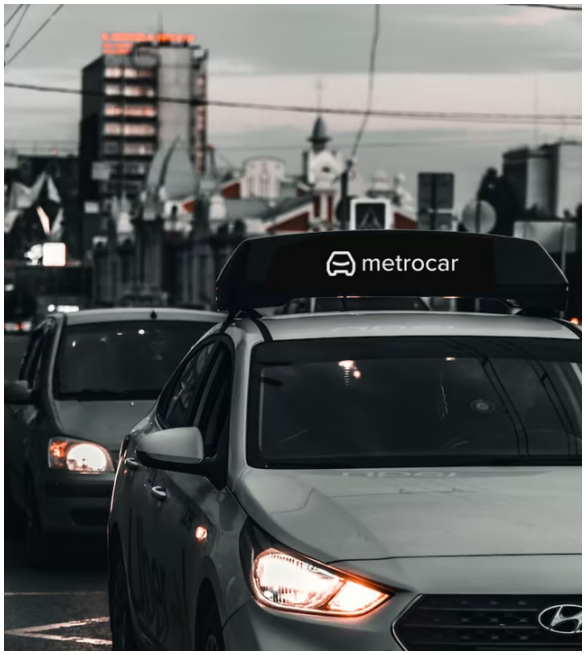
Project Overview

Funnel Analysis Mastery Project

This project aims to analyze the customer funnel of Metrocar, a ride-sharing app (similar to Uber/Lyft), to identify areas for improvement and optimization. You will use SQL to query the data and Tableau or Google Sheets for data visualization.

The stakeholders have asked several business questions that can uncover valuable insights for improving specific areas of the customer funnel. Your task is to conduct a funnel analysis and address the business questions. Explain your reason for your recommendations based on insights retrieved from the data.



Project Logistics

Most of the project details will be given in the first sprint. From there, each sprint will provided guidance on a different phase of the project.

- **Sprint 1: Explore the Metrocar Data with SQL**
  The first week will mainly focus on understanding the dataset using SQL. This dataset contains many tables and properties and requires an understanding of the business (ride-sharing) and the company's funnel.
- **Sprint 2: Developing Metrocar Funnel Metrics**
  The second sprint will be focused on analyzing the data and reaching conclusions regarding the given business questions.
- **Sprint 3: Present the Funnel Results to Stakeholders**
  The third sprint will be mostly reserved for preparing and recording the final submission based on your insights and recommendations.
- **Sprint 4: Practice Week**
  You can use this week to finalize the project and to record and submit your presentations.

Students who submit the project before the deadline at the end of the unit will receive personalized feedback on their work.

Project Deadlines

- First submission deadline: **October 29** (12PM PT / 3PM EDT / 8PM UK)
- Second submission deadline: **November 26** (12PM PT / 3PM EDT / 8PM UK)

Project Background

Funnel analysis is a method in data analysis used to track and understand the sequential steps or stages that users or customers go through when interacting with a product, service, or website. It's called a "funnel" because the shape of the analysis resembles that of a real-world funnel – wide at the top and narrow at the bottom. However, it could also be easily represented by a bar chart.

Funnel analysis allows businesses and organizations identify where users drop off or convert, helping them to ultimately increase desired outcomes, such as sales, sign-ups, or conversions. It is widely used in e-commerce, marketing, and product development to drive growth and revenue.

Read more about Funnel Analysis

About Metrocar

Metrocar's business model is based on a platform that connects riders with drivers through a mobile application. Metrocar acts as an intermediary between riders and drivers, providing a user-friendly platform to connect them and facilitate the ride-hailing process.

📶 Metrocar's Funnel

The customer funnel for Metrocar typically includes the following stages:

1. App Download: A user downloads the Metrocar app from the App Store or Google Play Store.
2. Signup: The user creates an account in the Metrocar app, including their name, email, phone number, and payment information.
3. Request Ride: The user opens the app and requests a ride by entering their pickup location, destination, and ride capacity (2 to 6 riders).
4. Driver Acceptance: A nearby driver receives the ride request and accepts the ride.
5. Ride: The driver arrives at the pickup location, and the user gets in the car and rides to their destination.
6. Payment: After the ride, the user is charged automatically through the app, and a receipt is sent to their email.
7. Review: The user is prompted to rate their driver and leave a review of their ride experience.

Similar to other customer funnels, there will be drop-offs at every stage of the funnel, which is why funnel analysis can be helpful in identifying areas for improvement and optimization. For example, Metrocar may analyze the percentage of users who download the app but do not complete the registration process, or the percentage of users who request a ride but cancel before the driver arrives.

🔎 Business questions

You will need to analyze the data and make recommendations based on the following business questions:

- What steps of the funnel should we research and improve? Are there any specific drop-off points preventing users from completing their first ride?
- Metrocar currently supports 3 different platforms: ios, android, and web. To recommend where to focus our marketing budget for the upcoming year, what insights can we make based on the platform?
- What age groups perform best at each stage of our funnel? Which age group(s) likely contain our target customers?
- Surge pricing is the practice of increasing the price of goods or services when there is the greatest demand for them. If we want to adopt a price-surging strategy, what does the distribution of ride requests look like throughout the day?
- What part of our funnel has the lowest conversion rate? What can we do to improve this part of the funnel?

The Dataset

This dataset is inspired by publicly available datasets for Uber/Lyft. The data for this dataset was generated specifically for this project.

Connect to the Metrocar database

The data can be accessed through Beekeeper. Paste the following URL using the “Import from URL” option mentioned in the instructions linked above:

```
postgres://Test:bQNxVzJL4g6u@ep-noisy-flower-846766-pooler.us-east-2.aws.neon.tech/Metrocar
```

Dataset structure

You can find a description of each table and its columns below.

- **app_downloads**: contains information about app downloads
  - app_download_key: unique id of an app download
  - platform: ios, android or web
  - download_ts: download timestamp
- **signups**: contains information about new user signups
  - user_id: primary id for a user

    - session_id: id of app download
    - signup_ts: signup timestamp
    - age_range: the age range the user belongs to
- **ride_requests**: contains information about rides
    - ride_id: primary id for a ride
    - user_id: foreign key to user (requester)
    - driver_id: foreign key to driver
    - request_ts: ride request timestamp
    - accept_ts: driver accept timestamp
    - pickup_location: pickup coordinates
    - destination_location: destination coordinates
    - pickup_ts: pickup timestamp
    - dropoff_ts: dropoff timestamp
    - cancel_ts: ride cancel timestamp (accept, pickup and dropoff timestamps may be null)
- **transactions**: contains information about financial transactions based on completed rides:
    - ride_id: foreign key to ride
    - purchase_amount_usd: purchase amount in USD
    - charge_status: approved, cancelled
    - transaction_ts: transaction timestamp
- **reviews**: contains information about driver reviews once rides are completed
    - review_id: primary id of review
    - ride_id: foreign key to ride
    - driver_id: foreign key to driver
    - user_id: foreign key to user (requester)
    - rating: rating from 0 to 5
    - free_response: text response given by user/requester