



**Data Glacier**

Your Deep Learning Partner

# Exploratory Data Analysis

G2M Cab Industry Analysis

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# Agenda

Problem Statement

Approach

EDA

EDA Summary

Recommendations

# Problem Statement

This notebook's main goal is to help stakeholders better understand the market before making investments in the taxi sector using the Go-to-Market (G2M) method.

# Data

There have been provided 4 individual data sets. Time period of data is from 31/01/2016 to 31/12/2018.

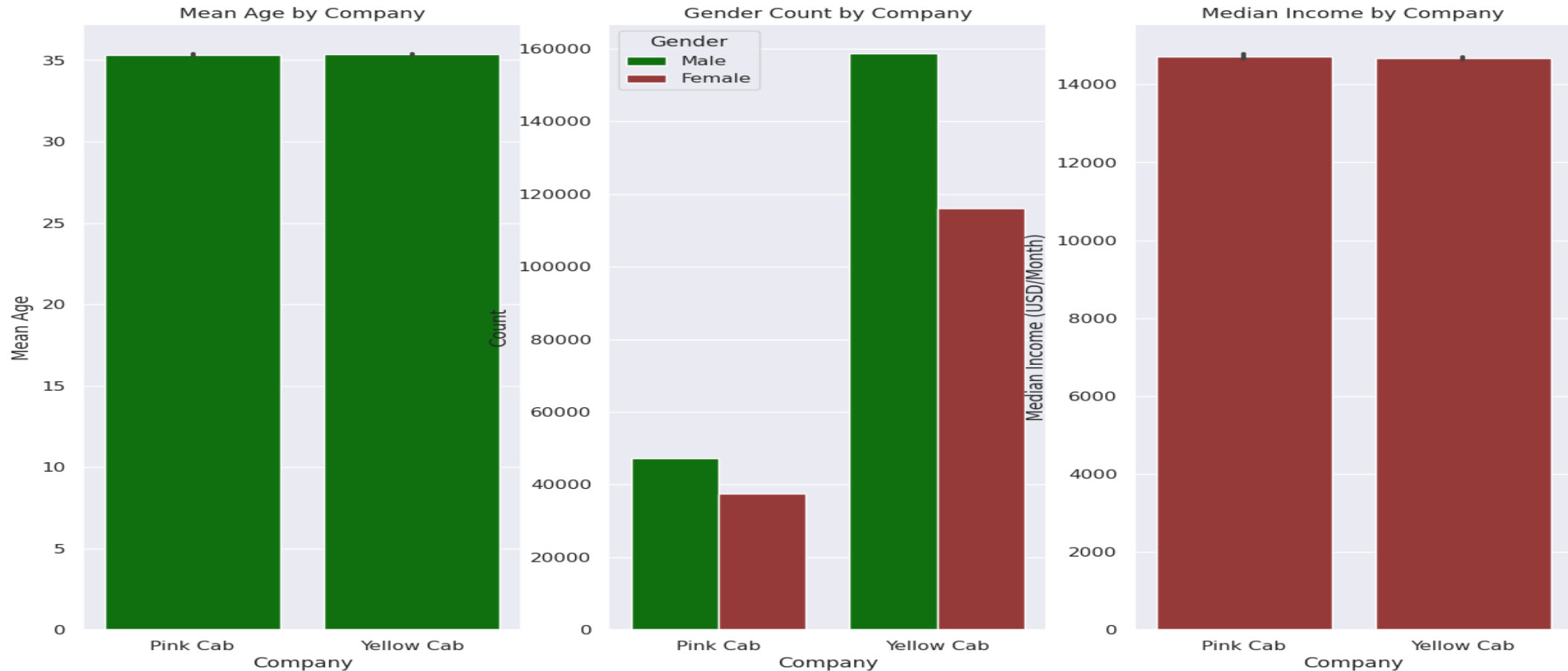
- Below are the list of datasets which are provided for the analysis:

|                | Data Points | Columns | Memory usage |
|----------------|-------------|---------|--------------|
| Cab Data       | 359391      | 3       | 19.2 MB      |
| Customer ID    | 49170       | 3       | 1.5 MB       |
| Transaction ID | 440098      | 7       | 10.1 MB      |
| Cities         | 20          | 3       | 608.0 Byte   |

