# G2M insight for Cab Investment firm
## Virtual internship

November 14, 2023

**Business Problem**: Understand Cab market before investing.

**Objective**: Provide actionable insights to help XYZ identify the right company to make their investment.

**XYZ**: It is a private firm in US that is planning to in investment in Cab industry.

**Hypothesis**:
1) Outliers are present in Price Charged.
2) Distance in KM is positively correlated to Price.
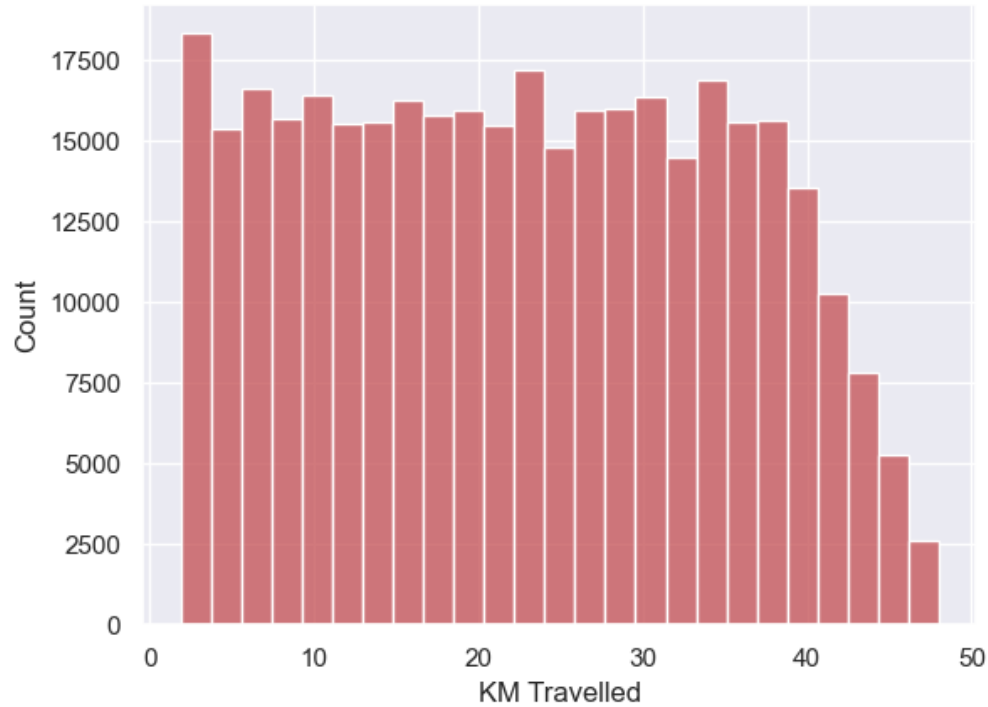3) Yellow Cab is preferable than Pink Cab.

**Steps**:
1) Data understanding
2) Profit Analysis.
3) Recommendation

**Data Glacier**
Your Deep Learning Partner

- **Master Data**: Merge of four data sets

- 18 features (include 4 derived features
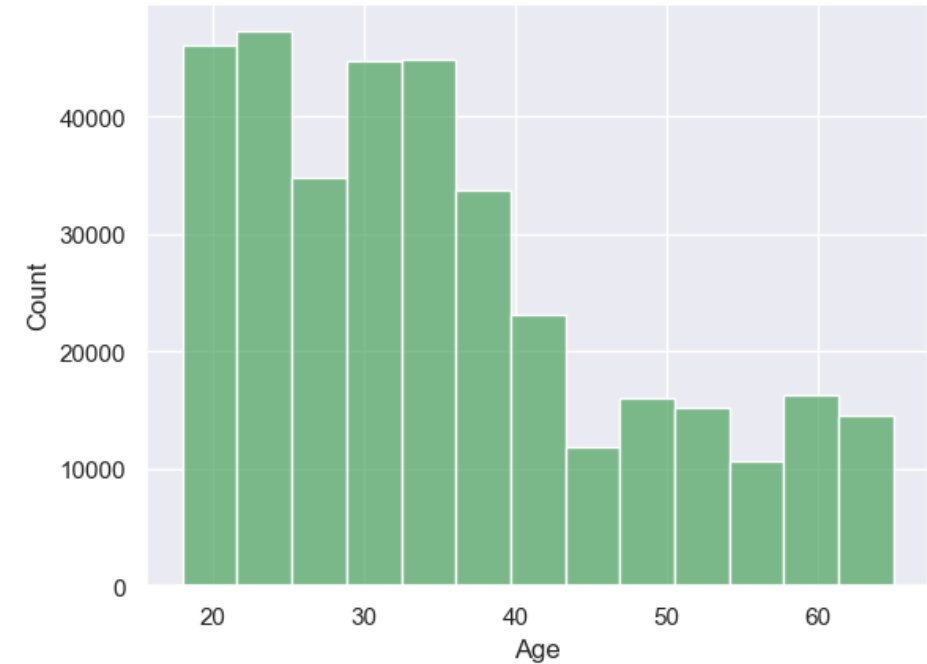
- 359,392 data points

