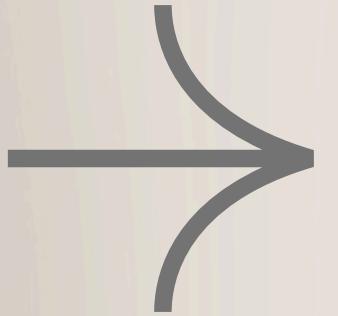


CORN'S CAR RENTAL

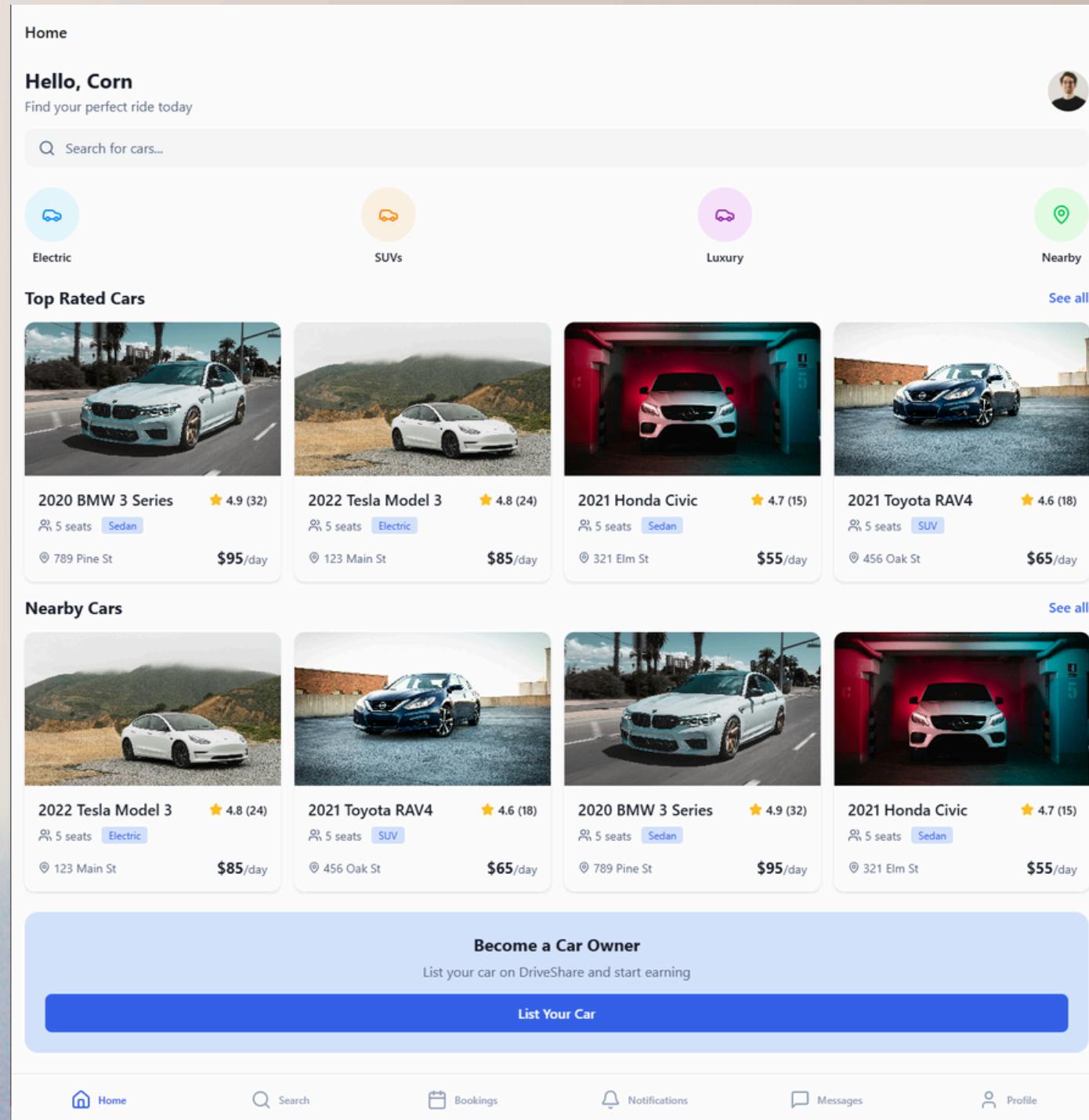


BY SOLOMIYA PYLYPIV
CORNELIU FLOAREA
MURTATHA ALZAYADI

DEMO

[HTTPS://YOUTU.BE/IXJICT4-EPM?](https://youtu.be/IXJICT4-EPM?si=X5X0UVXSNNT5HWT)
SI= X5X0UVXSNNT5HWT

ABOUT



01.

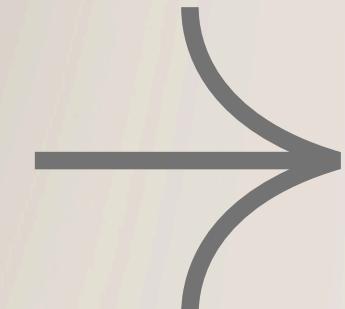
This is a car rental application that allows users to browse, book, and rent cars.

02.