- Merge data : 19 features after merging and total data point :359391

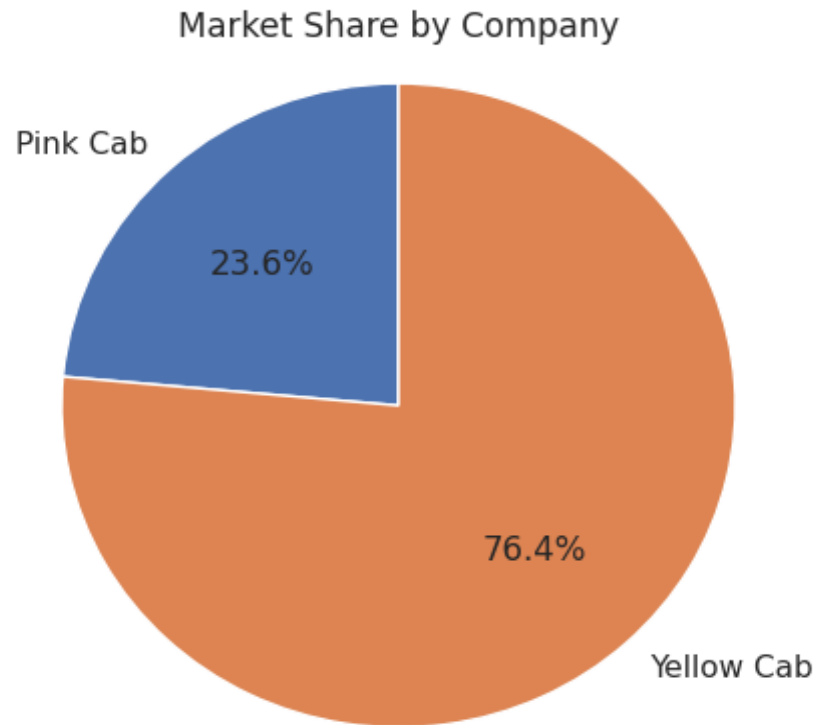
# Customer demographics analysis

The average age for both the pink and yellow cab is 35. The yellow cab has more male customer. The mean income of both customer is above \$14,000.00