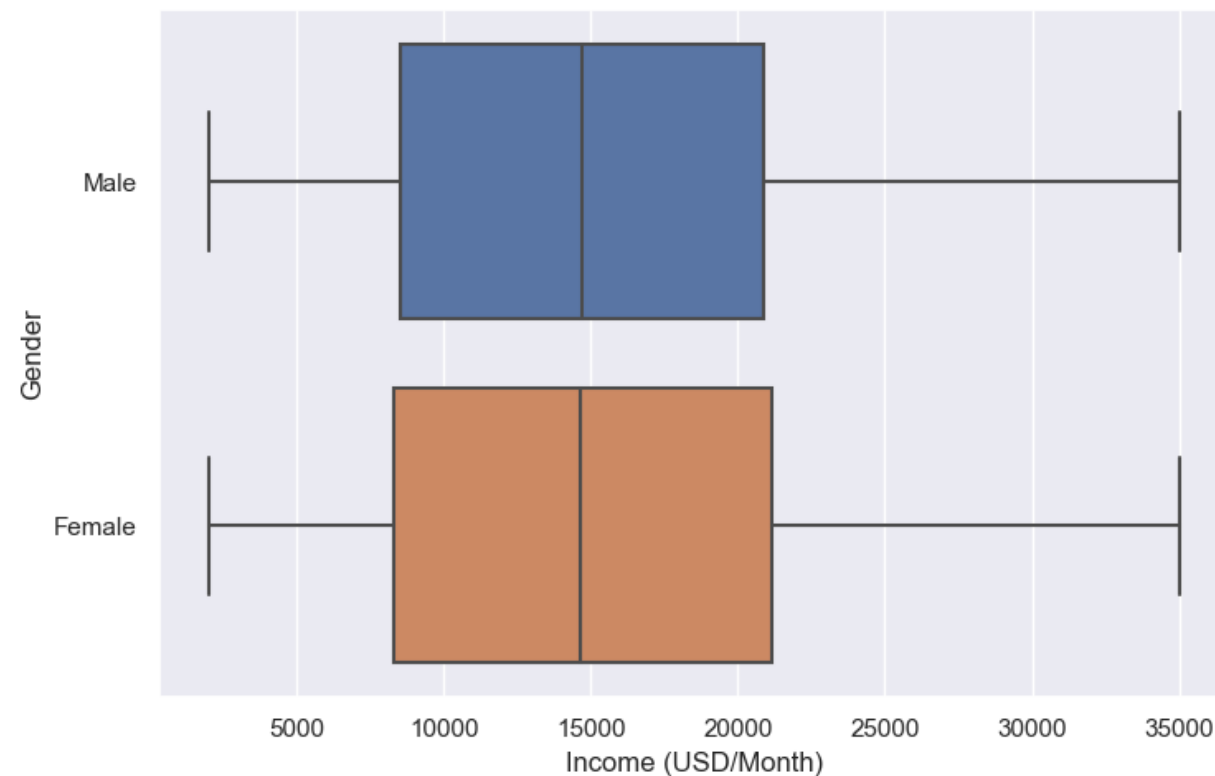- Period: 2016-01-01 to 2018-12-30
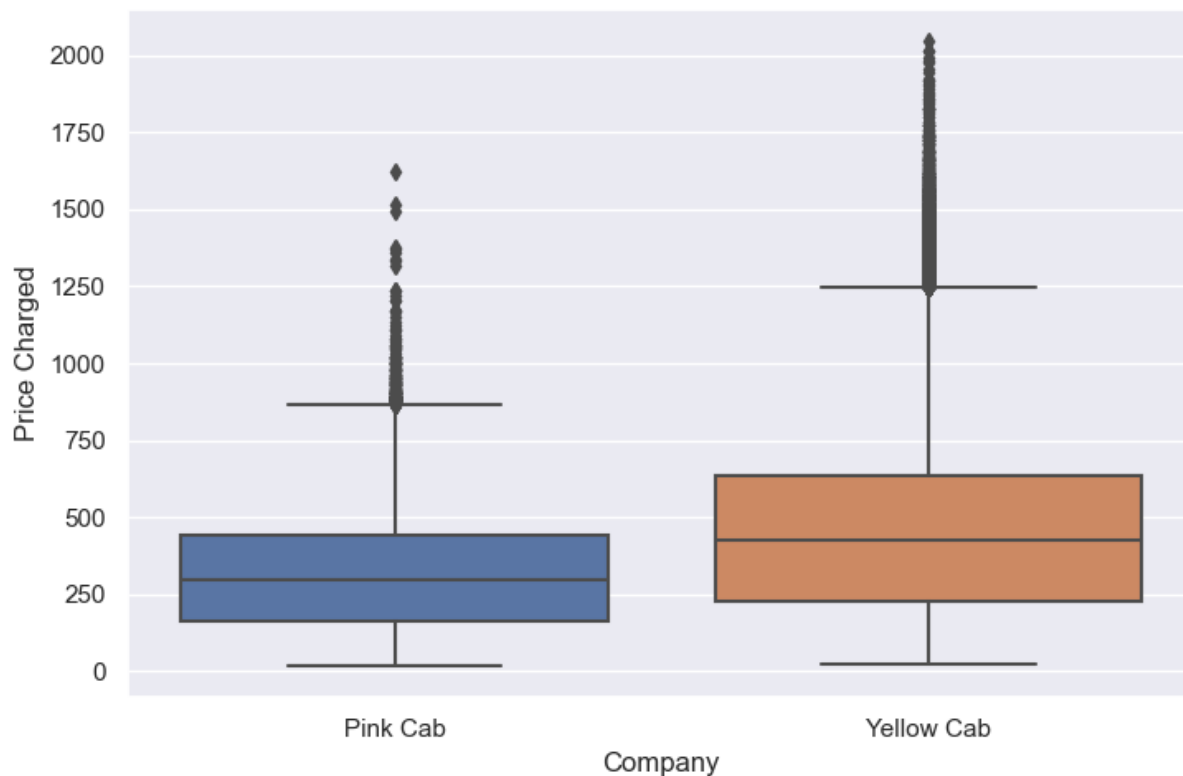
KM Travelled Distribution



Age Distribution

- KM Travelled Distribution shows that few people travelled long distance (from 44 km)

- Age Distribution shows that young people travelled a lot than old people

# Exploratory Data Analysis



- From these figures, we noticed that "Price Charged" is an outlier.

