



Data Glacier

Your Deep Learning Partner

G2M Case Study

Virtual Internship

23-Sep-2022

Agenda

Executive Summary

Problem Statement

Approach

EDA

EDA Summary

Recommendations



Background –G2M insight for Cab Investment case study

- XYZ is a private 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 XYZ firm in identifying the right company for making investment.

The analysis has been divided into four parts:

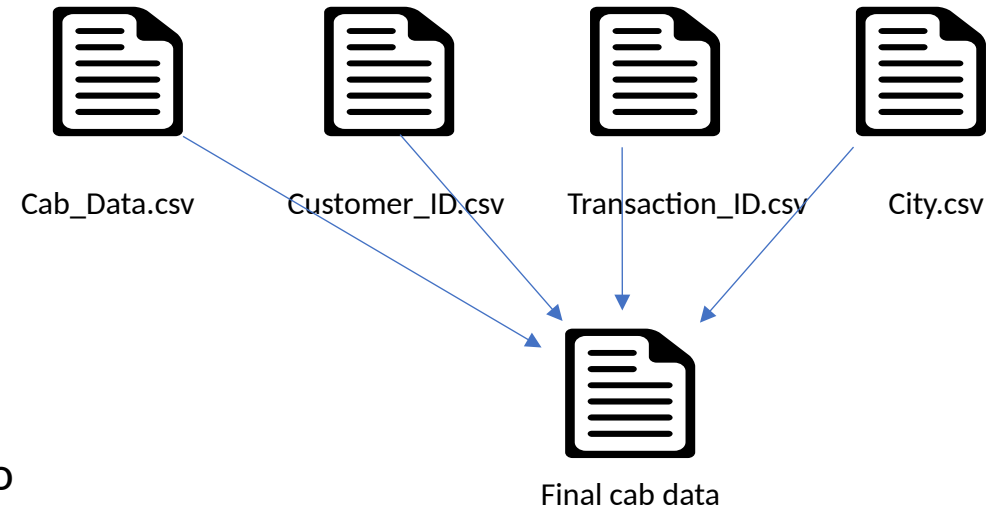
- Data Understanding
- Forecasting profit and number of rides for each cab type
- Finding the most profitable Cab company base on features
- Recommendations for investment

Data Exploration

- 14 Features
- Timeframe of the data: 2016-01-31 to 2018-12-31
- Total data points :359,392

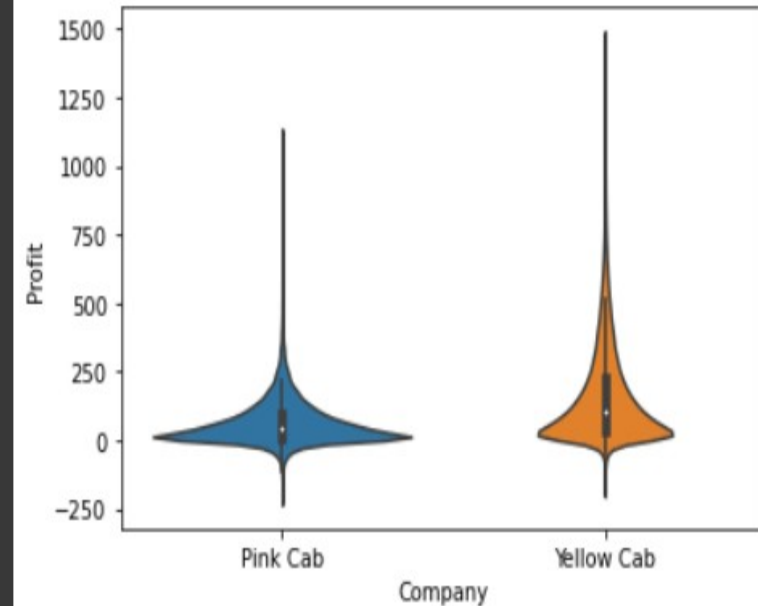
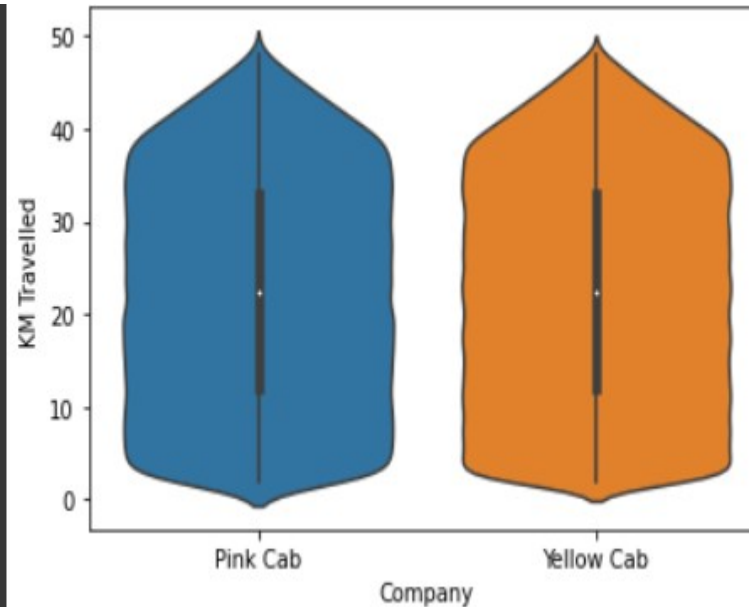
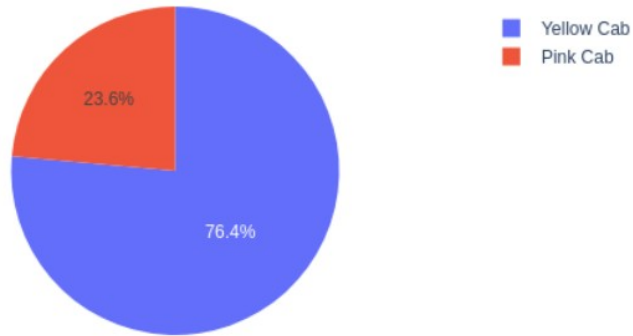
Assumptions:

