



Data Glacier

Your Deep Learning Partner

G2M Case Study

Virtual Internship

20-May-2023

Presenter : Nayab Fatema Aftab Sulemani

Background –G2M(cab industry) case study

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

The analysis has been divided into four parts:

- Data Understanding and Cleaning
- Calculating Price Charged using Regression Models
- Forecasting profit and number of rides for each cab type
- Finding the most profitable Cab company & giving recommendations for investment
- Finding the Cheapest Cab Company
- Segmenting the Customers and identifying the characteristics for each segment
- Performing Multiple Hypothesis

Data Exploration

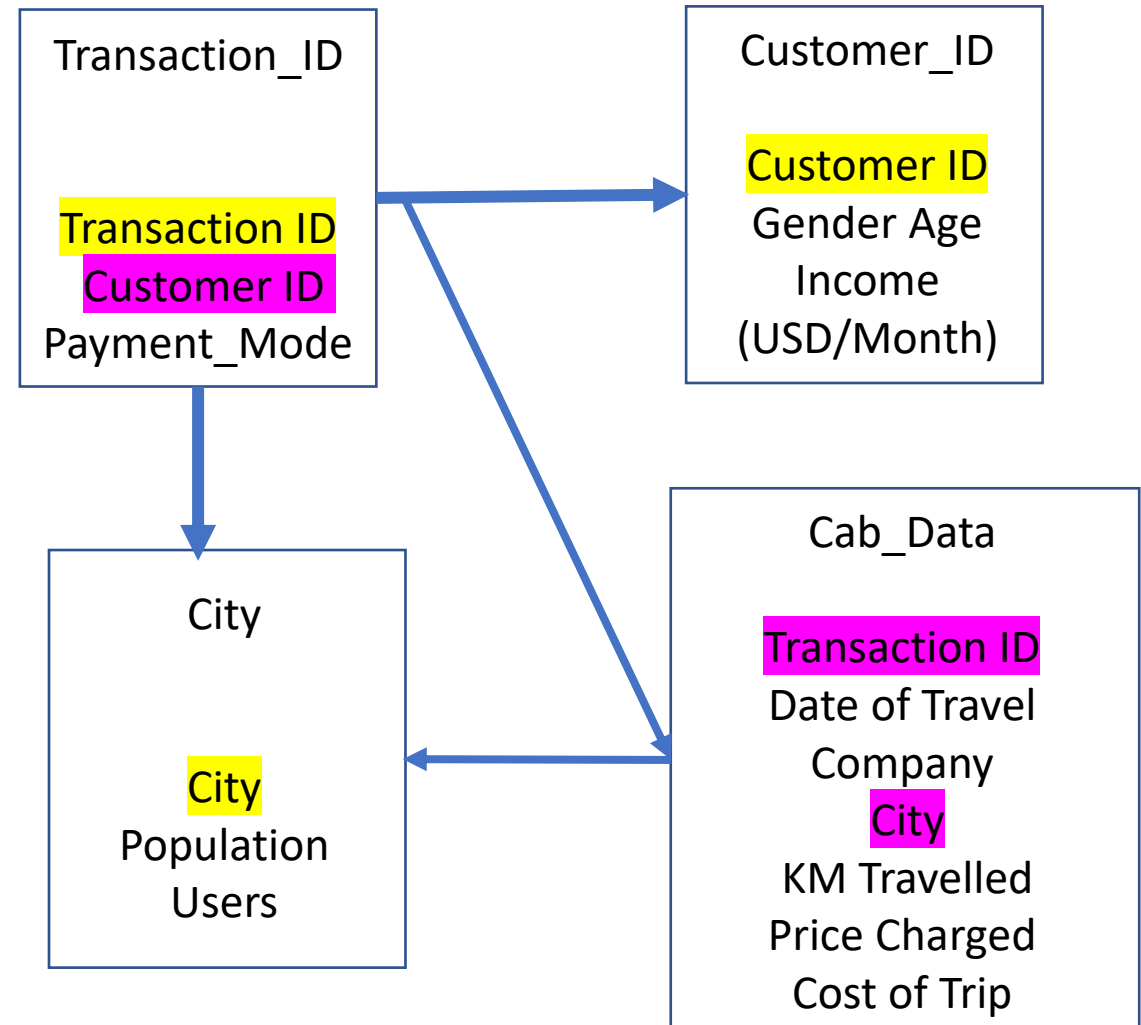
- 12 Features(including 3 derived features)
- Timeframe of the data: 2016-01-31 to 2018-12-31
- Total data points :355,032

Assumptions:

- 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.