  But, we can't consider it as a real outlier because there is no other information to confirm it.
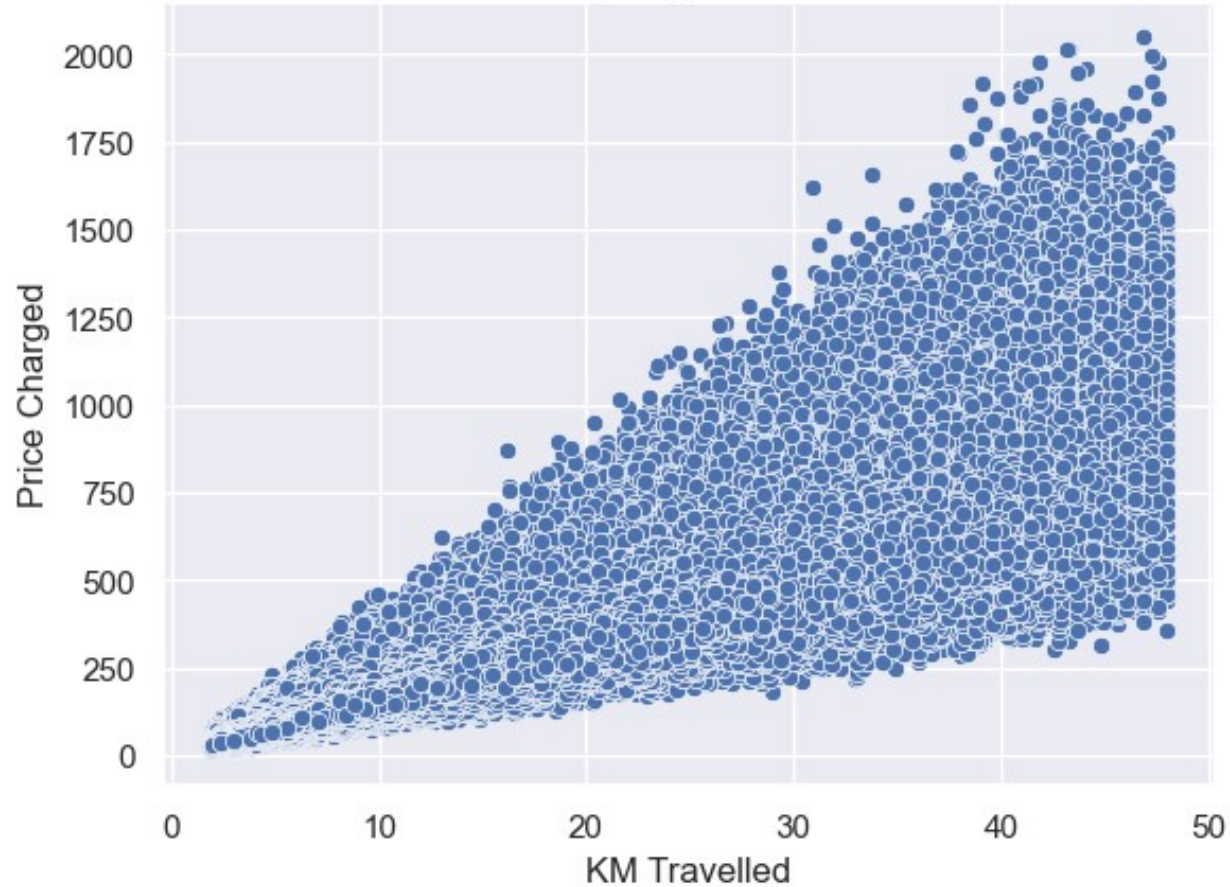
# Exploratory Data Analysis



