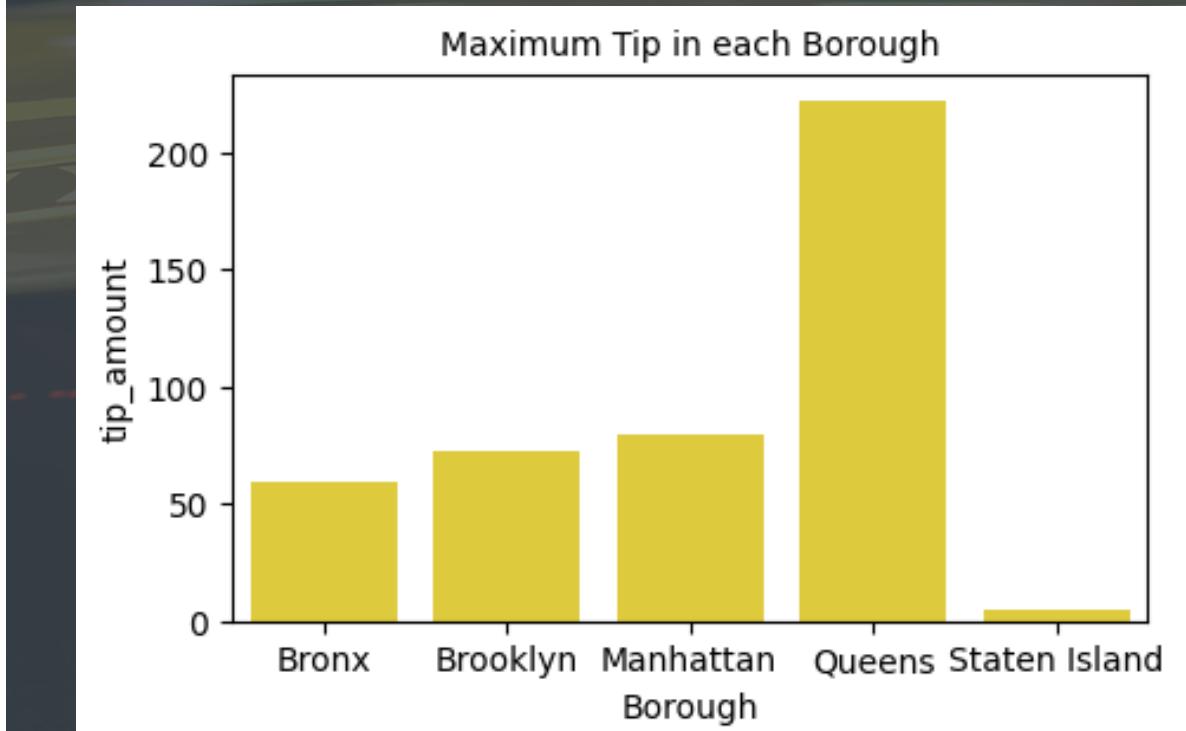
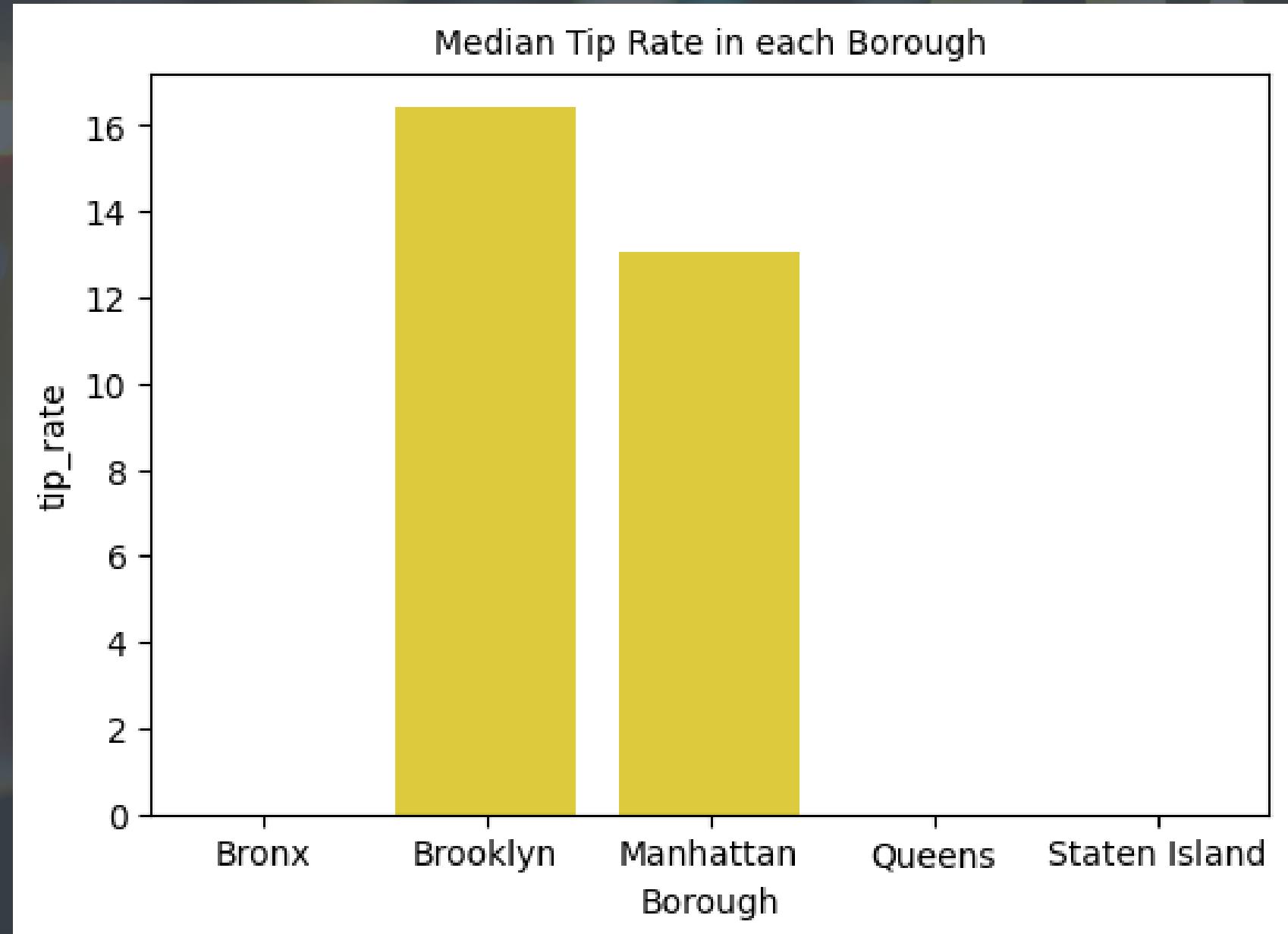
- Majority of trips and in each borough are short trips defined as trips with distances less than or equal to 2 miles.



