Car Repair and Maintenance App

SESSION 2022-26

Abstract

The Car Repair and Maintenance App is a mobile and web-based solution designed to help individual car owners and fleet managers track vehicle maintenance and health. It allows users to manage multiple cars, log service history, set maintenance reminders, and monitor health indicators like mileage and service due dates, enhancing vehicle longevity and reducing repair costs.

1. Introduction

- The Car Repair and Maintenance App is a mobile and web-based solution designed to simplify vehicle upkeep for individual car owners and potential fleet managers.
- It enables users to manage multiple vehicles by storing essential details like model, year, plate number, and VIN.
- The app allows manual logging of service history, including oil changes, tire rotations, and brake checks, to maintain a comprehensive record.
- Users can track car health by entering data on engine, tires, fluids, and brakes, with the system generating alerts for out-of-range values.
- A key feature includes setting maintenance reminders based on time or mileage, ensuring timely services and part replacements.
- The application calculates cost per kilometer and fuel efficiency by logging usage and expense data for better financial planning.
- It supports admin functionalities for managing users and viewing system logs, enhancing oversight and security.

2. System Work Flow Diagram

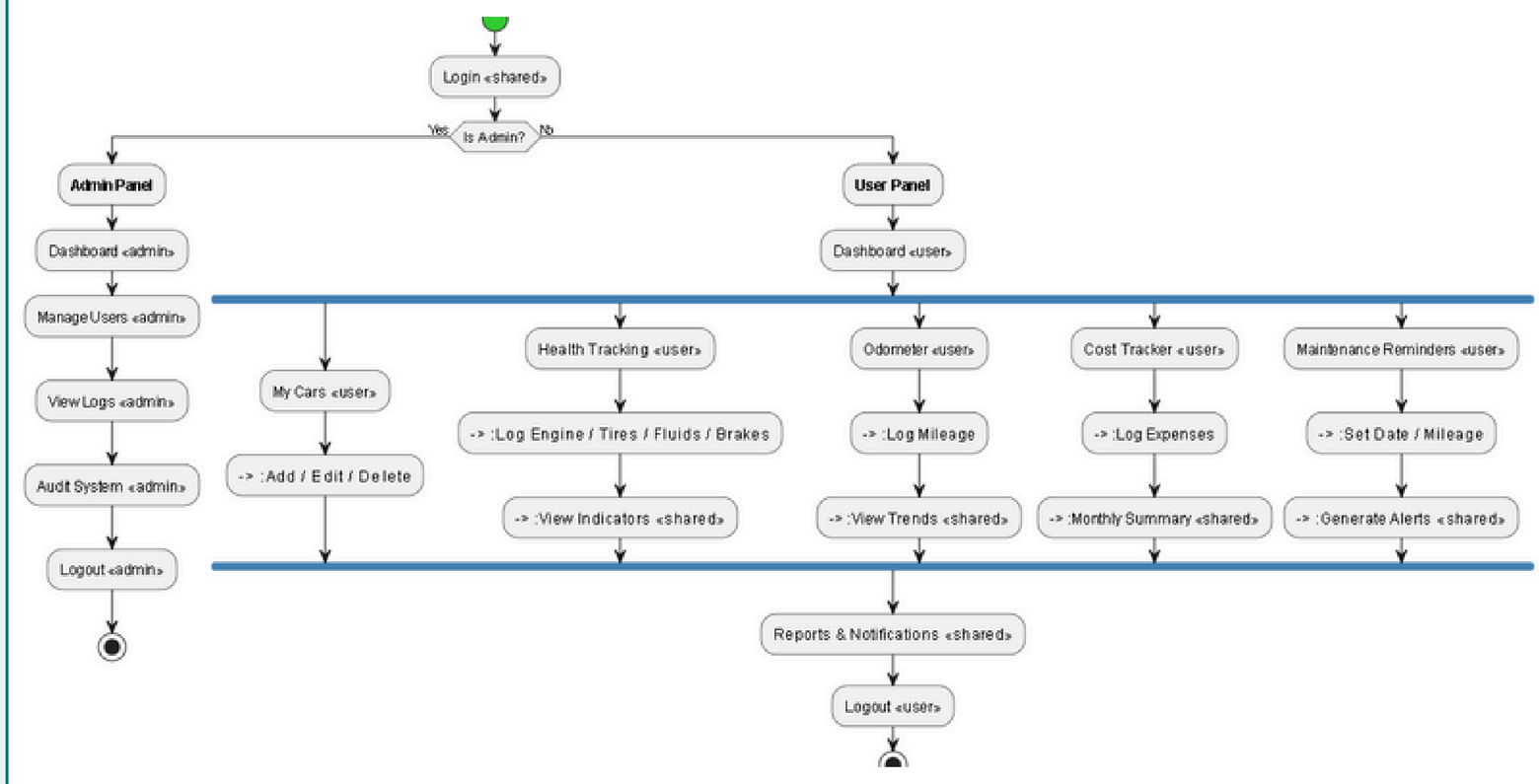


Figure 1:System Work Flow Diagram

3. Methadology

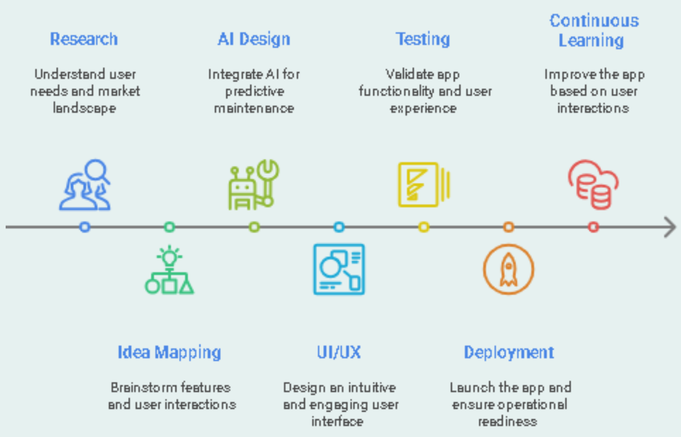
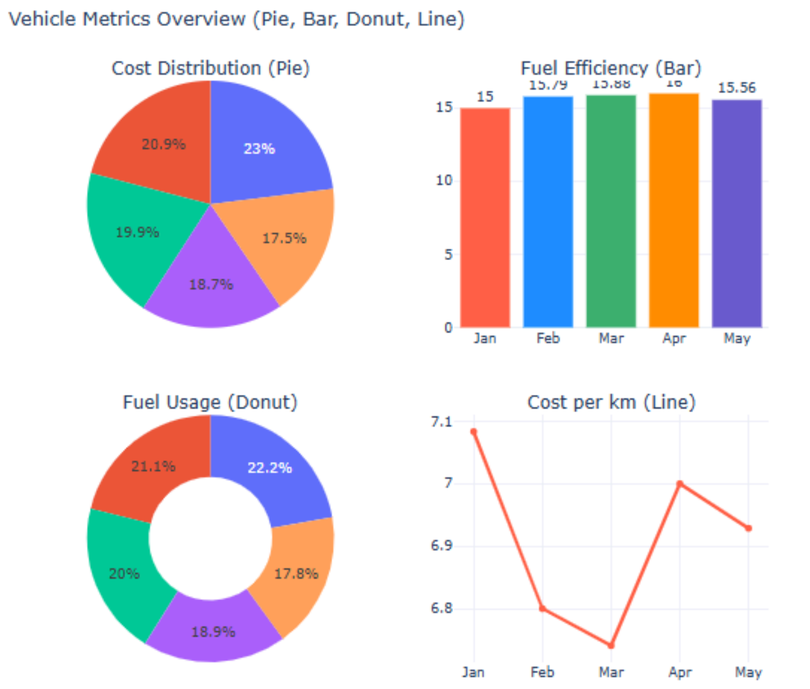


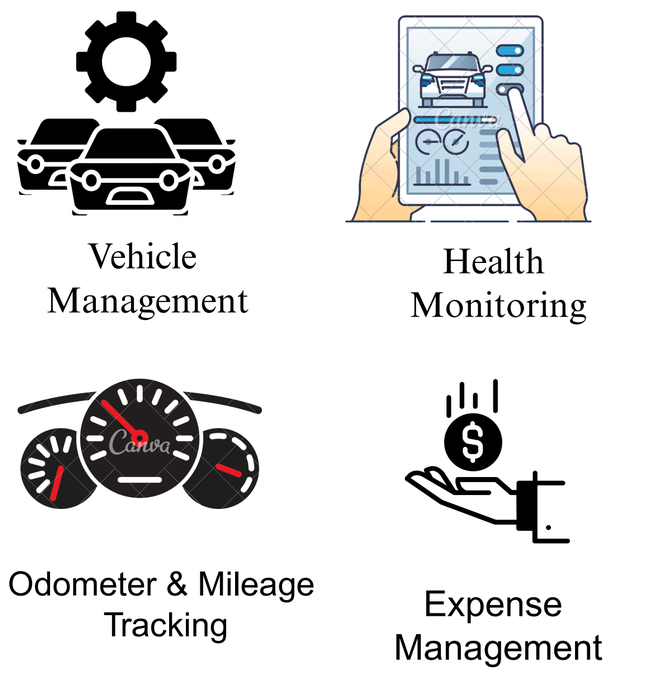
Figure 2:Methadology

4. Tools and Technologies

5. Data Analysis &Visualization



6. Key Features



7. Objectives

We develop a user-friendly Car Repair and Maintenance App that empowers vehicle owners to efficiently manage vehicle health, track maintenance activities, log fuel and repair expenses, and receive timely reminders — ensuring safety, cost-efficiency, and extended vehicle life.

Conclusion

The Car Repair and Maintenance App streamlines vehicle care by empowering users with real-time tracking, smart reminders, and detailed reports. With intuitive design and automated features, it enhances vehicle longevity, reduces unexpected breakdowns, and supports cost-efficient maintenance for all users.

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