- 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)



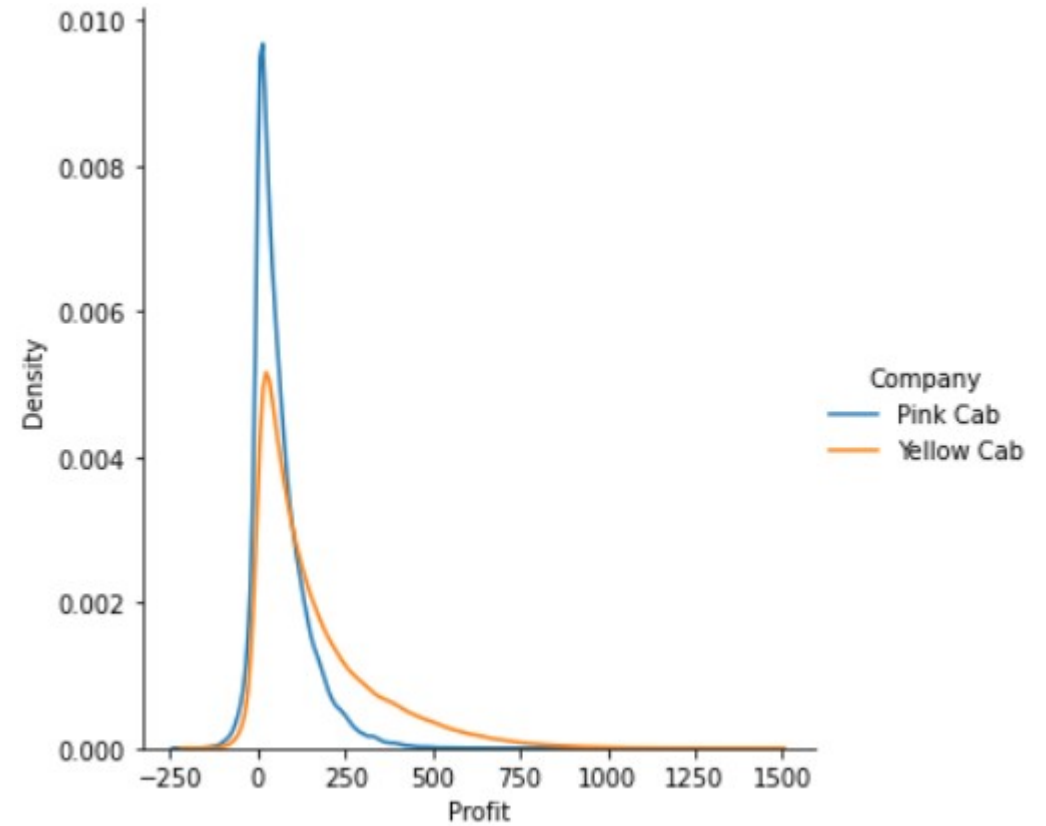
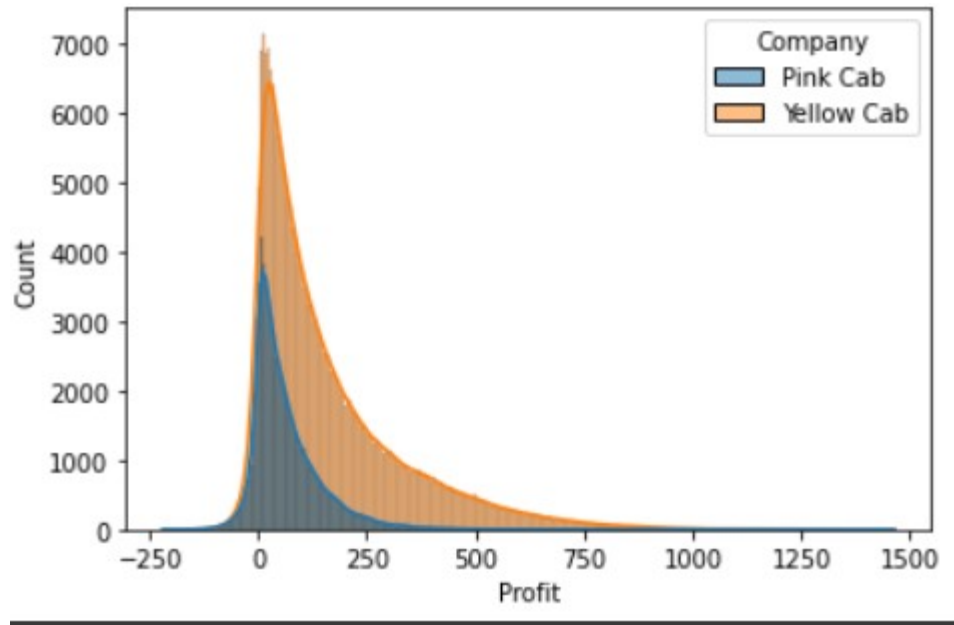
Profit Analysis

