

G2M Case Study

Virtual Internship

19-Mar-2023

Background –G2M(cab industry) case study

- G2M is a private equity firm in US. Due to remarkable growth in the Cab Industry in last few years and multiple key players in the market, it is planning for an investment in Cab industry.
- Objective : Provide actionable insights to help G2M Investment firm in identifying the right company for making investment.

The analysis has been divided into four parts:

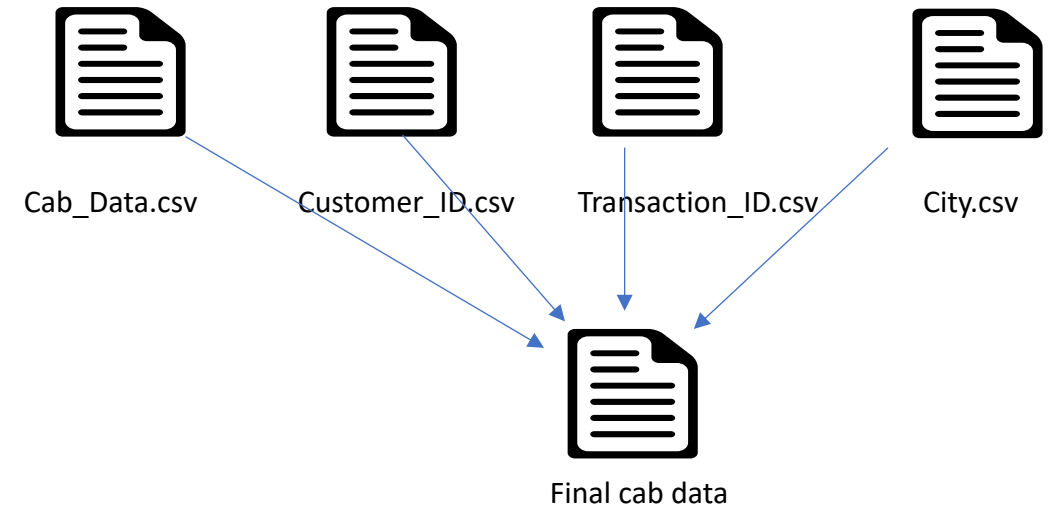
- Data Understanding
- EDA to the most profitable Cab company
- Recommendations for investment

Data Exploration

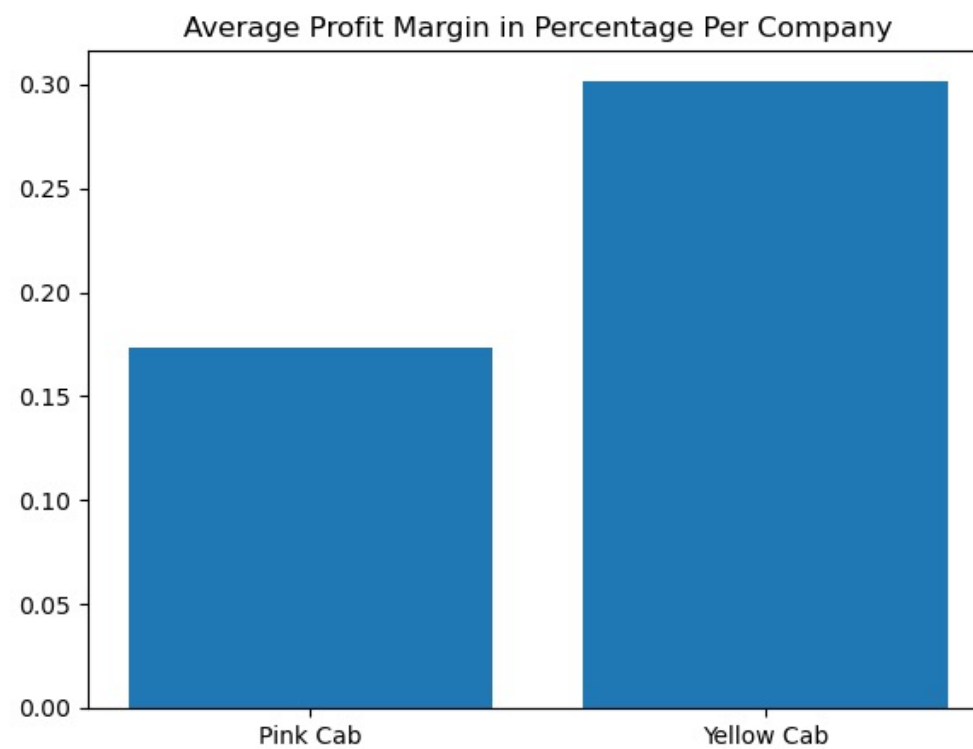
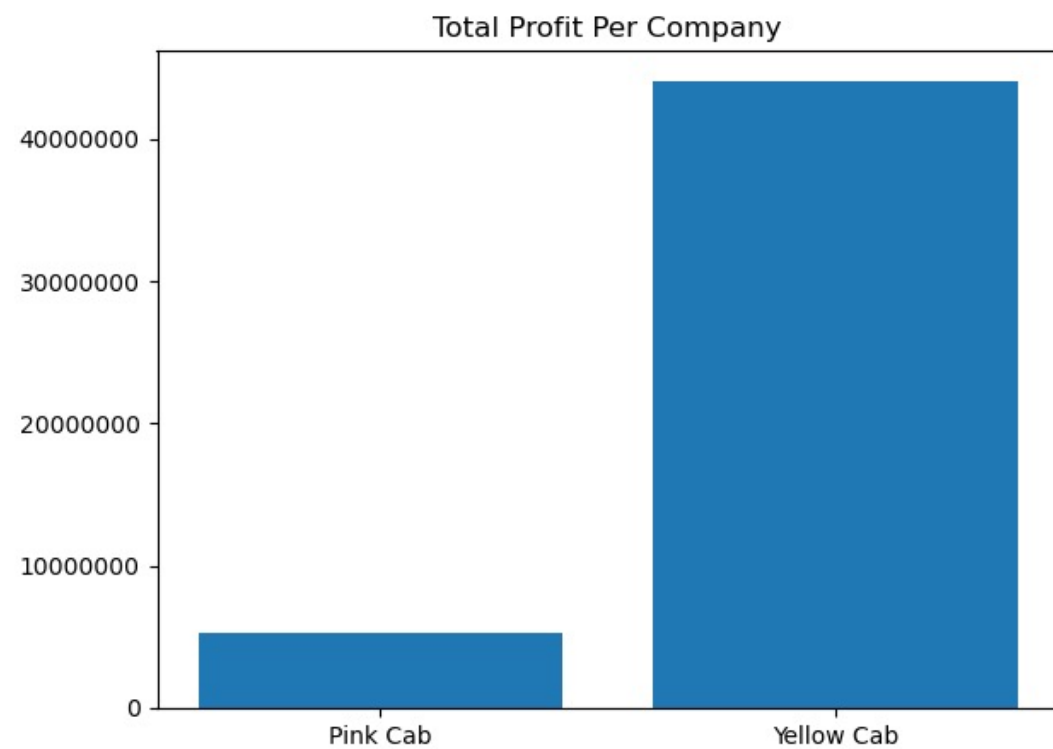
- 24 Features(including 9 derived features)
- Timeframe of the data: 2016-01-31 to 2018-12-31
- Total data points: 440,098
- Total Nulls: 80,706

Assumptions:

- Outliers are present in Price_Charged feature but due to unavailability of trip duration details ,we are not treating this as outlier.
- Profit of rides are calculated keeping other factors constant and only Price_Charged and Cost_of_Trip features used to calculate profit.
- Users feature of city dataset is treated as number of cab users in the city. we have assumed that this can be other cab users as well(including Yellow and Pink cab)