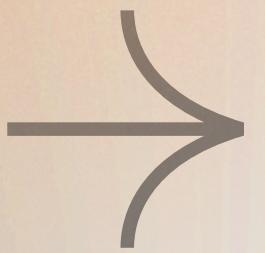
Frontend: React Native, Expo
Language: TypeScript
State Management: Zustand
Storage: AsyncStorage

03.

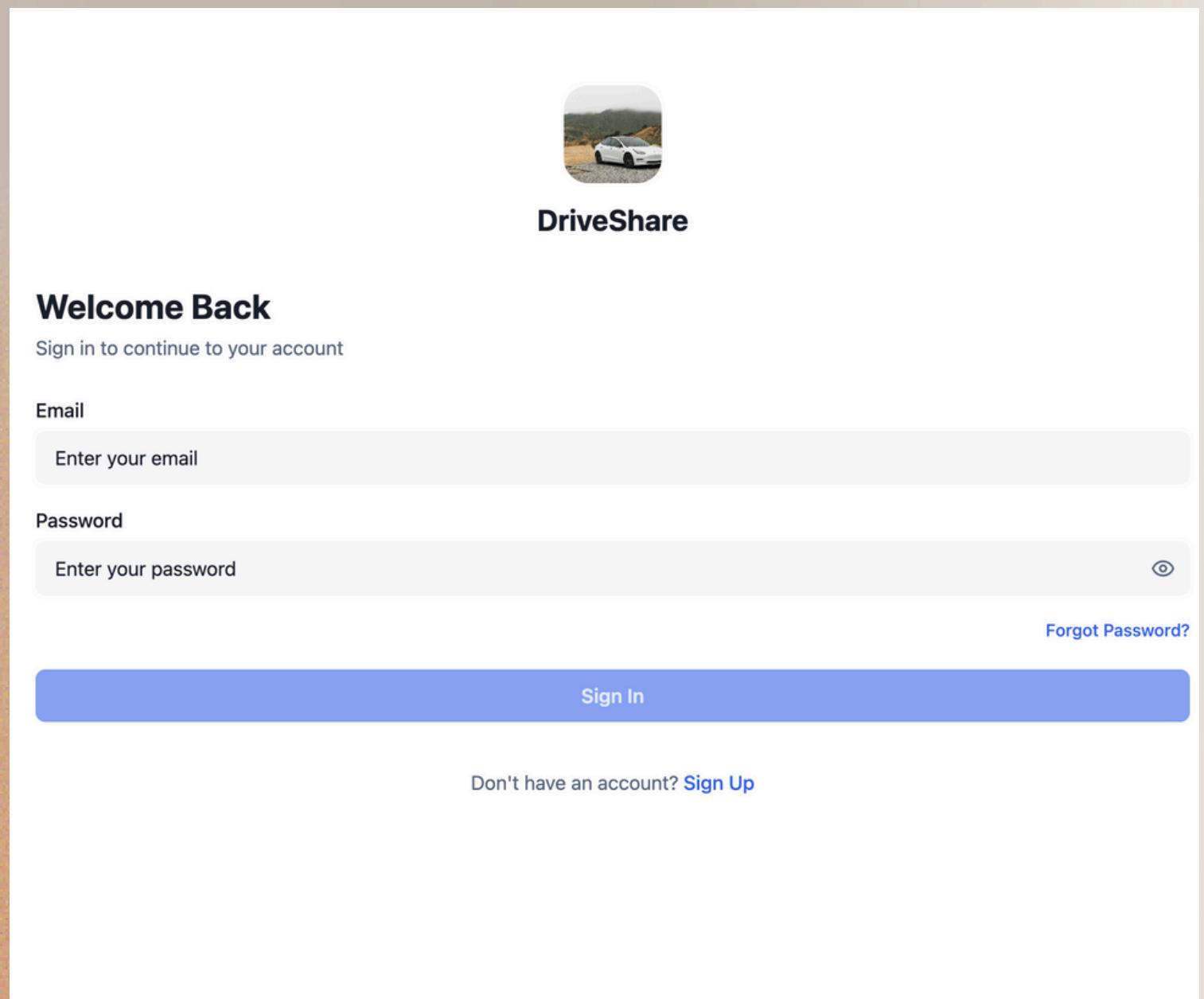
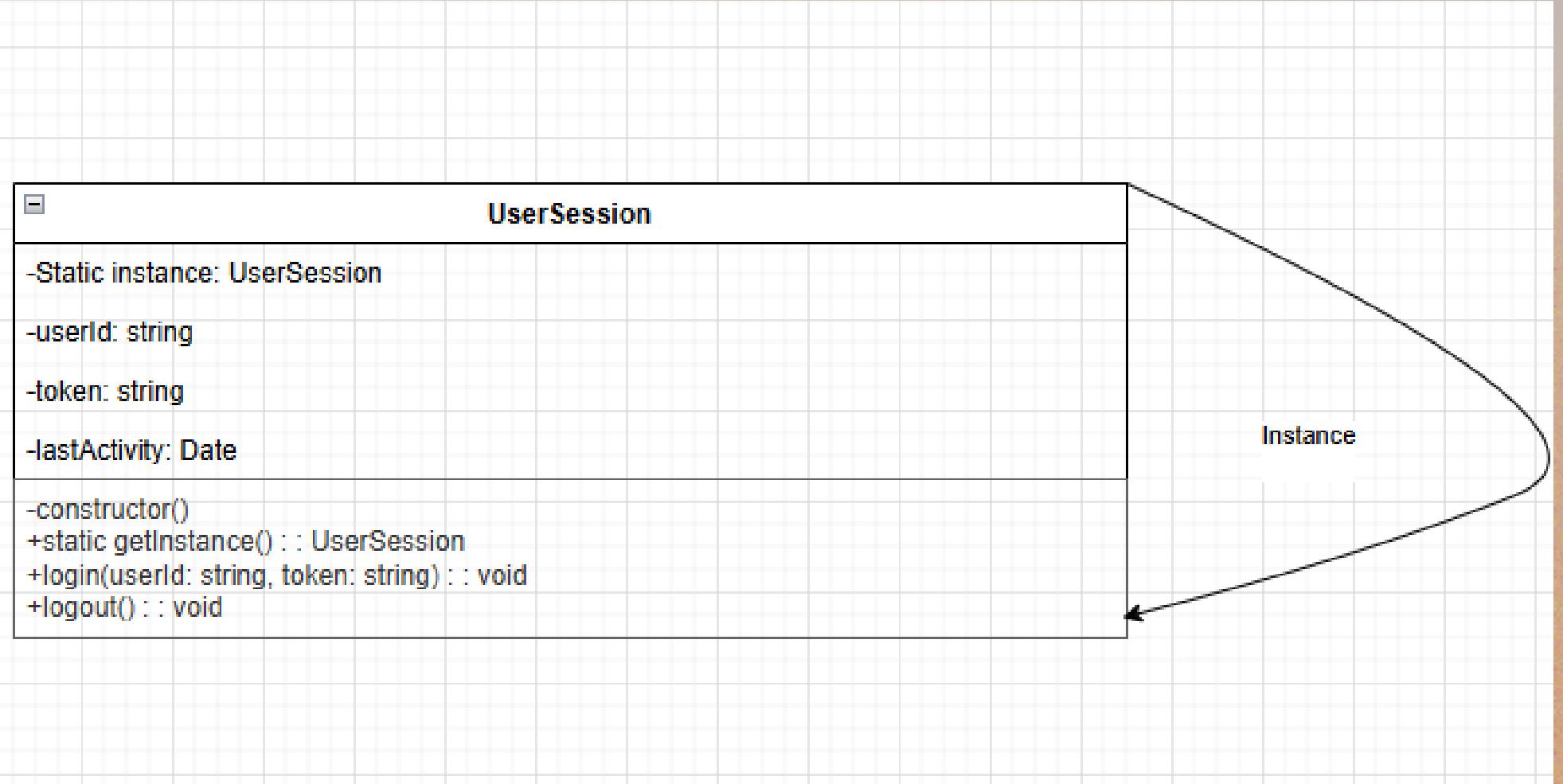
UI Components: React Native components, Lucide icons
Development Tools: Expo CLI, TypeScript compiler



