EXPLORATORY DATA ANALYSIS

G2M INSIGHT FOR CAB INVESTMENT FIRM

18/11/2024

EXECUTIVE SUMMARY

This project focuses on assisting a company interested in investing in the cab industry, by analyzing the cab data, customer data, transaction data and city data. Exploratory data analysis is done on the available datasets to come up with effective insights to help the company know the pathway in investment of the cab industry.

Problem statement

A private firm in US known as XYZ is interested in investing in the Cab industry.This is due to remarkable growth in the Cab Industry in last few years and multiple key players in the market.As per their Go-to-Market(G2M) strategy, they want to understand the market before taking final decision, so as to help them identify the right company to make their investment.

APPROACH FOLLOWED

1.Loading the dataset

2.Checking for missing values

3.Checking for duplicates

4.Checking for outliers

5.Analyzing each dataset on its own and plotting useful visualizations of the information in the dataset

6.Combining the datasets eg, Cab with cities to visualize information from both

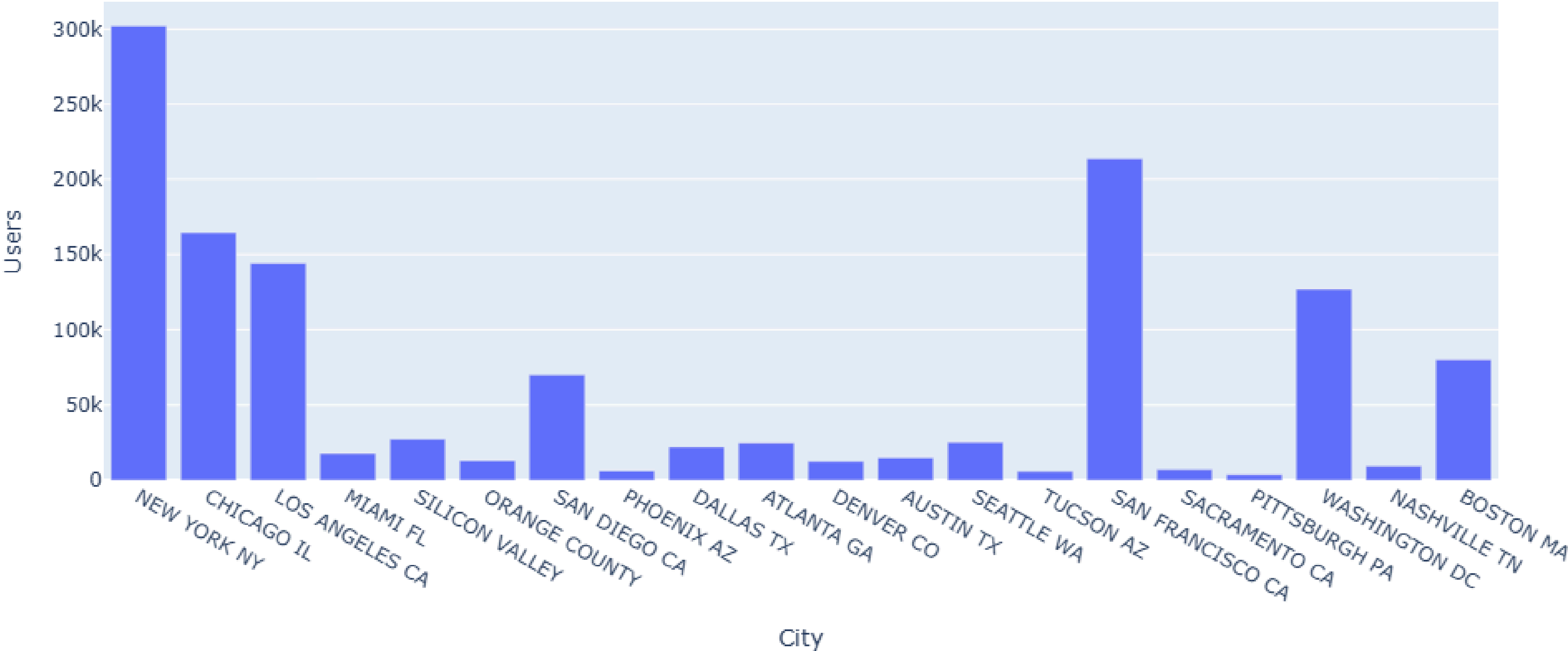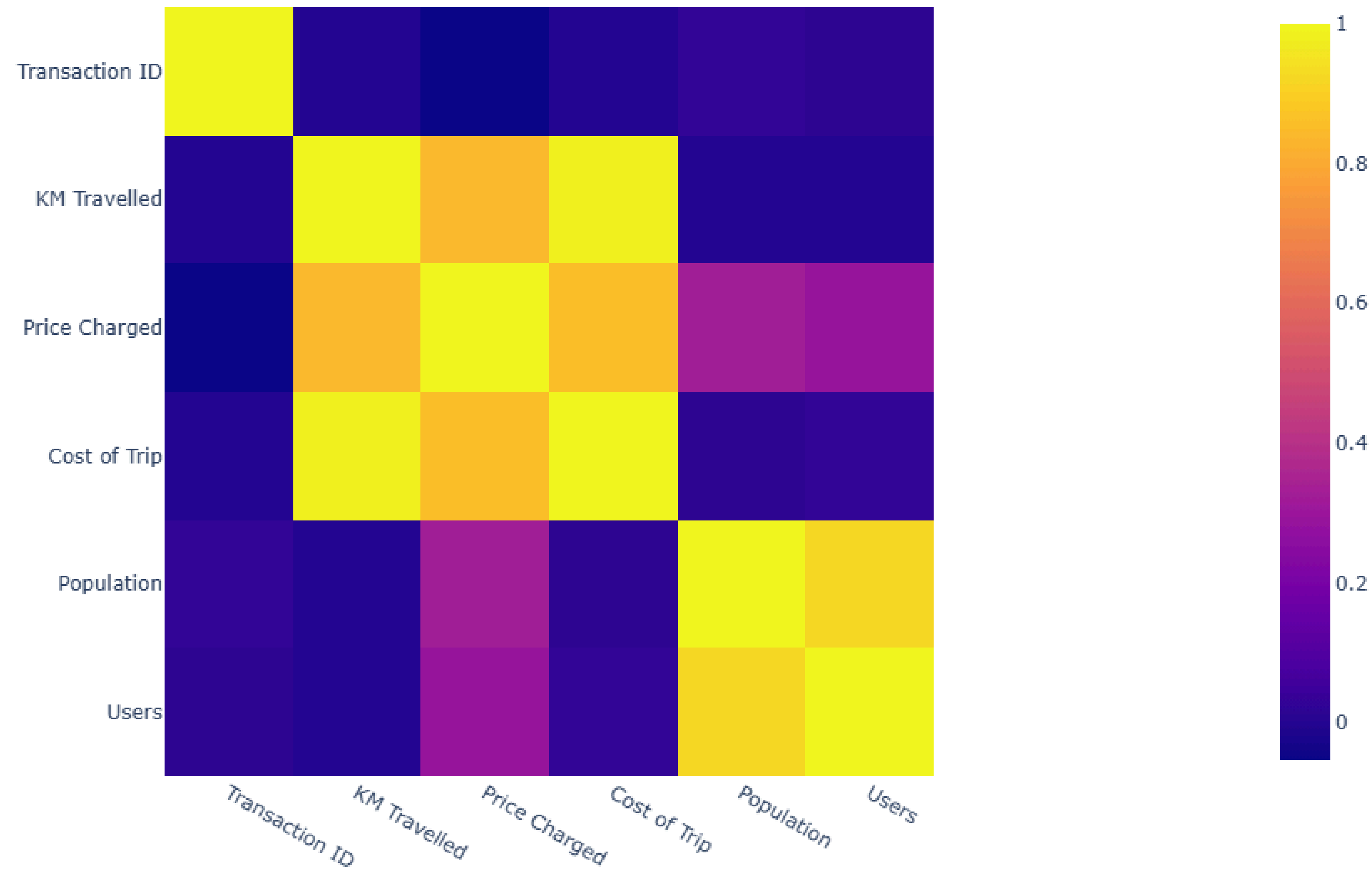7.Combining all the datasets.That is: Cab,city,customer andtransaction

