



**Data Glacier**

Your Deep Learning Partner

# G2M insight for Cab Investment firm

## Data Glacier Virtual Internship - LISUM19

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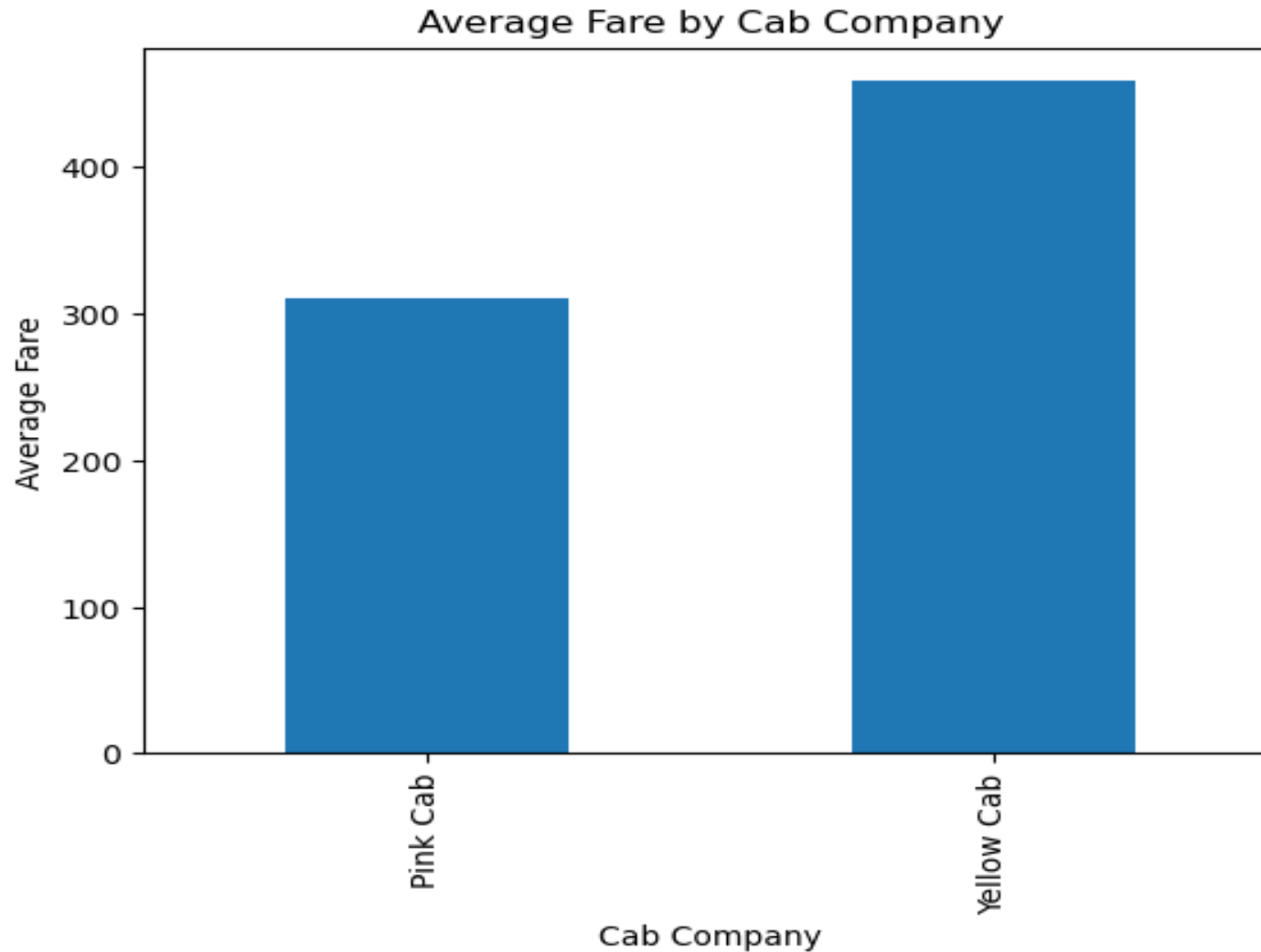
# Executive Summary

- An US based Private Firm Known as XYZ, they are planning to invest in the cab industry and they have provided the Four datasets i.e Cab data, City data, Customer id details, Transaction details.
- The analysis are based on the data from two cab companies called Pink Cab Company and Yellow Cab Company