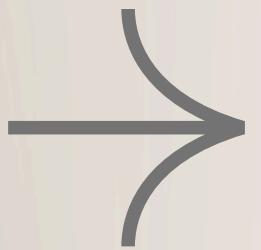
SINGLETON PATTERN



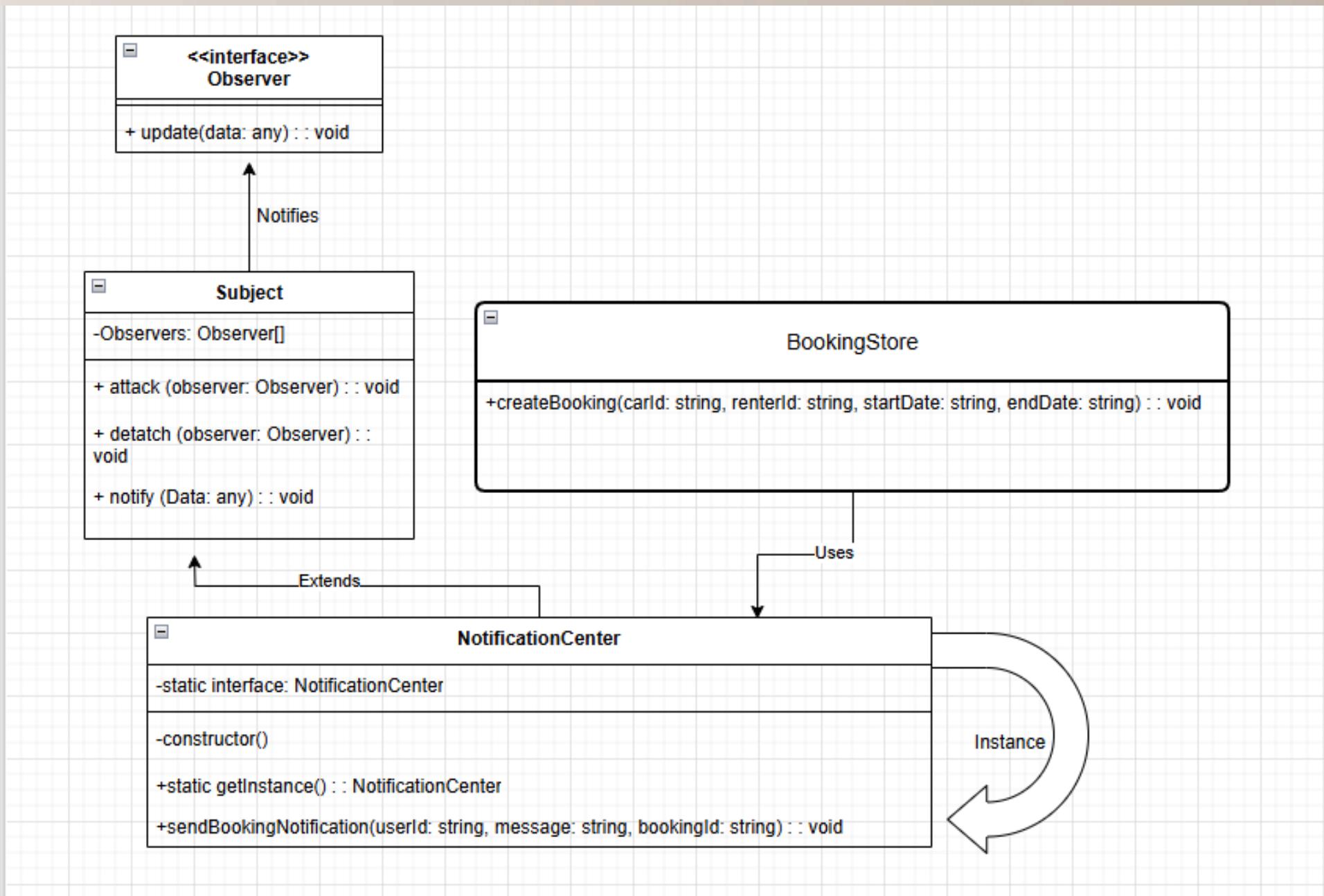
User Session Management



OBSERVER PATTERN