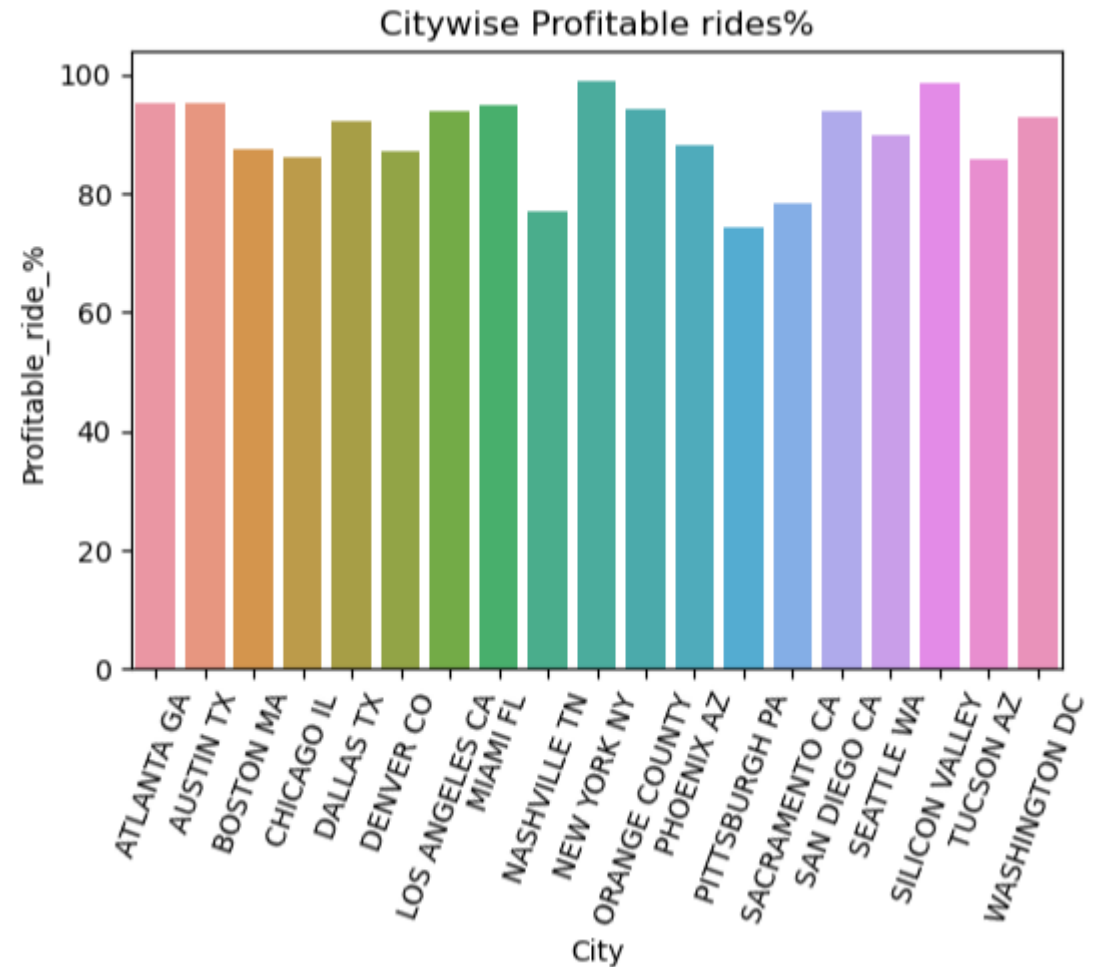
Relationship between the Tables

Highlighted yellow value indicates the primary Key
Highlighted pink value indicates the secondary Key



Profit Analysis

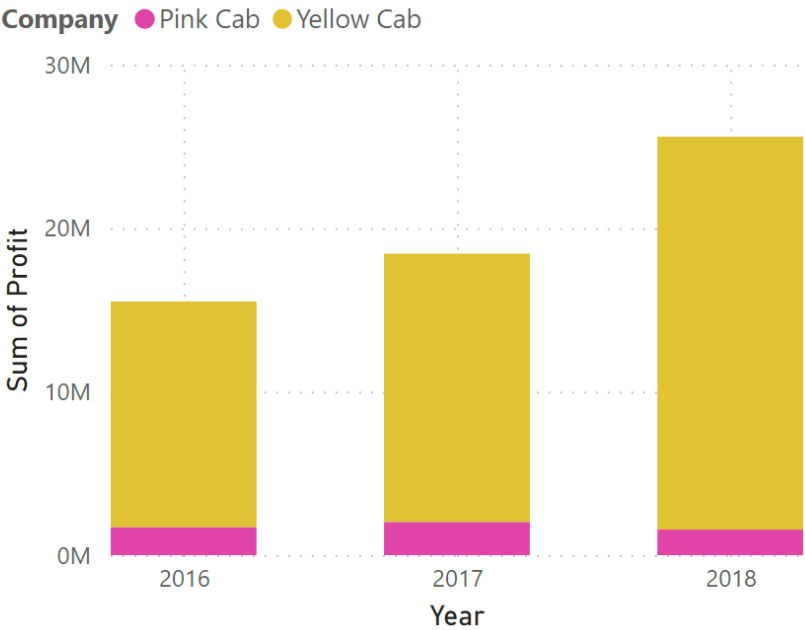
Company	Profit in '000	Total trips	Profit per ride
Pink Cab	5313.35	84795	62.66
Yellow Cab	54228.56	355539	152.52