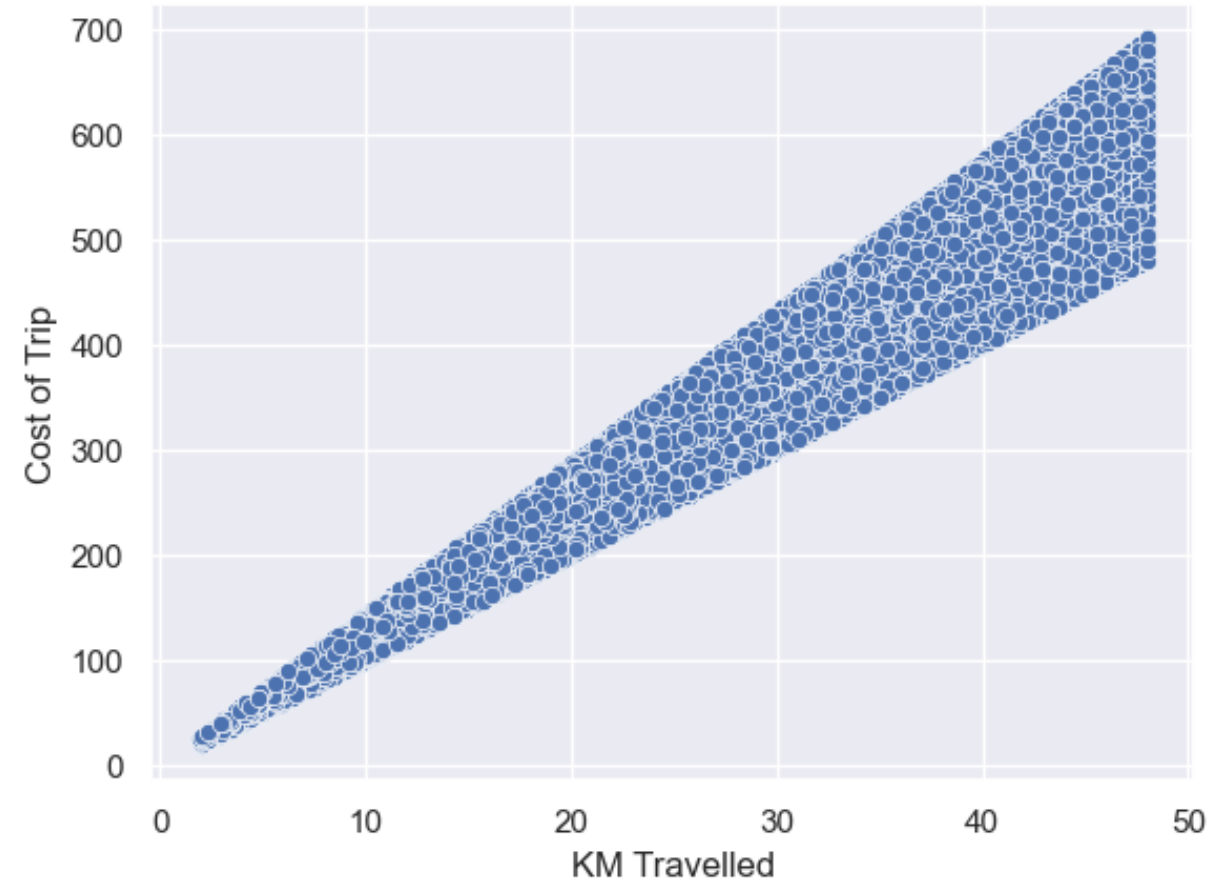- The Heatmap is telling that "KM Travelled", "Price Charged" and "Cost of Trip" are positively correlated.
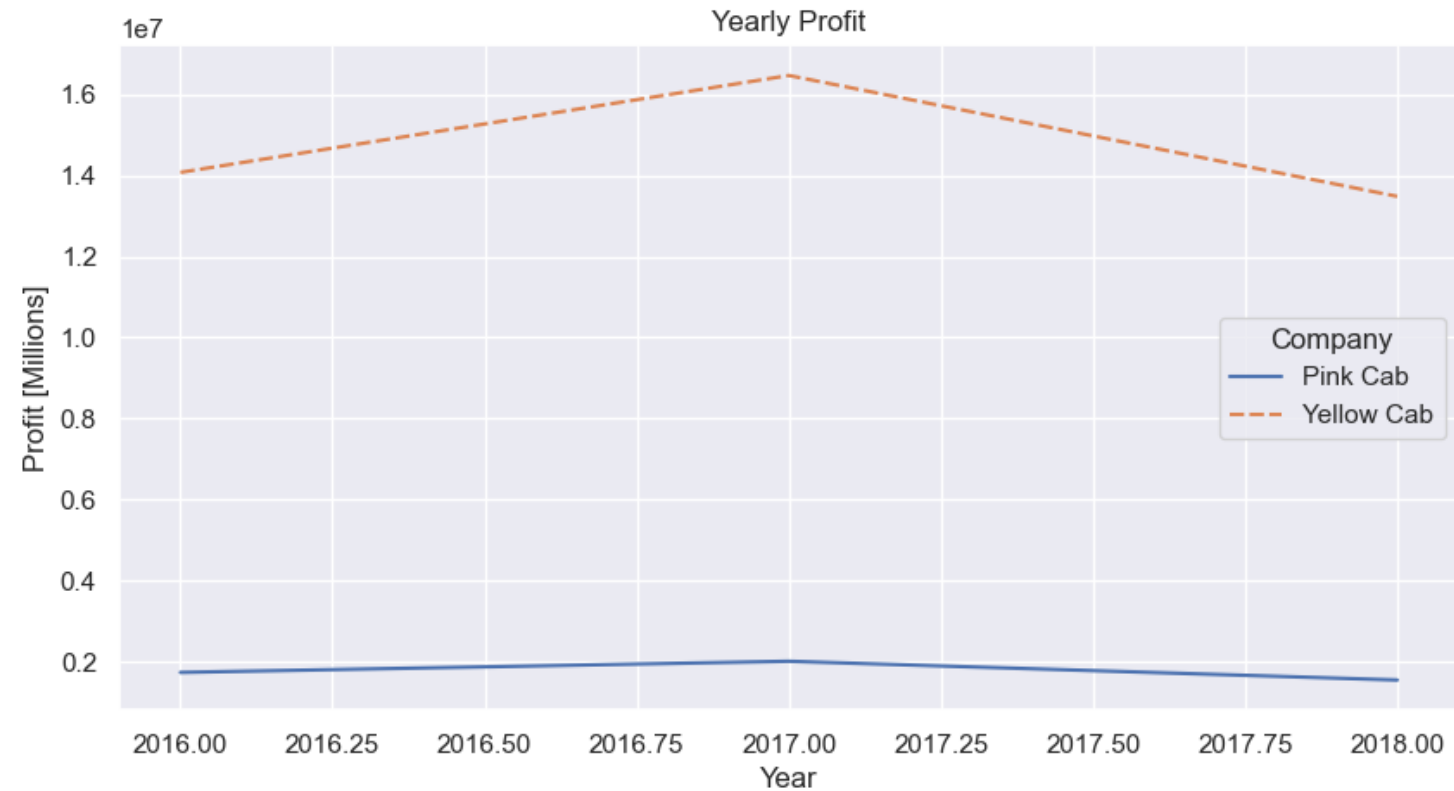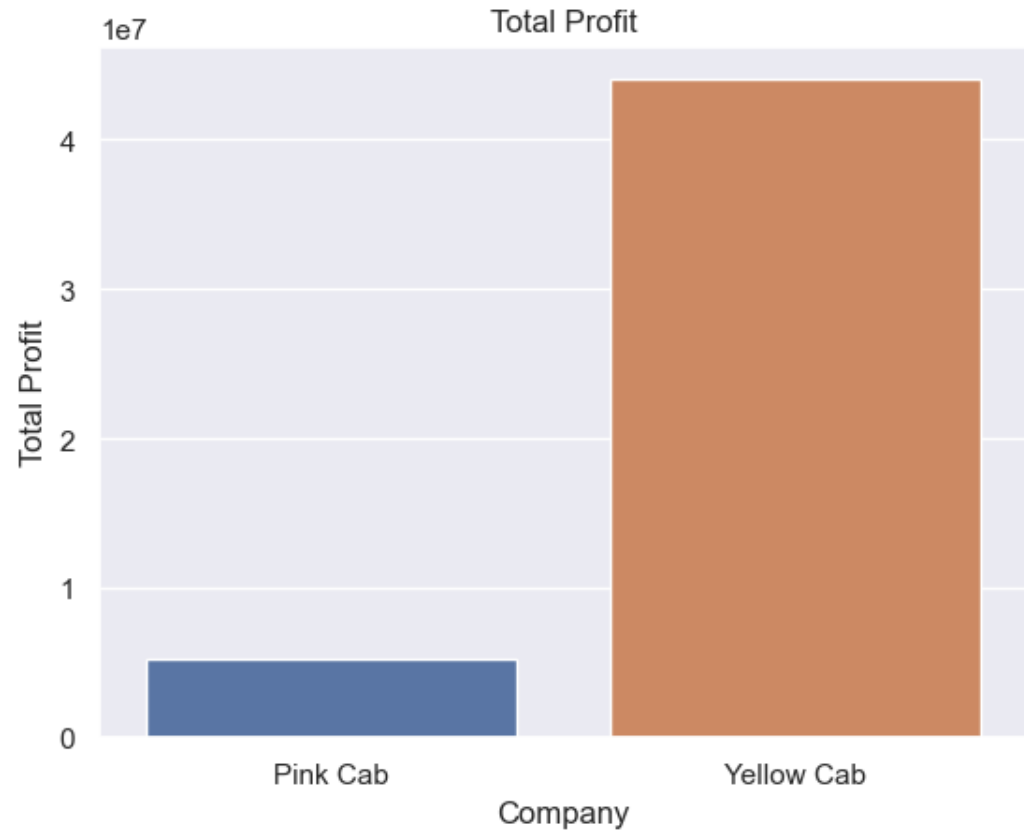
Price Charged per KM Travelled