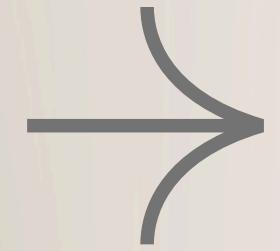
Booking Notifications



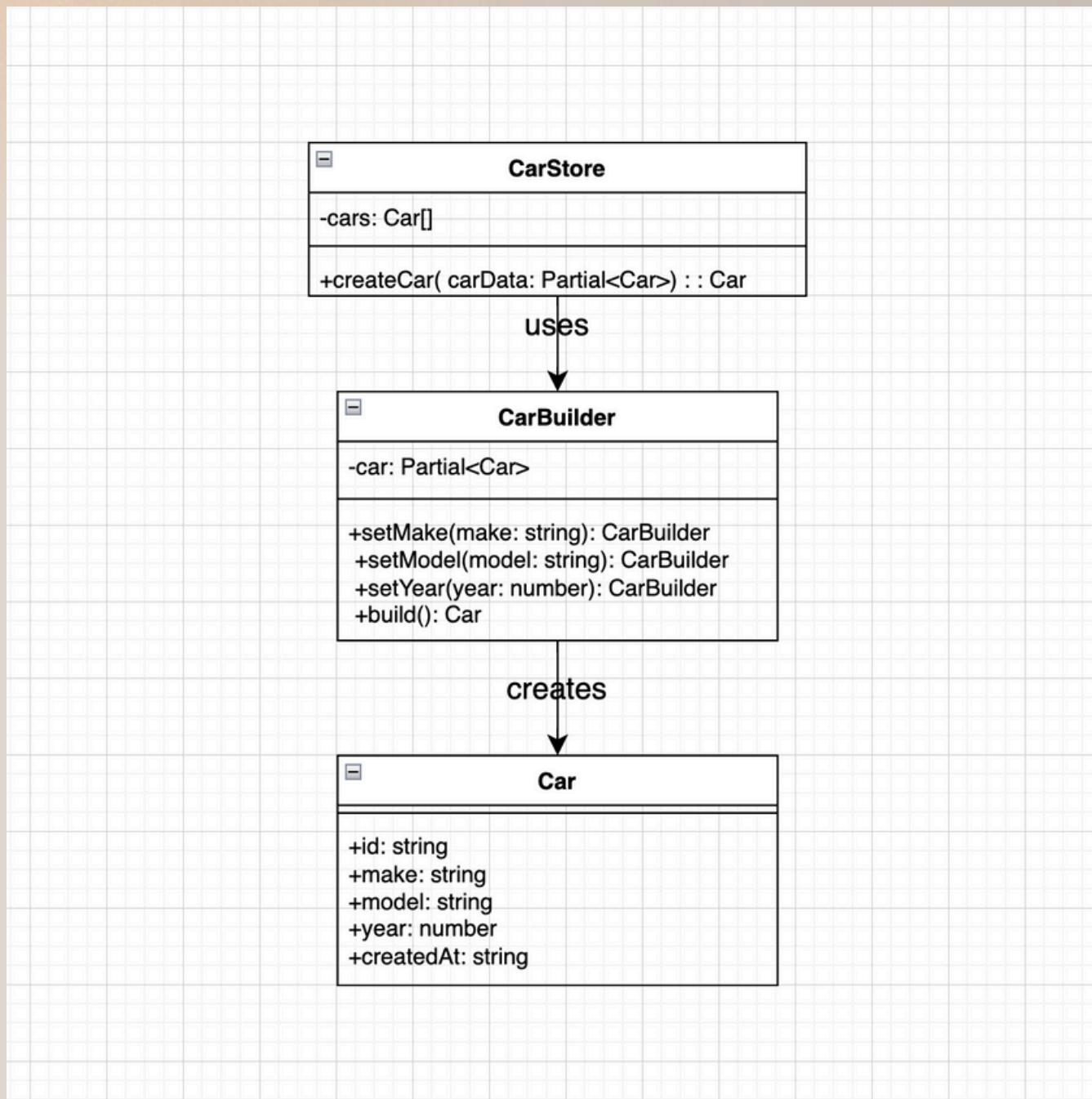
The screenshot shows a web application interface with the following elements:

- Notifications:** A header section.
- New Booking:** Multiple notifications indicating booking status updates (e.g., "Your booking status has been updated to: cancelled" on 4/9/2025).
- Payment Update:** Notifications for payment status (e.g., "Payment of \$81 received" and "Payment of \$81 sent successfully" on 4/9/2025).
- New Booking:** Other booking-related notifications (e.g., "New booking request for your 9 9" and "New booking" on 4/9/2025).
- Navigation:** Bottom navigation bar with links for Home, Search, Bookings, Notifications, Messages, and Profile.
- URL:** The URL is `localhost:8081/notifications`.

BUILDER PATTERN



For Car Listing Creation



List Your Car

Make *
Toyota

Model *
Camry

Year *
2020

Type
Sedan

Seats
5

Color
Silver

License Plate
ABC123

Mileage
25000

Price Per Day *
50

Location
123 Main St, City, State

Description
Describe your car...

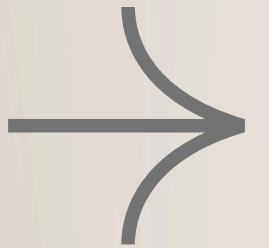
Features

Air Conditioning Bluetooth Backup Camera Navigation Sunroof Heated Seats Leather Seats Cruise Control Apple CarPlay Android Auto
Premium Sound Keyless Entry Autopilot All-Wheel Drive Fuel Efficient Child Seat Bike Rack Ski Rack Pet Friendly