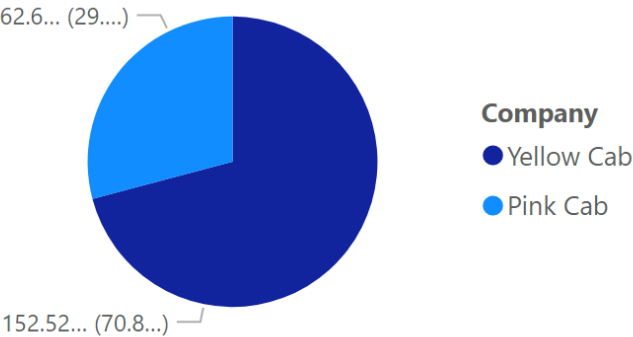


Profit wise Analysis

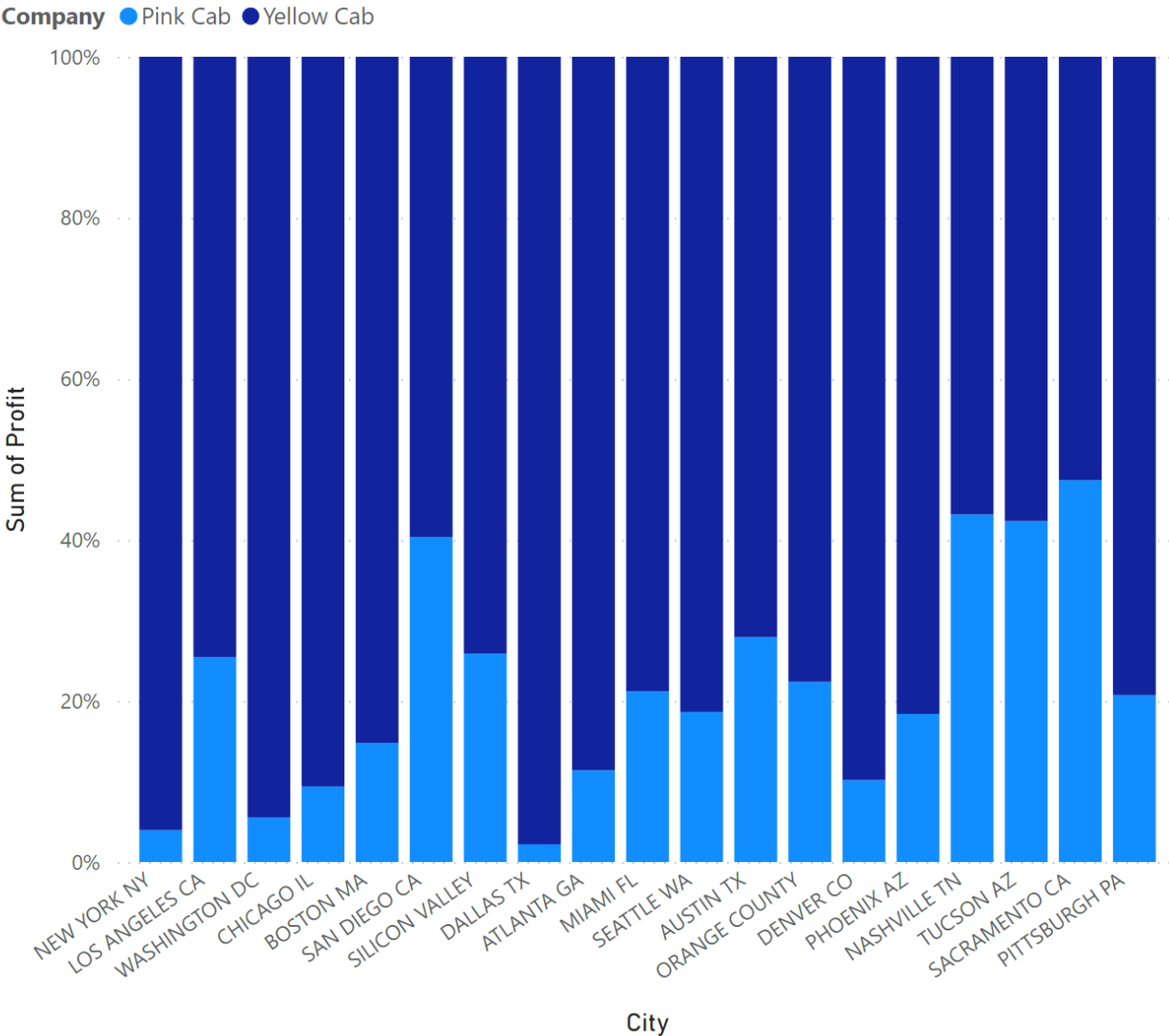
Yearwise Profit per Company



Average of Profit by Company



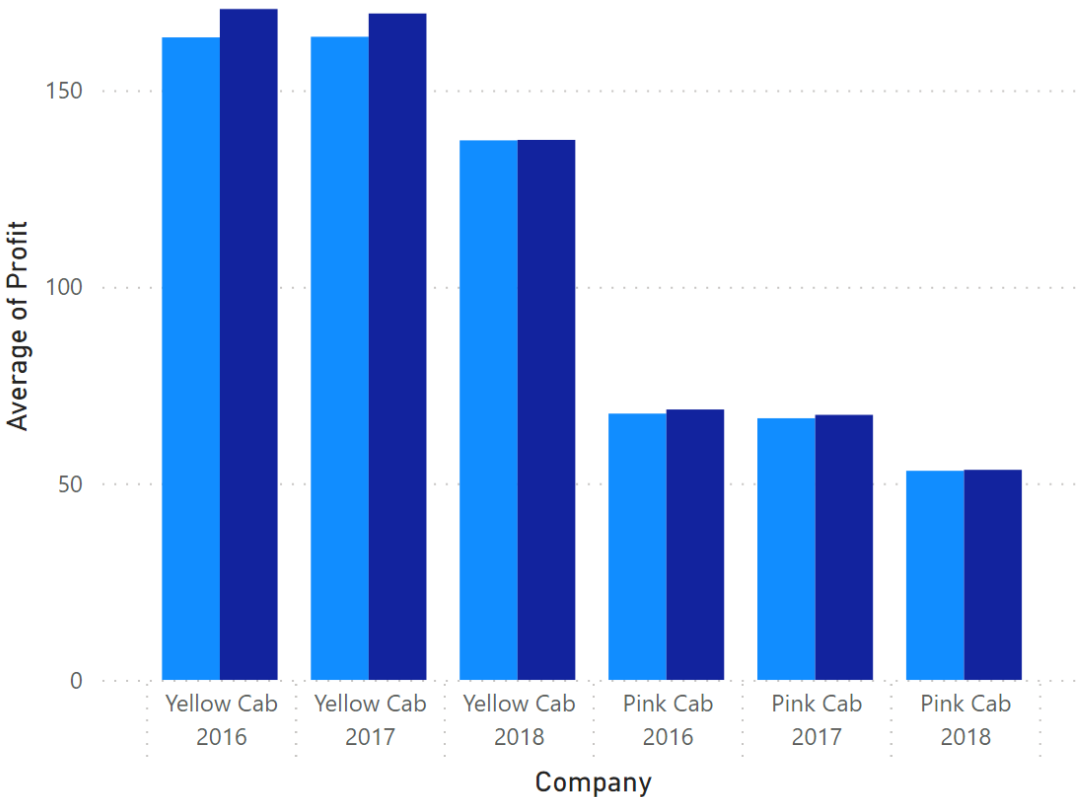
City wise Profit per Company



Profit and Customer Analysis based on Gender