DATA ANALYSIS

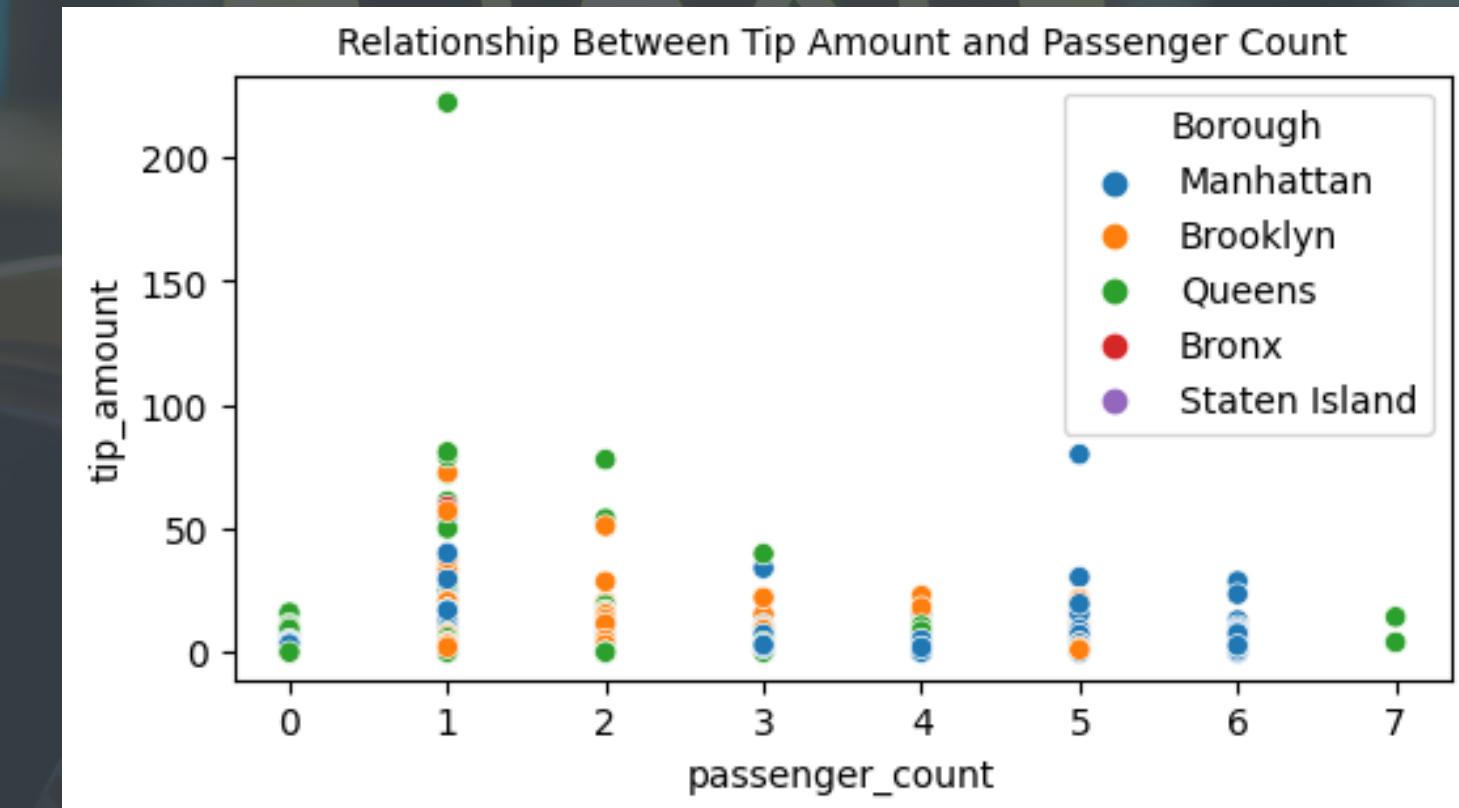
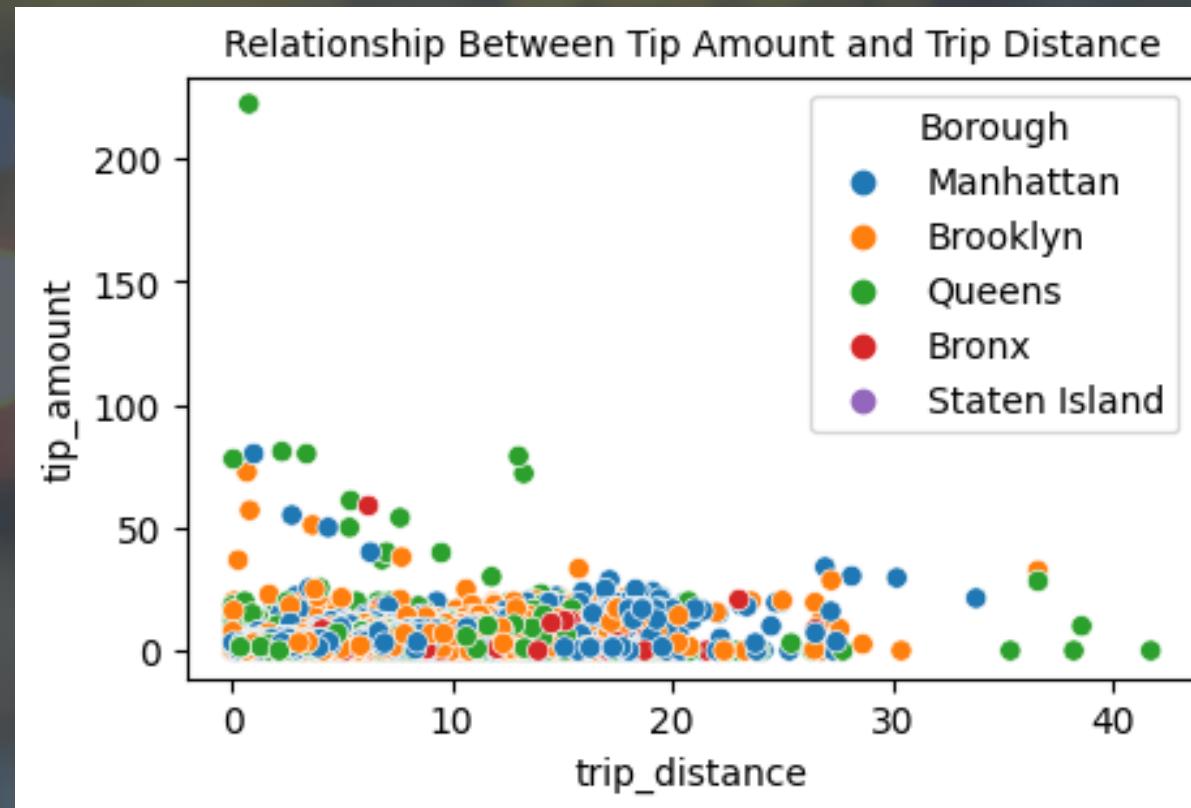
TIPPING BEHAVIOUR