Cost of Trip per KM Travelled

- These two plots confirmed the positive correlation between "KM Travelled", "Price Charged" and "Cost of Trip".

# Profit Analysis: yearwise



- For the 3 years from 2016 to 2018, Yellow Cab has earned more profit than Pink Cab.
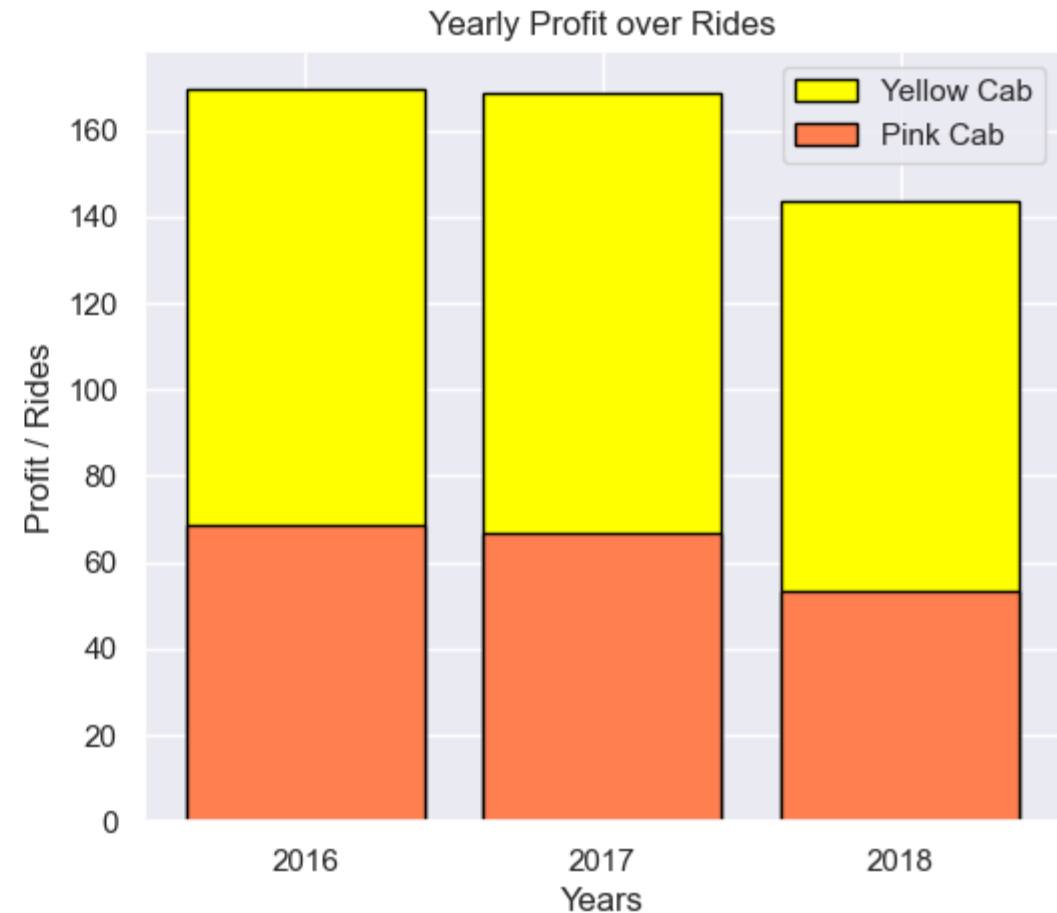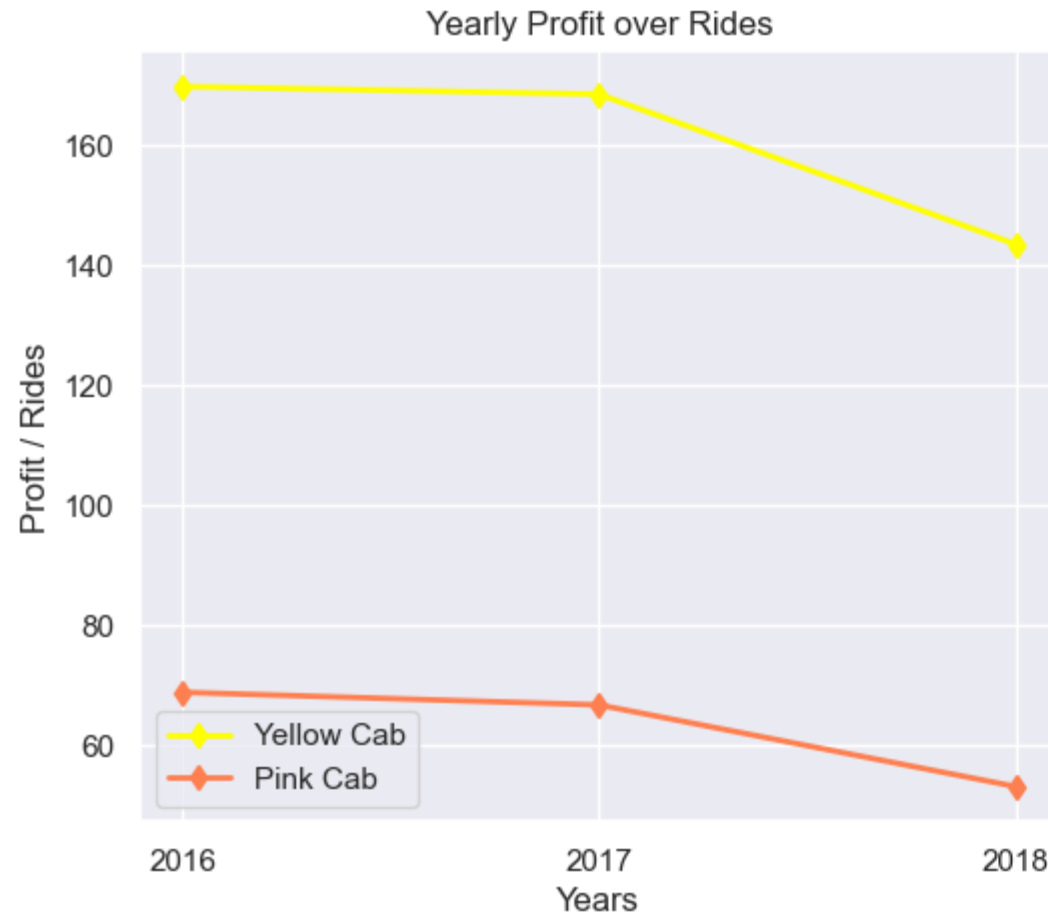
# Profit Analysis: monthwise



