Hackathon

Ellipsis

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Abstract.

Comparir y Fluir(COM FU), is an App developed in Swift UI, to help people get from one place to another, with the comfort and security of a private vehicle, but with the speed and carbon footprint reduction of public transport. Greatly Improving the actual ways of movility in the CDMX.

Introduction

As Mexican citizens and Students, we figured out there is a huge issue in transportation and mobility, Chilangos (CDMX citizens) add up to almost 45 minutes of their year in traffic, almost 15% of the year. To solve this there are a lot of solutions, such as walking, cycling, or using public transport.

The first two had trouble when talking about long distances, short periods, and presentations because they are bound to break a sweat. And public transport isn't an ideal space, it's usually pretty crowded and filled up with people, also it isn't safe as it should be.

That's why our solution is to promote car sharing, as it will reduce the number of cars on the street, reducing traffic and pollution. Mainly because it solves the transportation issue, but it allows you to be protected, comfortable, and on time.

Our platform has 2 types of accounts, the basic one, which has a user score, which allows you to join, groups according to it, the personal information of the user, and the number of trips, allowing us to have a record and quantify the carbon savings.

Code

The frontend uses SwiftUI and Swift. Although we made it so that the endpoint can be used on any platform, from web to desktop.

The backend is made with the Rust programming language using sqlx, a library for query execution and data fetching; axum, an http service compositor, and the ecosystem These two libraries provides an relatively easy way to connect to database and interact with it to provides security, functionality, Interaction to our app. This gave us the oportunity to make complex operation in the future.

The database and the backend aplication are running in the clouth and the price that aws gave us is 14 us dolars. The release in the app store is going to be 100 dolars and the price for use our app will be 2 us dolars and we are only going to win 1.5 dolars per person to download the app. In conclusion we must have more than 179 users that buy the app each year to make the app profitable.

Functionality

To make the app work we need people that share the same “region” of Destiny for example they all work around La Mexicana Park, and they have similar departure spots, one of them will share his car and get the other to their Destiny. As a way of gratitude they will pay him for the gas, or the aditional fees as the Tolls. This App will Solve the movility issues maximizing all the benefits of two types of transport Private and public. Also it will greatly reduce the carbon emissions created by the traffic jams and minimize the emissions as there are less cars on the street.

Opportunity Areas

We would like to help high schools to use our service if the school transport is too pricy for them or it isn’t available in their area. But to do so we would need to implement especial parameters in order to protect those who are not fully prepared to make decisions. We can also implement this system in a much larger scale, and much more operative systems because we used Rust for the back