Exploratory Data Analysis G2M Case Study

Virtual Internship

13-April-2022

Background and Agenda

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
- Forecasting profit and number of rides for each cab type
- Finding the most profitable Cab company
- Recommendations for investment

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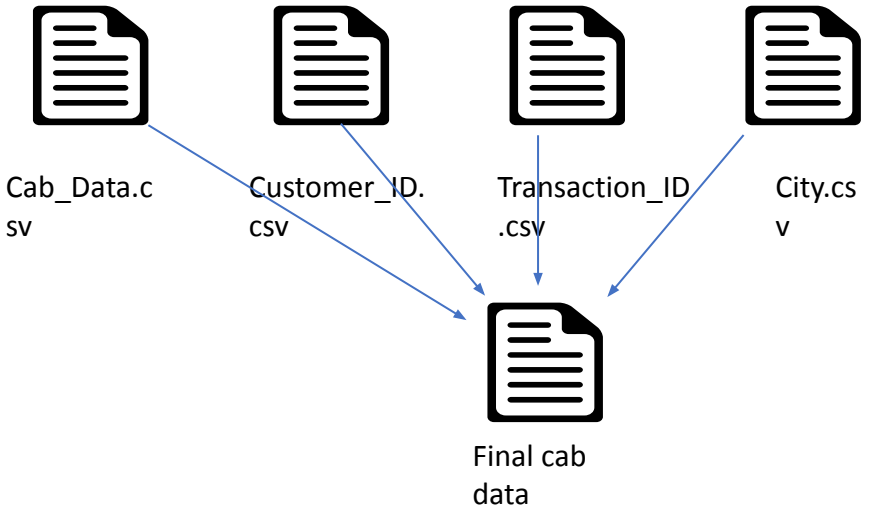
Data Exploration

- 24 Features(including 9 derived features)
- Timeframe of the data: 2016-01-31 to 2018-12-31
- Total data points : 355,032



- The cab data contained the Transaction No, Customer ID and date that Transactions where carried out.
- The Date had to be converted into a readable and understanding date.
- Profit of rides are calculated keeping other factors constant and only (Price_Charged and Cost_of_Trip features used to calculate profit).

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ANALYSIS OF PROFIT

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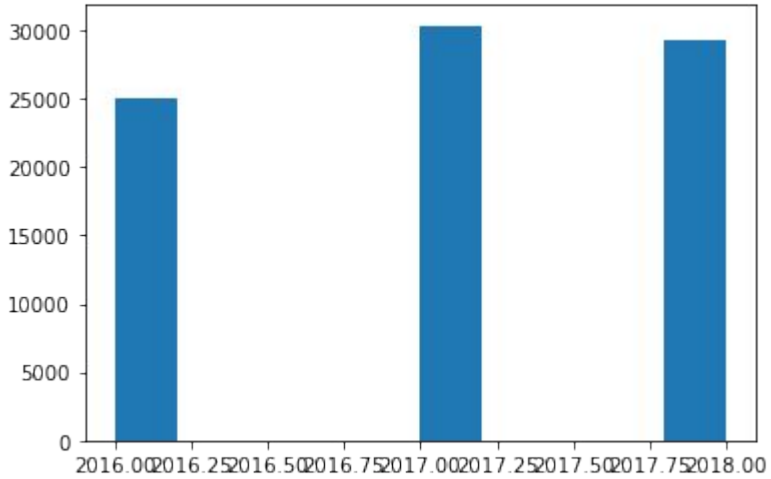
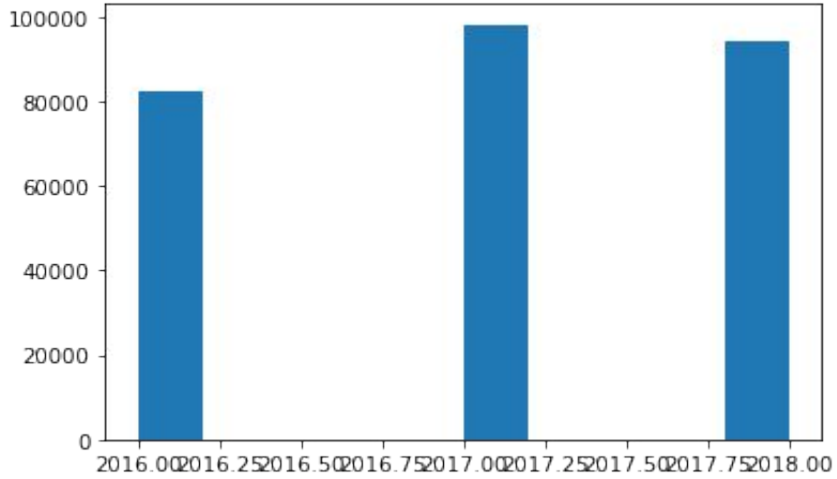
TOTAL YEARLY PROFIT FOR THE PINK CAB