- Brooklyn stands out as the most generous in terms of giving tips with tip rate 16% followed by Manhattan with 13%.
- New Yorkers in Brooklyn give the highest tips compare to other boroughs.
- There is no something different or a bit anomalous in all trips with highest tip.



DATA ANALYSIS

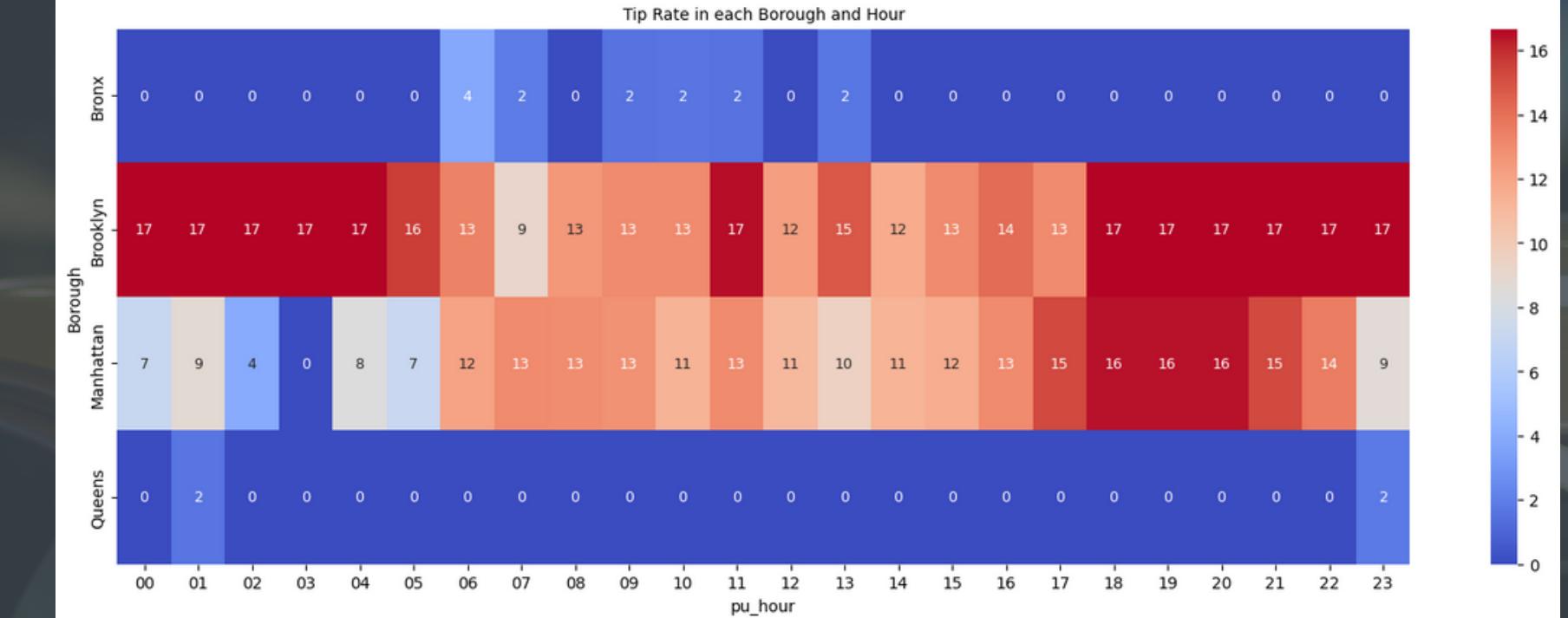
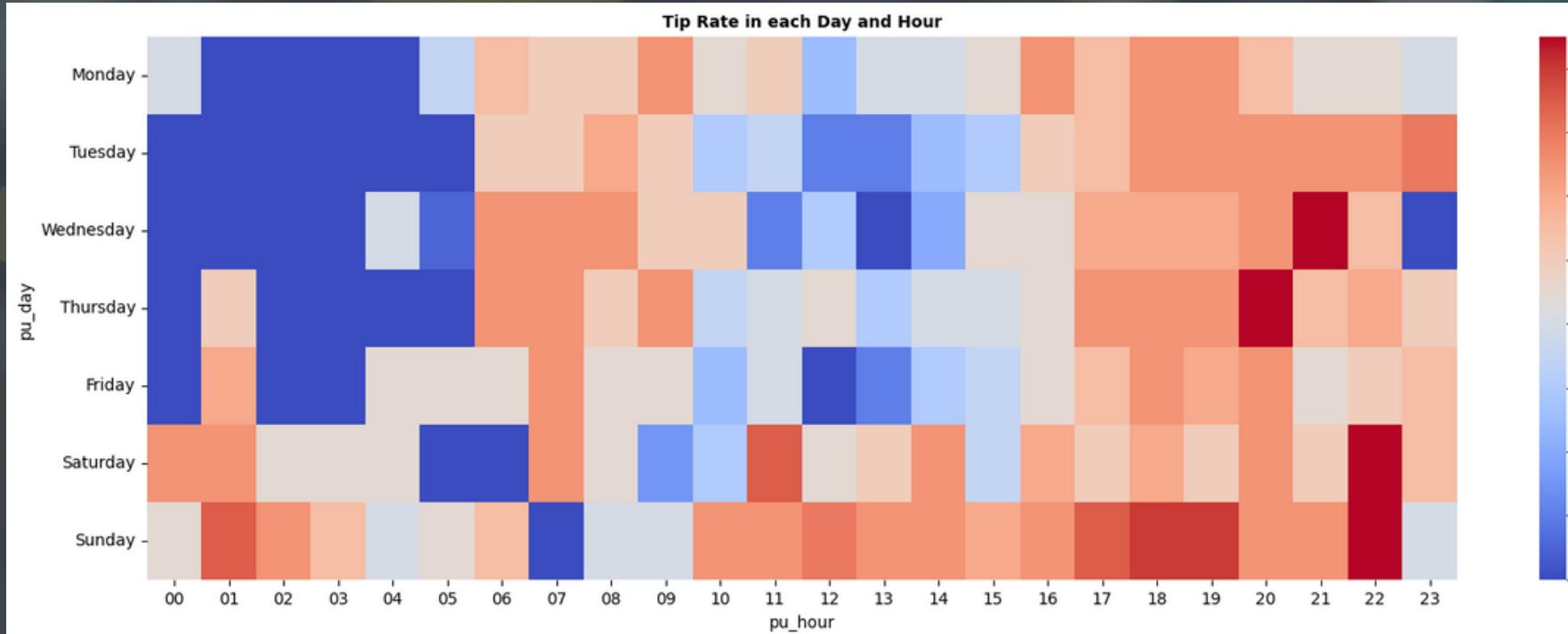
TIPPING BEHAVIOUR



- Trip distance and passenger count doesn't impact the tip amount.