EDA

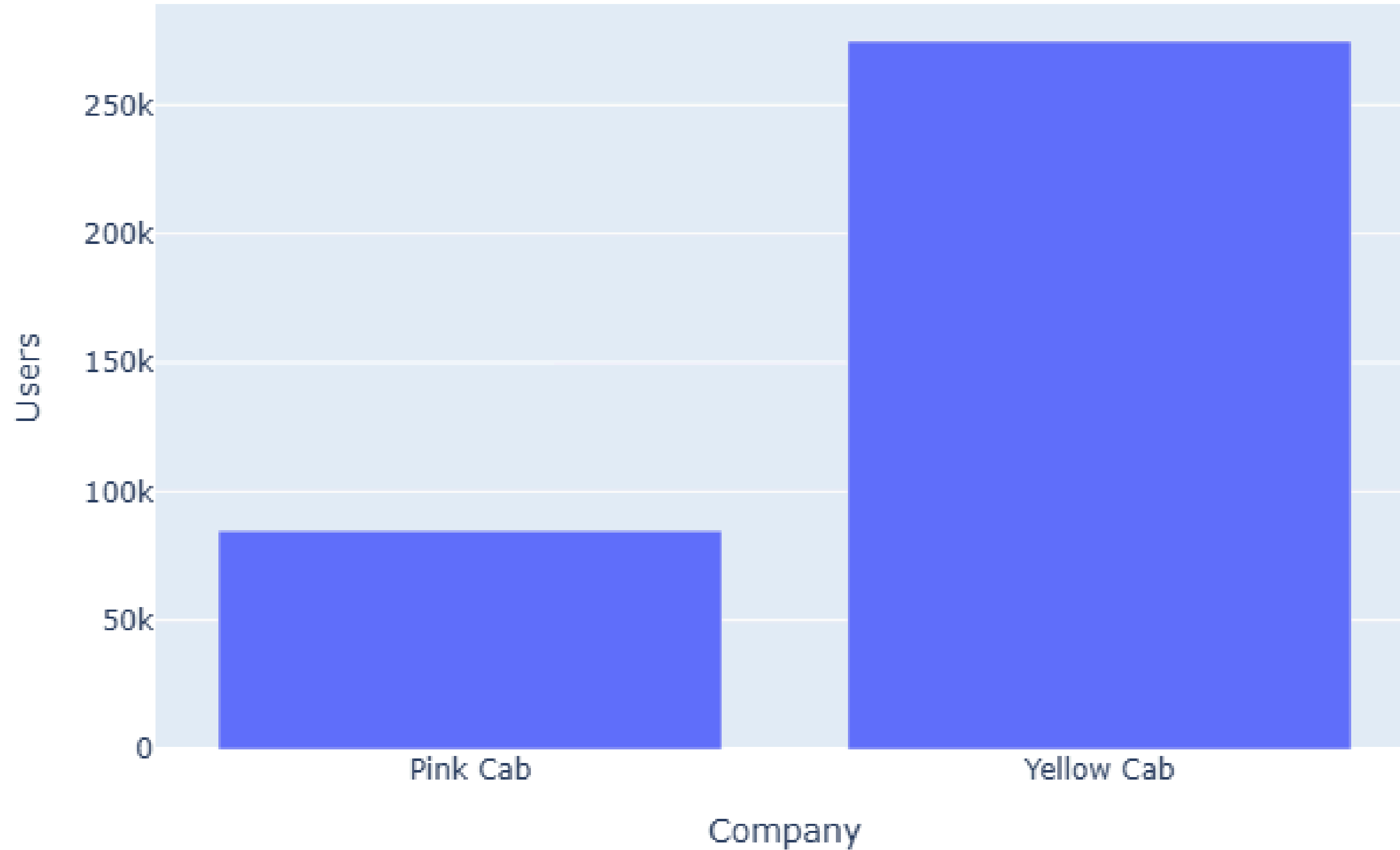# Booking Frequency over time by Company
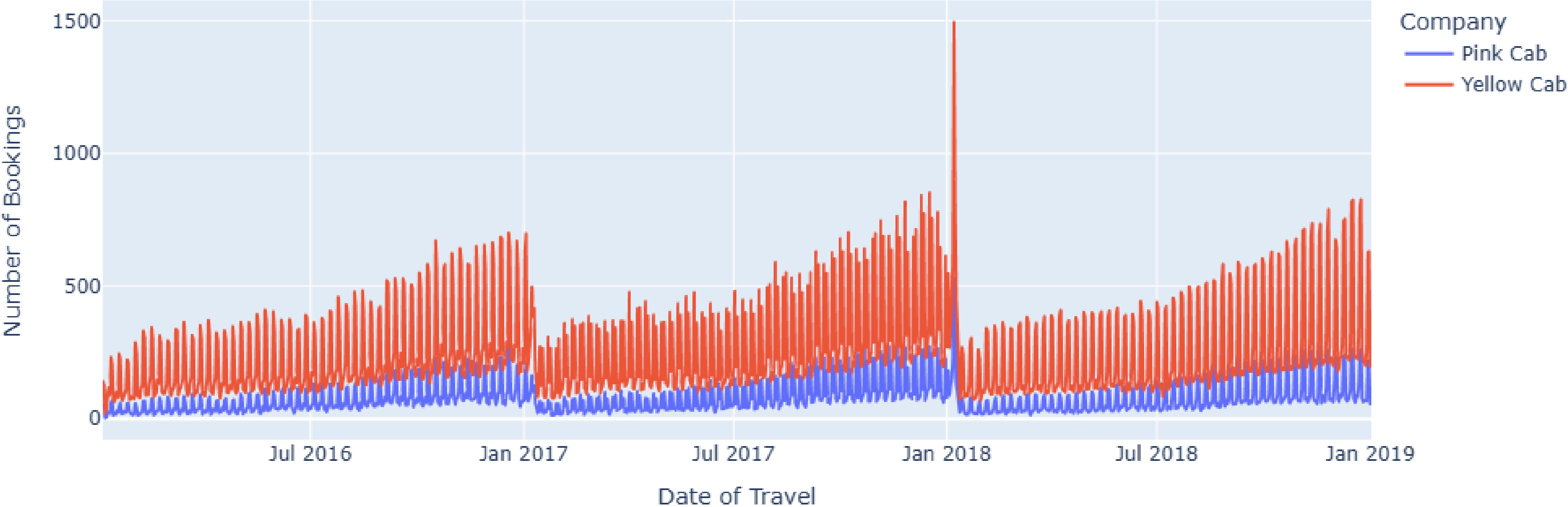
Cities with most Cab Users
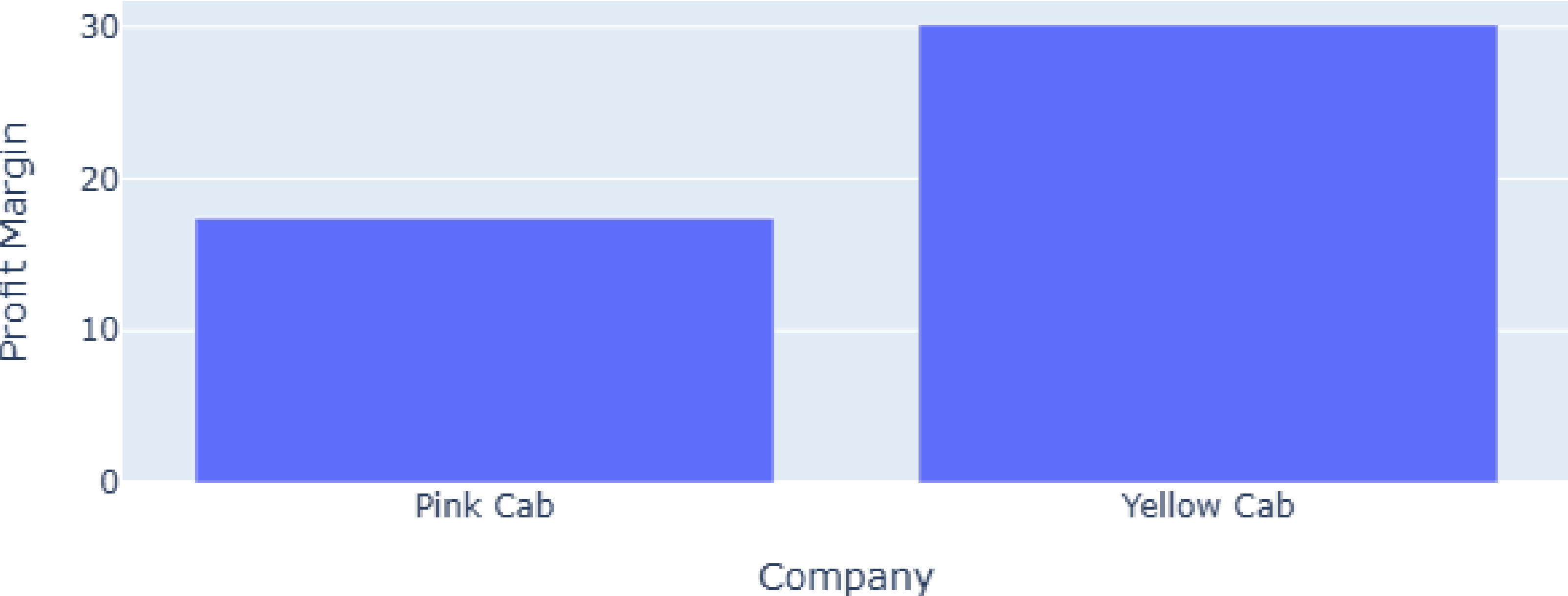
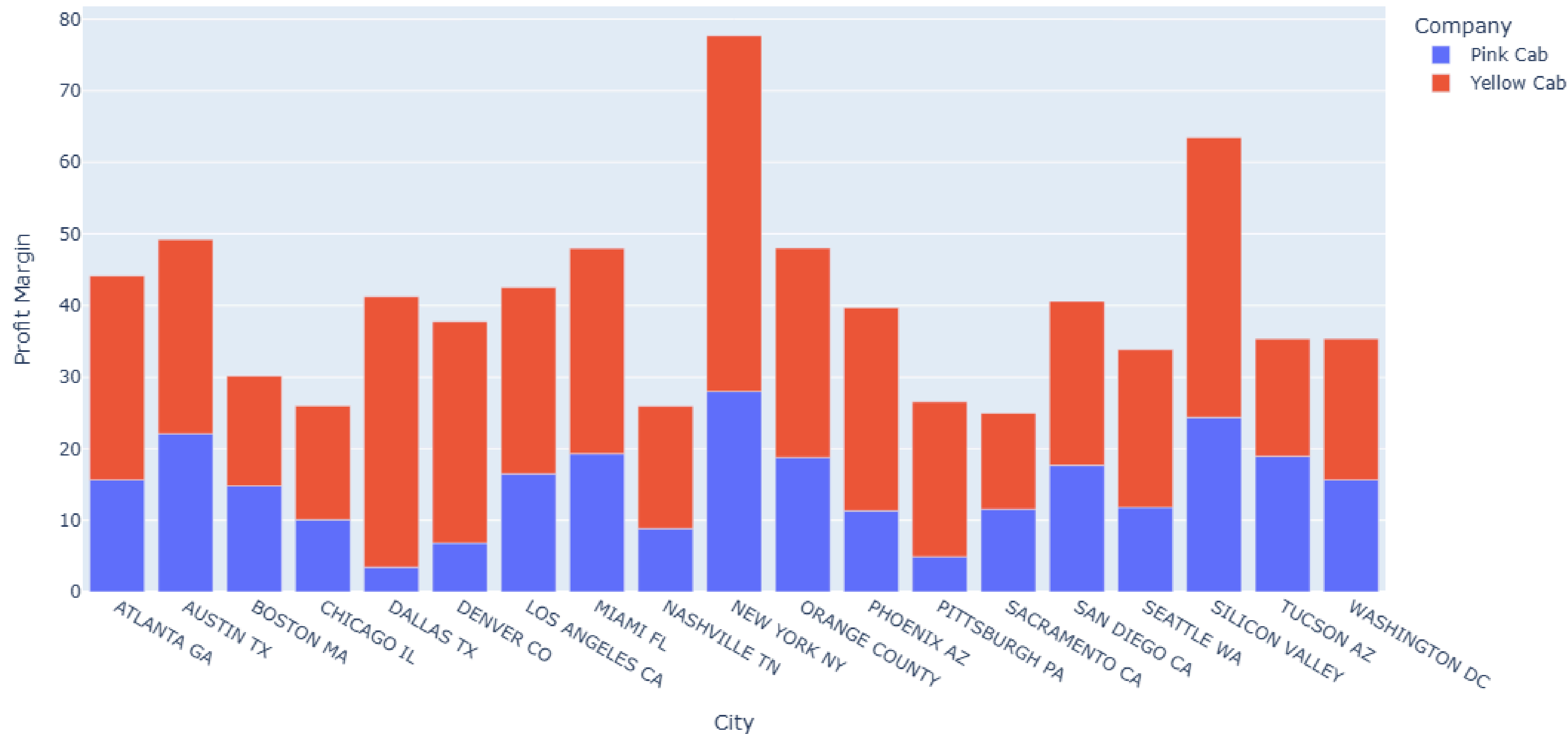CORRELATION OF POPULATION OF A CITY AND CAB USERS OF THE CITY