TOTAL YEARLY PROFIT FOR THE YELLOW CAB



ANALYSIS OF CAB LOCATIONS

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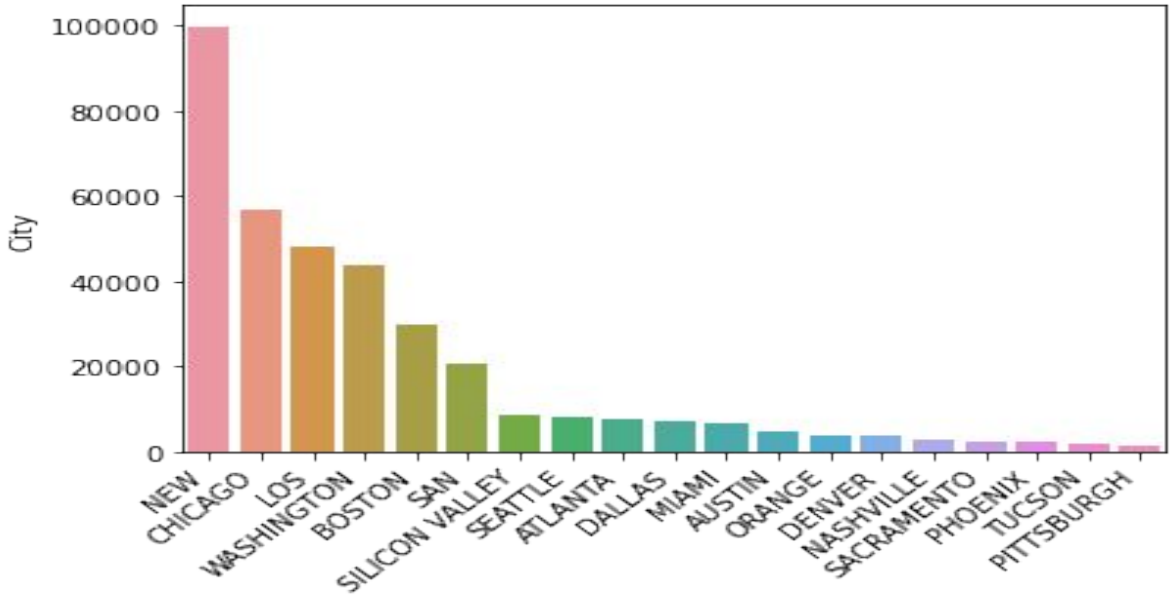
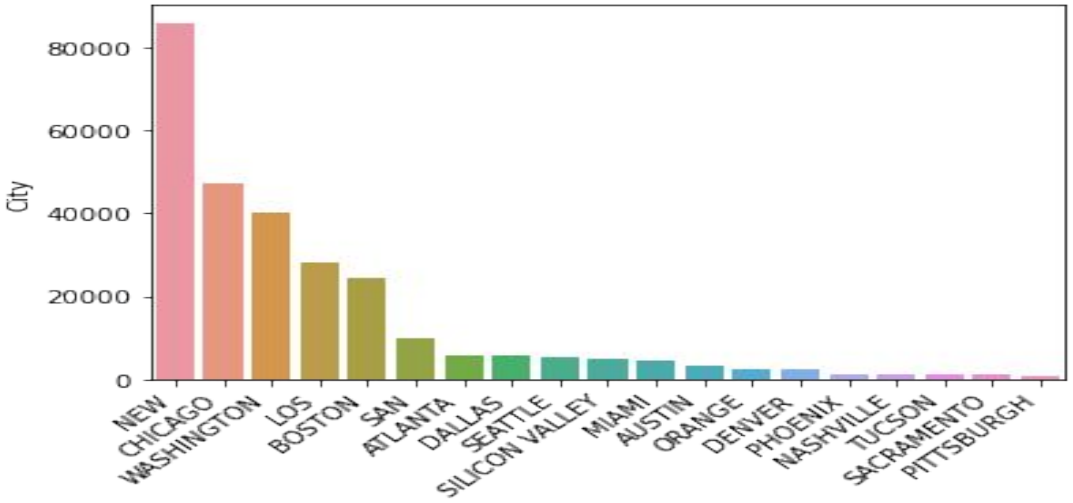
TOP STATES USING PINK CAB