DATA ANALYSIS

TIPPING BEHAVIOUR

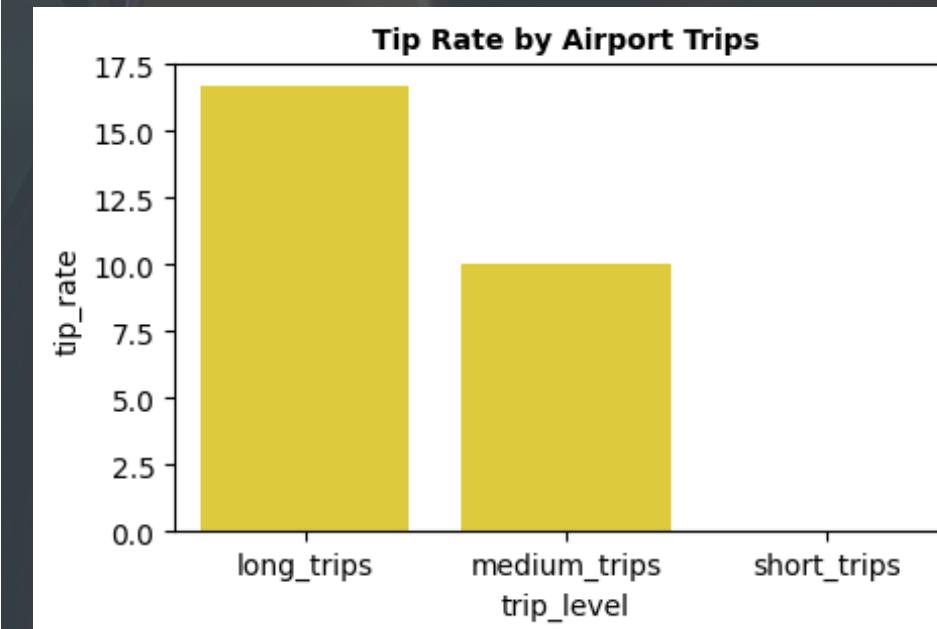