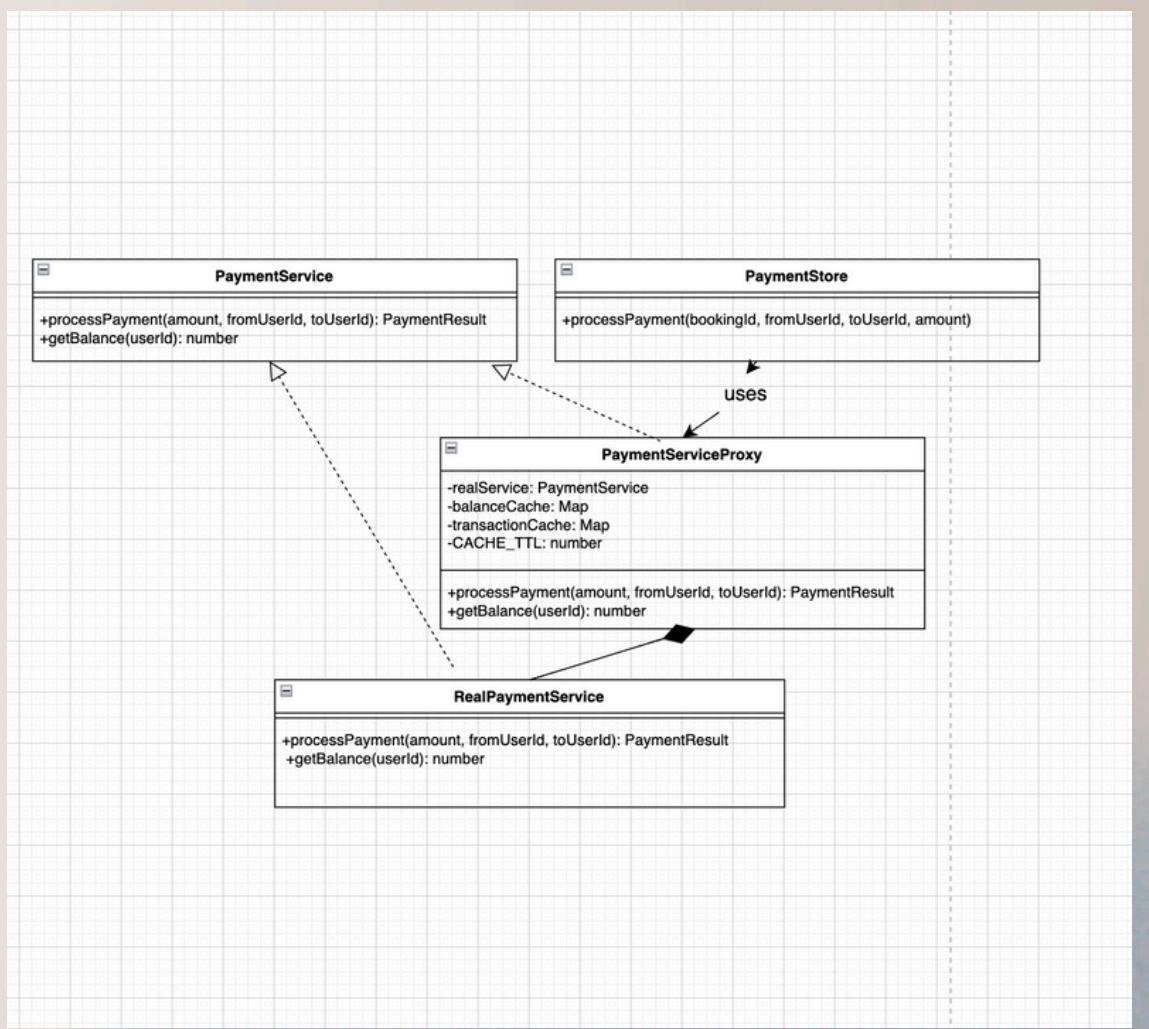
List Car

This screenshot shows a web-based form for listing a car. The form includes fields for Make (Toyota), Model (Camry), Year (2020), Type (Sedan), Seats (5), Color (Silver), License Plate (ABC123), Mileage (25000), Price Per Day (50), Location (123 Main St, City, State), a Description area (Describe your car...), and a Features section with various checkboxes for car features like Air Conditioning, Bluetooth, and Navigation. A prominent blue 'List Car' button is at the bottom.

PROXY PATTERN



Payment Integration



← Confirm Booking

9 9 9 Location not specified

Trip Dates

Start Date: Thu, Apr 10, 2025 End Date: Sat, Apr 19, 2025

Price Details

\$9 x 9 days \$81
Service fee \$0
Total \$81

Payment Method

Account Balance Current balance: \$623

Car Owner

Corn Joined 2025

By confirming this booking, you agree to the DriveShare Terms of Service and acknowledge the Cancellation Policy.

\$ \$81

Confirm & Pay

← Booking Confirmation

Booking Confirmed!

Your booking has been confirmed. You can find all the details below.