Monthly Profit

- This graph is showing us that, monthly, Yellow Cab has earned more profit than Pink Cab during the 3 years.
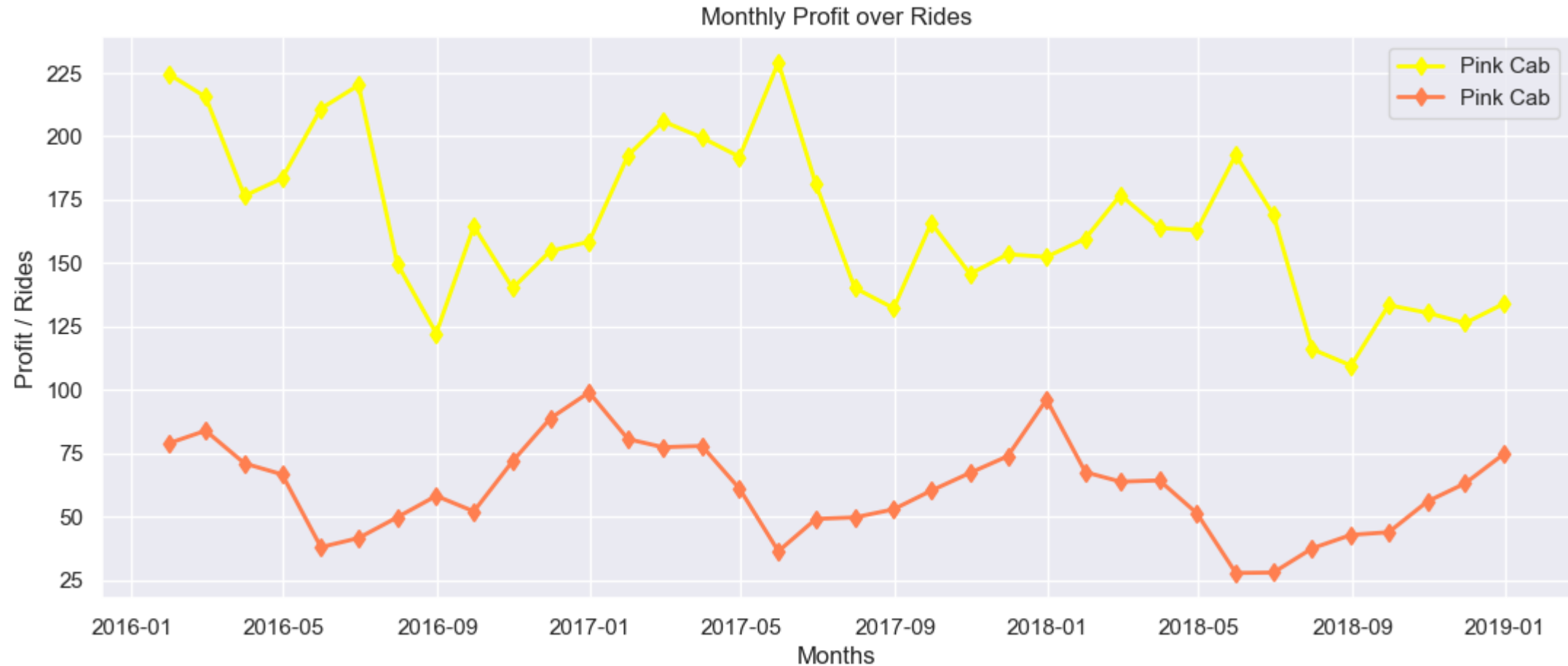
# Profit Analysis: yearwise over rides