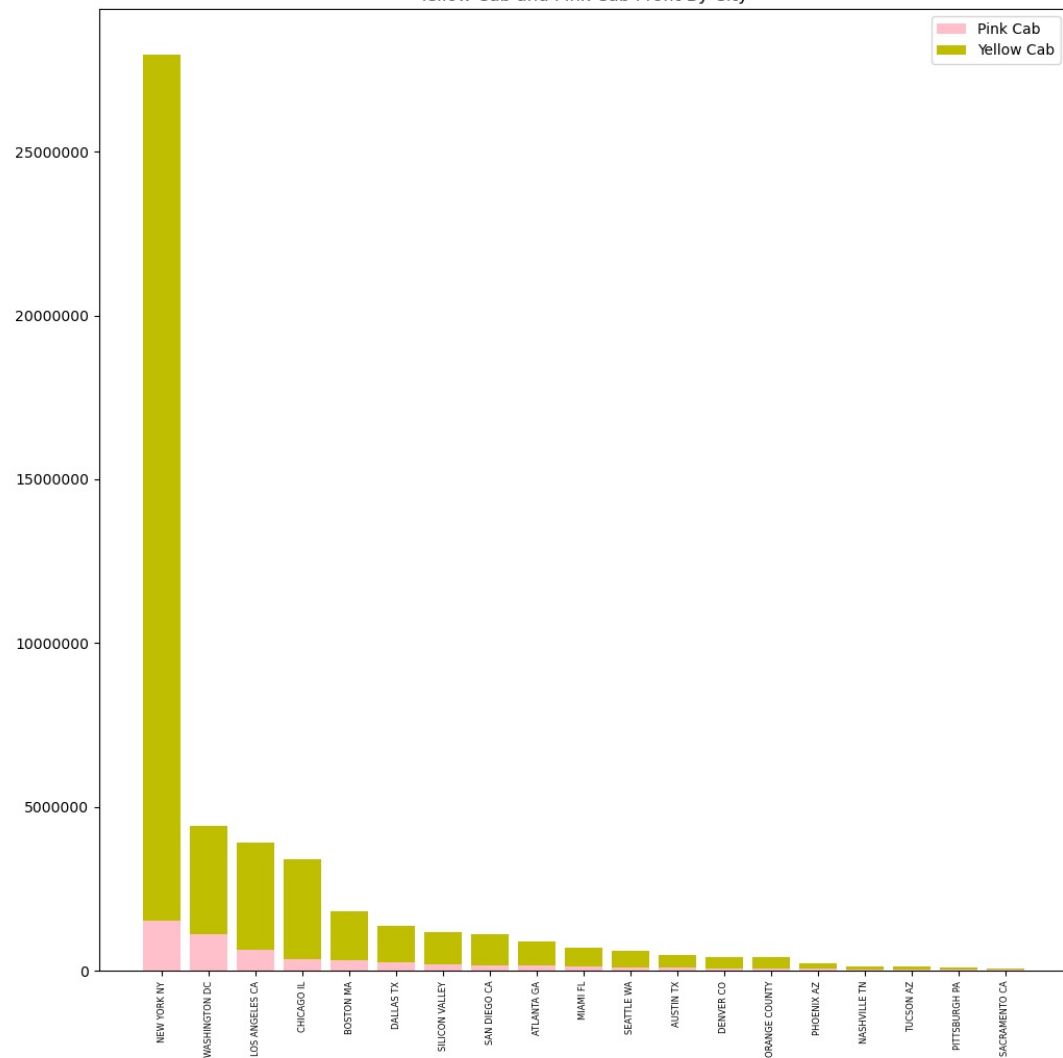


Profit Analysis

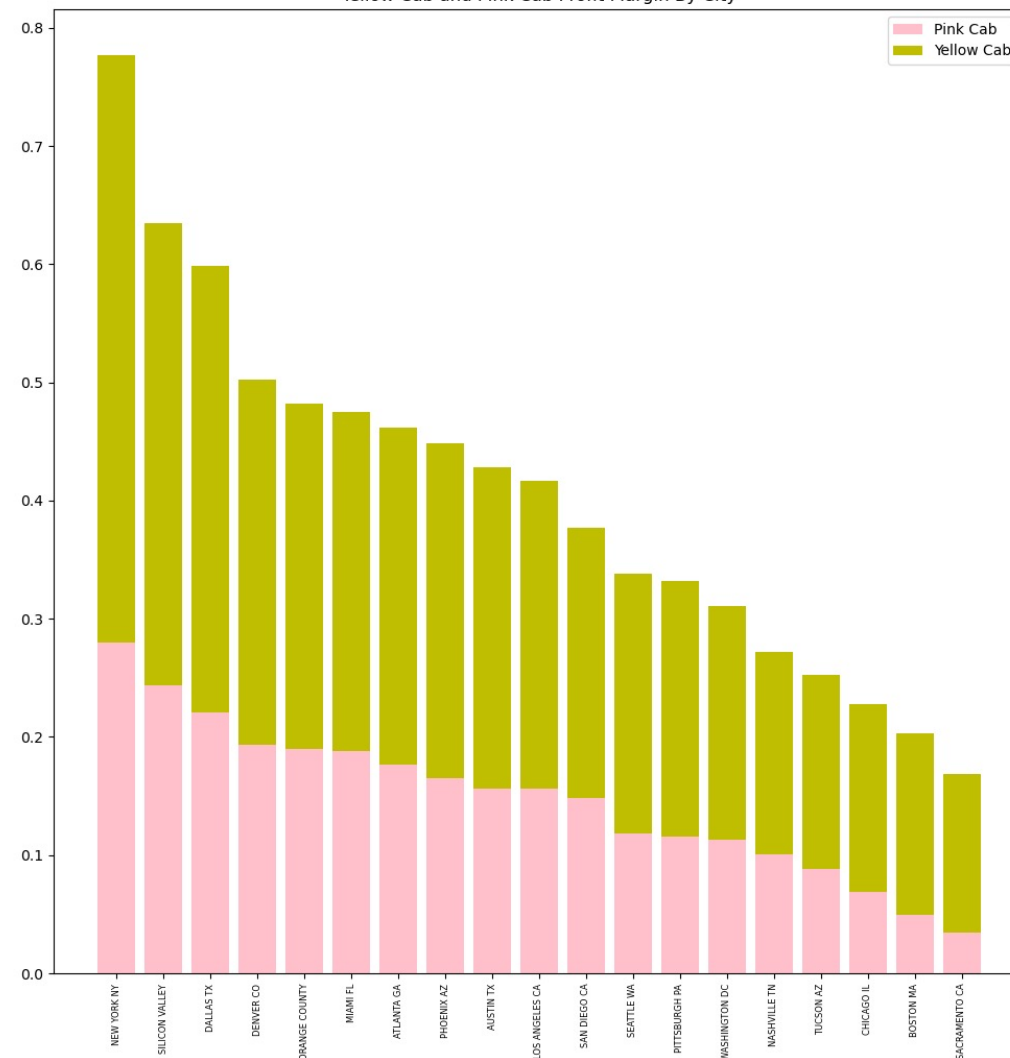


Profit Analysis

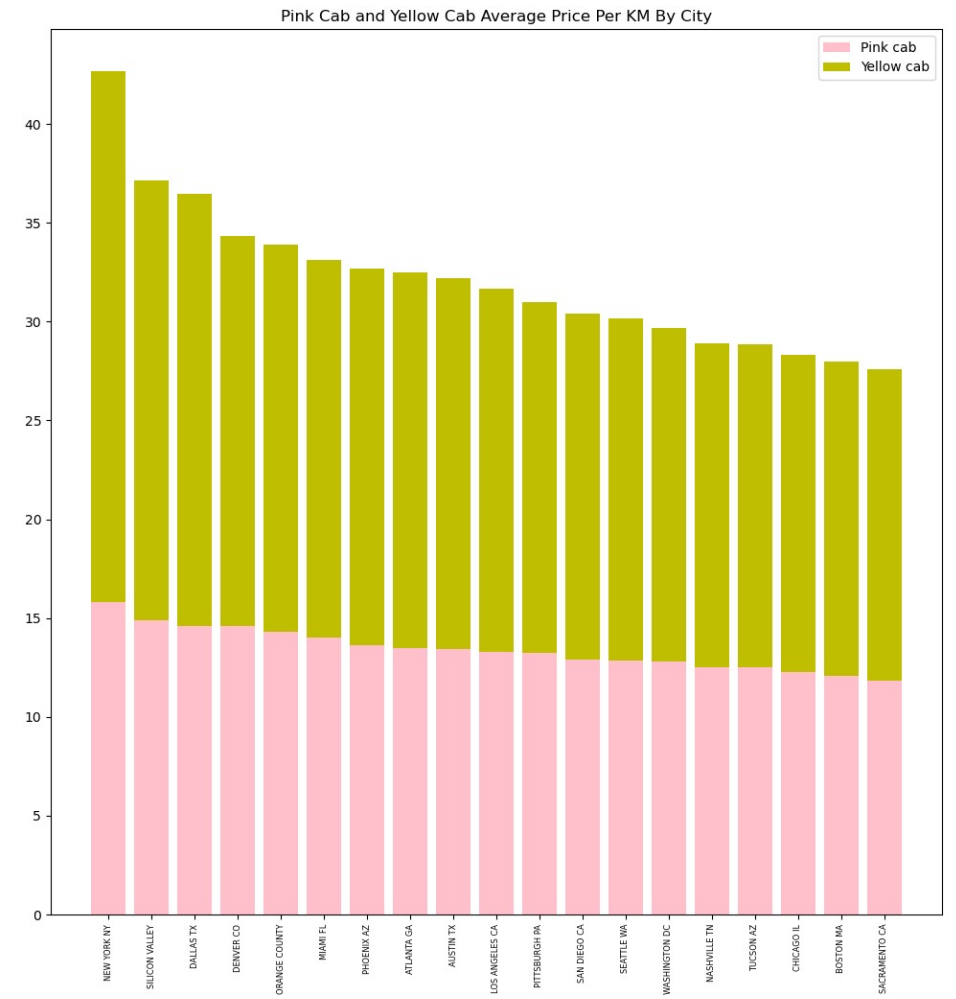
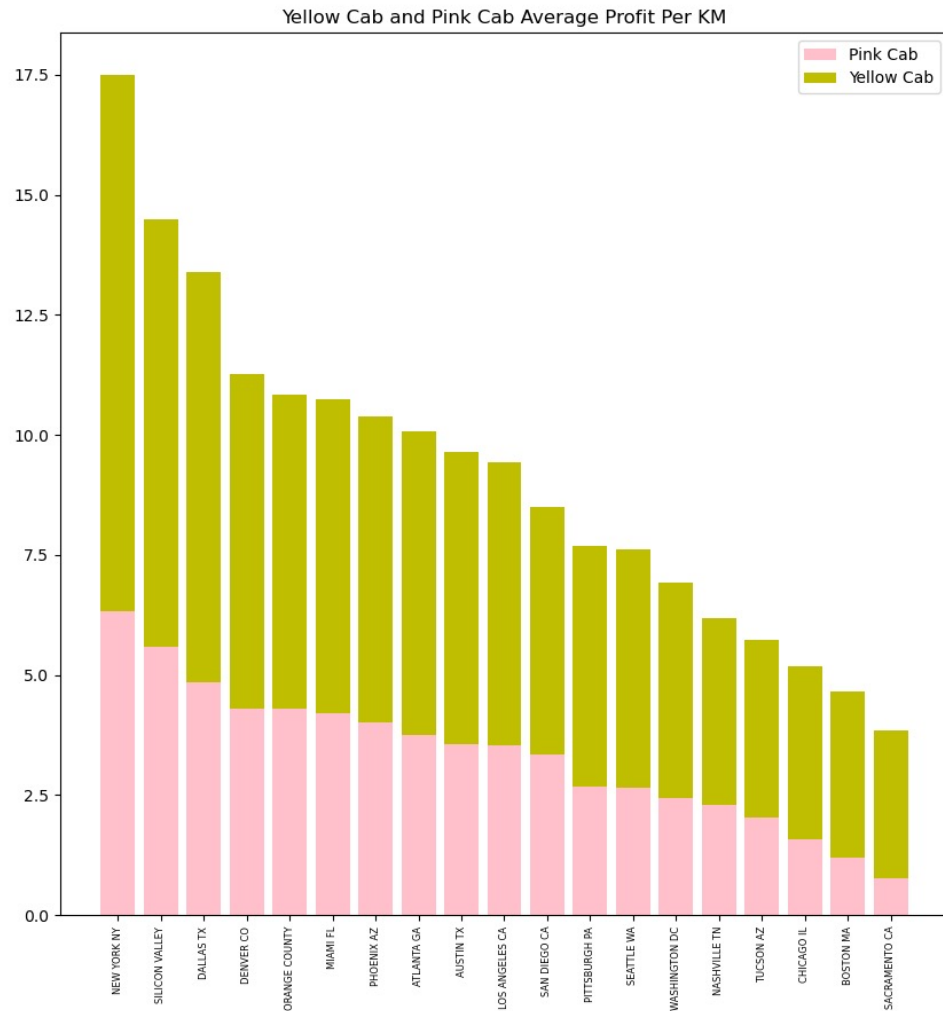
Yellow Cab and Pink Cab Profit By City



