Exploratory Data Analysis

Cab Project

4/21/2023

Steven Pepe

By: Steven Pepe

Agenda

Goal

Approach

EDA

EDA Summary

Recommendations

Data Glacier
Your Deep Learning Partner

Goal

Make a recommendation for XYZ, a private firm in the U.S., on which cab company, Pink or Yellow, to invest in.

Approach

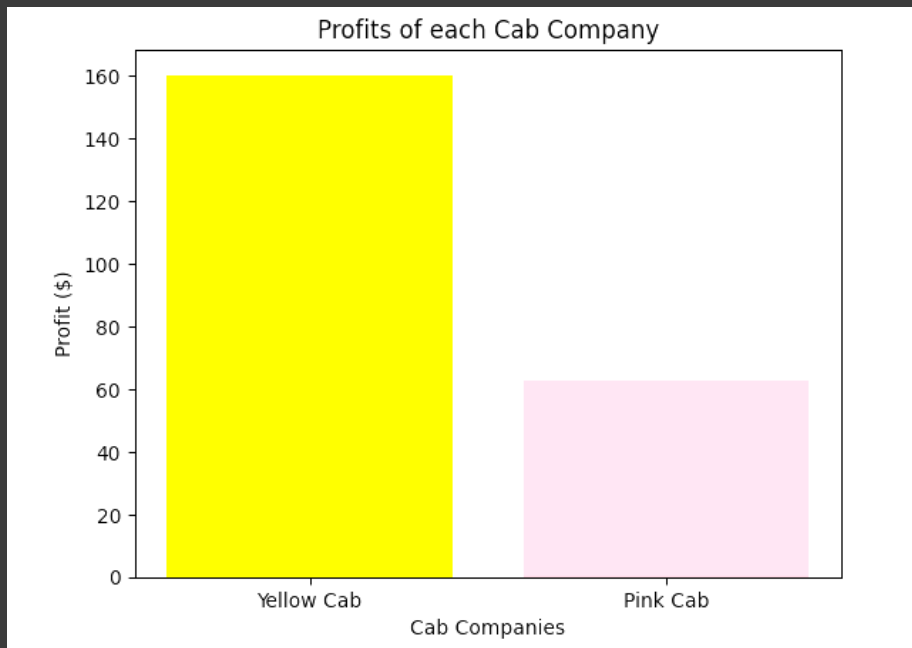To make a data-driven decision I analyzed:

- Average Profit Per Ride
- Popular Cities and the Cab Company presiding over them
- Average KM traveled per ride
- Amount of transactions for each company
- Percent of Cash and Credit Transactions for each company