- Furthermore, these two plots are showing us that, during the analysis of yearly profit over rides, Yellow Cab has earned more profit than Pink Cab during the 3 years.
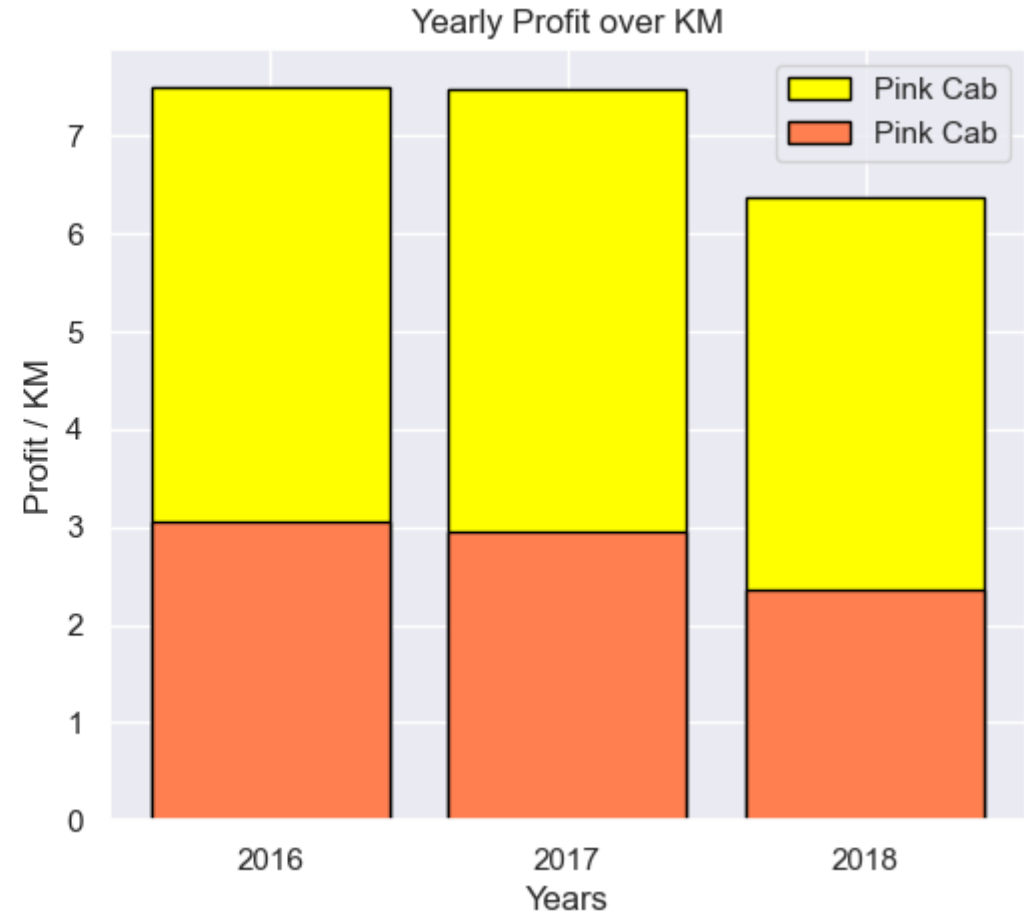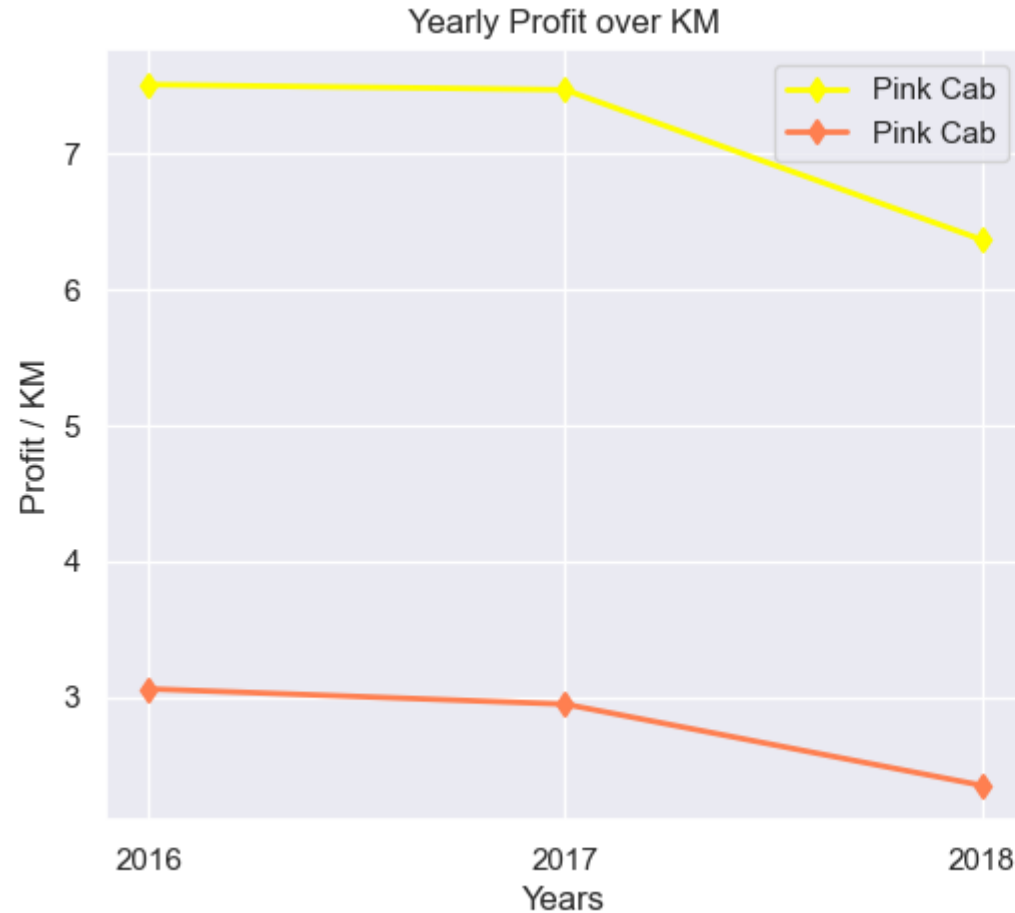
# Profit Analysis: Monthwise over Rides