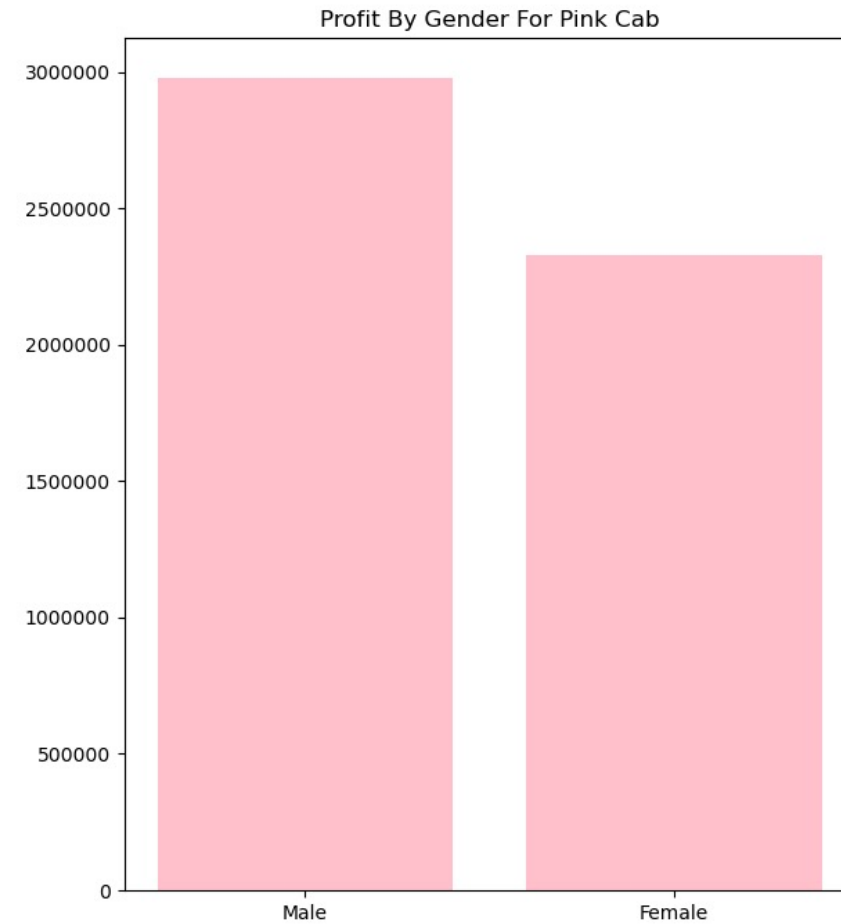
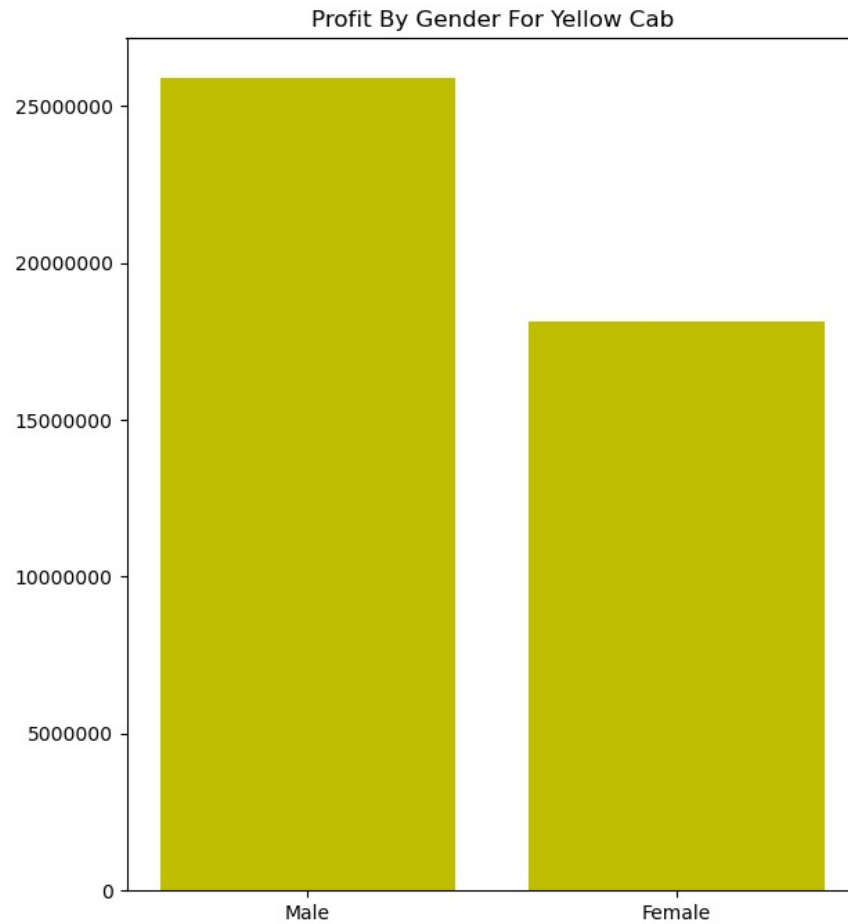
Yellow Cab and Pink Cab Profit Margin By City