Percentage of profit per Company

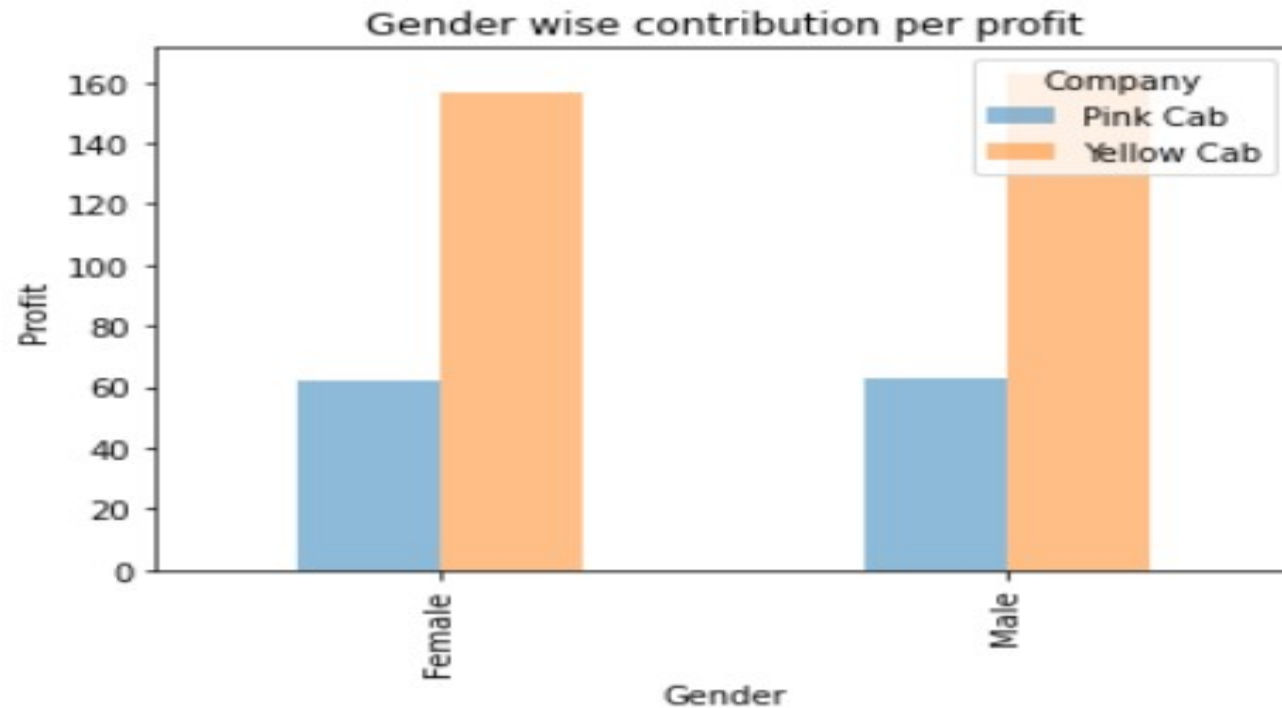


Company	Profit	Total Rides
Pink Cab	5,307,328	84,711
Yellow Cab	44,020,373	274,681

Density Profit Analysis



Profit and customer base Analysis Gender wise



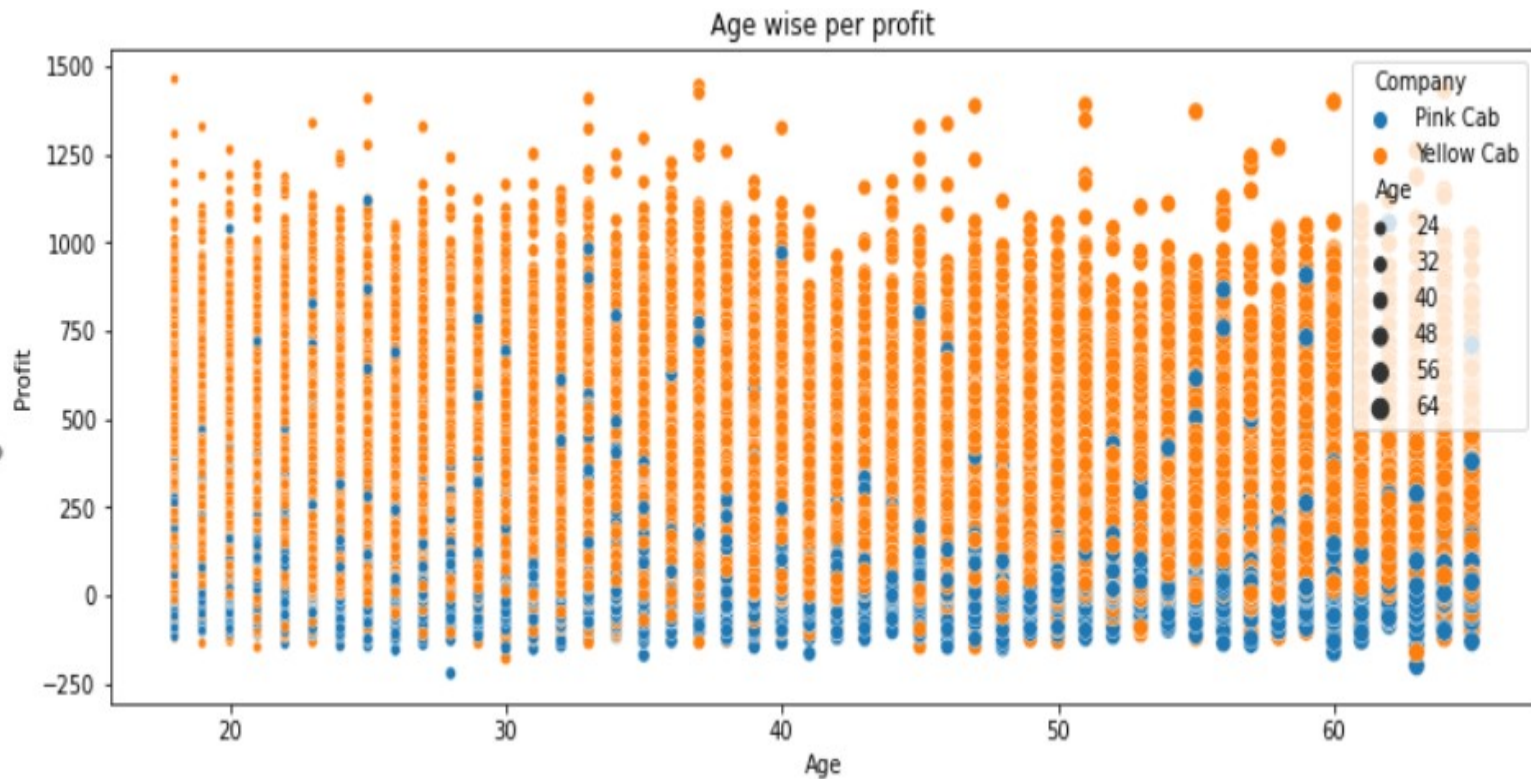
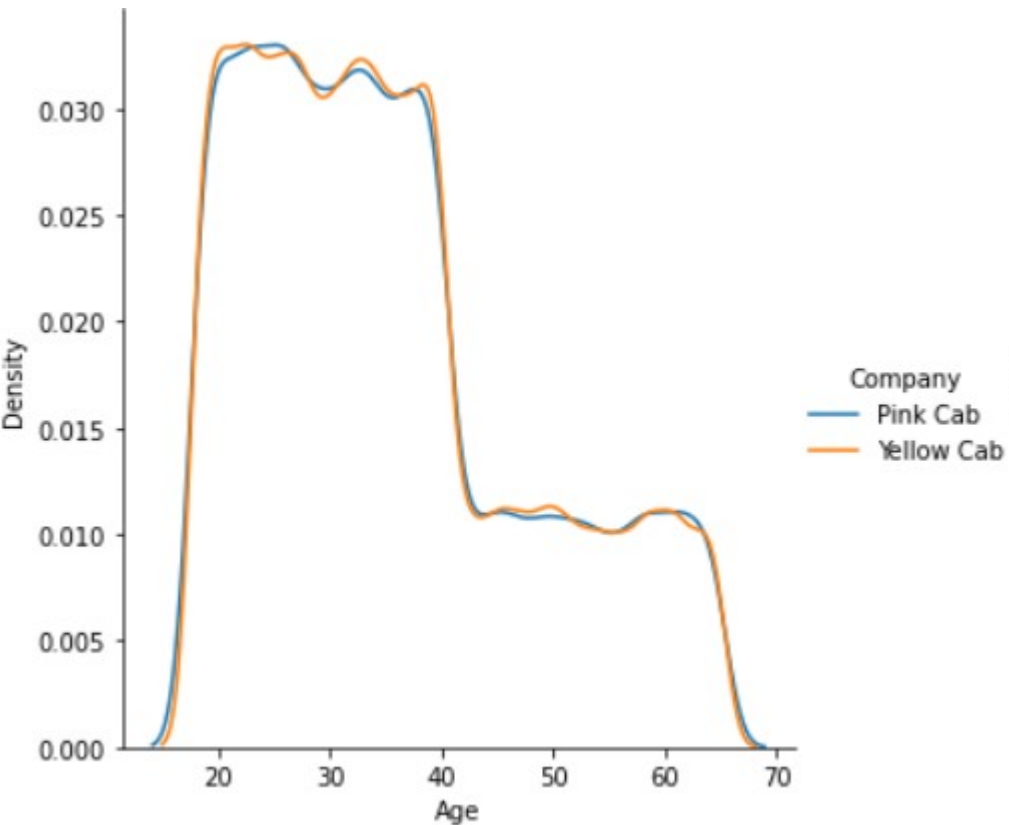
There is almost equal distribution of gender in the Profit and customer base of both the cabs and whenever the gender, Yellow Cab shows high distribution.