# Problem Statement And analysis

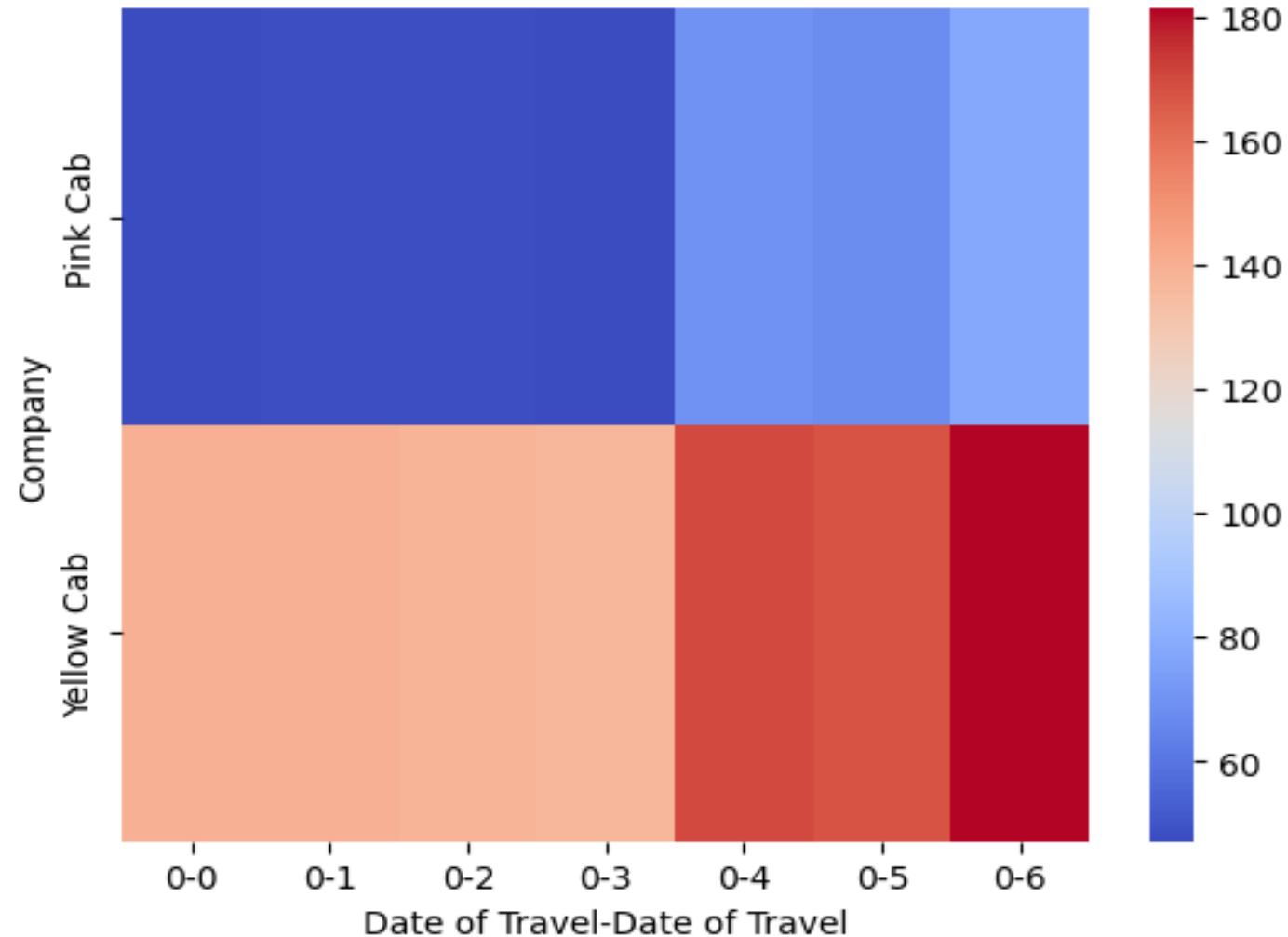
- The Problem statement is to identify which cab company is performing better and where XYZ Firm should invest to get better results.
- To provide more valuable insights and recommendations to XYZ company, the data was analyzed with following steps:
  - ❖ Checking for missing values, null values, duplicates and Correcting the date formats.
  - ❖ Comparing the total revenue, profits between the two cab companies
  - ❖ Based on the age and gender demographics and identifying the which city has more cab users.
- This analysis helps in research on overall cab companies i.e. Pink cab and Yellow cab Companies, in the US to gain more deeper understanding on market trends and growth of opportunities.