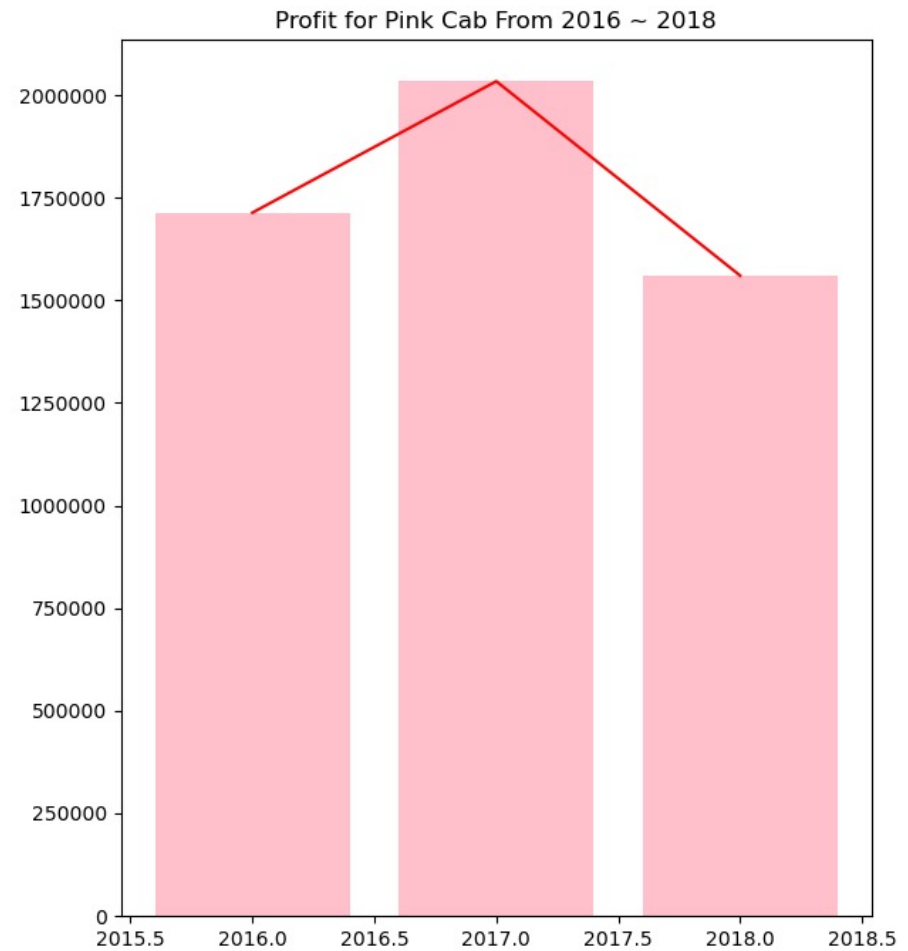
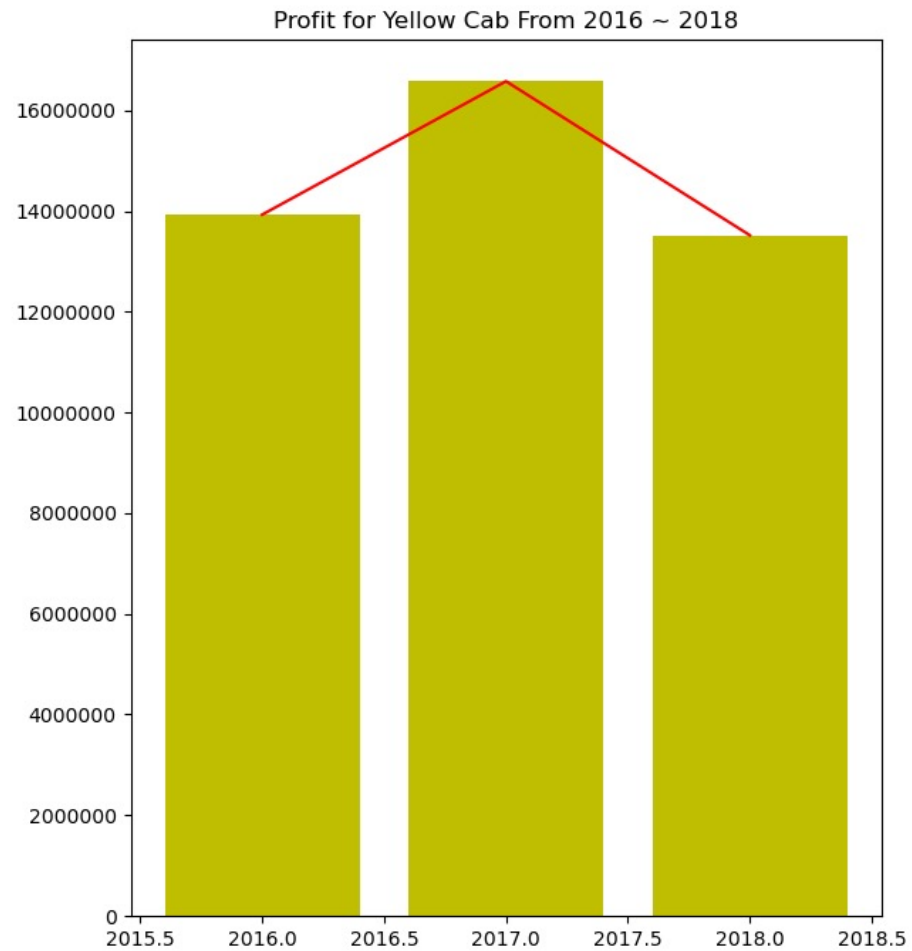
Profit Analysis