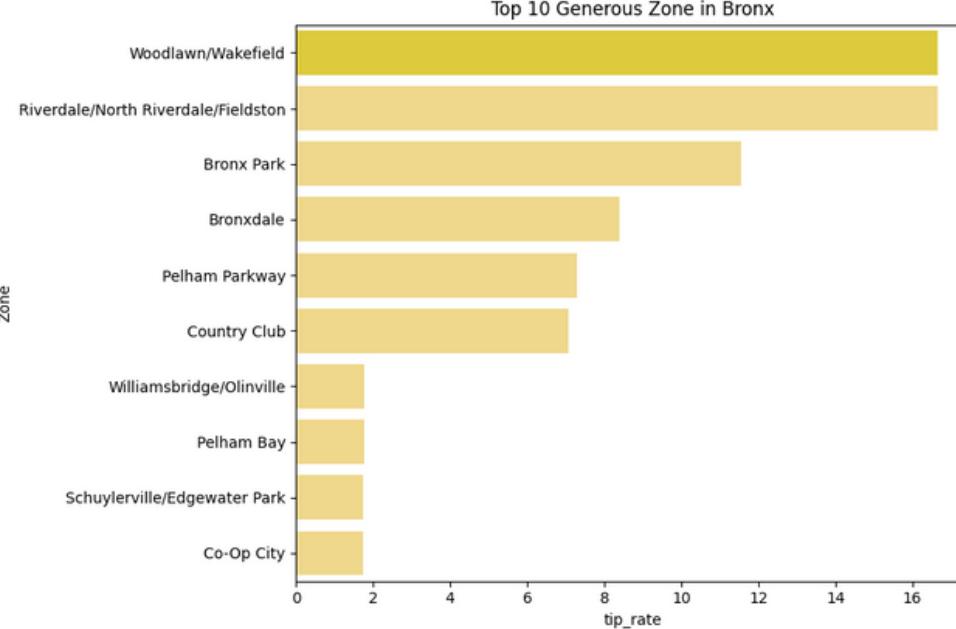
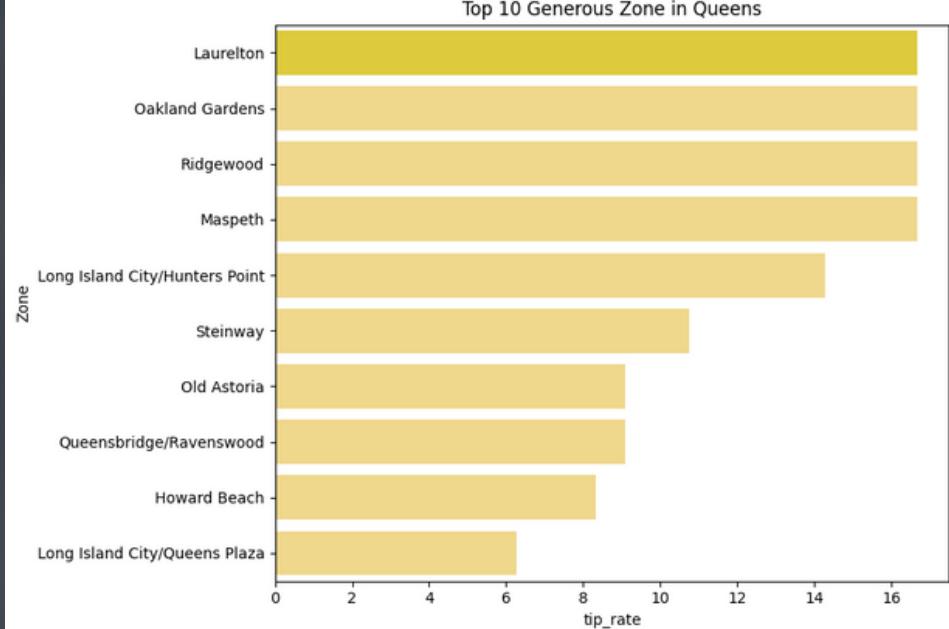
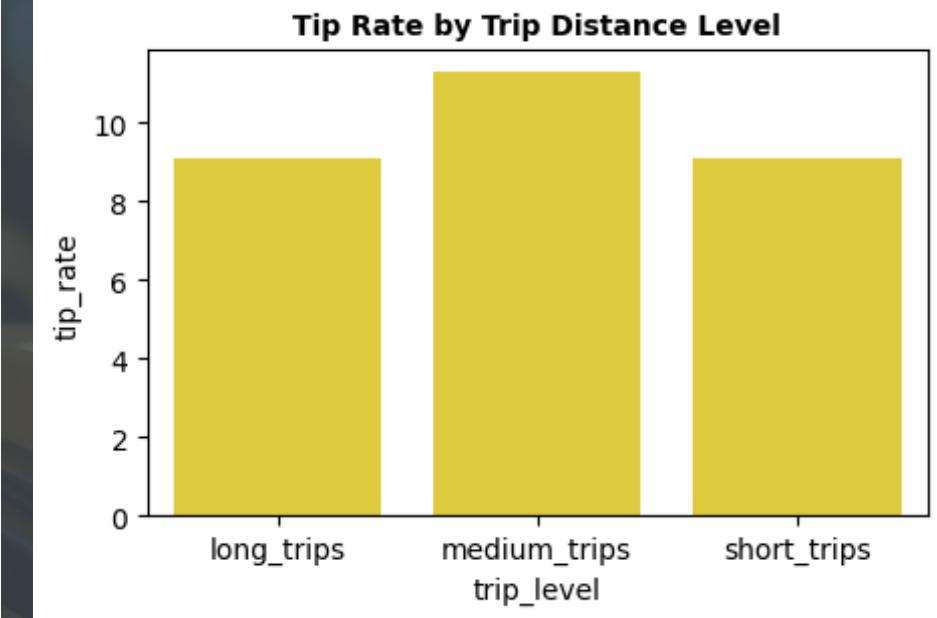