Income Class wise Profit and customer base Analysis



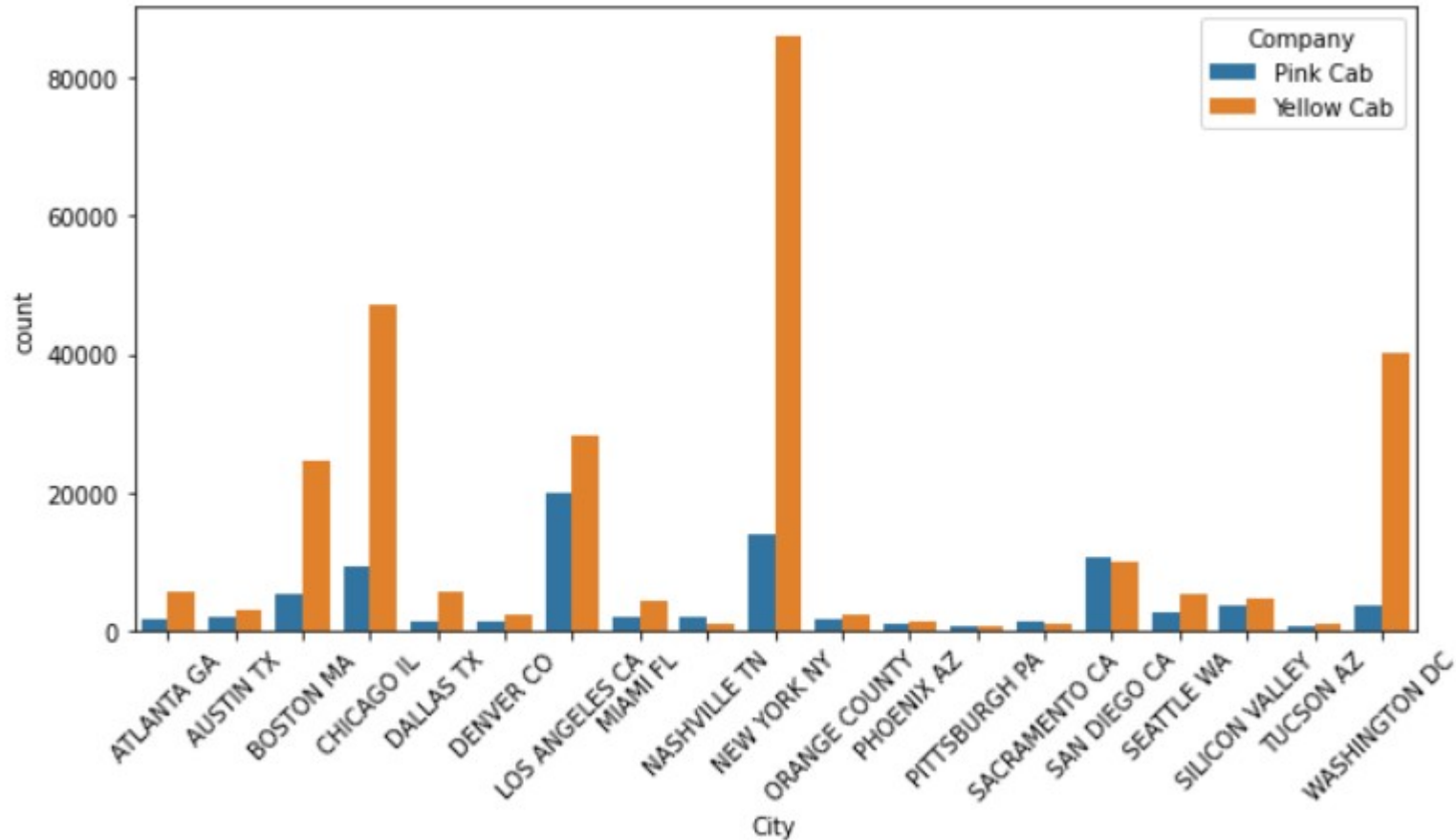
Middle class and high class contributes more in the profit as well as in the customer base of both the cabs and we can see high contribution for the Yellow Cab company