Profit Analysis

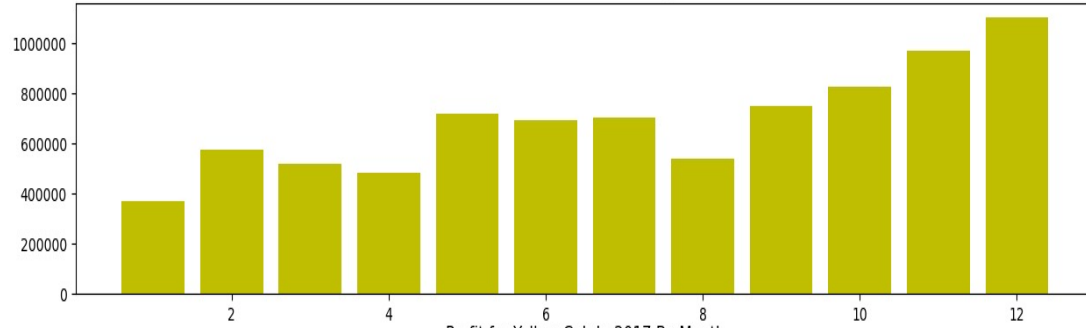


Profit - Time Series

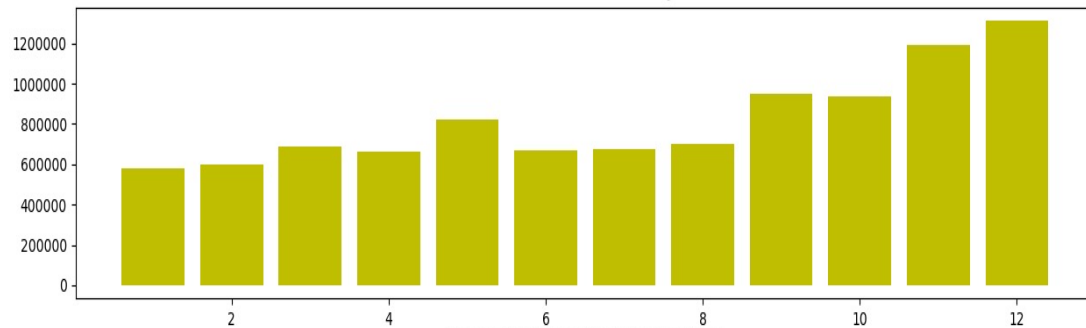


Profit - Time Series

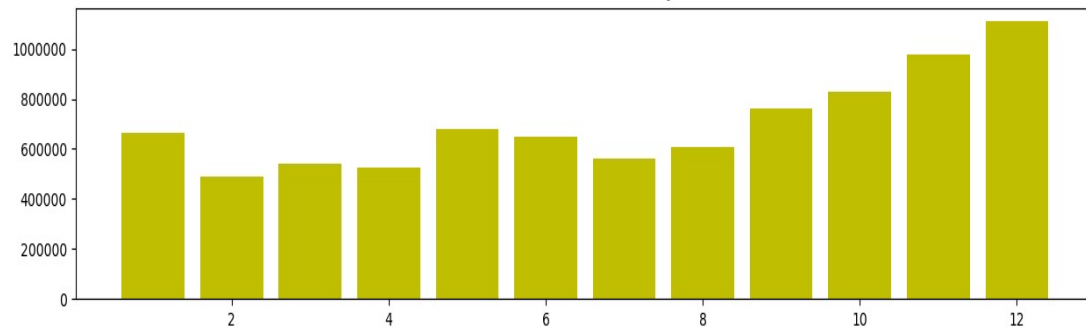
Profit for Yellow Cab In 2016 By Month



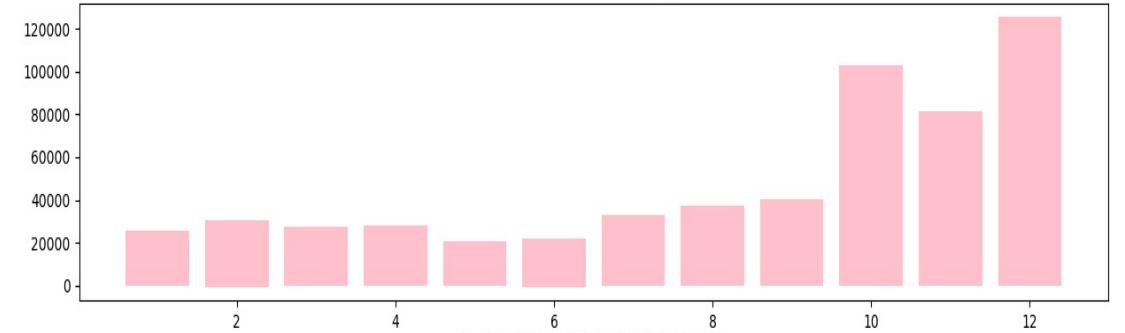
Profit for Yellow Cab In 2017 By Month



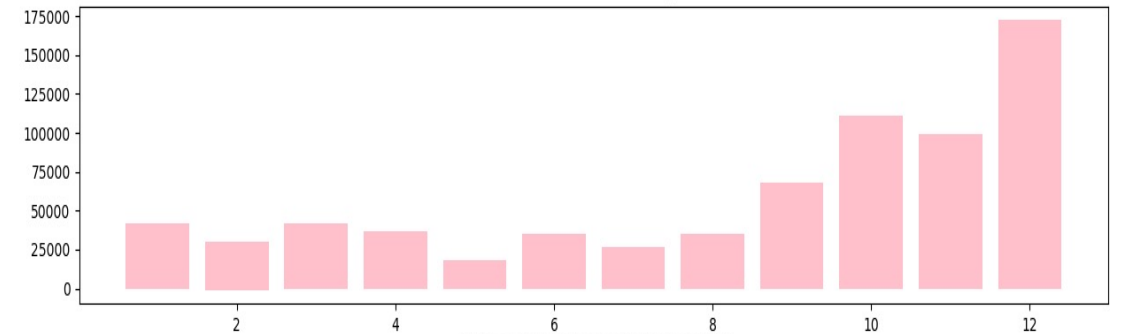
Profit for Yellow Cab In 2018 By Month



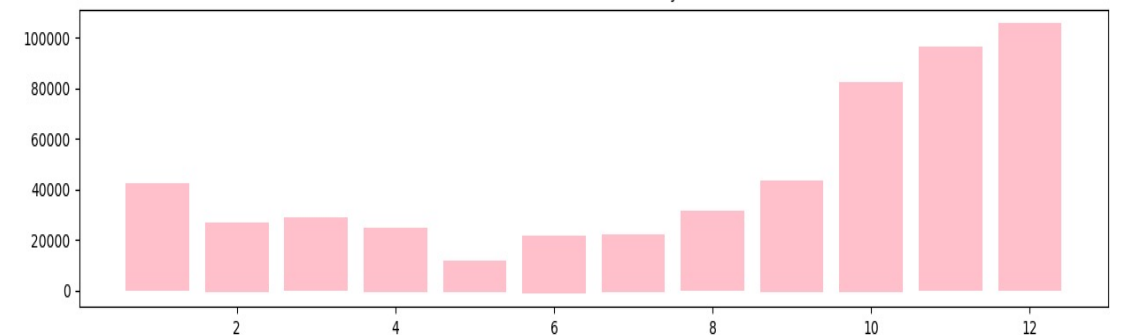
Profit for Pink Cab In 2016 By Month



Profit for Pink Cab In 2017 By Month

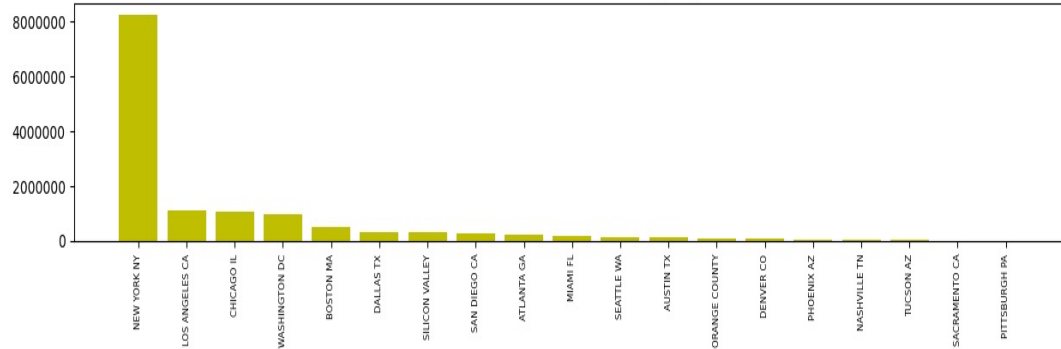


Profit for Pink Cab In 2018 By Month

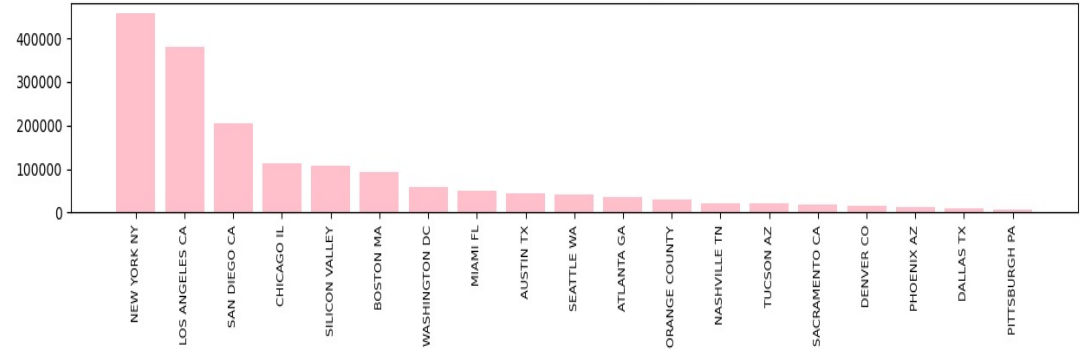


Profit - Time Series