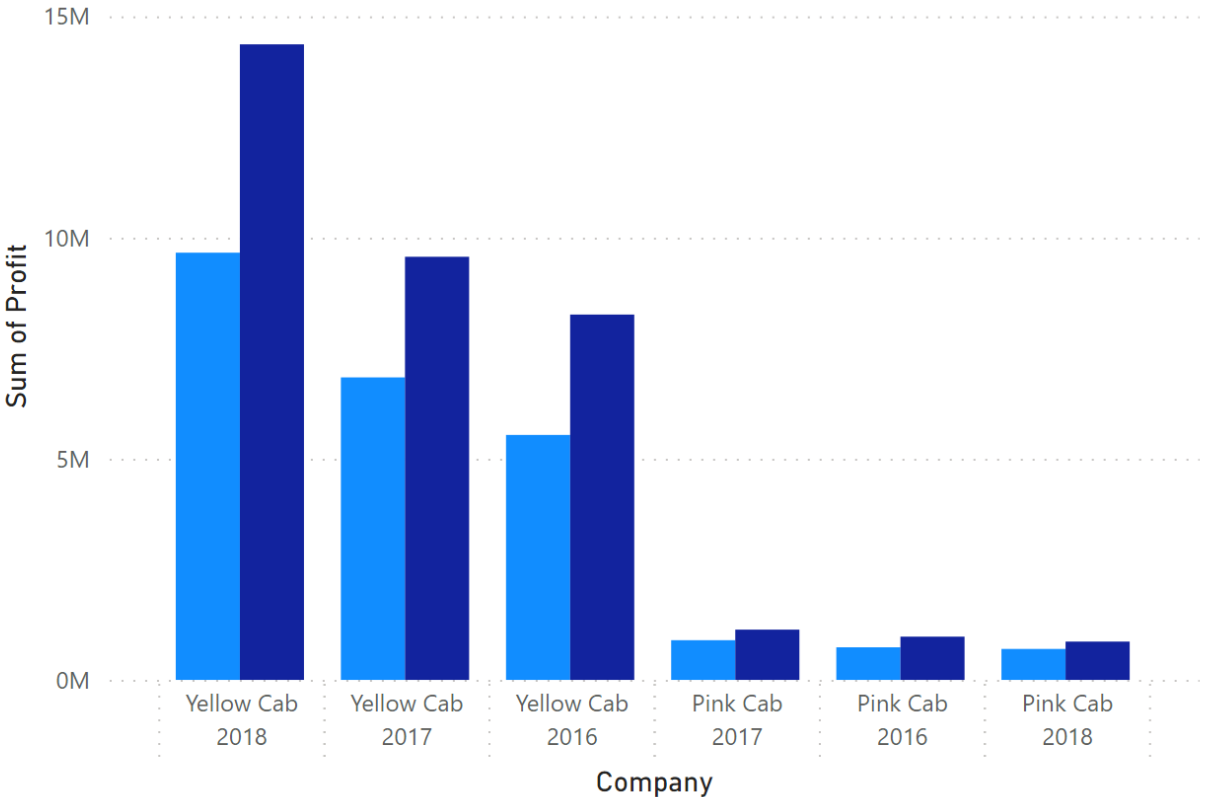
Gender wise Profit

Gender Female Male



Gender wise Customers

Gender Female Male

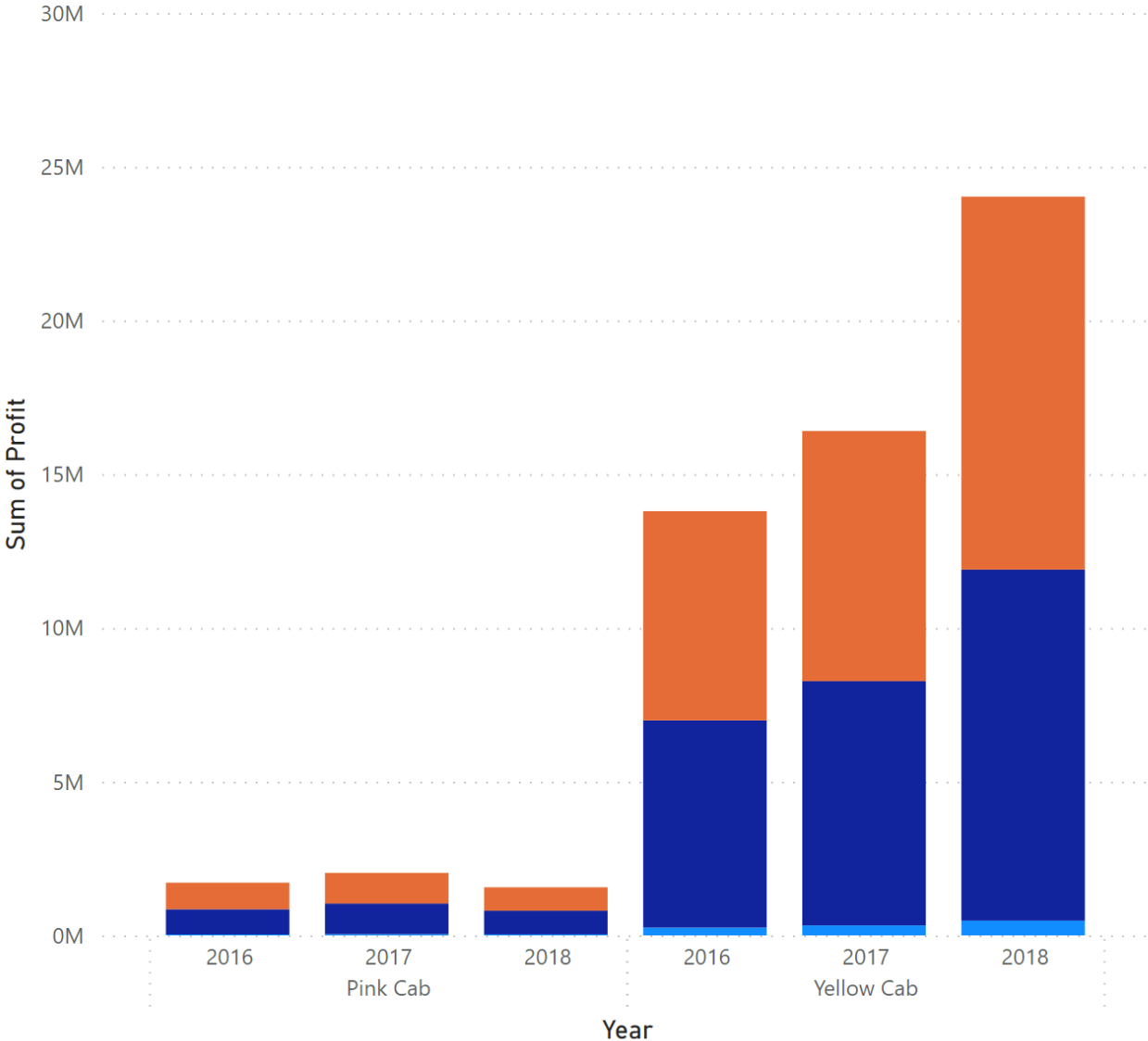


The number of Customers , and Profit distribution is almost equal for both Genders