Average Profit Per Ride
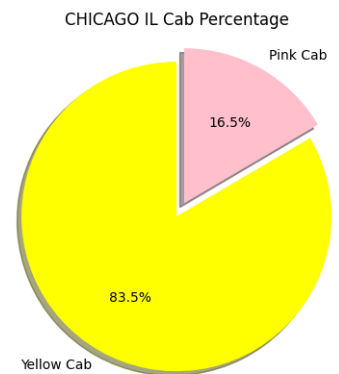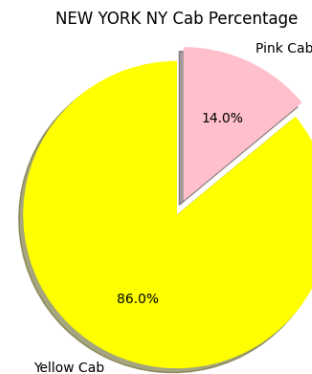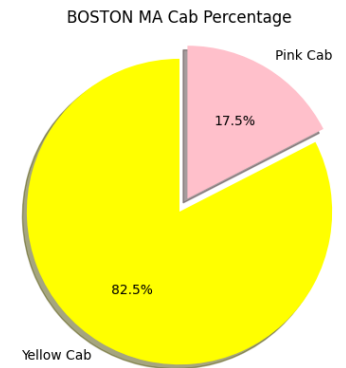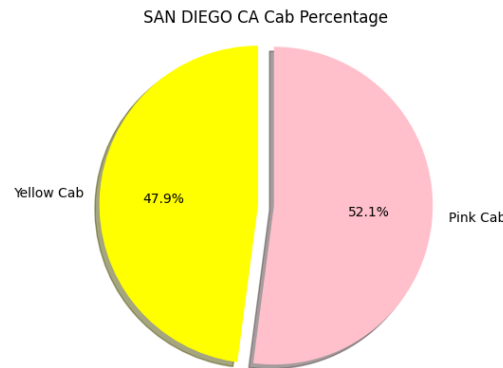
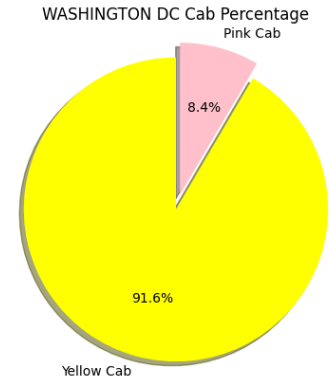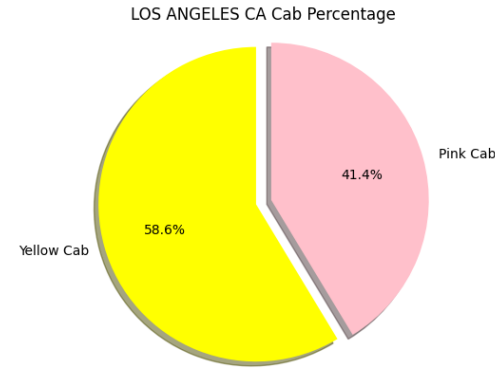Yellow Cab Average Profit Per Ride: 160.26

Pink Can Average Profit Per Ride: 62.65

The Yellow Company is making almost 100 more dollars than the Pink Company on each ride. This already is a very strong indication that Yellow Company would be a more successful investment. However, further analysis must be performed to ensure that is correct.
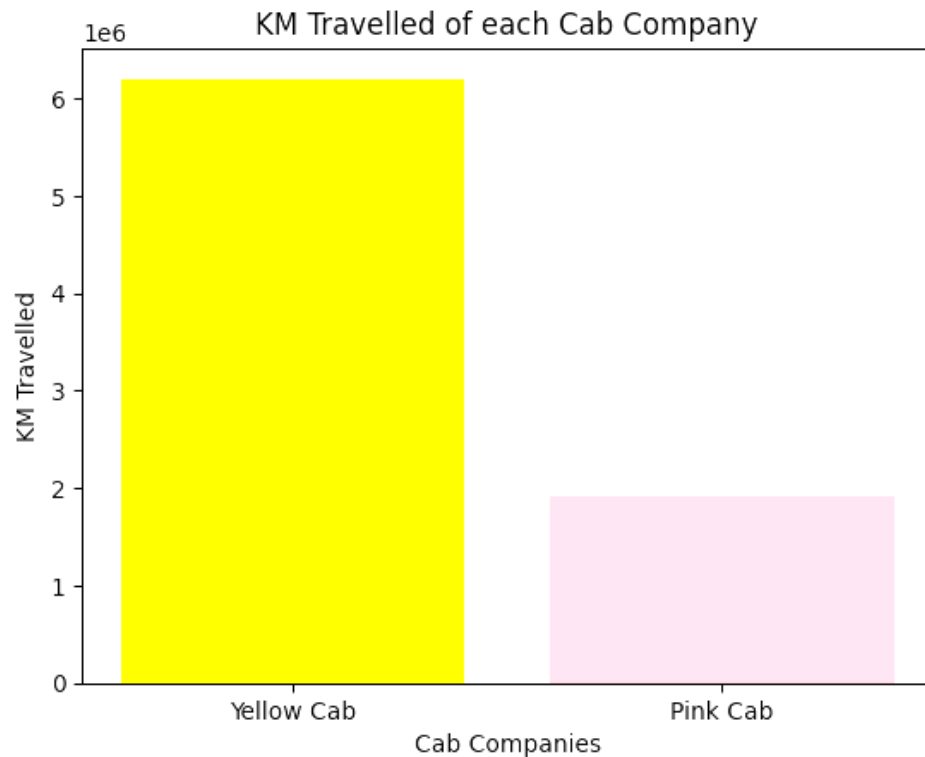