Age GroupWise Profit And Customer Base Analysis



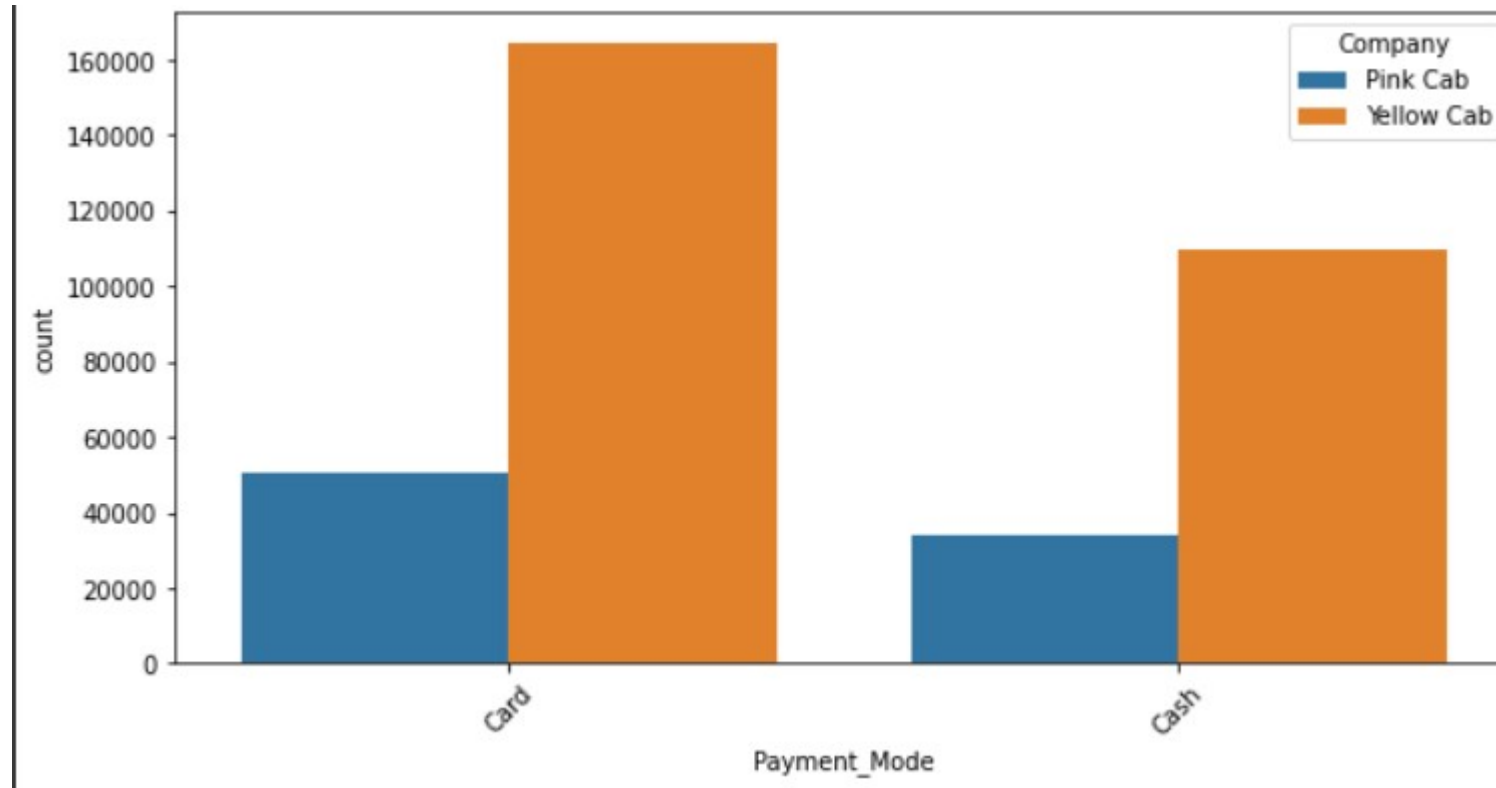
People between 15-40 contribute more in the profit as well as in the customer base of both the cabs and we can see high contribution for the Yellow Cab company

