RIDESHARING APP FOR COLLEGE COMMUNITY

PRESENTATION

CAIO MONTILHA

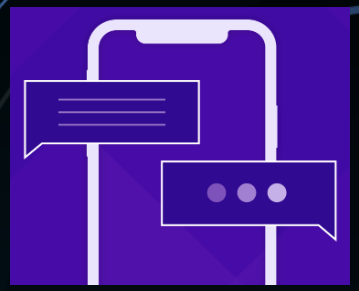
INTRODUCTION

- **Project Overview**

Development of a mobile app designed to facilitate ridesharing within a college community, enabling students, faculty, and staff to easily offer and find rides.

- **Motivation**

Inspired by my personal experiences as an international student, my app addresses the challenge of finding transportation to essential locations such as supermarkets, pharmacies, and restaurants.



MAIN FEATURES

- User Authentication and Verification
- Ride Matching
- Rating and Review System
- In-App Communication
- Map Intergration

UI MOCKUPS AND DESIGN

- **Sketches Overview**

Initial sketches include concepts for key screens: splash screen, login, home, offer ride, and user profile. These were made in my notebook and then by using Figma, where I made it better for visualization of the navigation flow.

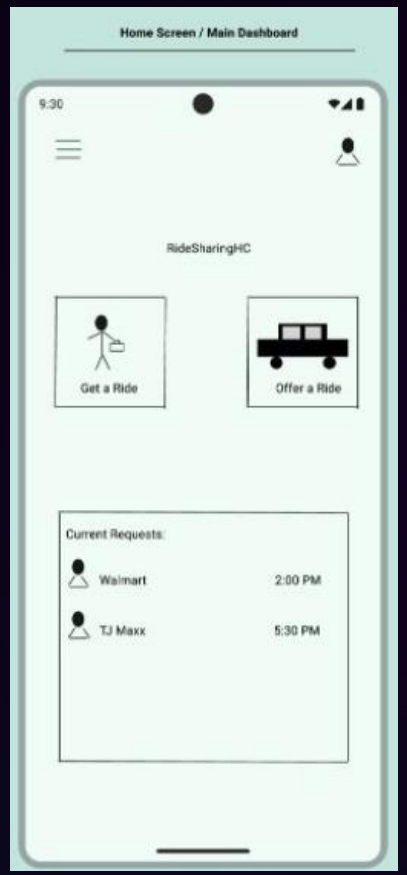
- **User-Centric Design**

UI design focuses on simplicity and functionality, ensuring users can easily navigate the app to offer or request rides.

- **Consistency**

Colors and layout maintain consistency with my logo theme, with screens designed to be easily navigable for the user.

UI MOCKUPS AND DESIGN



FIGMA

COMPARISON WITH EXISTING APPS

- Whirl

An open-source ridesharing app focused on privacy and community-specific features but lacks verification with college credentials.