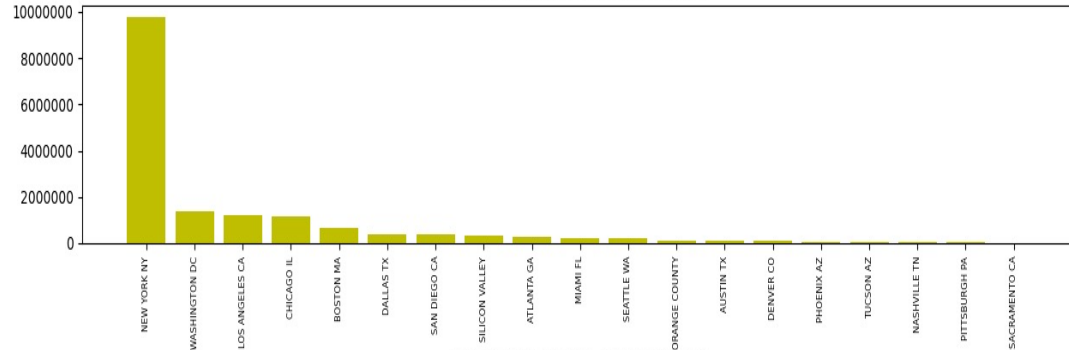
Profit for Yellow Cab In 2016 By City



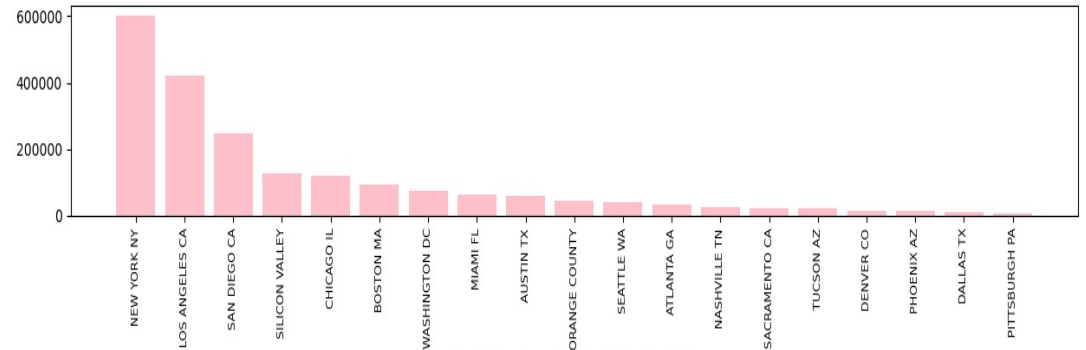
Profit for Pink Cab In 2016 By City



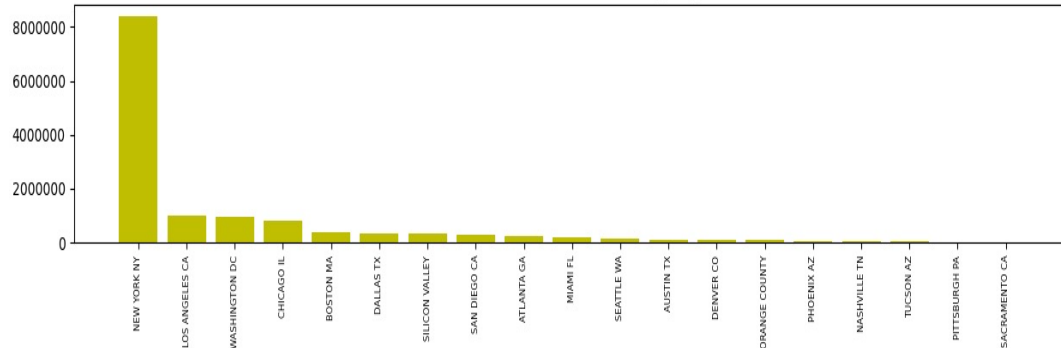
Profit for Yellow Cab In 2017 By City



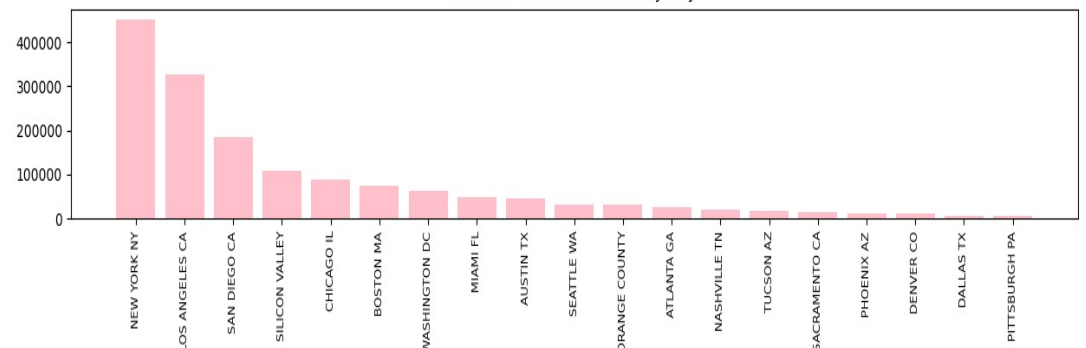
Profit for Pink Cab In 2017 By City



Profit for Yellow Cab In 2018 By City

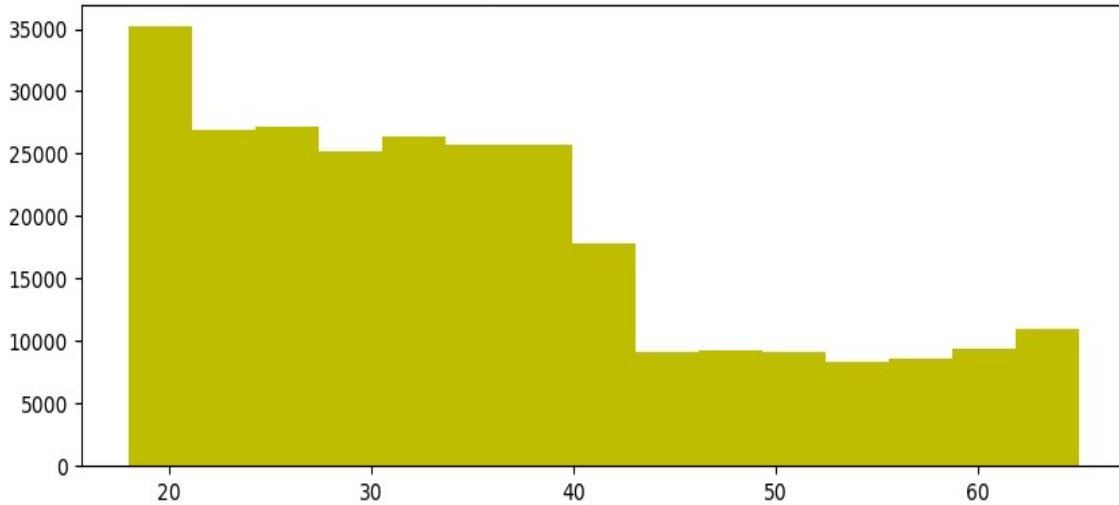


Profit for Pink Cab In 2018 By City

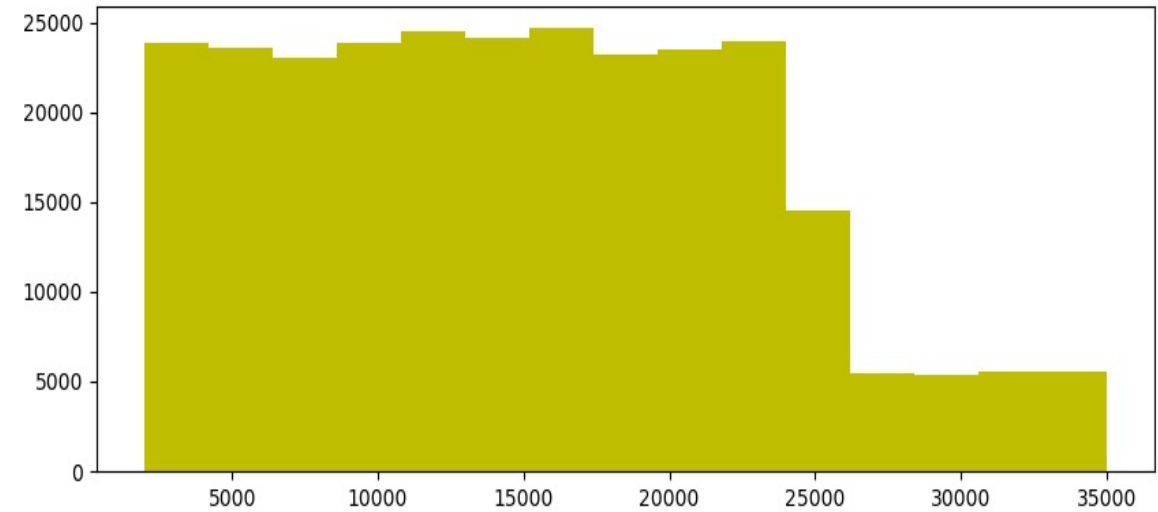


Customer Analysis

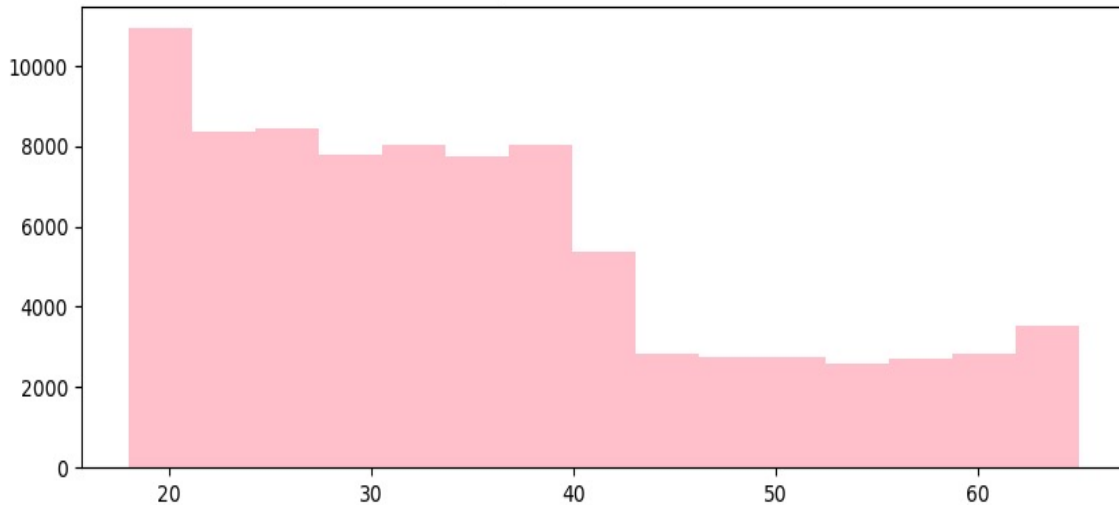
Client Age Distribution for Yellow Cab



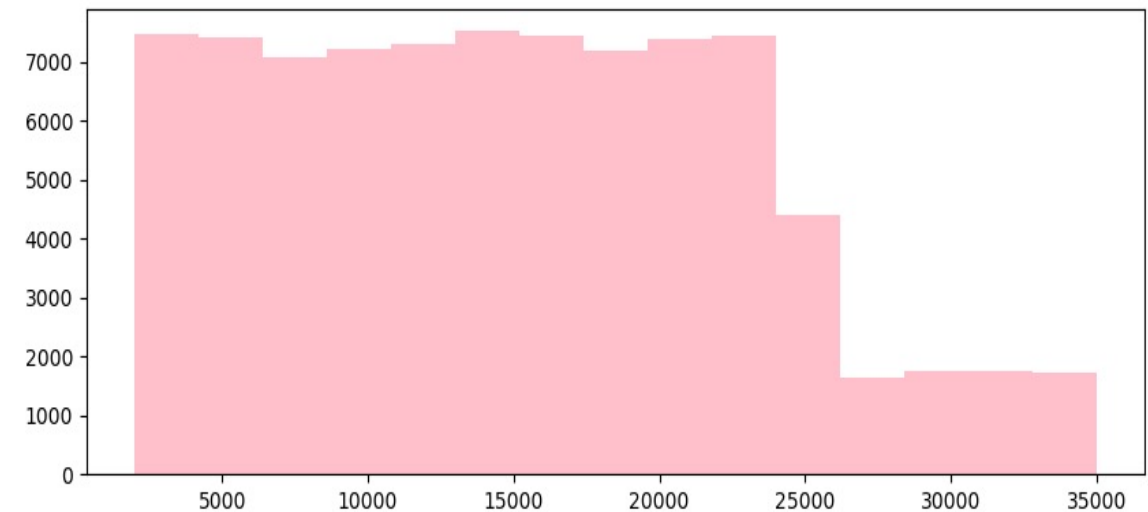
Client Income Distribution for Yellow Cab