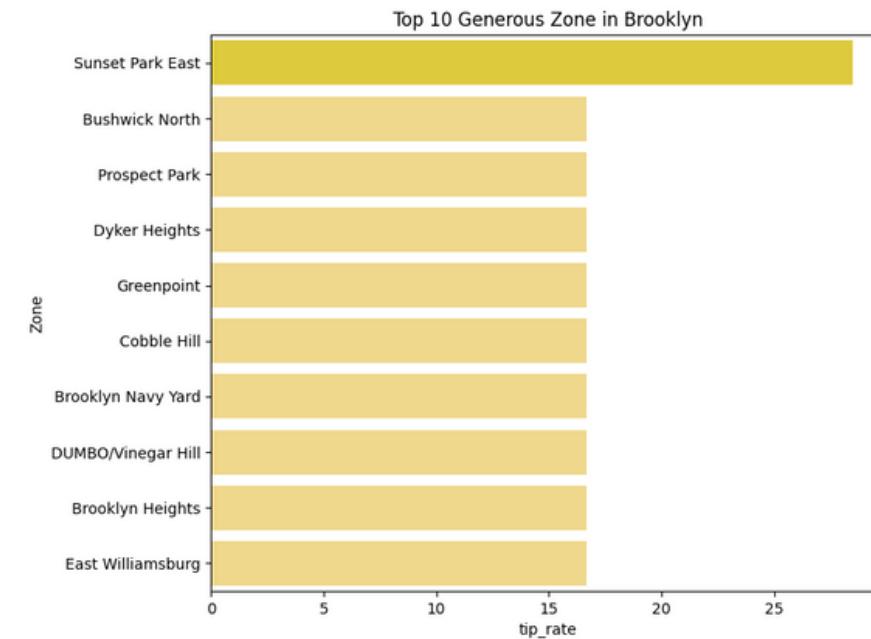
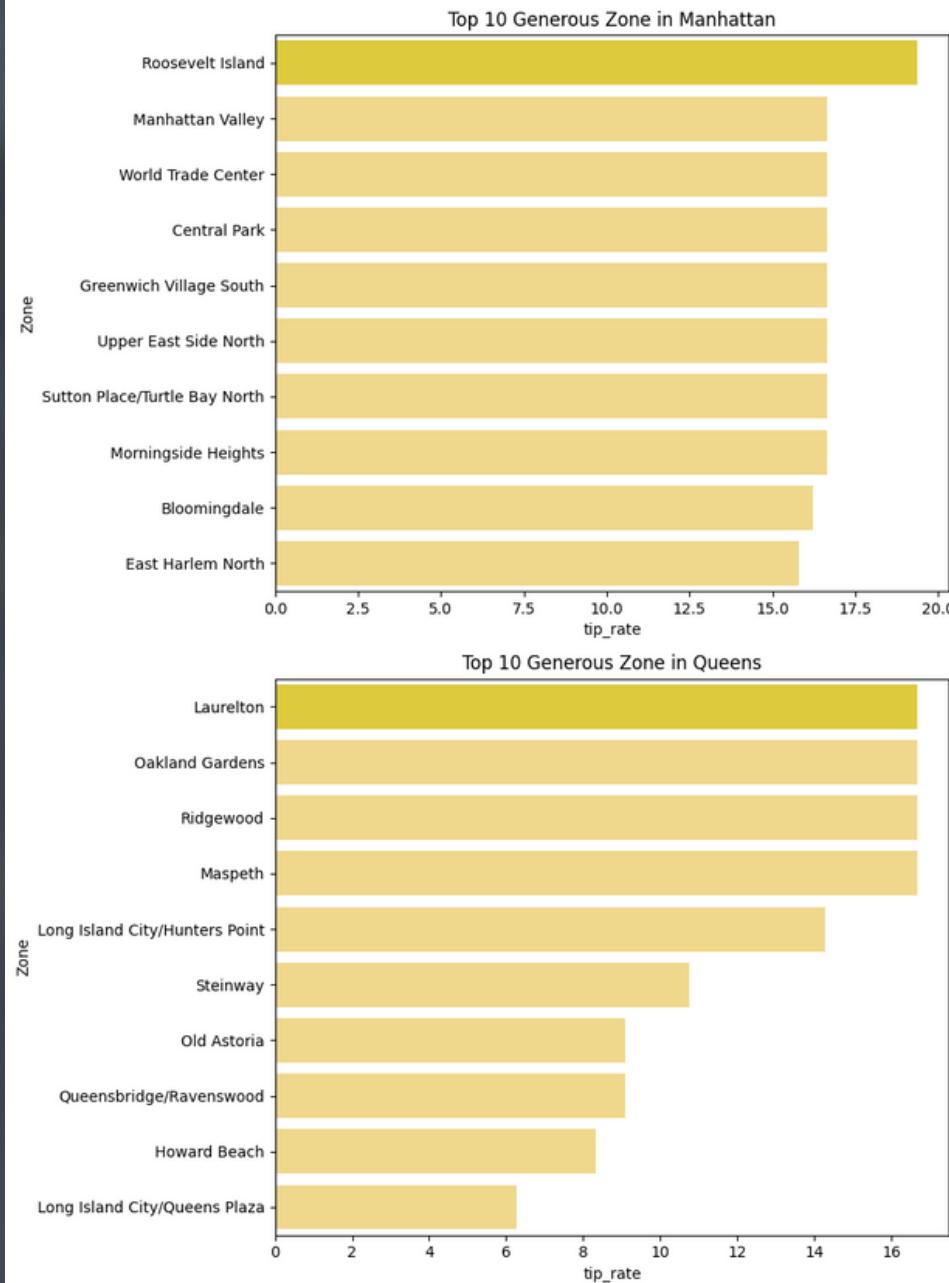