Profit and Customer Analysis based on Income

Income wise Profit

Class ● Lower Class ● Middle Class ● Upper Class

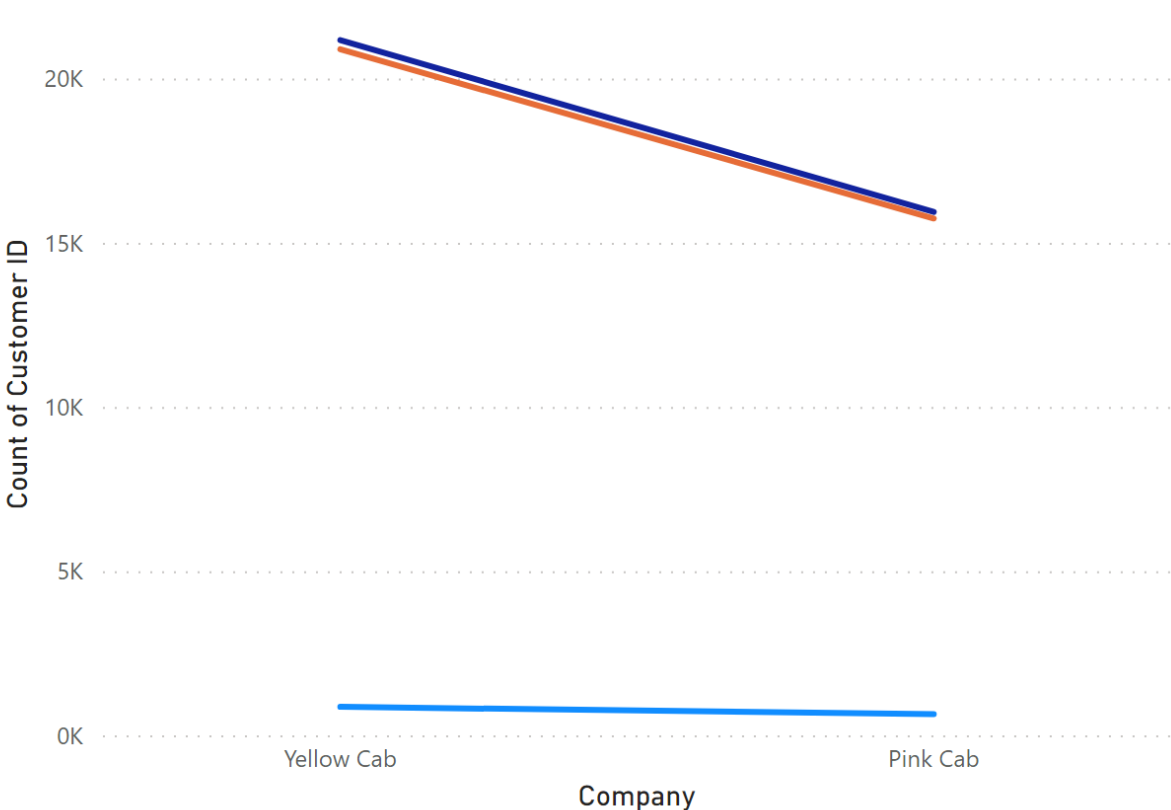


Class

Lower Class
Middle Class
Upper Class

Class wise Customers

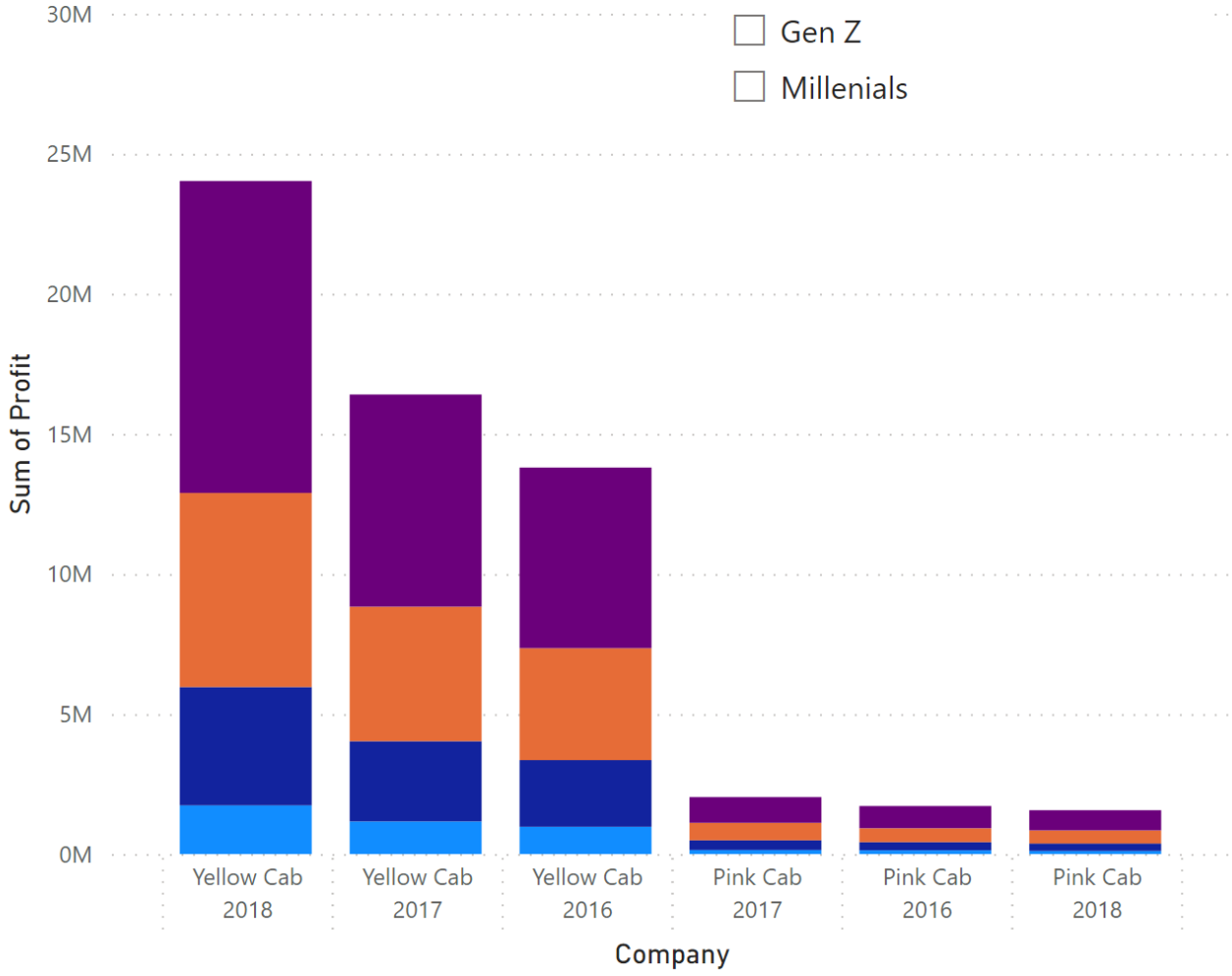
Class ● Lower Class ● Middle Class ● Upper Class