Client Age Distribution for Pink Cab



Client Income Distribution for Pink Cab

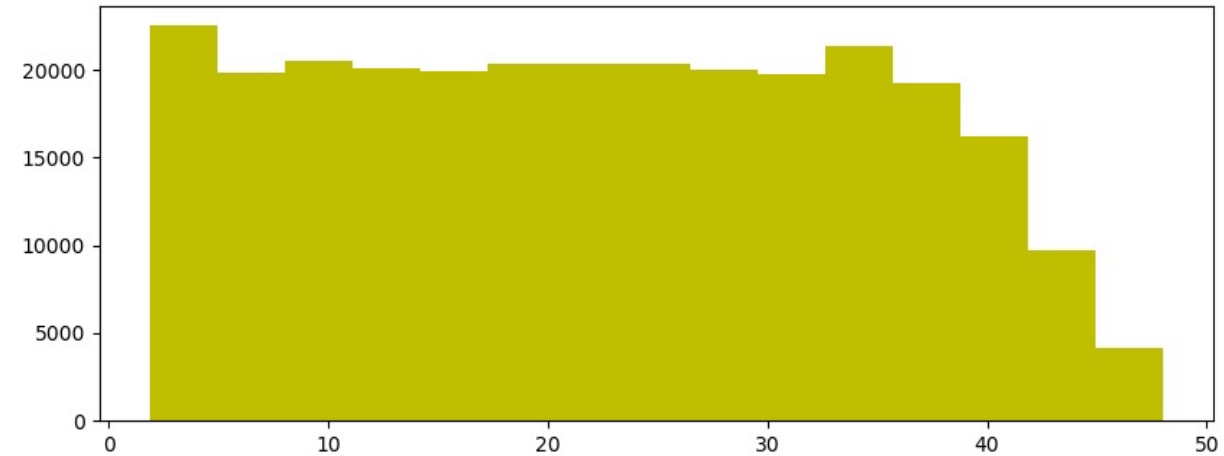


Customer Analysis

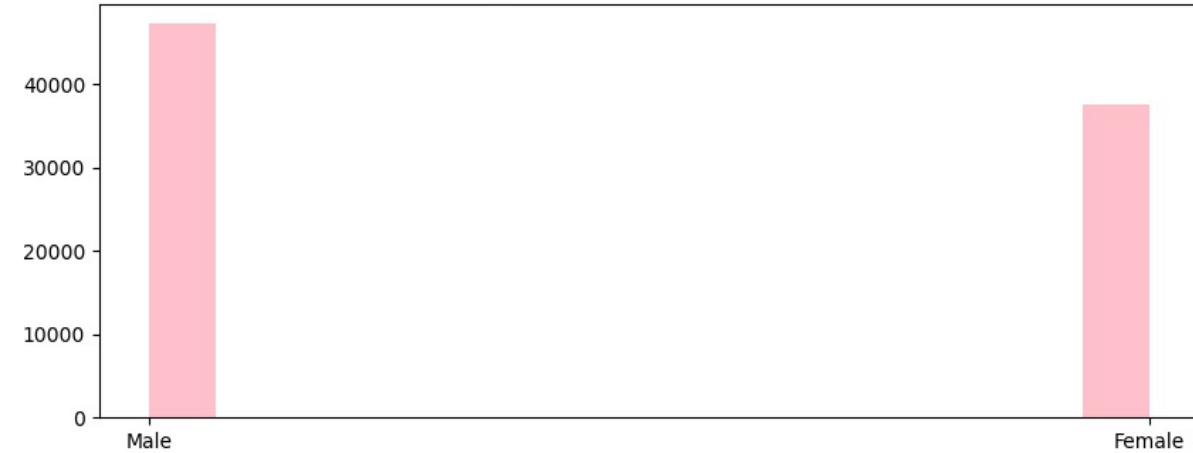
Client gender Distribution for Yellow Cab



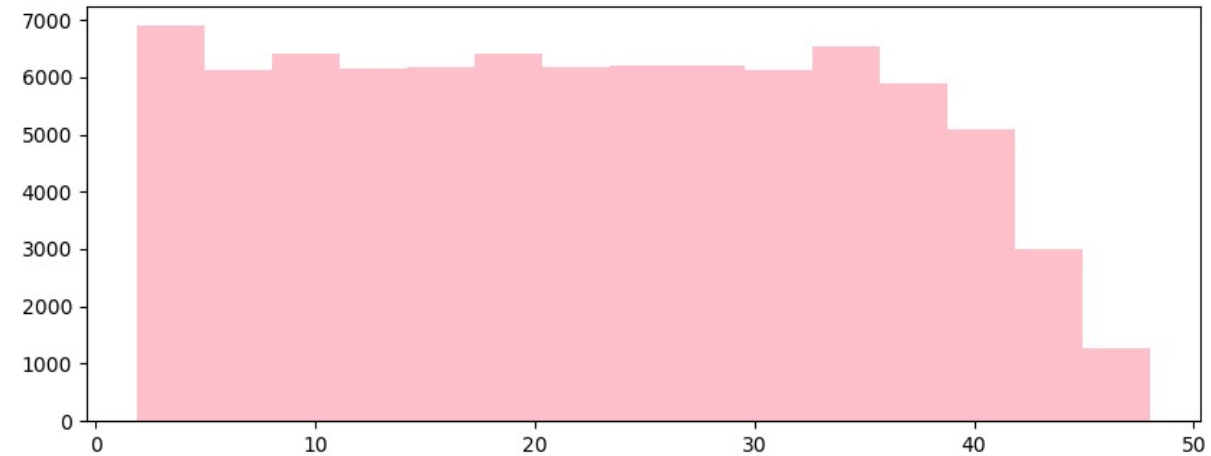
Client KM Travel Distribution for Yellow Cab