Monthly Profit over Rides

- This figure called Monthy Profit over Rides, shows clearly that, Yellow Cab has earned more profit than Pink Cab during the 3 years.
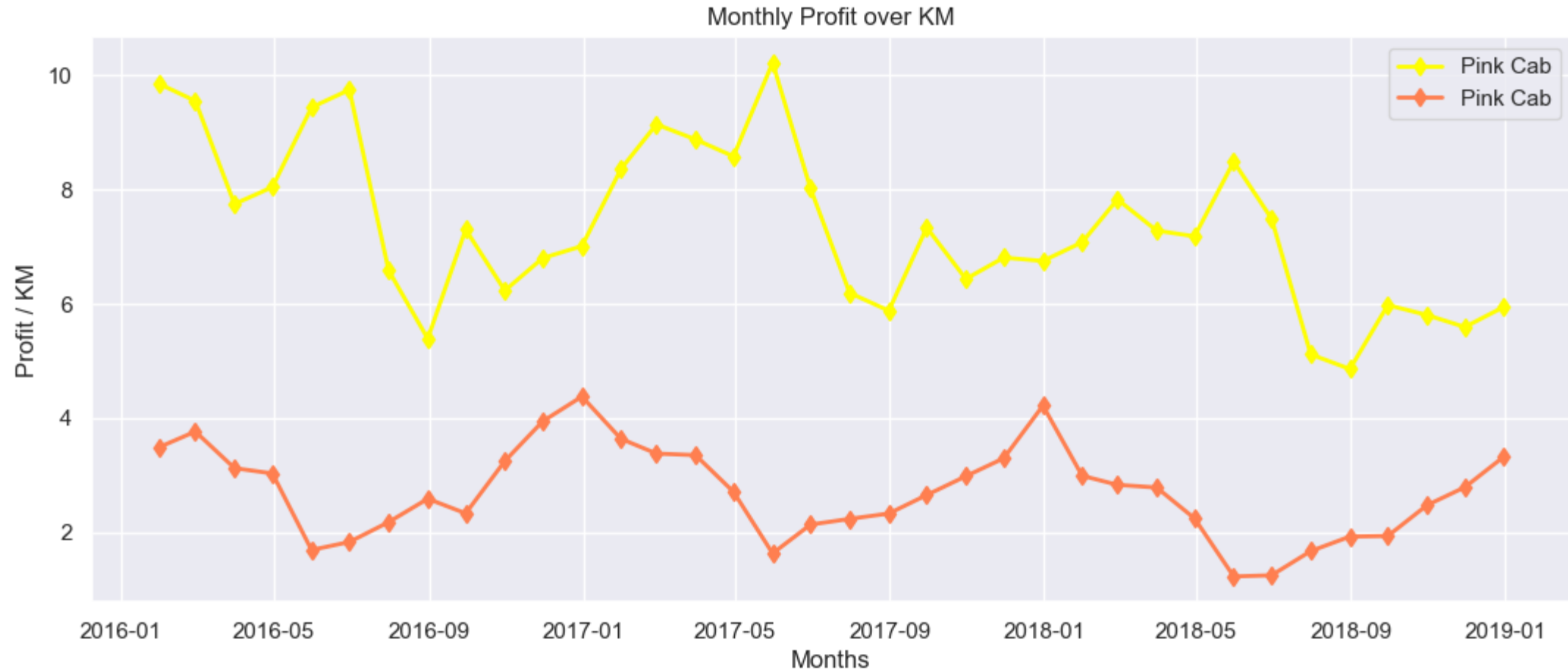
- This figure called Yearly Profit over KM, shows clearly that, Yellow Cab has earned more profit than Pink Cab in term of distance.

# Profit Analysis: monthwise over KM



Monthly Profit over KM

- This figure called Monthly Profit over KM, shows clearly that, Yellow Cab has earned more profit than Pink Cab in term of distance each month during the 3 years.

# Recommendation

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

- Monthly Profit over Rides

- Yearly Profit over Rides

- Monthly Profit over KM

- Yearly Profit over KM


- The monthly earnings of Yellow Cab company is more stable with a fluctuation of 23% whereas that of Pink Cab company is less stable with a fluctuation of 61%.

**Data Glacier**

Your Deep Learning Partner

- I have analyzed the profit of the two cab industries and it turned out that Yellow Cab has been earnings more profit than Pink Cab.

- Therefore, I suggest to XYZ to invest in Yellow Cab industry instead of Pink Cab industry.

- Thank you very much for your intention!

Thank You