9 9 9 Location not specified

Trip Dates

Start Date: Thu, Apr 10, 2025 End Date: Sat, Apr 19, 2025

Price Details

Total Price \$81
Status pending

Owner Information

Corn Joined 2025

Leave a Review

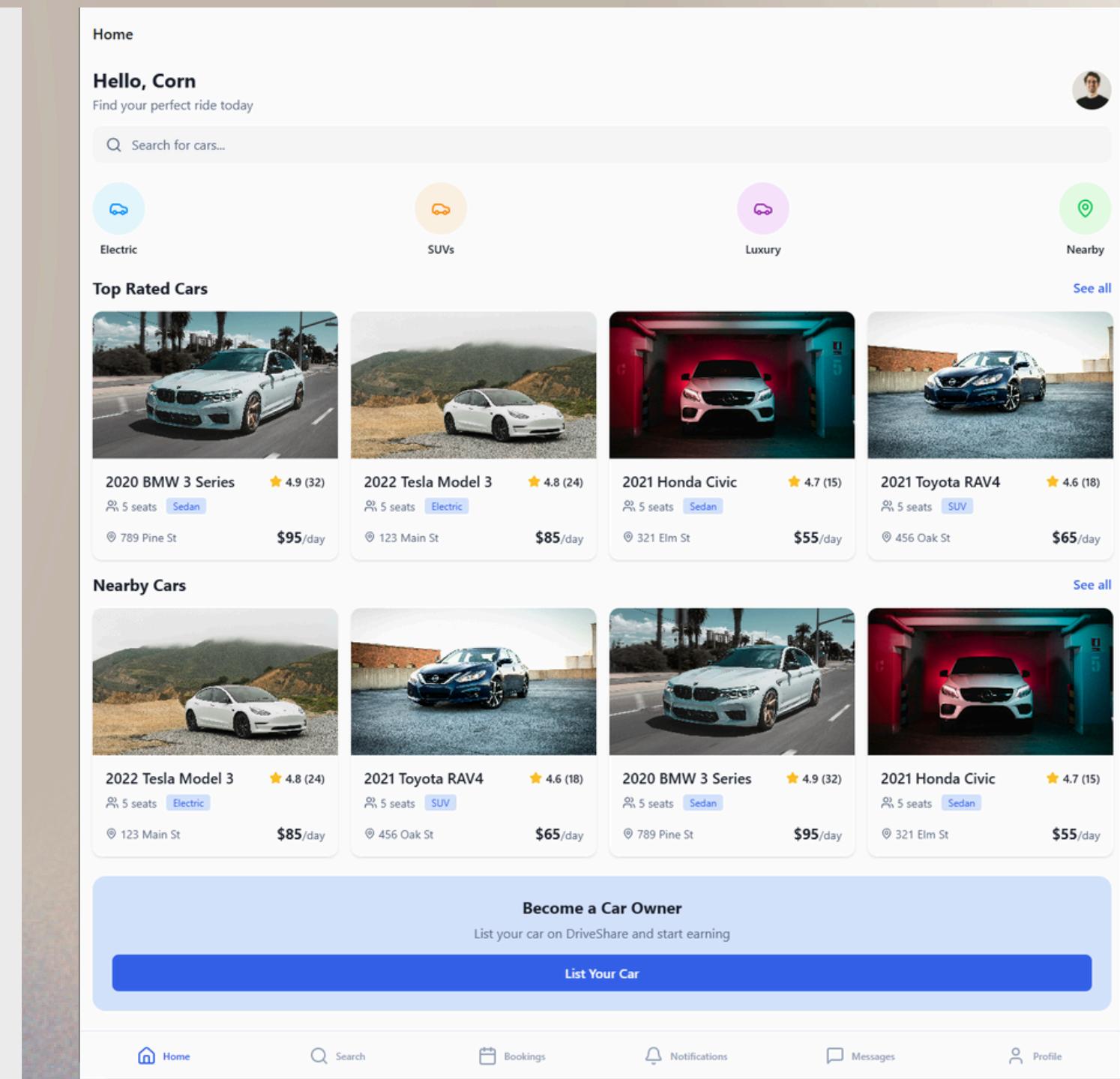
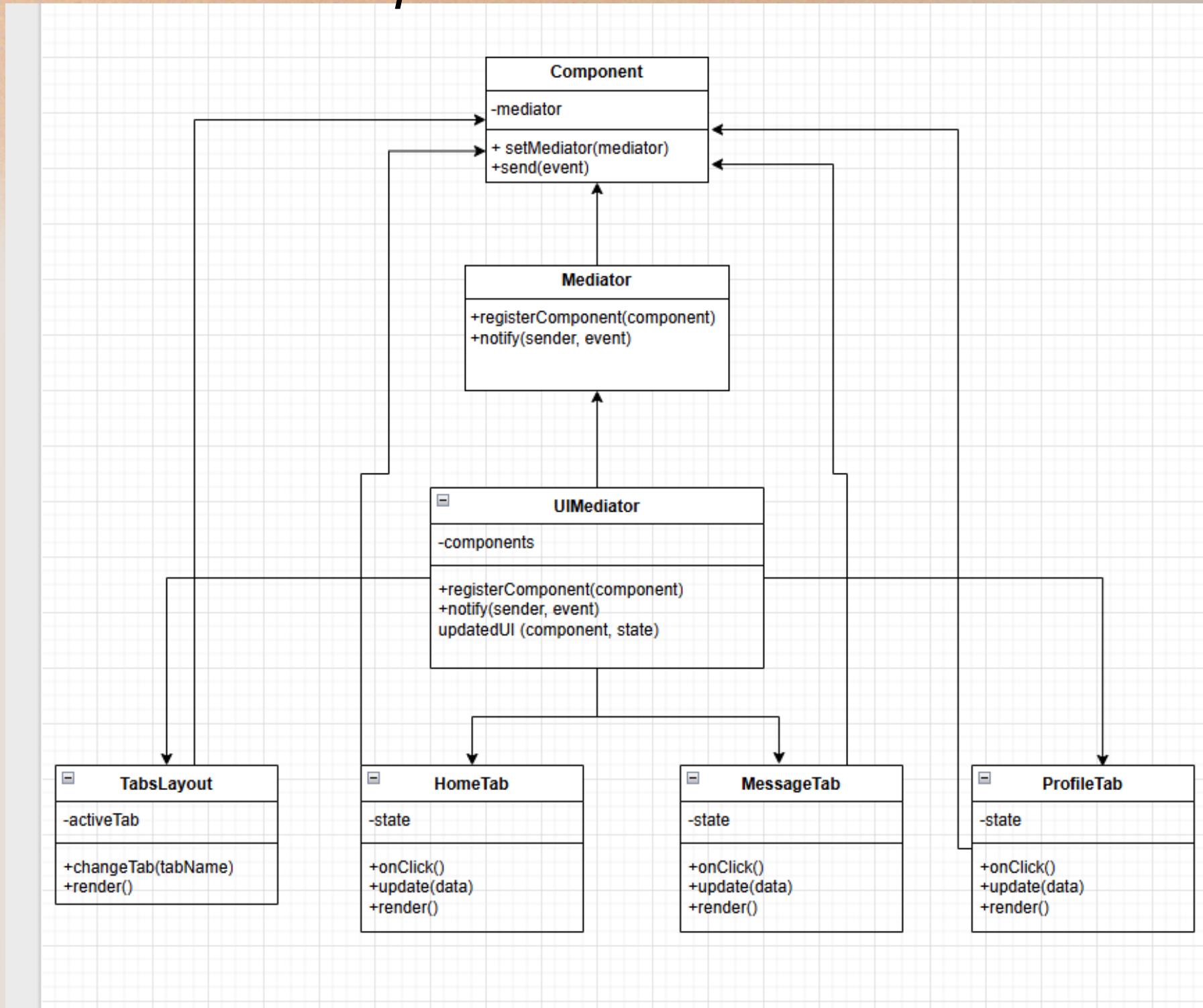
Review Owner