- Tip rate increase during overnight trips on weekends
- Peak hour in number of trips doesn't have highest tip
- Tip rate is higher in Brooklyn for almost entirely each hour
- Bronx and Queens tend to have a tendency of not providing any tips



DATA ANALYSIS

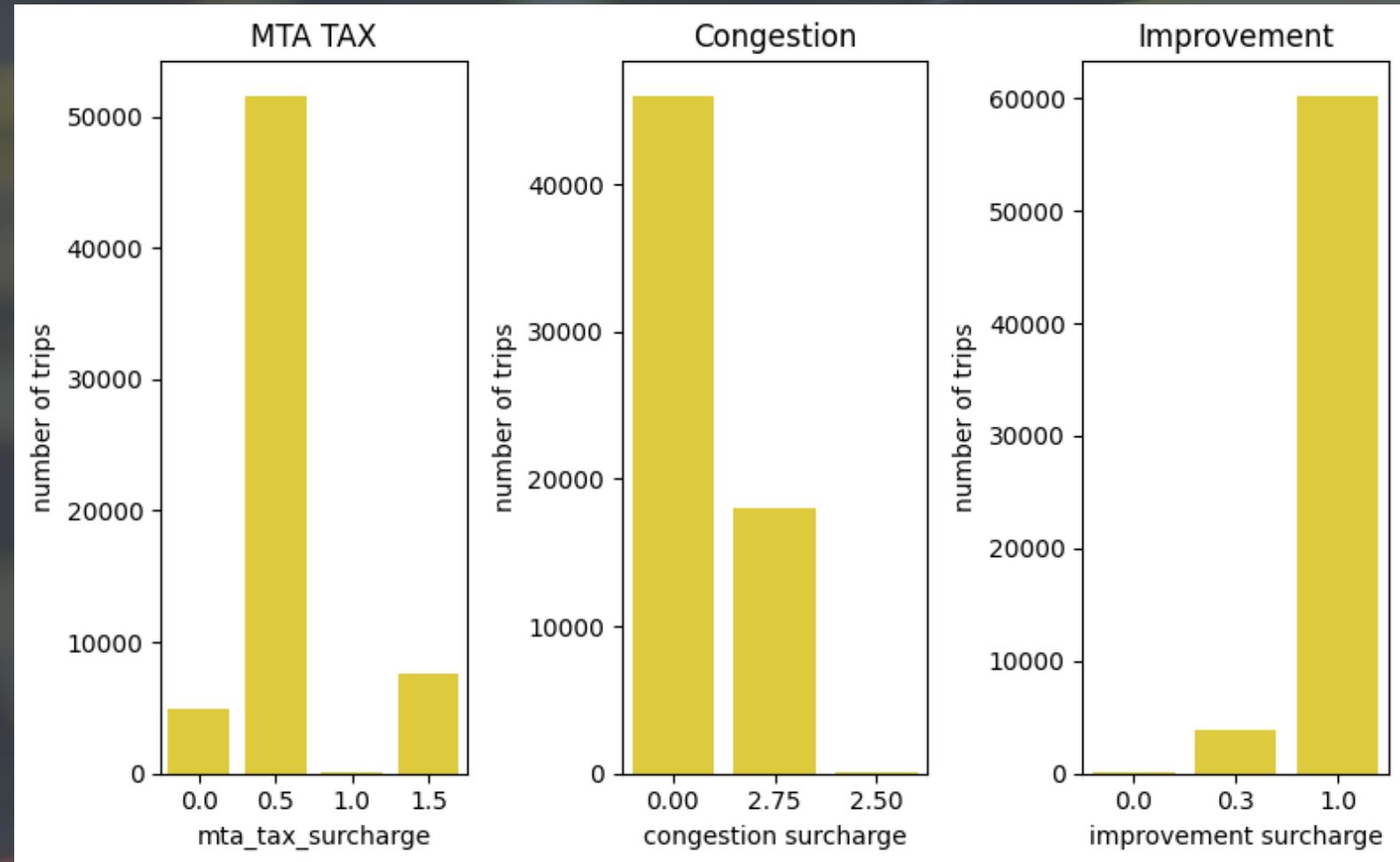
TIPPING BEHAVIOUR



- The busiest zone within each borough do not appear to correlate with higher tip amounts.
- Distance does not seem to influence passengers to give higher tips.
- Lack of sufficient data to draw definitive conclusions about airports trips.

DATA ANALYSIS

Surcharges Fee



- All surcharges that go to the government are not fixed fares.
- \$0.3 improvement surcharge, \$2.5 congestion and \$0.5 MTA Tax
- Imagine if the fare went to drivers for tips or extra charges instead.

CONCLUSION

Yellow taxis are very concentrated in Manhattan, followed by Queens and Brooklyn.

Brooklyn is the most generous in terms of giving tips.

Trip distance and passenger count and doesn't impact the tip amount.

Busiest time is at evening rush hour, from 4 pm to 6 pm and most trips are short trips.