City Wise Cab Users Covered By Company



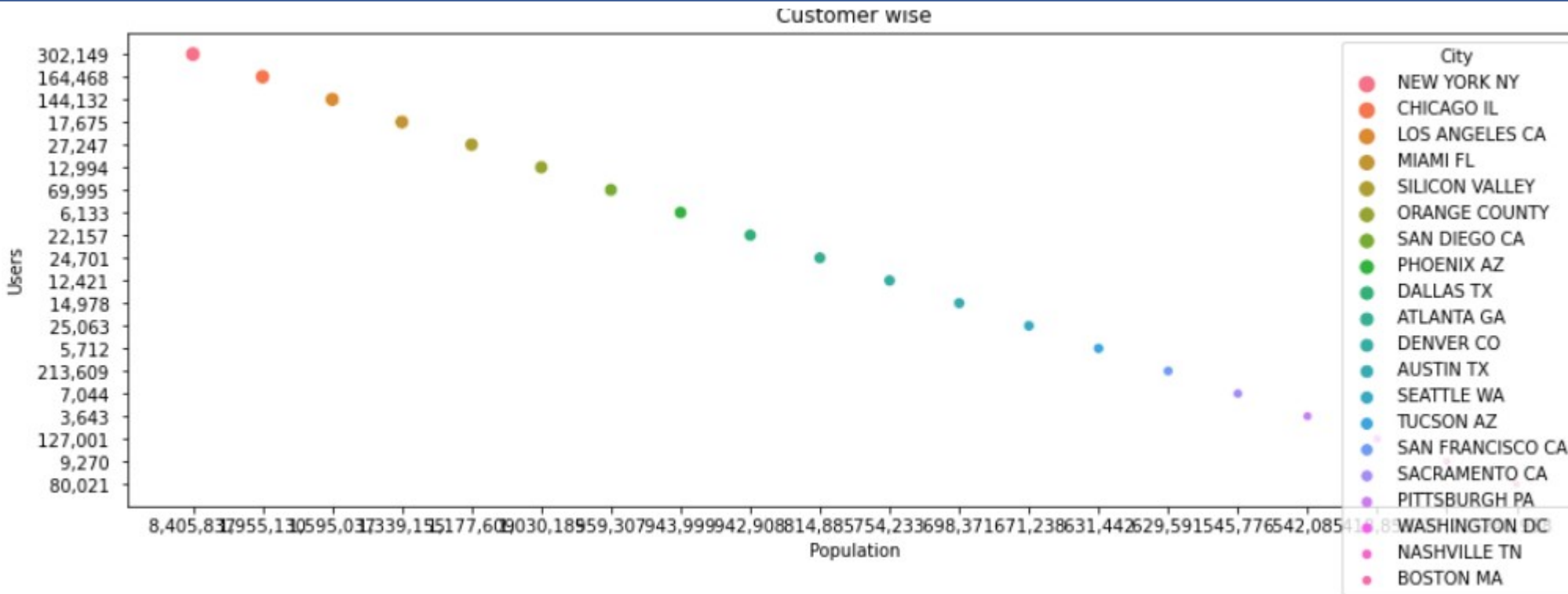
- This is the number of users covered by Yellow and Pink cab In the city against **all cab users** present In the city

Payment method wise



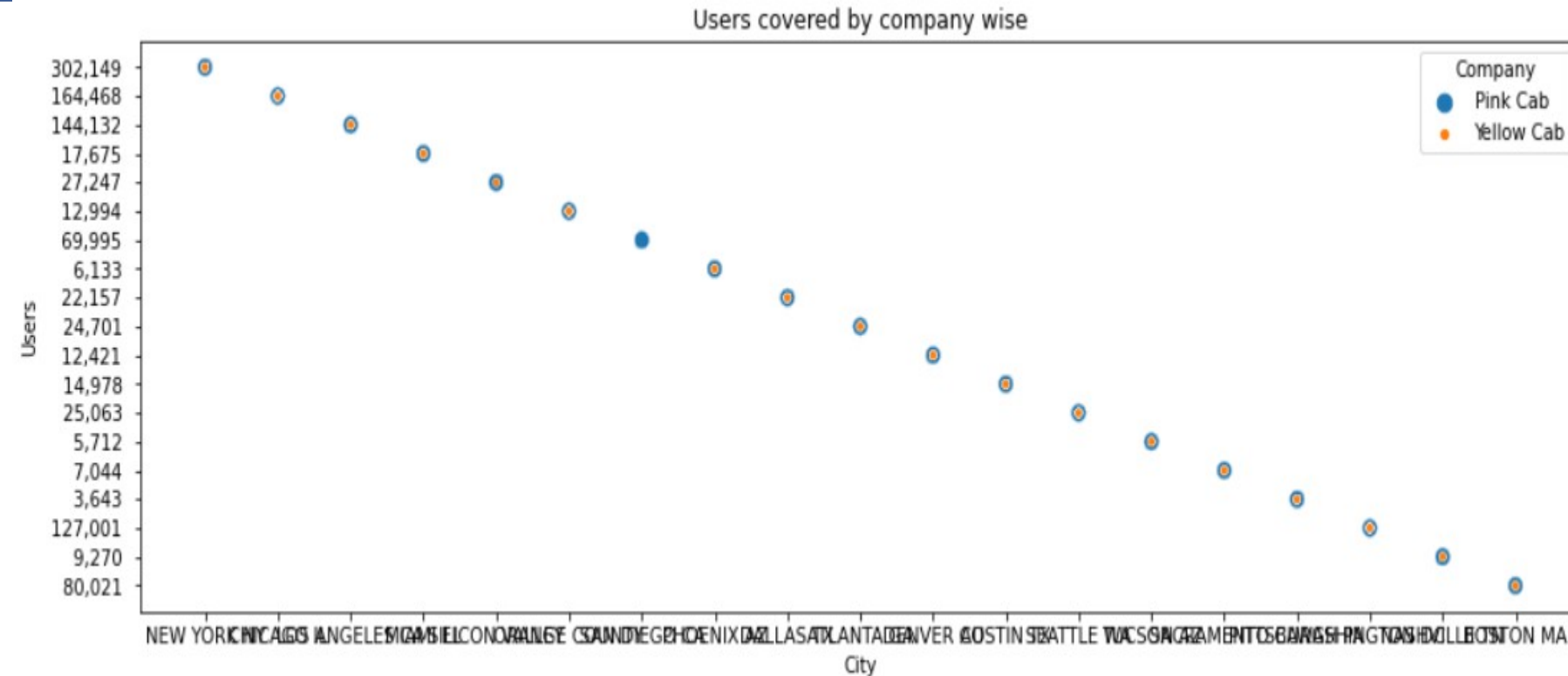
- People use more Card than Cash for both cabs