View My Bookings

MEDIATOR PATTERN

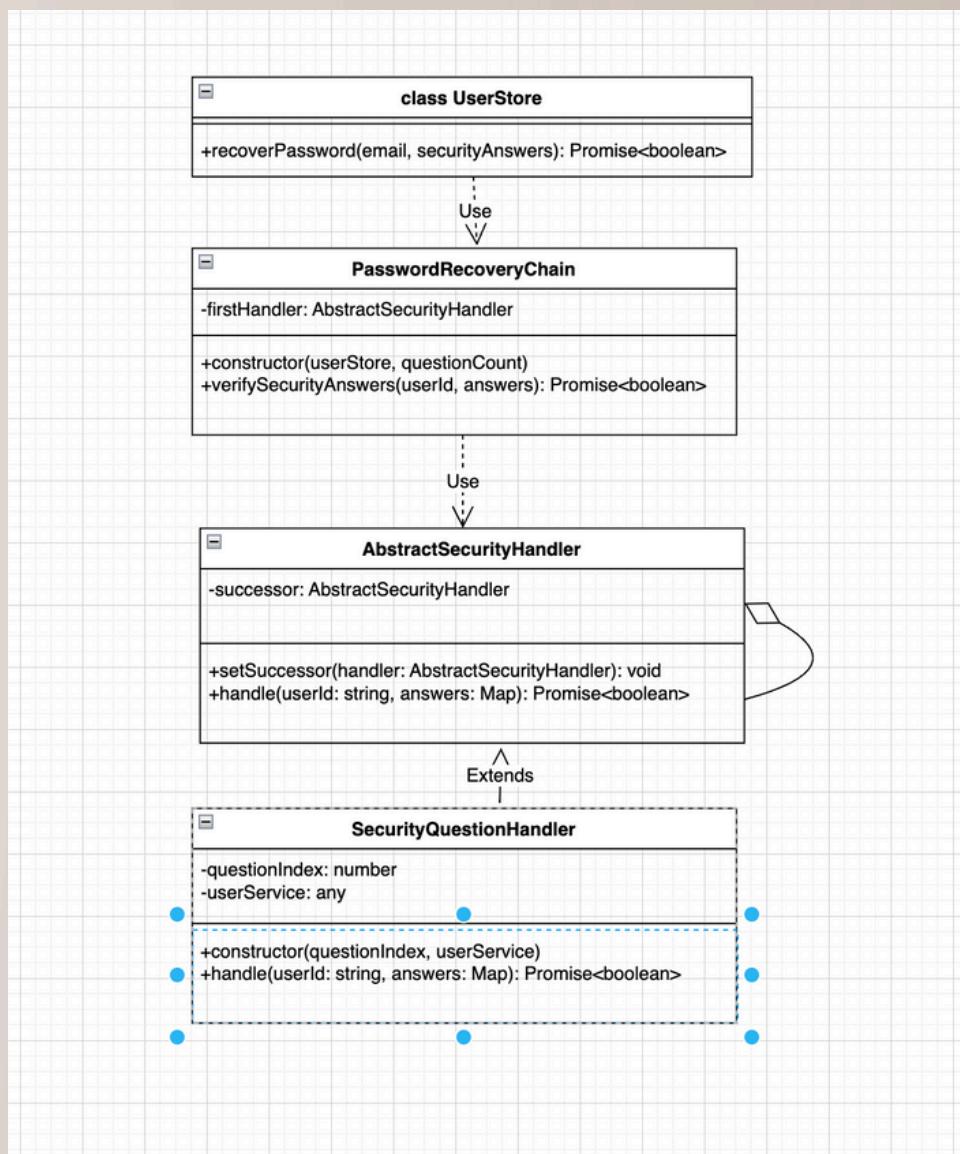


For UI Components



CHAIN OF RESPONSIBILITY PATTERN

For Password Recovery



The screenshots show a password recovery process:

- Forgot Password:** A form asks for an email address (`corn@gmail.com`) and a **Find Account** button.
- Security Verification:** A step in a multi-step process (Question 1 of 3) asks "What city were you born in?", with an answer field containing "1". A **Next Question** button is present.
- Check Your Email:** A success message indicates a password reset link was sent to the email address, with a note about the link expiring in 1 hour and a **Back to Login** button.

TASK SPECIFICATION

Solomiya Pylypiv: Frontend & Authentication

Tasks:

1. Create login/register screens
2. Design user profile page
3. Build car listing pages
4. Implement navigation between screens
5. Create booking forms
6. Design payment screens

Technical Focus:

- React Native UI components
- Expo Router navigation
- Form validation
- User interface design
- Responsive layouts

Corneliu Floarea: Backend & Data Management

Tasks:

1. Implement user authentication
2. Create car listing system
3. Build booking management
4. Set up payment processing
5. Handle notifications
6. Manage data storage

Technical Focus:

- Zustand state management
- AsyncStorage implementation
- API integration
- Data validation
- Error handling

Murtatha Alzayadi: FullStack Security

Tasks:

1. Implement Singleton pattern for user sessions
2. Set up Observer pattern for notifications
3. Create Proxy pattern for payments
4. Implement security features
5. Handle real-time updates
6. Manage error handling

Technical Focus:

- Design pattern implementation
- Security measures
- Real-time updates
- Error handling
- Performance optimization

THANK YOU!