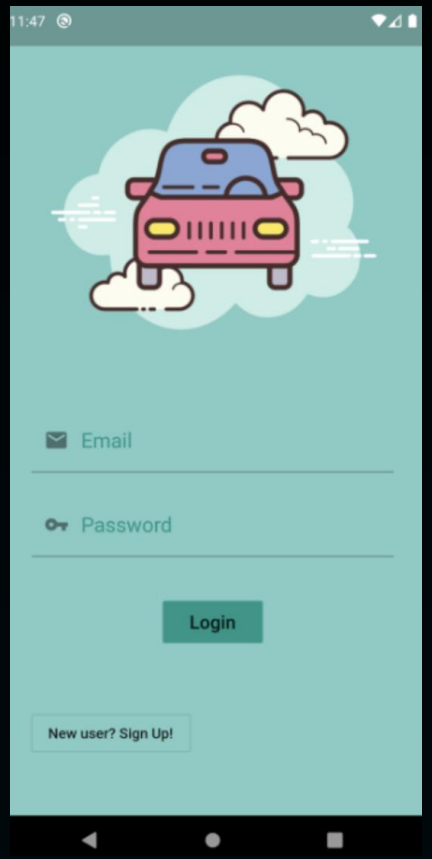
- Sride

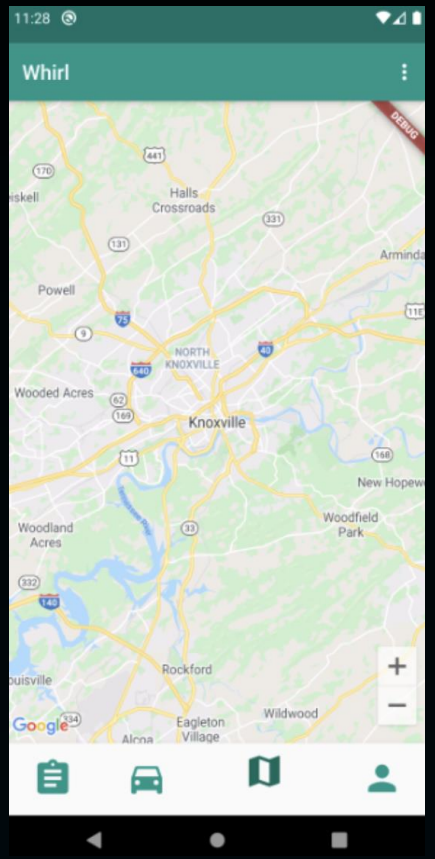
Offers ride matching and scheduling but doesn't apply specifically to college communities, unlike my proposed solution.

- Kotlin Uber Clone by EDMT Dev

Provides comprehensive Uber-like functionality but lacks customization for a college environment, such as student verification and community-focused features.

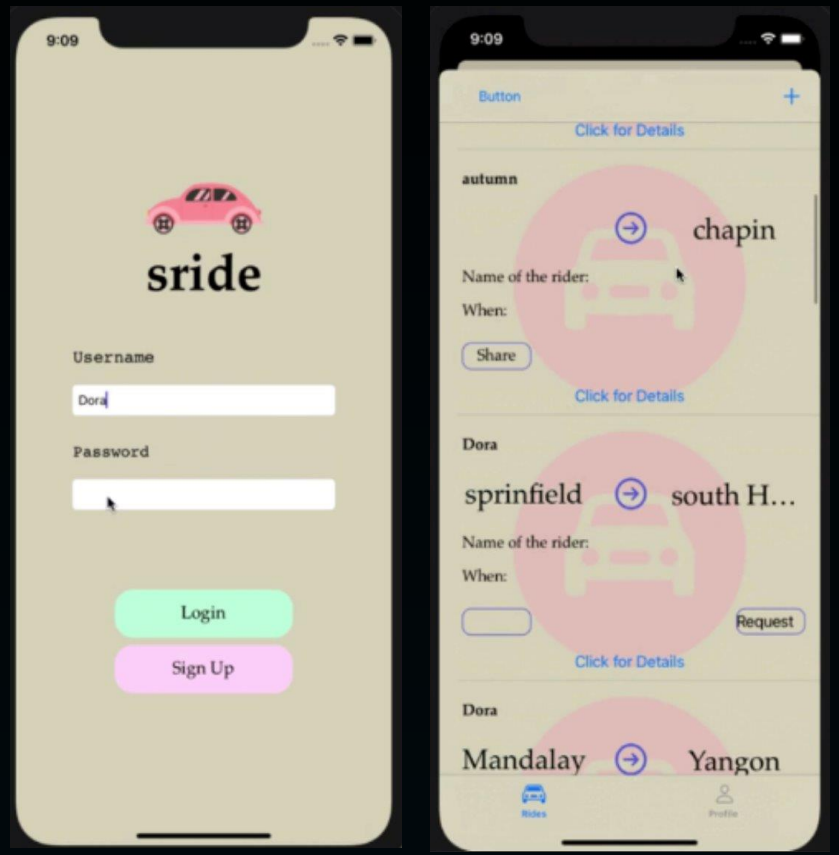
WHIRL - COMPARISON





- **Strengths**:
  - Open-source app focused on private communities.
  - Emphasizes user privacy and community-specific features.
  - Aligns with goals of privacy and community connection.
- **Limitations**:
  - Lacks student verification tied to college credentials.
  - No in-app communication feature, which is crucial for a college setting.
- **How RideSharingHC Addresses This**:
  - Provides verification tied specifically to college students.
  - Incorporates in-app messaging for better communication among users.