TOP STATES USING YELLOW CAB



ANALYSIS OF TRANSACTIONS AND YEARLY PROFITS

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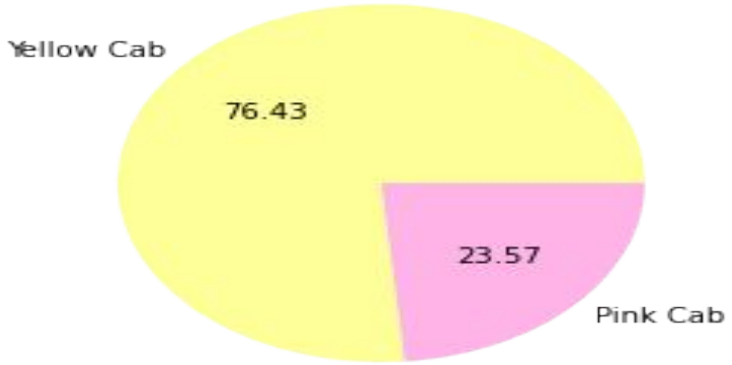
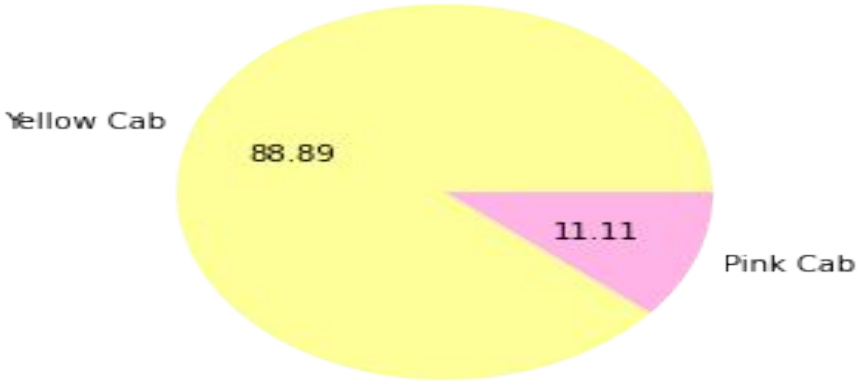
TOTAL NUMBER OF TRANSACTIONS FROM 2016 - 2018



YEARLY PROFITS ALL TIME OF CABS



ANALYSIS OF TOTAL DISTANCE TRAVELLED

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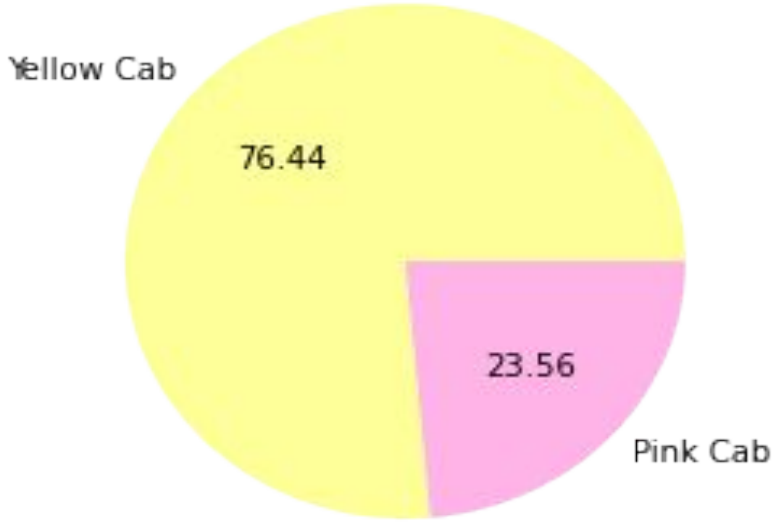
TOTAL DISTANCE TRAVELLED FROM 2016 - 2018



Clearly from the total Distance Travelled, we can clearly see that Customers Patronize the Yellow Cab more than the Pink Cab, Thus covering more distance for all three years combined.

RECOMMENDATION

From the Analysis carried out;

1. More number of customers appear to be in constant relationship with the yellow cab hence the yellow cab can be seen to have more customer base compared to the pink cab.
2. From the year 2016 to 2018 the yellow cab has covered more distance, hence we have more customers requiring the services of the yellow cab.

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