Profit and Customer Analysis based on Age

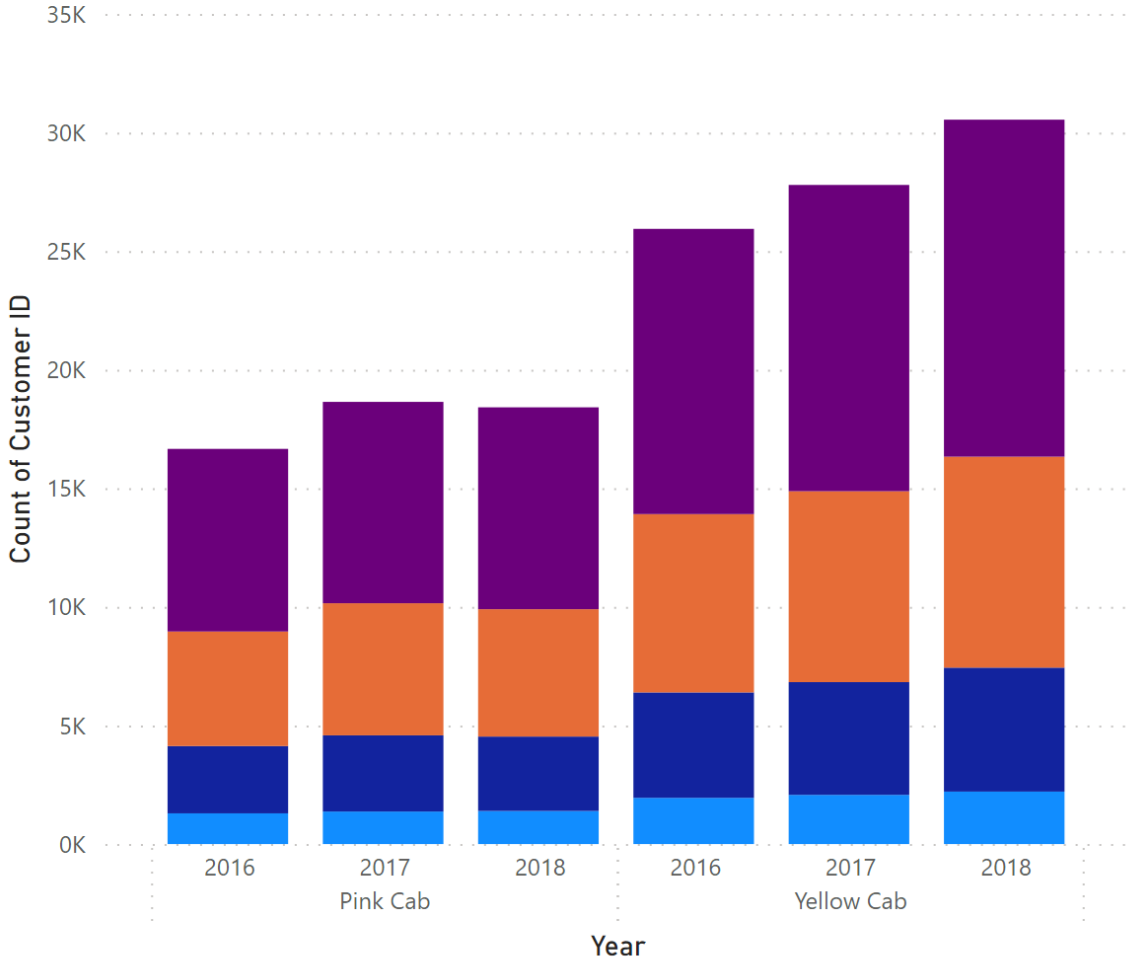
Age Group wise Profit

Age_Group Boomers Gen X Gen Z Millenials



Age Group wise no of customers

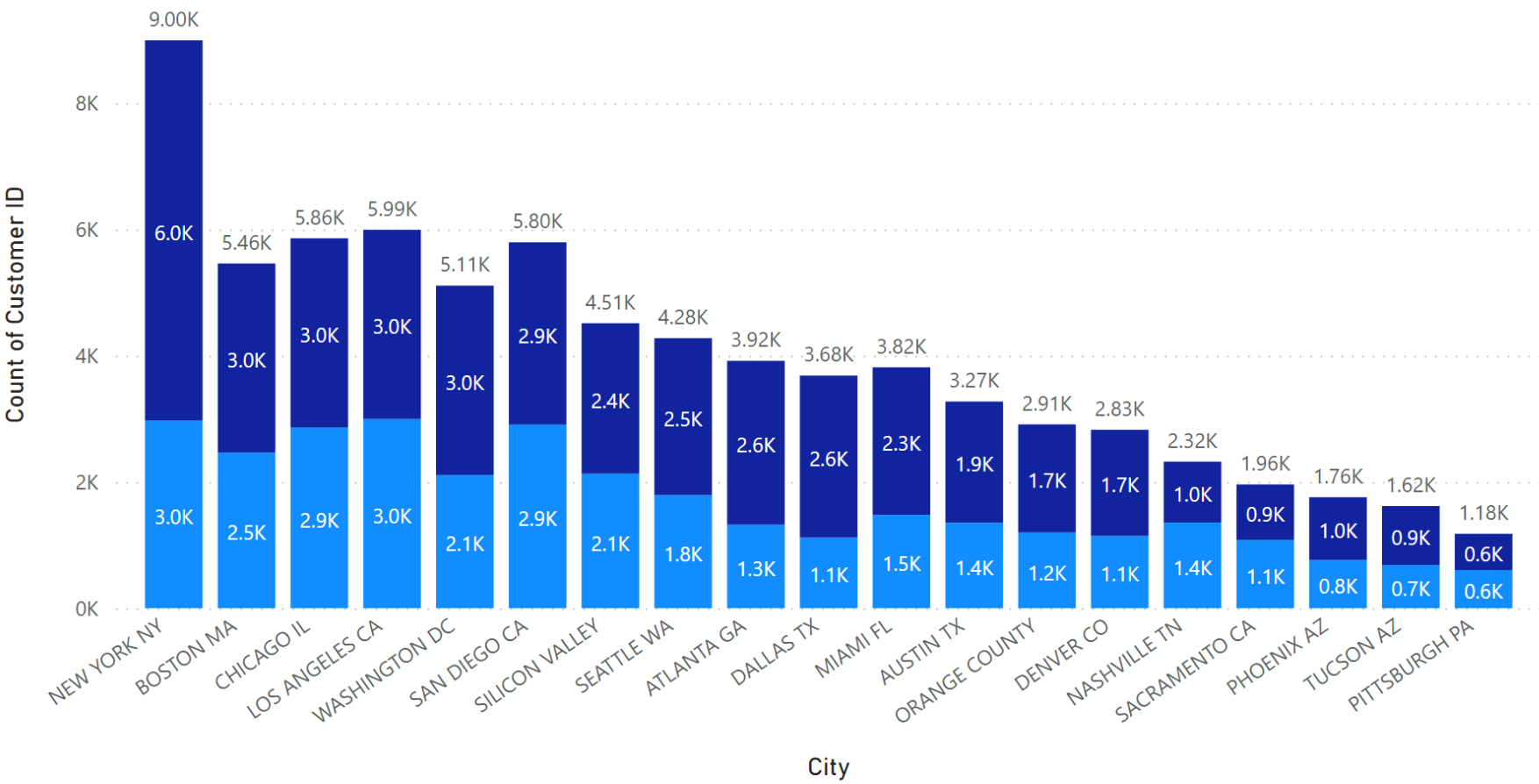
Age_Group Boomers Gen X Gen Z Millenials



City wise users by Company

Average Users based on City

Company ● Pink Cab ● Yellow Cab



Out of 19 Cities Pink cab has higher customer reach as compared to Yellow cab ,in following 3 cities only:

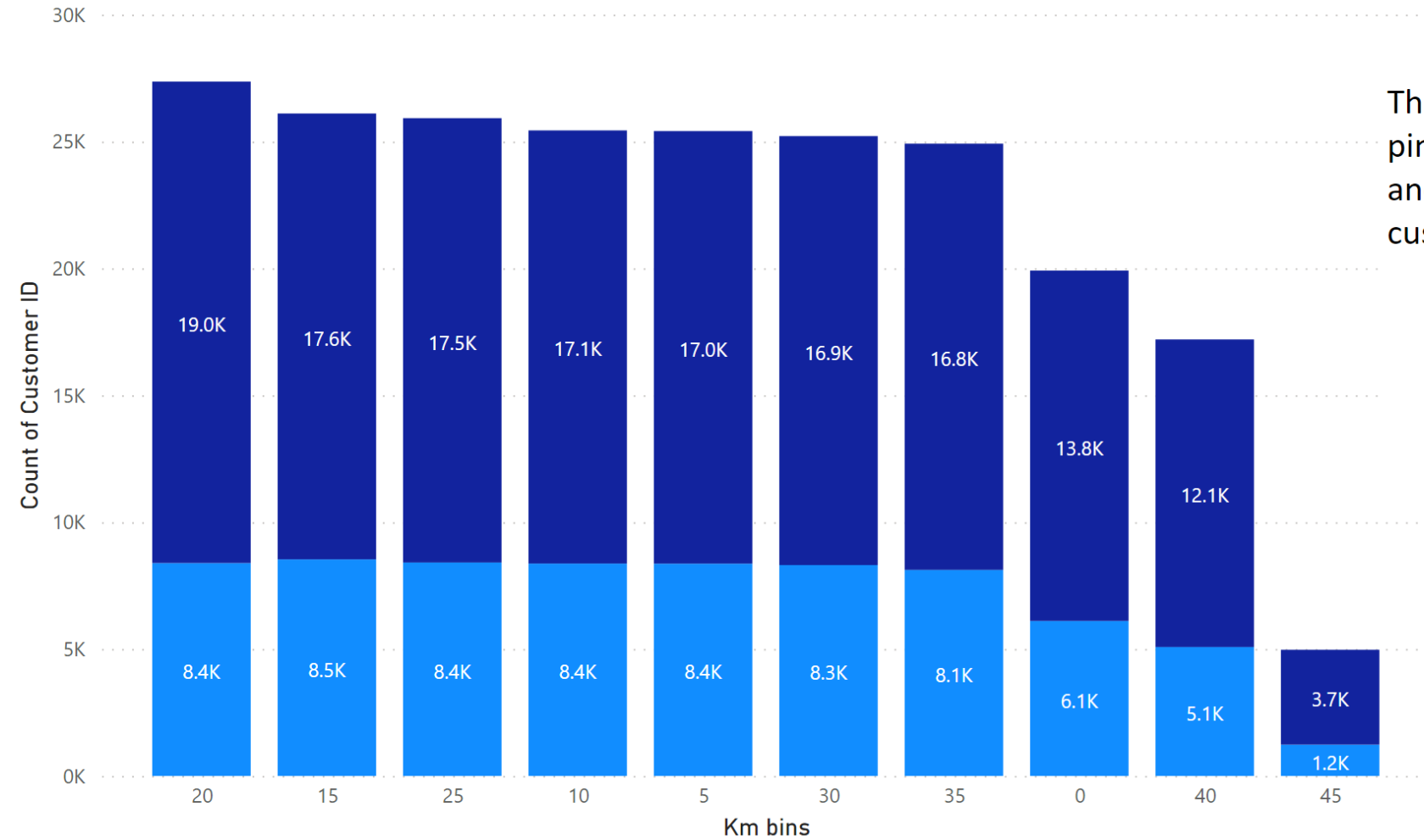
- SanDiego
- Nashville
- Sacramento

In rest of the cities Yellow Cab has more reach

Customer Analysis based on distance

Customers Count based on Km Travelled

Company ● Pink Cab ● Yellow Cab

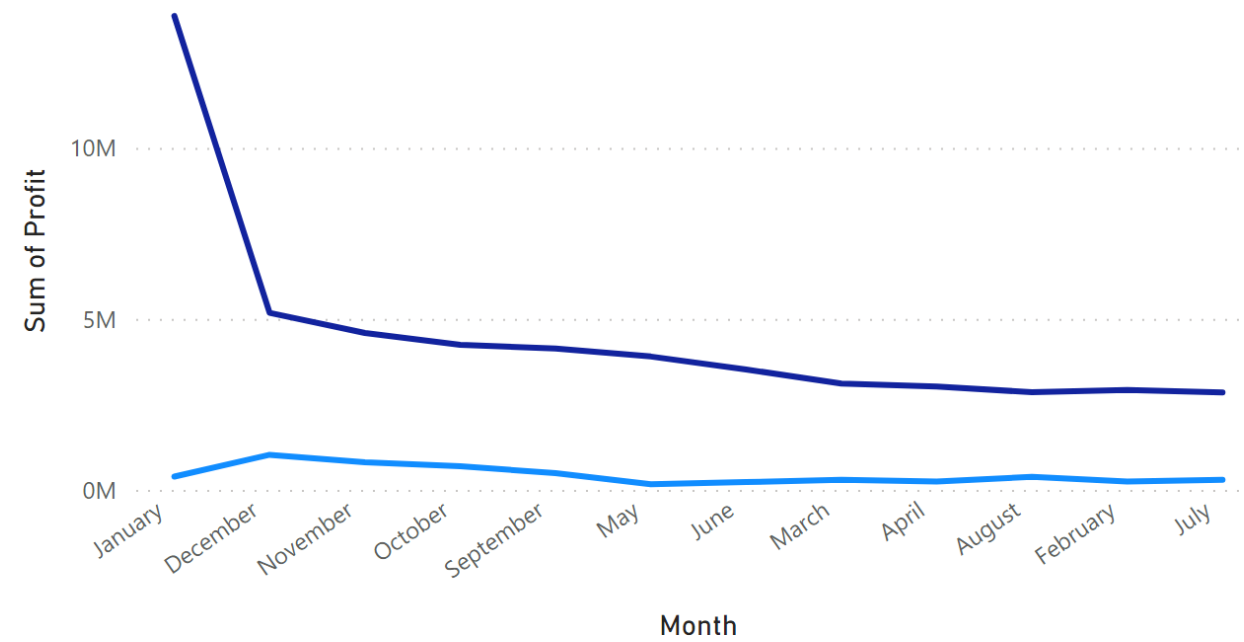


There is a huge difference between yellow and pink cab in customer reach for short and long trip. Yellow cab has very good customer reach in this segment as well

Month and Year wise Profit

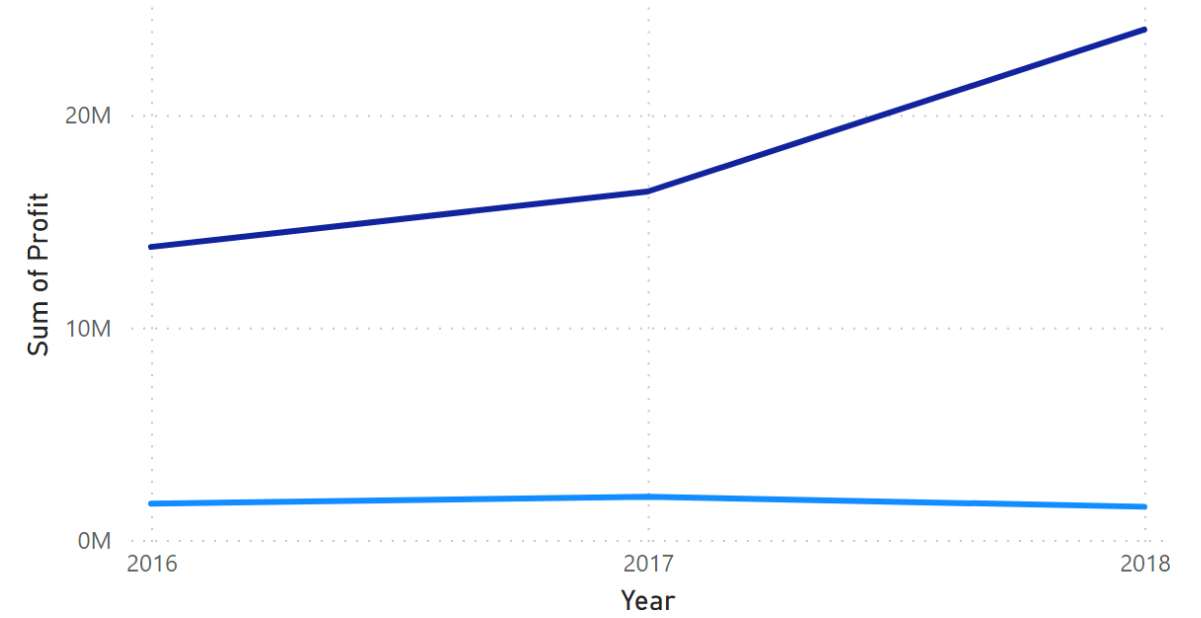
Sum of Profit by Month and Company

Company ● Pink Cab ● Yellow Cab



Sum of Profit by Year and Company

Company ● Pink Cab ● Yellow Cab



Recommendations

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

- **Customer Reach** : Yellow Cab is more popular than Pink Cab in terms of Customers
- **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.
- **Profit**: In terms of Profit, profit of Yellow Cab is a lot higher than compared to Pink Cab
- **On the basis of above point , we will recommend Yellow cab for investment.**

Thank You



Data Glacier

Your Deep Learning Partner