

# Data Science virtual internship

Project: G2M Insight for Cab Investment Firm

#### Outline



Problem Statement



Datasets Information



Exploratory Data Analysis



Multiple Hypothesis Test



Summary

#### Problem Statement



XYZ is a private equity firm in the US. Due to remarkable growth in the Cab industry in the last few years and multiple key players in the market, it is planning for an investment in the cab industry.



**Objective**: Provide actionable insights to help XYZ Firm in identifying the right company for making an investment.



**Analysing parts**: Data understanding and Visualization, fiding the most User's Cab Companies, Finding the most profitable company, multiple hypothesis and investigate.

### Data Information

Cab\_Data.csv – This file includes the transaction details of 2 cab companies

Customer\_ID.csv – This files includes customer demographic details

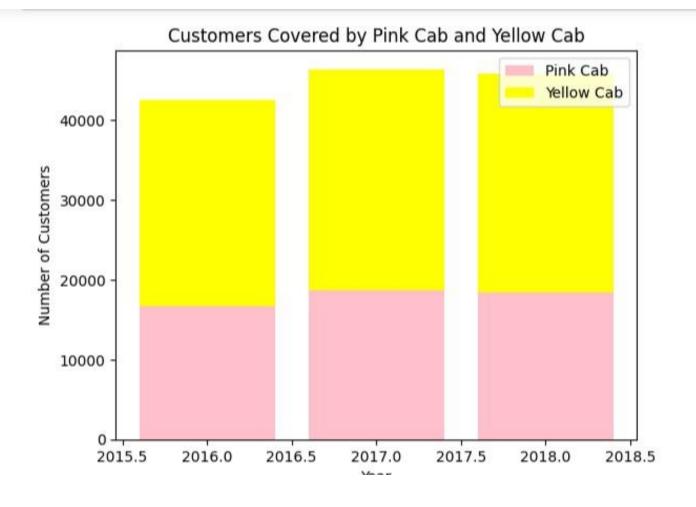
Transaction\_ID.csv — This file contains customers transactions and payment mode

City.csv – This files contains details of major US cities and their population and NO of cab users.

### EDA

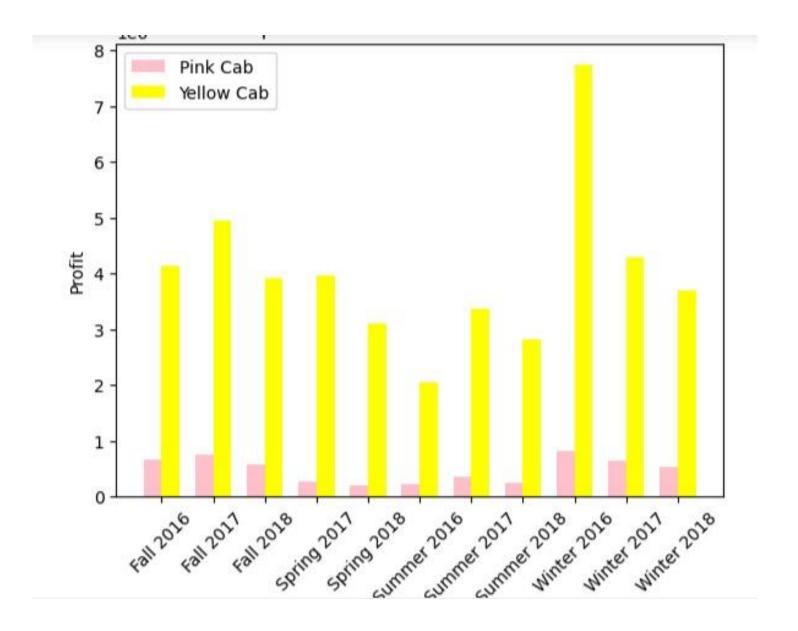
## Which Company has more users

 Yellow Can company has more users



# Which company has higher seasonal profit

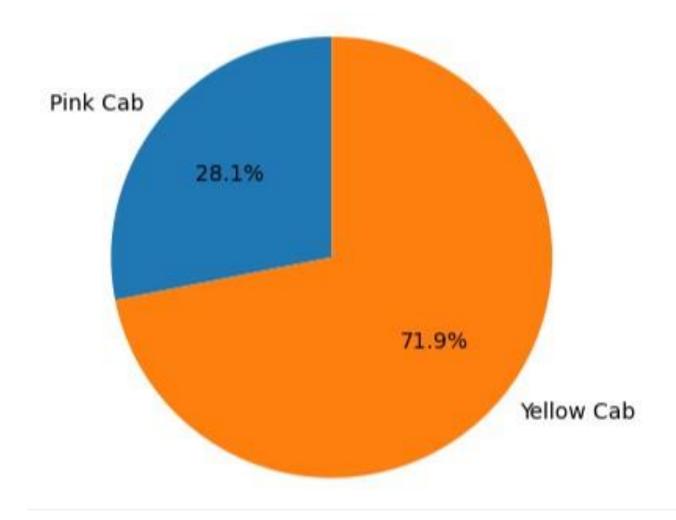
 Yellow Cab company has highest seasonal profit