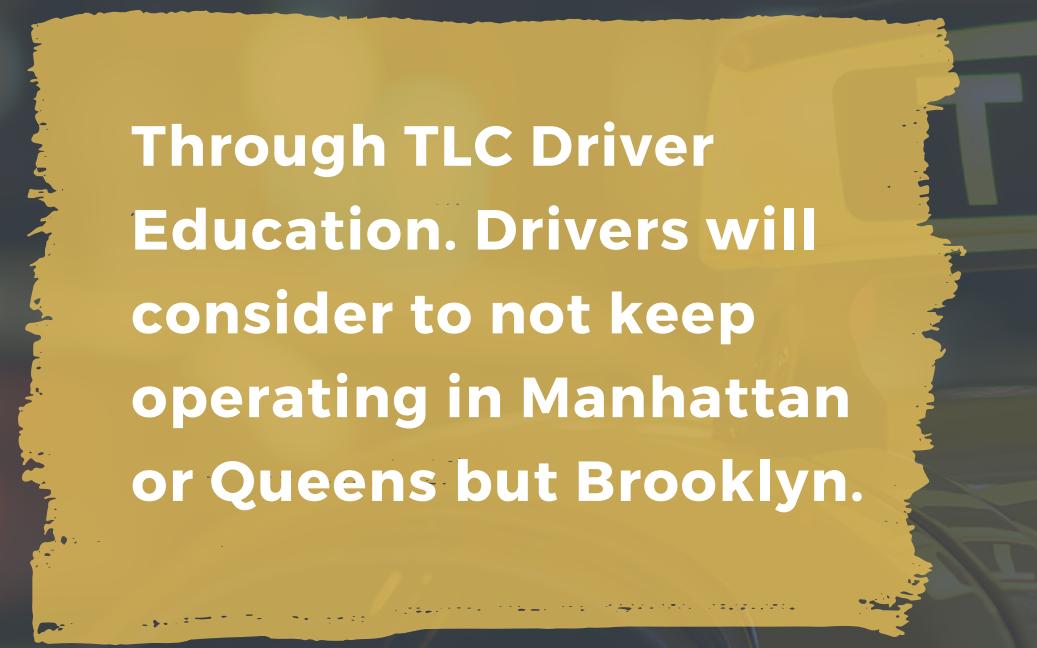
Busiest zones are not the generous on giving tip.

There are various surcharges price goes to the government that should be at a fixed rate for each trip.

RECOMMENDATIONS



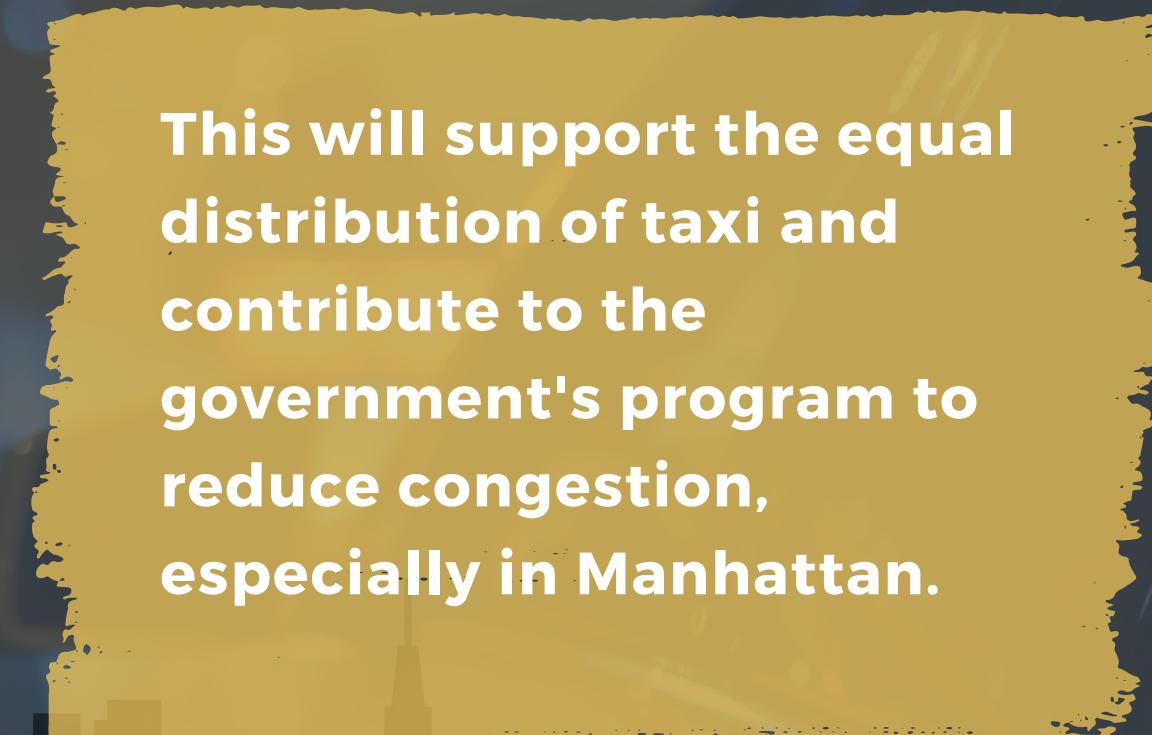
Utilizing communities like the New York Taxi Workers Alliance or conducting meetings at the Taxi Clubhouse, which TLC typically do.



Through TLC Driver Education. Drivers will consider to not keep operating in Manhattan or Queens but Brooklyn.



TLC must establish a fixed rate for every trip, by setting the price in the taximeter and preventing drivers from changing it. This approach would ensure fairness for both passengers and drivers.



This will support the equal distribution of taxi and contribute to the government's program to reduce congestion, especially in Manhattan.



These recommendations might improve drivers income by choosing wisely where to operate and paying fair surcharges.

Thank
You!