Customer Presence in the city



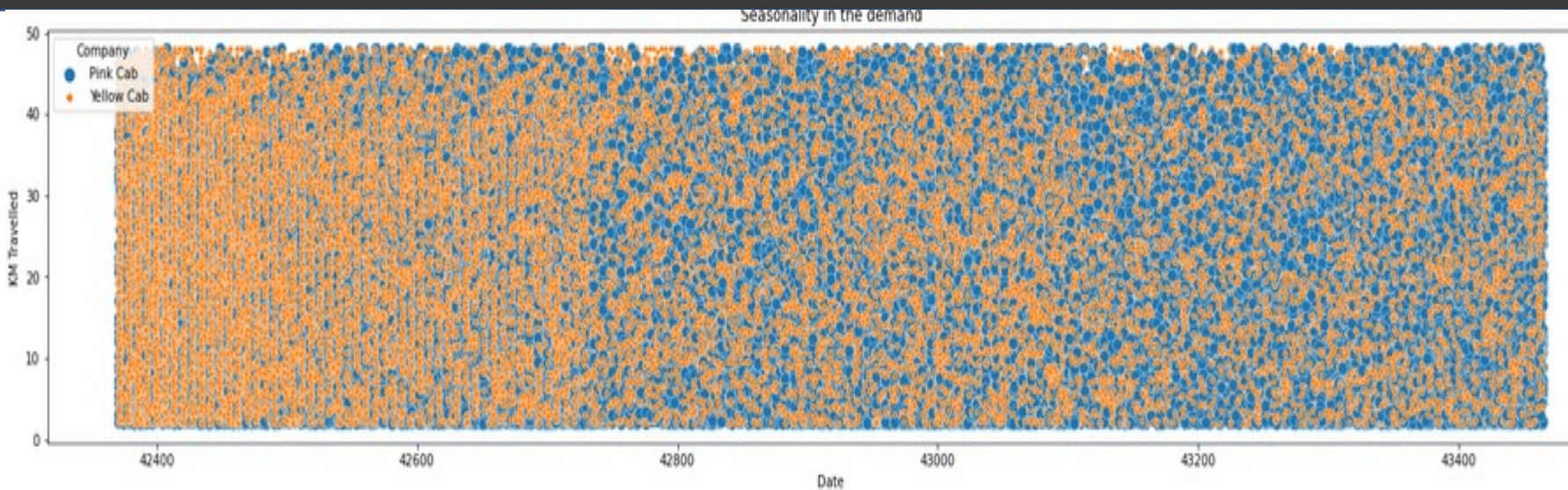
- Customers are more present in the cities below:
 - New York NY
 - Chicago IL
 - Los angeles CA
 - MiamiFL

User Covered by Company wise

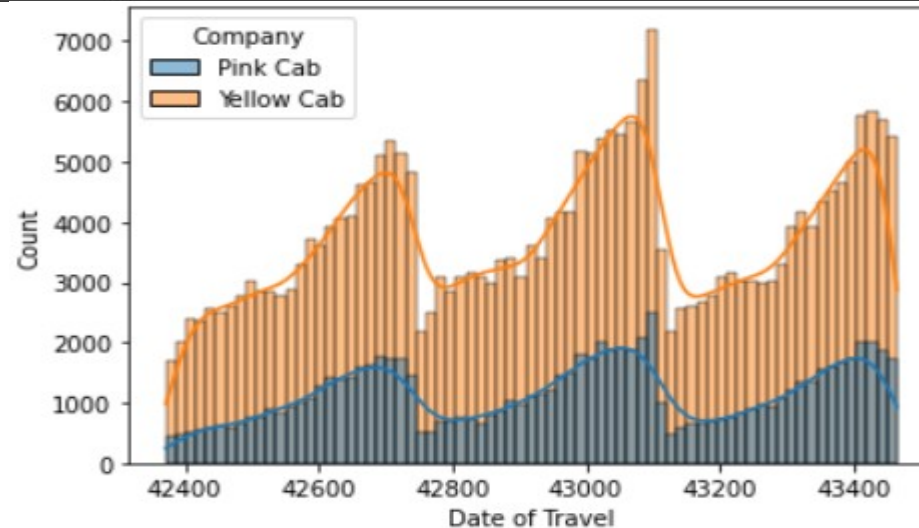


- Yellow cab higher customer base as compared to Pink cab.
- There is an equality distribution of Yellow Cab and Pink Cab at Diego city