#### Average Customer Profit

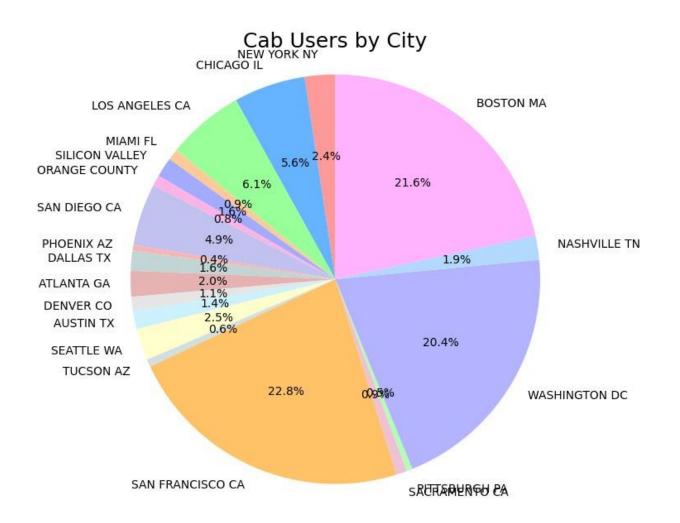
Which company has high average customer profit

Yellow company has a high average customer profit



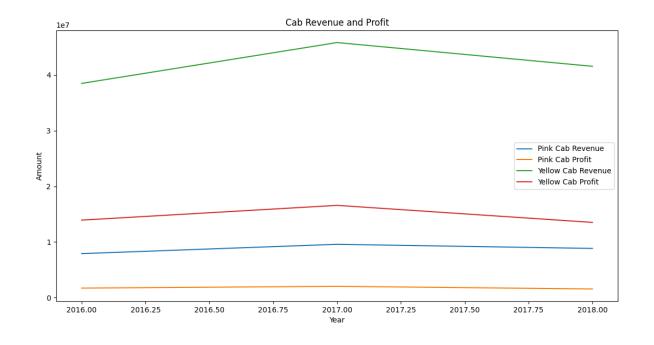
## Which cities has high percentage of cab using population

- San Francisco CA
- Washington DC
- Nashville TN



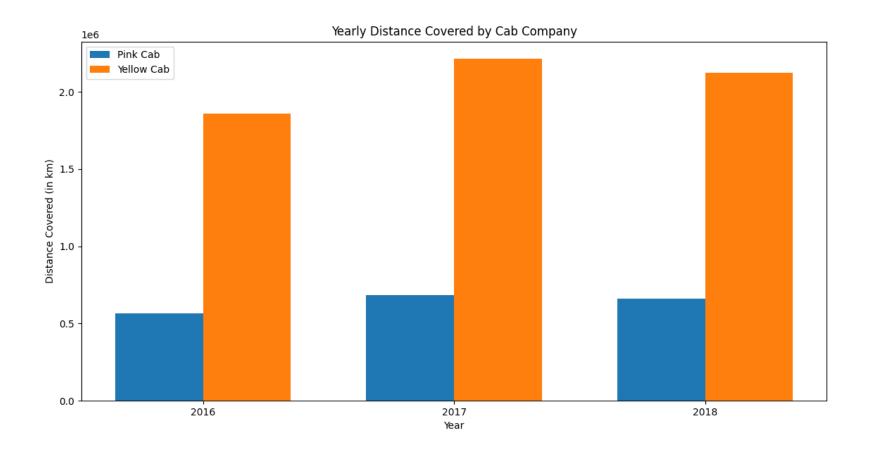
## Is Year Company got positive growth and negative growth

- 2016 -2017 positive growth
- 2017 -2018 negative growth



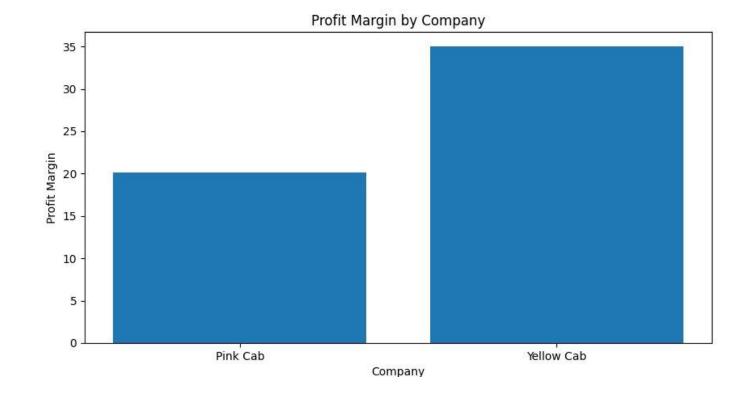
### Which company covered more distance

Yellow Cab company



# Which company has high profit margin

• Yellow cab has high profit margin



Hypothesis 01: Is there any difference in profit by gender

 Yes Male customers providing more profit shares for both companies then female customers

Hypothesis 02: is there any difference in profit based on ride distance

 On average, Pink Cab generates higher profit per KM for long-range distances.

Hypothesis 03: is there any difference in profit by payment mode

- Average profit for card payment mode: 137.08646100025985
- Average profit for cash payment mode: 137.5029244996108

• No, not at all. very small difference

#### recommendation

- Customer Reach: Yellow cab has more customers in 16 cities then Pink cab Companies
- Total profit and revenue: Yellow cab has higher profit and Revenue
- **Profit margin:** Yellow cab has a greater profit margin

#### conclution

Yellow cab company is great to invest



## Thank you