## Average Fare By Each Cab Company



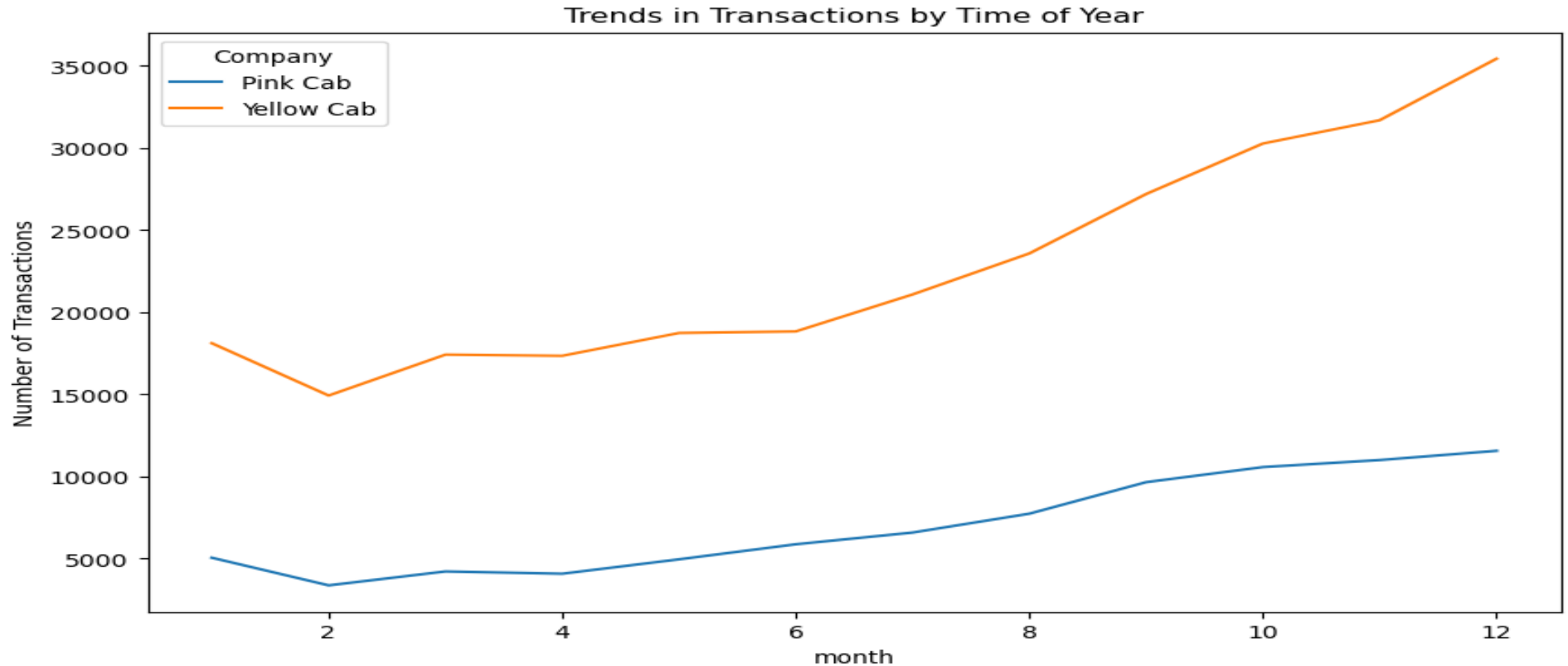
- The above bar chart shows the average of each Cab Company, and comparatively Yellow cab has more average fare than the Pink Cab Company.