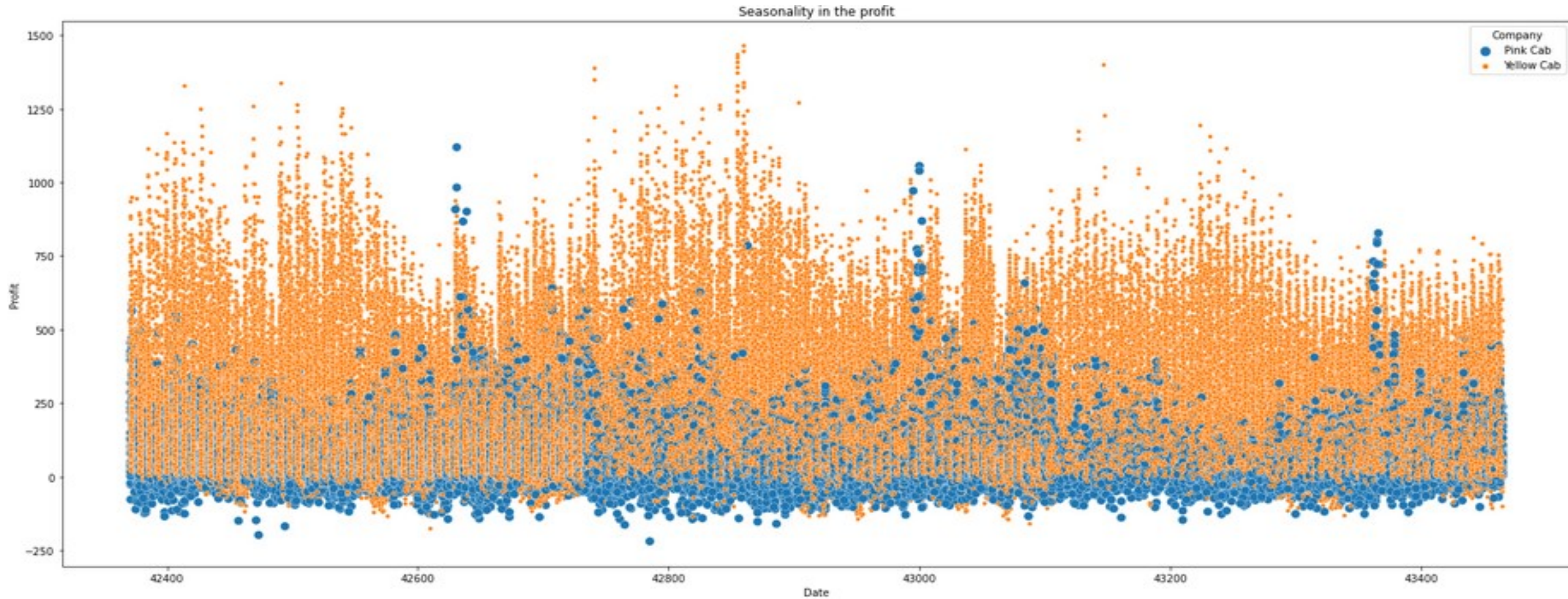
Seasonality in the demand



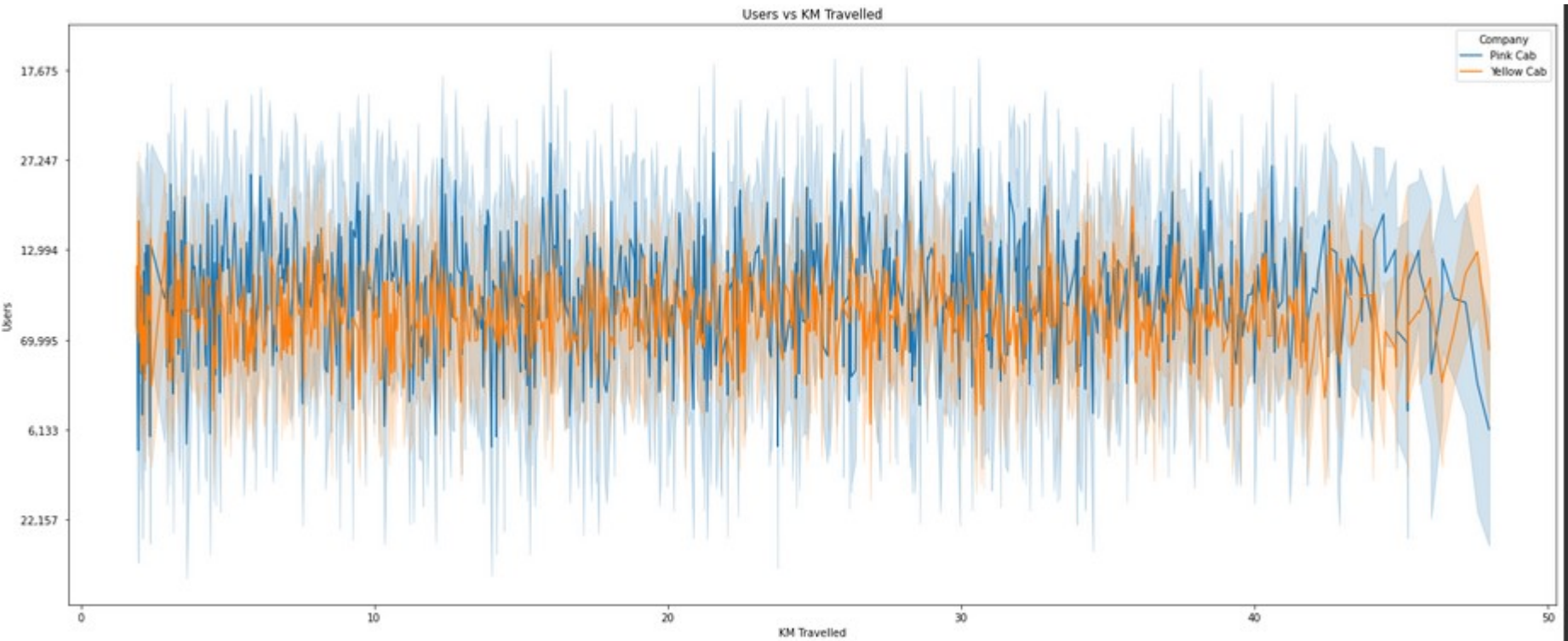
Seasonal component is present in both the cabs.
Demand is high from 43000 and is repeat after a certain number of days



Seasonality in the Profit



Customer analysis based on ride distance



Customers for Yellow Cab are almost constant for short, medium and long Trip. Which shows yellow cab is offering better customer plan for short, medium and long Trip.

5-40 KM trips are contributing more in both the cabs profit

There is a huge difference between yellow and pink cab in customer reach for short and long trip. Yellow cab has very good customer reach in this segment as well

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 while Pink cab has lower customer reach . We have also observed that Yellow cab is doing good in covering other cab users as compared to Pink cab.
- **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 18-30 age group.
- **Profit and City wise Reach:** Yellow Cab has a higher total number of profit than Pink Cab whenever the city which means that there is a high demand of using Yellow Cab.
- **Payment mode wise Reach:** We can observe that customers pay more by card and Yellow Cab has a high percentage than Pink Cab which means that the more customers use card, they most likely to use the Cab.
- **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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