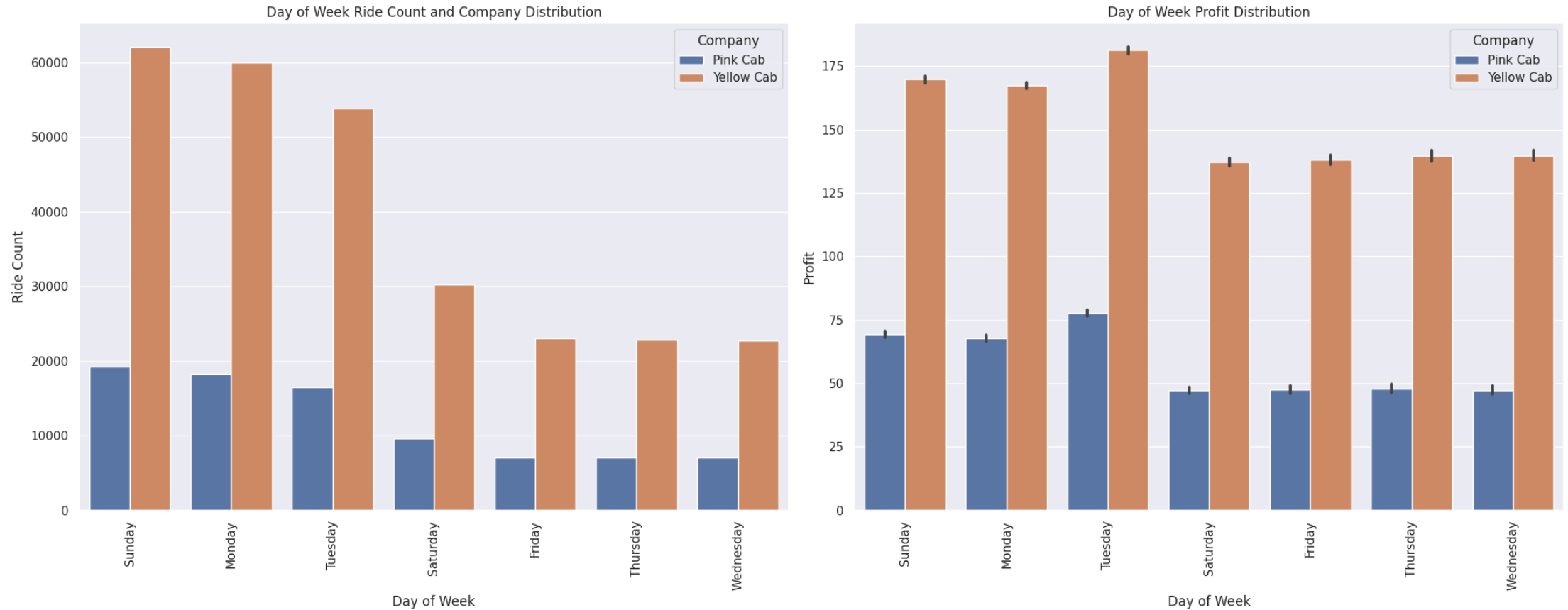
# Market Share

The yellow cab company has the 76.4% of the market share ■



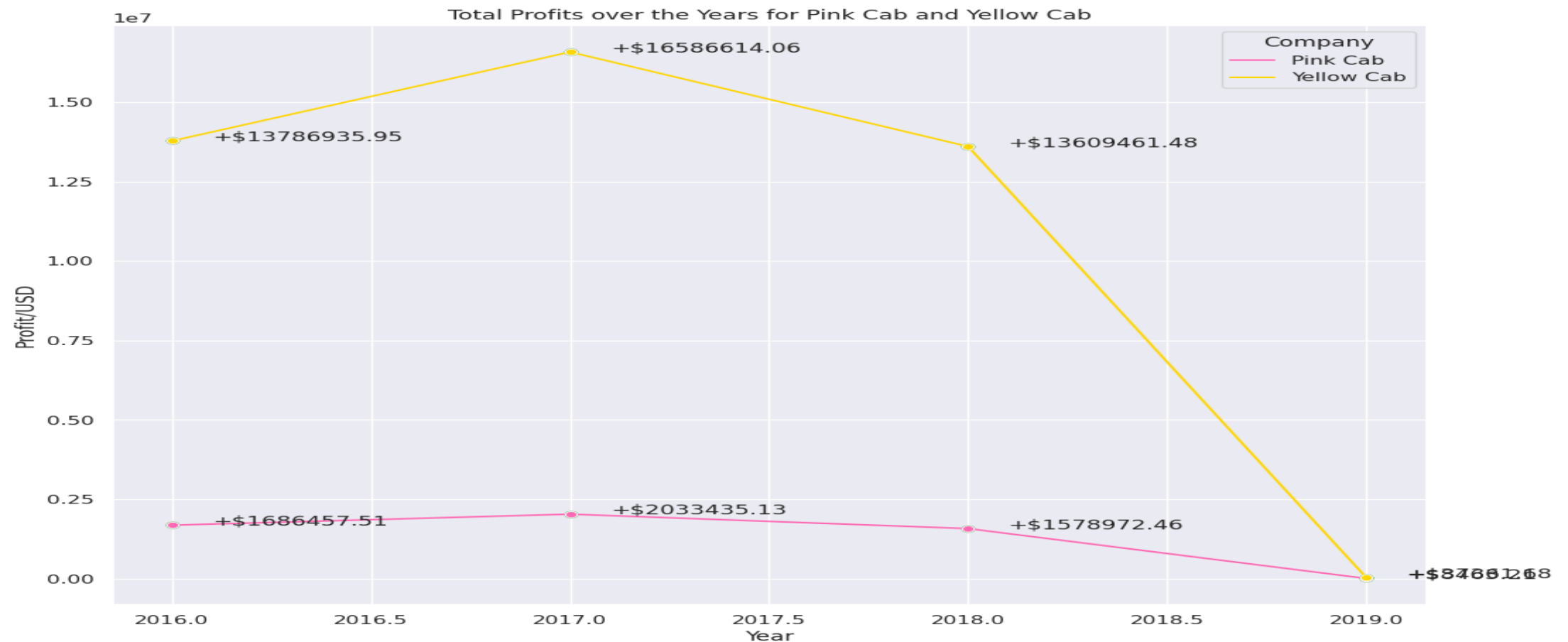
# Day of Week ride Count and Company Distribution

We can see on more Yellow cab on Sundays and Monday having more rides, yellow cab take home more profit