## Average Wait Time for Each Cab Company



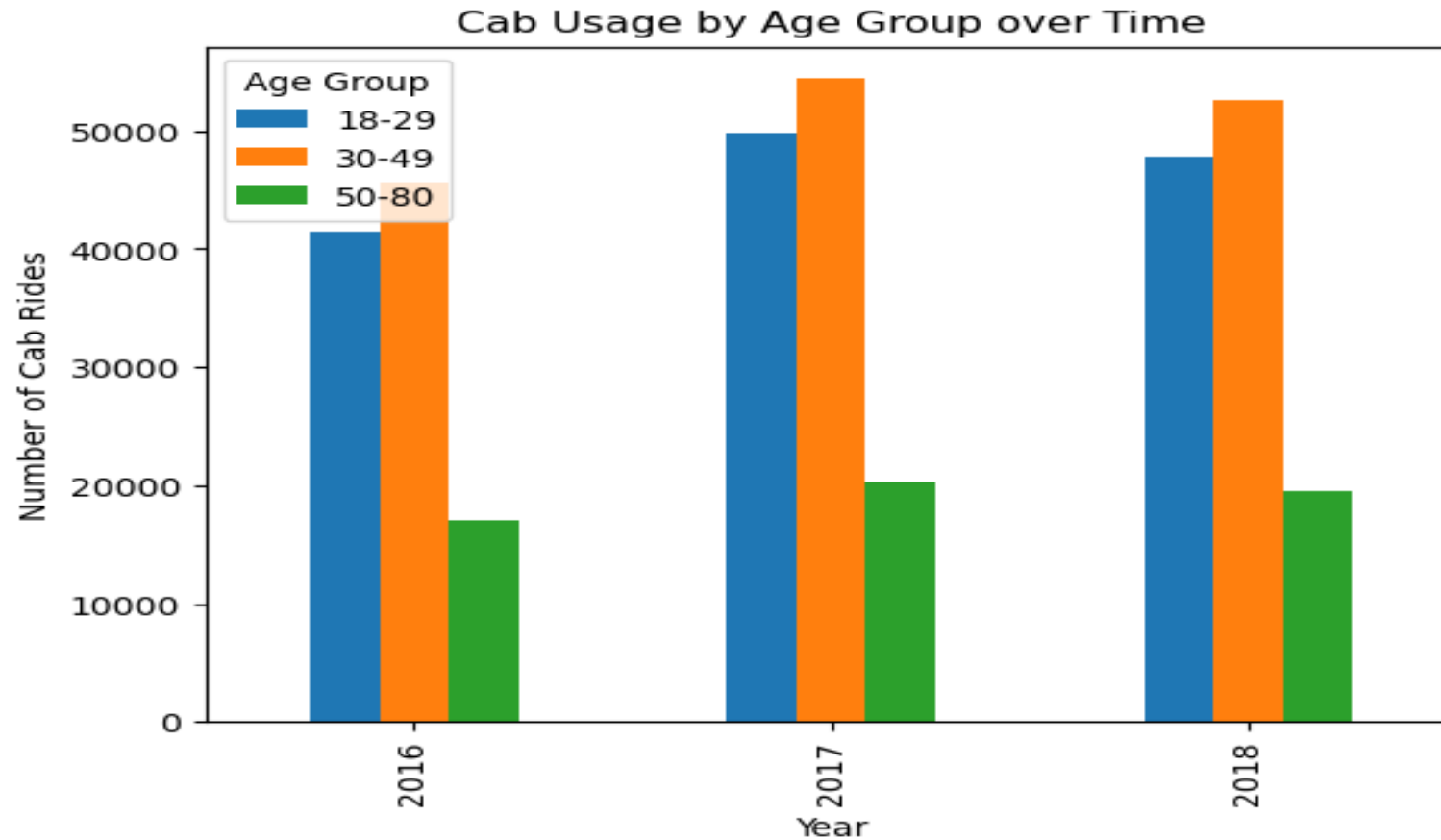
- The above heatmap displays the average profit of the cab service across different time periods, specifically by pickup time and day of the week, thus providing insights into its profitability during various periods.