SRIDE - COMPARISON



- **Strengths:**

  - Open-source app focused on community-based ridesharing.
  - Includes features like ride matching, user profiles, and scheduling.

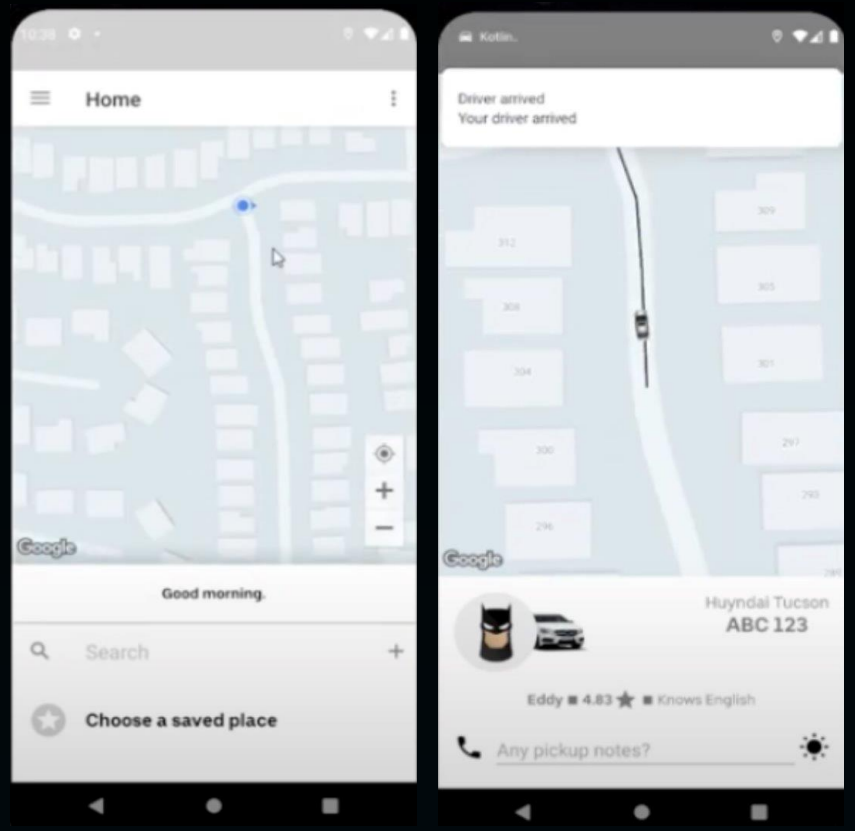
- **Limitations**:

  - More generalized; not specifically tailored for college communities.
  - Does not include college-specific functionalities like student verification.

- **How RideSharingHC Addresses This**:

  - Provides features specifically for a college community.
  - Adds verification tied to college credentials for enhanced security.

KOTLIN UBER CLONE BY EDMT - COMPARISON



- **Strengths:**

  - Comprehensive YouTube tutorial on building an Uber-like ridesharing app.
  - Covers project setup, user authentication, real-time location tracking, and ride-matching algorithms.

- **Limitations**:

  - Lacks customization needed for a college environment.
  - Does not include student verification or community-focused features.

- **How RideSharingHC Addresses This**:

  - Adds student verification to ensure security within the college community.
  - Focuses on features designed for a college-specific environment, fostering community engagement.

TECHNOLOGIES AND TOOLS

ANDROID SDK

A comprehensive development kit that provides the tools, libraries, and resources necessary for building, testing, and debugging Android applications effectively.

FIREBASE

A comprehensive backend platform that provides authentication, real-time databases, cloud storage, and analytics, enabling developers to build powerful, scalable apps with ease.