Client gender Distribution for Pink Cab

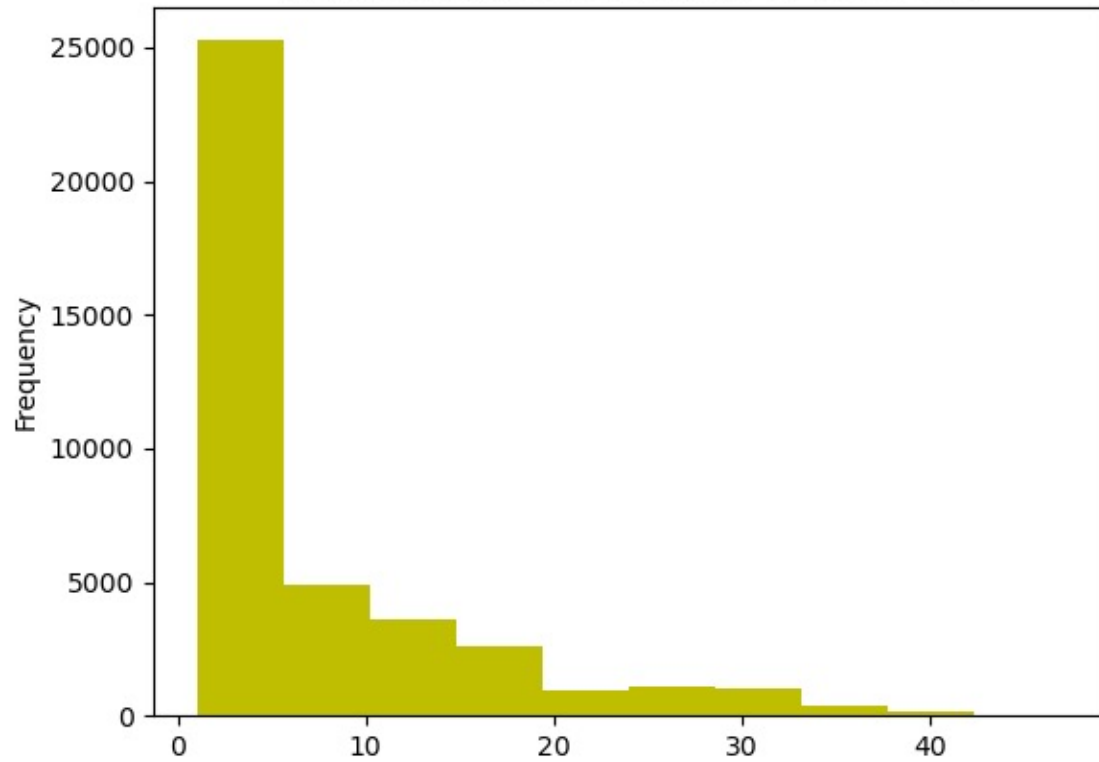


Client KM Travel Distribution for Pink Cab

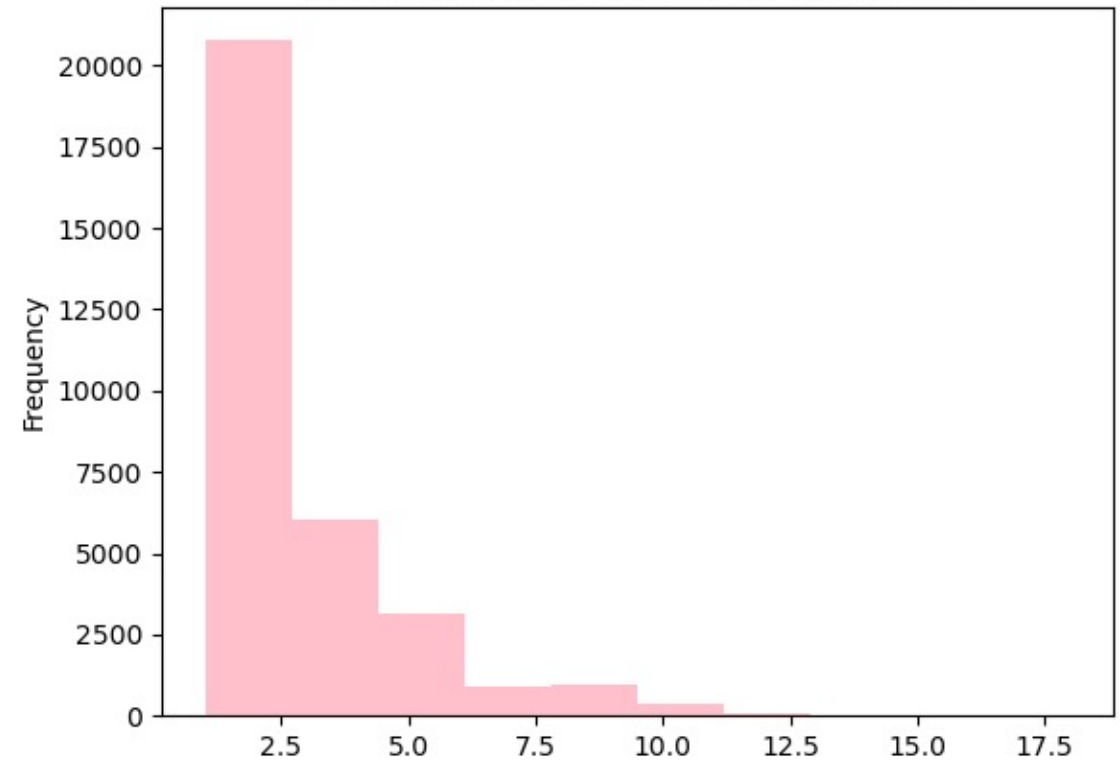


Customer Retention

Number Of Ride Distribution For Yellow Cab

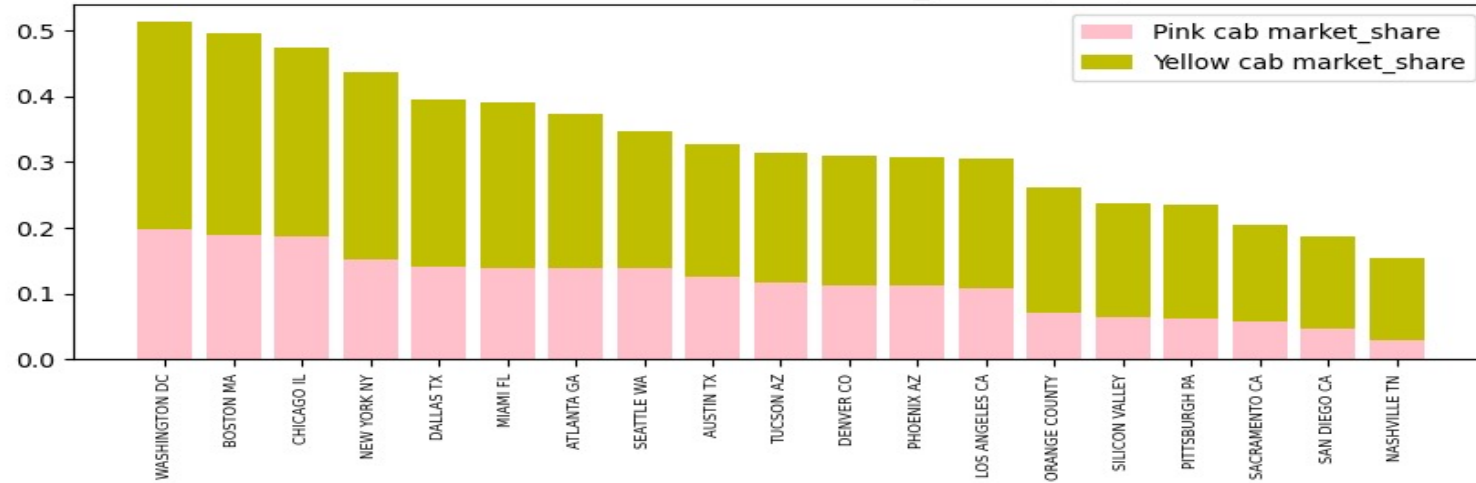


Number Of Ride Distribution For Pink Cab

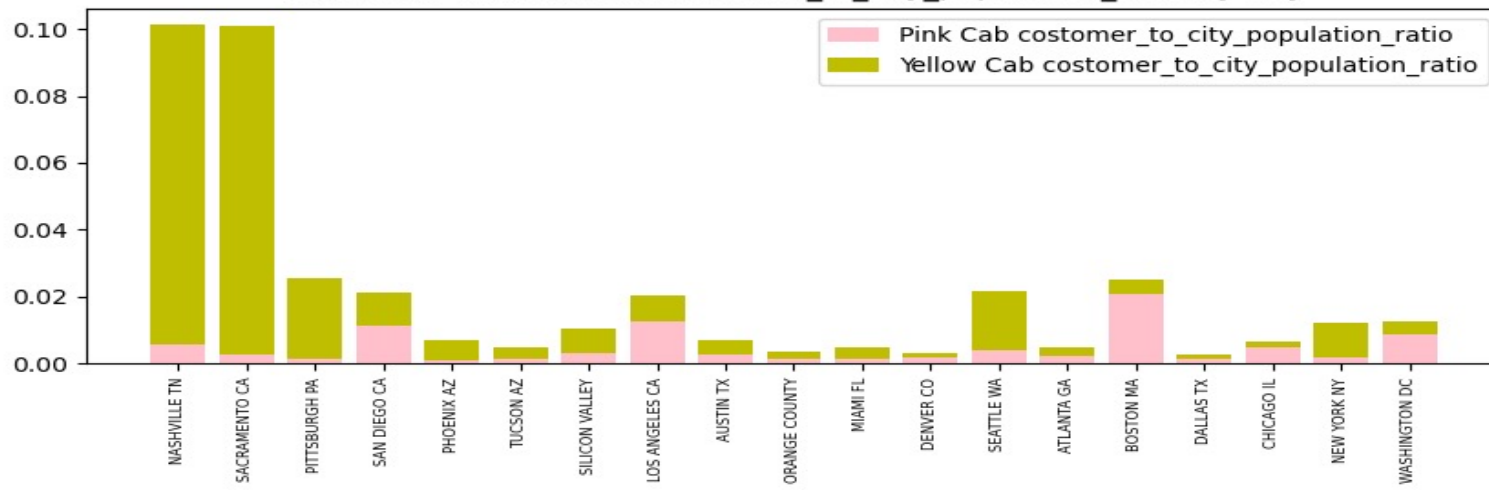


Market Share

Yellow Cab and Pink Cab Market_Share By City



Yellow Cab and Pink Cab customer_to_city_population_ratio By City



Company	Pink Cab	Yellow Cab
Customer ID_count	84711.0000	274681.0000
profit_sum	5307328.3210	44020373.1708
profit_mean	62.6522	160.2600
Age_mean	35.3224	35.3411
Income (USD/Month)_mean	15059.0471	15045.6698
Price Charged_mean	310.8009	458.1820
Cost of Trip_mean	248.1487	297.9220

Recommendations

We have evaluated both the cab companies on following points and found Yellow cab better than Pink cab:

- **Customer Reach:** Yellow cab has higher customer reach all 19 cities. We have also observed that Yellow cab is doing good in covering other cab users as compared to Pink cab.
- **Pricing:** Yellow Cab has a better pricing strategy, we observed price distribution for Yellow Cab in different city and leads to better profit
- **Market Share:** Yellow cab has a higher market share in all 19 cities.
- **Customer Retention:** we found that Yellow cab is doing far better than Pink cab in terms of customer retention.
- **Age wise Reach :** Yellow cab has customer in all age group, and it's been observed that it's even popular in 60+ age group as equally as its in 18-25 age group.
- **Average Profit per KM:** Yellow cab's average profit per KM is almost three times the average profit per KM of the Pink cab.
- **Income wise Reach :** Both the cabs are very popular in high and medium income class but here also Yellow cab is performing better than Pink cab in offering their services to all the three income class group (low, medium and high)

On the basis of above point , we will recommend Yellow cab for investment.

Thank You

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