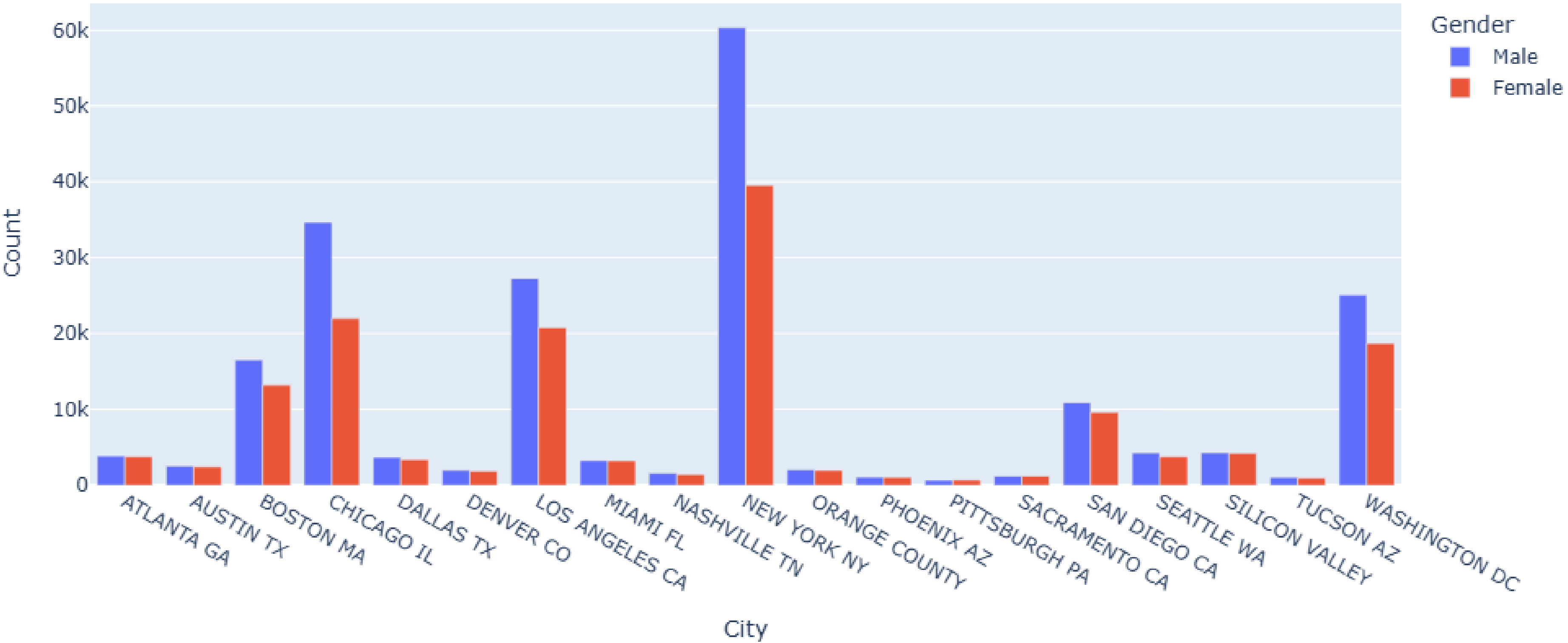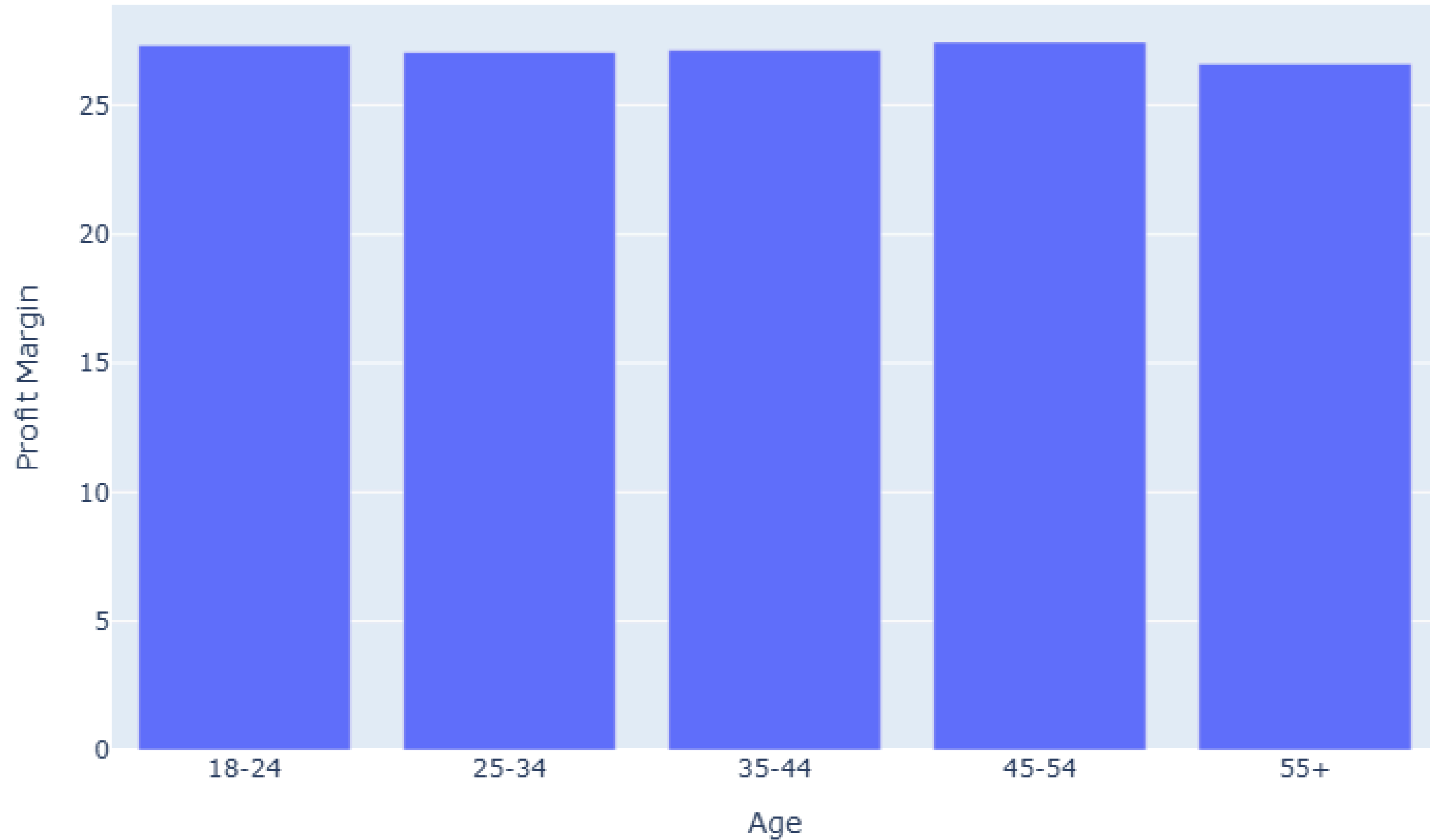
Cab Company with Most Users

Company Profit Margin

Profit Margin for Each Company in Each City

Cab Users by Gender in Each City

AVERAGE PROFIT MARGIN BY AGE GROUP

EDA SUMMARY

1. Yellow Cab receives more bookings in a day compared to Pink Cab

2.There's a high correlation between users and population.

3. There's a high correlation between users and population

4. Yellow Cab has most users, appoximately 274k from the analysis, compared to Pink Cab which has 84k.

EDA SUMMARY

5. Yellow Cab has a higher profit margin compared to Pink Cab

6.Cities like Silicon Valley, NeW York and Dallas which have higher profit margins

RECOMMENDATIONS

1. Prioritize Yellow Cab for Investment .

   • Form strategic partnerships with Yellow Cab to leverage their larger customer base and higher operational scale.

2. Focus on High-User Cities

   • Allocate resources to cities like New York, San Francisco and Chicago to establish or expand operations in these cities

3. Target Cities with Large Populations so as to customize potential customer reach.

4. Prioritize Cities with Higher Profit Margins.

5. Invest in Key Age Groups

   • Create targeted marketing campaigns and promotions for key age groups cited previously, focusing on their specific transportation needs and preferences.