# Trends in Transactions by Time of Year



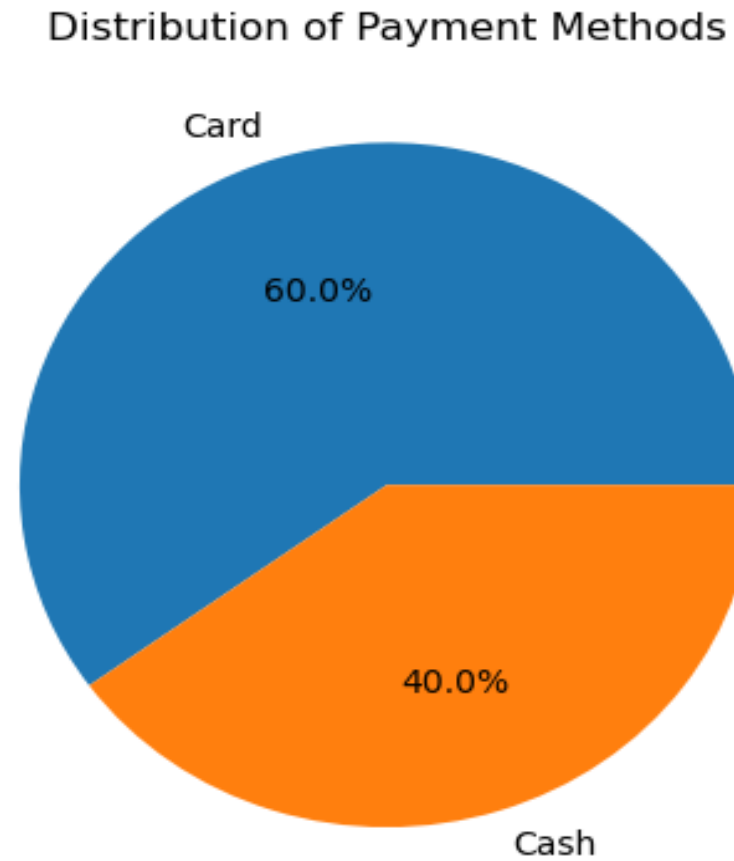
- After conducting a thorough analysis of the trends, it has been found that the Yellow Cab Company has a higher number of monthly transactions when compared to the Pink Cab Company.
- This clearly indicates that the Yellow cab company is performing better in terms of its business operations and also generating more revenue than the pink cab company.

# Cab Usage by Age Group over Time



- Based on the data gathered from 2016 to 2018, and above charts it can be concluded that the age group ranging from 30 to 49 years old has exhibited the highest usage of cabs than the other age group.
- Thus, this certain age group should be targeted to improve the performance and increase business opportunities for cab company.