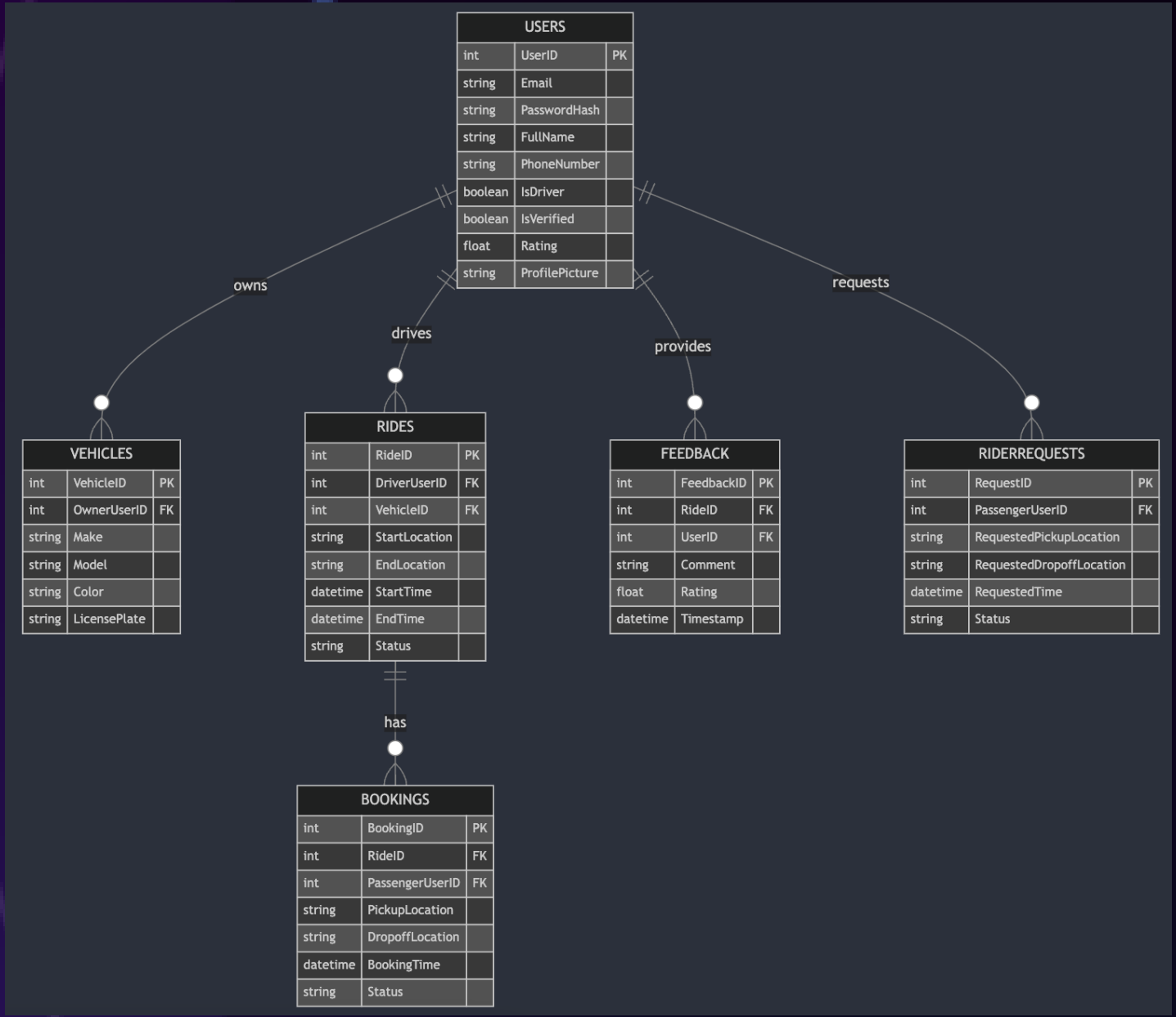
KOTLIN

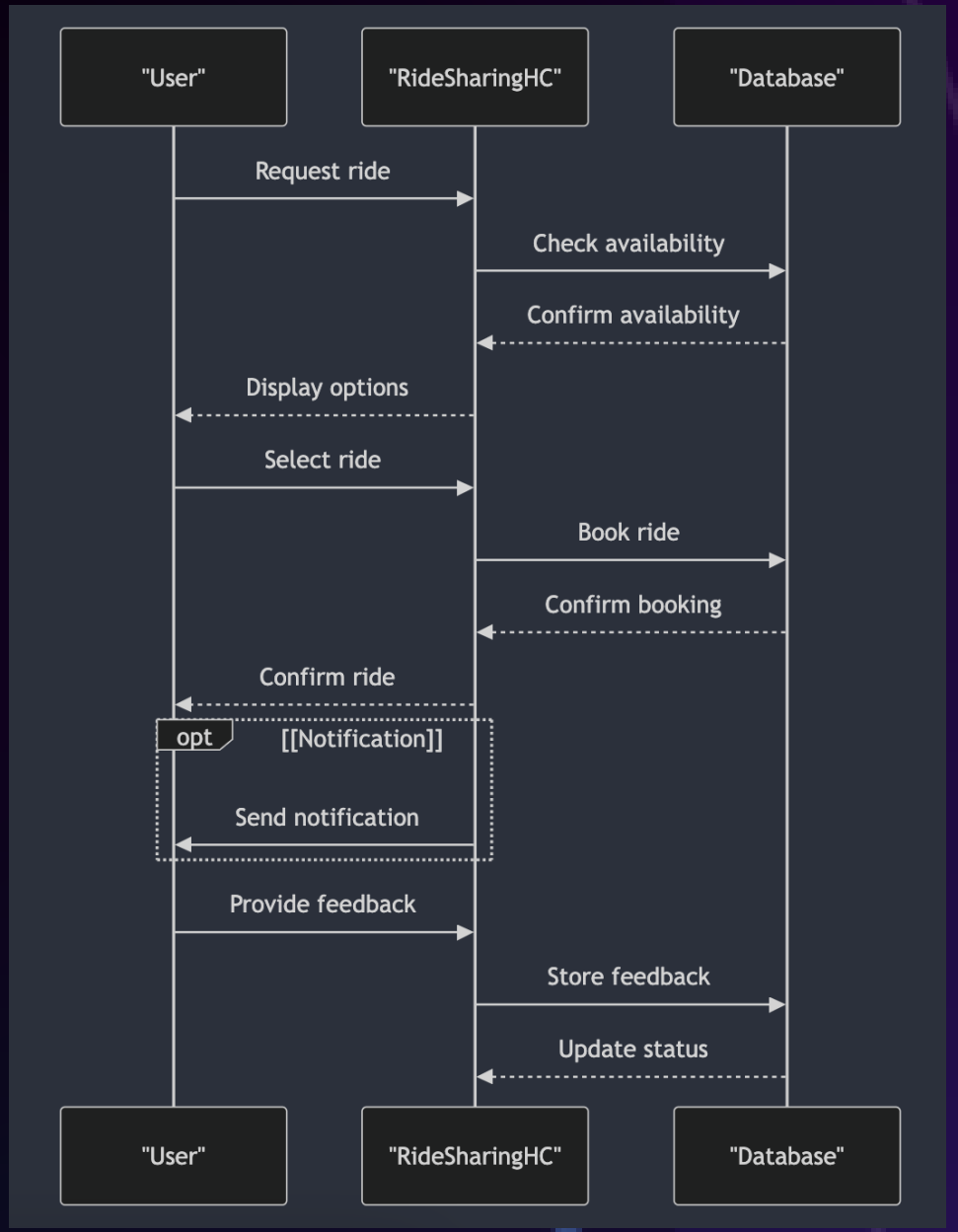
A modern programming language for Android development, featuring concise syntax, enhanced safety, and seamless Java interoperability, enabling efficient, reliable app development.

JETPACK COMPOSE

A modern UI toolkit for building native Android interfaces that offers a simplified, more intuitive way to create responsive and dynamic UIs.

DATABASE STRUCTURE AND WORKFLOW





MERMAID

SUMMARY AND NEXT STEPS

Key Benefits

My app simplifies ridesharing for students, enhances transportation options, and fosters a sense of community within the college.

Future Enhancements

Potential improvements include expanding to other universities, integrating payment systems, integrating a real-time tracking feature for improved safety and transparency during rides, and develop a loyalty or rewards program to incentivize frequent use and encourage sustainable travel.

THANK YOU

Caio Montilha

montilhac25@hanover.edu

RideSharingHC App

VISIT: https://hanover-cs.github.io/HC25-Caio-Montilha-Senior-Project/