Profits of each Cab Company

Popular Cities

The Yellow Cab Company is more popular in 5/6 most populous cities. It maintained nearly 80% in New York, Chicago, Boston, and Washington. The only city in which the Yellow Company has less is San Diego. This further supports my assumption that Yellow Cab Company will be the better investment.

LOS ANGELES CA Cab Percentage

Pink Cab 41.4%
Yellow Cab 58.6%

WASHINGTON DC Cab Percentage

Pink Cab 8.4%
Yellow Cab 91.6%

SAN DIEGO CA Cab Percentage

Yellow Cab 47.9%
Pink Cab 52.1%

BOSTON MA Cab Percentage

Pink Cab 17.5%
Yellow Cab 82.5%

NEW YORK NY Cab Percentage

Pink Cab 14.0%
Yellow Cab 86.0%

CHICAGO IL Cab Percentage

Pink Cab 16.5%
Yellow Cab 83.5%

KM Travelled of each Cab Company

KM travelled for each company:

Yellow Company – 6,199,417 KMs

Pink Company – 1,911,073 KMs

The Yellow Company, yet again, outshines the Pink Company by having around 4 million more KMs travelled.
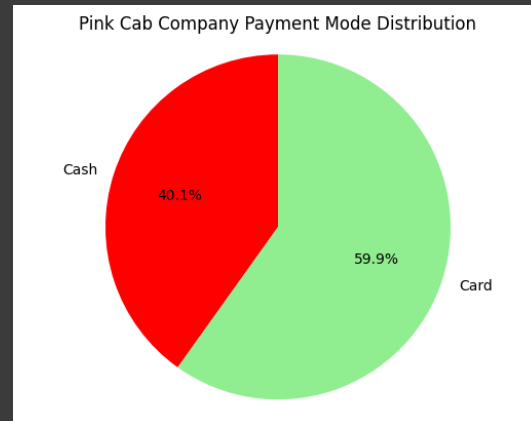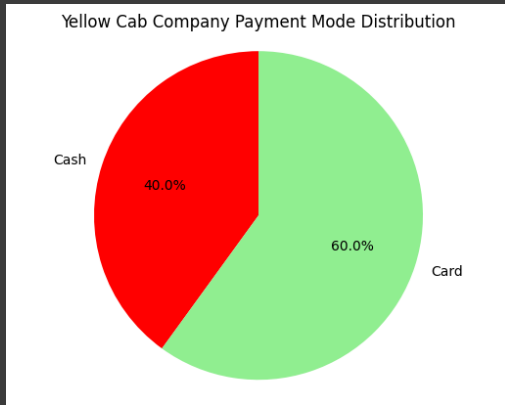

KM Travelled of each Cab Company

Total Transactions

Pink: 84,711

Yellow: 274,681

The Yellow Cab Company has 189,970 more transactions than the Pink Cab Company. This indicates that the Yellow Cab Company is getting significantly more rides than the Pink Company. Additionally, the Yellow Cab Company is making more profit per ride.

Percent of Cash and Credit Transactions

Yellow Cab Company Payment Mode Distribution

Pink Cab Company Payment Mode Distribution

Both Pink and Yellow Cab Company have the same percentage of cash and card payments

Summary + Recommendation

Through my analysis, I've come to the conclusion that Yellow Cab Company is a much better investment than Pink Cab Company for XYZ. This is because Yellow Cab Company has:

-Higher Average Profit Per Ride

-More Customers in Popular Cities

-Higher KM Travelled

-Higher Total Transactions

Thank You