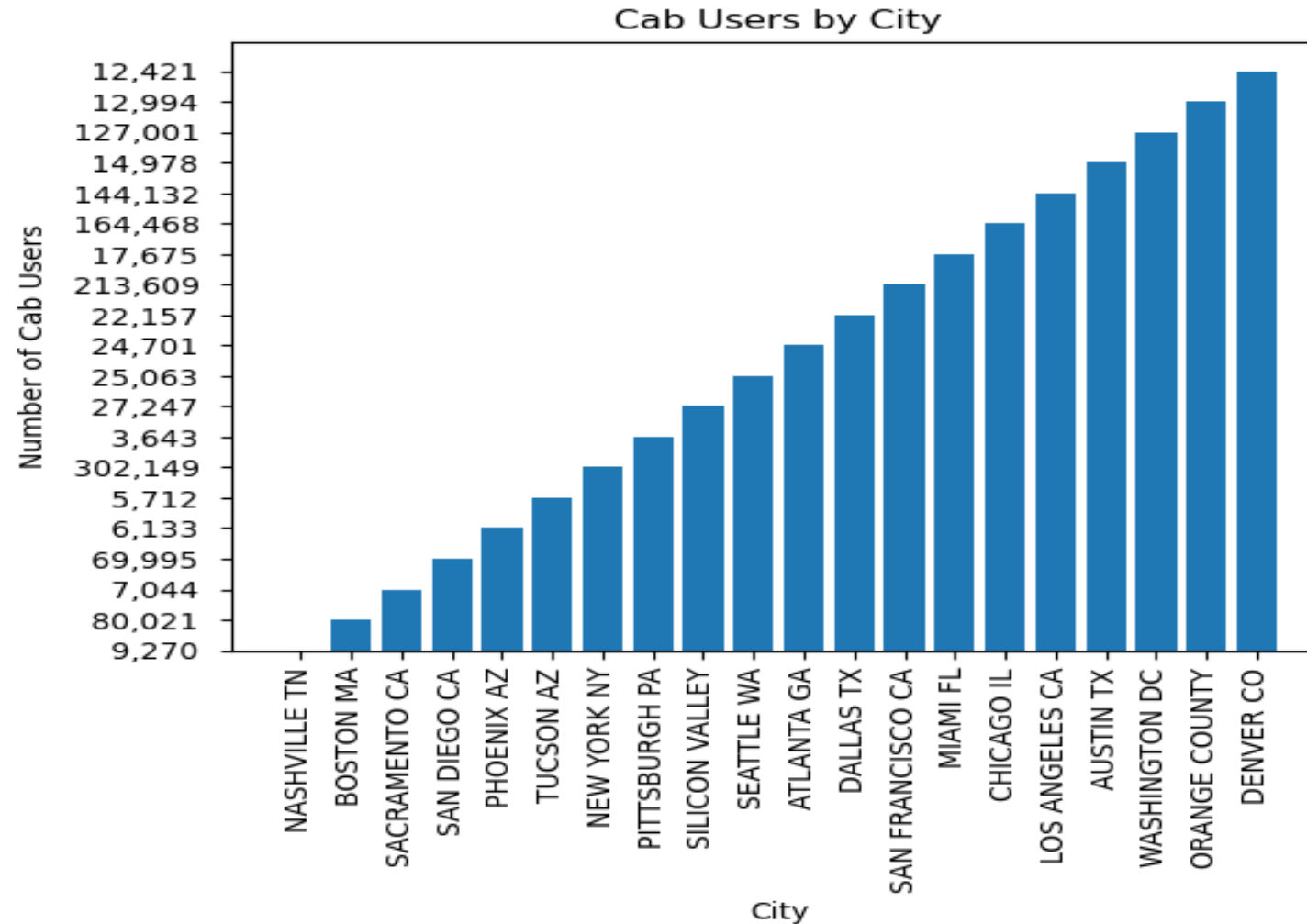
# Distribution of Payment Methods



- From the above chart, it shows that majority of cab users are preferring to the fare through cards i.e. 60% than cash.