# Yearly Profit per company

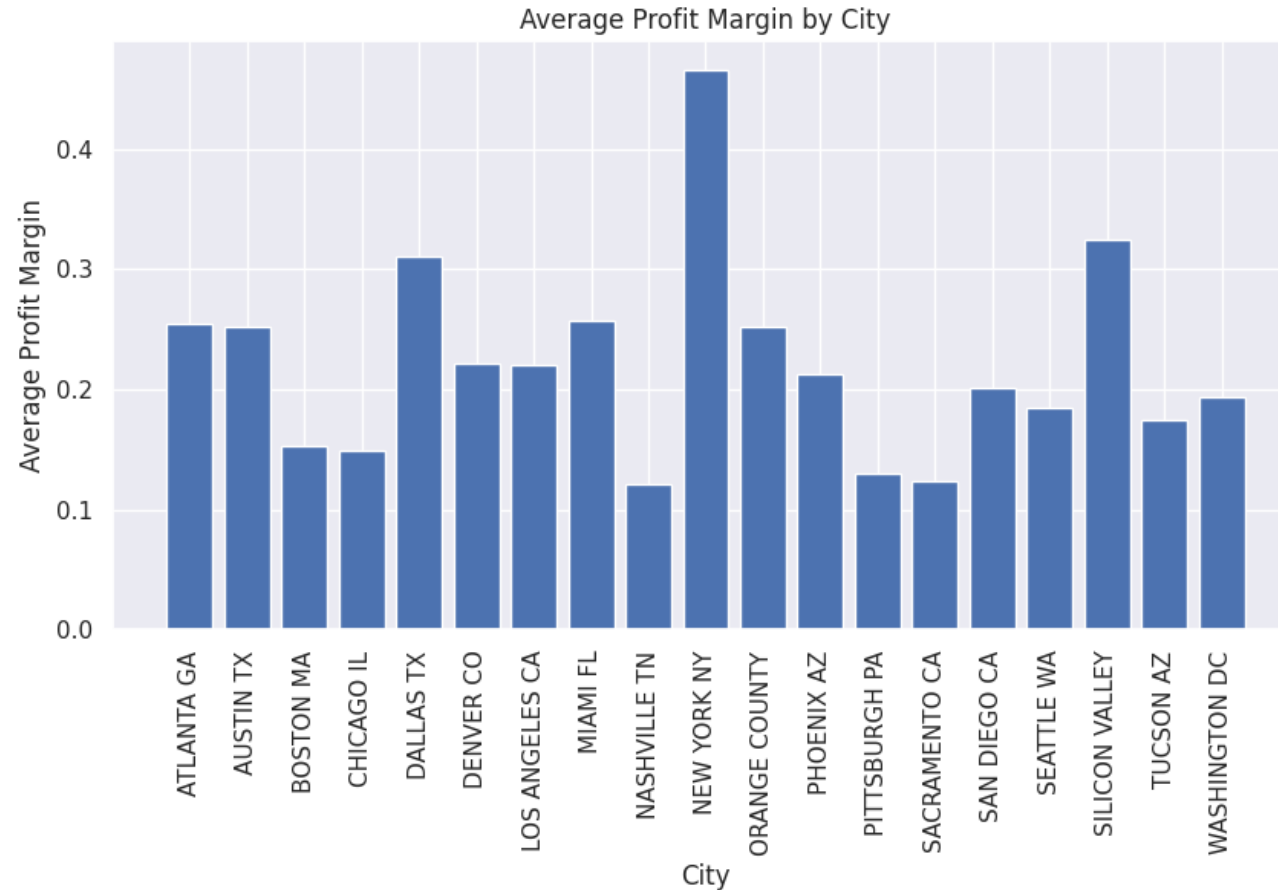
Profit per Company decreases over time in both companies where 2019 recorded the least with Pink Cab \$8,463,212, Yellow Cab \$3,736,168 and 2017 shows increase in profit for pink with \$16,586,614.06 and pink cab had little to no change.





# Profit margin per City

This gives us a bar chart showing the average profit margin for each city with New York having the highest average profit margin



# RECOMMENDATION

1. Since there is a positive correlation between the population of a city and the number of taxi users, it would be prudent for cab companies to expand their services in cities with a high population density.
2. The analysis demonstrates that the profit margin increases as the number of consumers rises. To increase profits, taxi companies should concentrate on acquiring and expanding their customer base.
3. The profit margin differs by city. To optimize profits, cab companies should concentrate their operations in cities with a high profit margin.
4. Understanding the demographics of their consumers would allow taxi companies to tailor their services and marketing strategies accordingly.

# Thank You