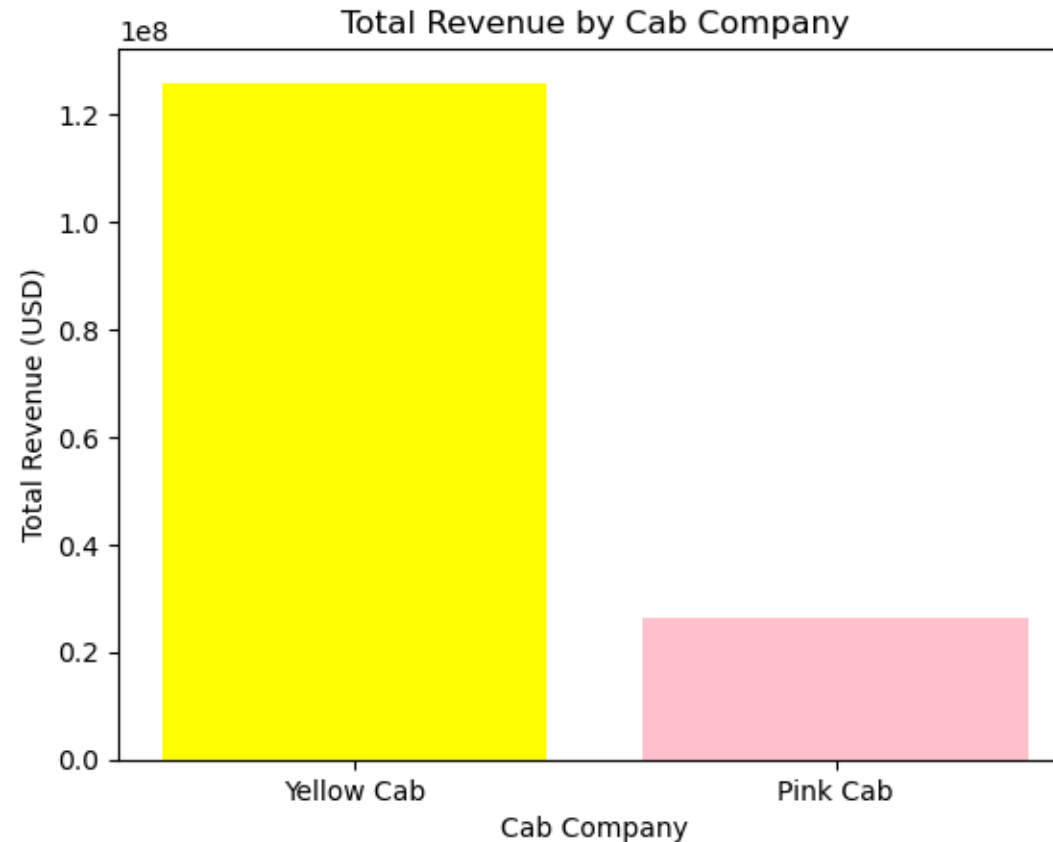


# Cab Usage by City-Wise



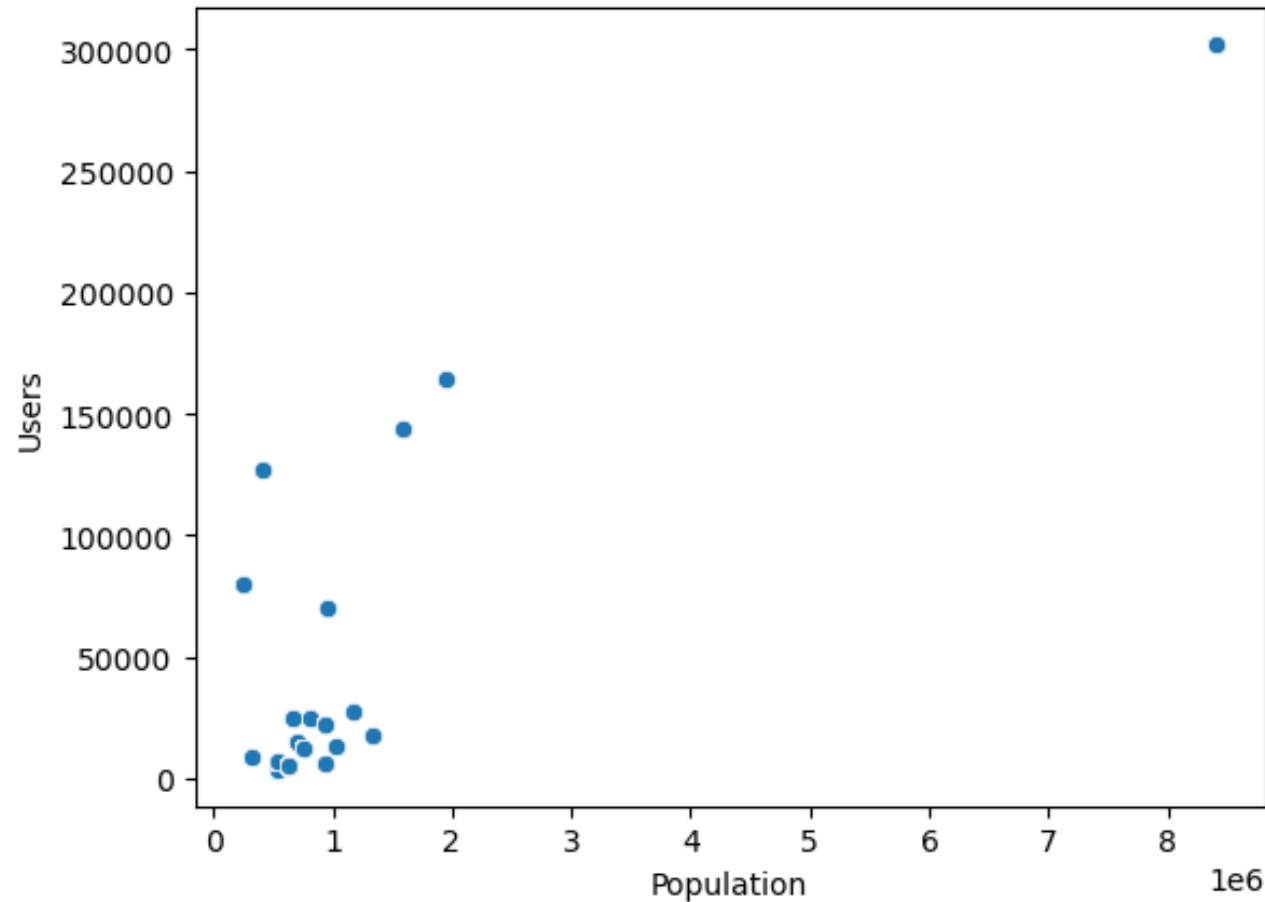
- The above graph clearly shows that City NEW YORK NY has highest demand for cabs when compared to other cities. It is good opportunity to increase the business in that city.

# Total Revenue by Cab Company



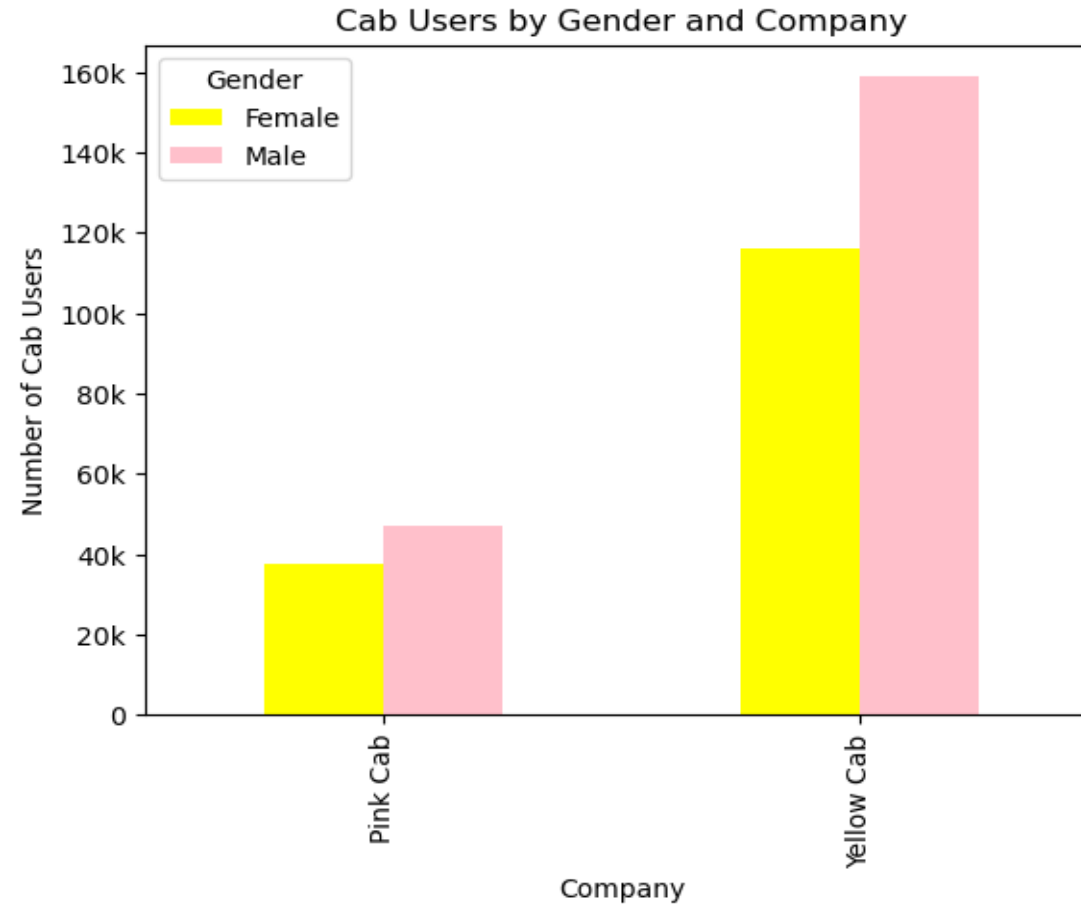
- From the above bar chart, it is clear that Yellow cab company has generated maximum Revenue when compared to Pink cab company.
- This indicates that Yellow cab company is more successful in generating revenue by using their business strategy than the Pink cab company.

# Correlation Coefficient between Population and Cab users



- The scatter plot clearly indicates a positive correlation between population and cab usage, suggesting that an increase in population has led to a corresponding rise in the demand for cab services.
- This observation even highlights the importance of considering population size as a key factor, when analyzing trends in the cab service industry as the population increases the demand for cab usage also increases, thus profit and that leads to business growth.

# Cab Users by Gender and Company



- From the above chart, after analyzing it is concluded that there is a higher frequency of cab usage among males than females.
- This trend is observed across the genders and company, it concludes that males are the primary consumers.

# Recommendations

- **Target the age group of 30-49:** As this age group has been observed to utilize cabs more frequently than other age groups, cab service providers can target their customers based on this age group to maximize revenue and growth.
- **Expand services in high population areas:** Based on the positive correlation between population and cab usage, expanding services in high population areas can provide significant opportunities for business growth.
- **Gender-based strategies:** As males have been observed to use cab services more frequently than females, cab service providers can consider on implementing gender-based marketing strategies.
- **Payment mode:** Maximum customers, has opted to pay the fare by Cards (i.e. 60% of cab users) than the cash.
- **Total revenue and Profit :** Yellow cab companies earn more revenue than the pink cab companies, even in Profit margins, other expenses, and ROI Yellow cab companies are earning more than Pink cab companies.
- **Transaction Trends:** After analyzing the monthly trends, it shows that Yellow cabs has highest transactions than the pink cabs.
- **Average Fare price and Waiting time:** Yellow cab has maximum price when compared to pink cab company (i.e. 1X). Waiting time data can be used to optimize their operations and increase customer experience, therefore it will add advantage to the company.

## Conclusion:

After analyzing the data of two cab companies, It is recommend to the US based XYZ firm to invest in Yellow cab company.

# THANK YOU