B.Tech 3rd Semester Project (2025-26)

Project Title: Car Pooling Web Application

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Semester: 3rd

Roll-No : 232

Batch : 7

# Project Overview

The aim of this project is to build a Car Pooling Web Application that facilitates ride sharing among users. The system includes features like ride offering, ride searching, user profile management, and a responsive design. Technologies used include Node.js for backend, React for frontend, and HTML/CSS for design.

# Week 1: Carpooling Platform Research

The following carpooling platforms were analyzed for features and UI inspiration:

## Uber Pool

* - Overview: Uber’s ride-sharing feature that matches riders heading in the same direction.
* - Key Features: Real-time tracking, automated matching, fare splitting.
* - UI Elements: Map interface, ride type selector, pickup/drop input fields.

## Lyft Line

* - Overview: Lyft's shared ride feature, now phased out but similar to Uber Pool.
* - Key Features: Cost savings, route optimization, dynamic pricing.
* - UI Elements: Route visualization, minimalistic booking UI.

## BlaBlaCar

* - Overview: Long-distance carpooling network popular in Europe.
* - Key Features: Ride ratings, driver verification, advanced search filters.
* - UI Elements: Card-based ride listings, profile info, seat availability.

## Waze Carpool

* - Overview: Google’s carpool service using Waze navigation data.
* - Key Features: Real-time map sync, corporate ride options, low-cost.
* - UI Elements: Integrated with Waze map, chat feature, filter rides by route.

## Scoop

* - Overview: Commute-focused ride-sharing platform for workplaces.
* - Key Features: Automatic matching, schedule planning, employer integration.
* - UI Elements: Calendar-based scheduling, simple ride summary.

These findings have informed the selection of features and design choices for our Car Pooling application.

# Week 2: Wireframe Designs

Wireframes for key pages are created to plan the user interface layout:

## Homepage

This page includes layout elements such as navigation bar, forms, and placeholders for ride information relevant to the homepage functionality.

## Ride Search

This page includes layout elements such as navigation bar, forms, and placeholders for ride information relevant to the ride search functionality.

## Offer Ride

This page includes layout elements such as navigation bar, forms, and placeholders for ride information relevant to the offer ride functionality.

## Profile

This page includes layout elements such as navigation bar, forms, and placeholders for ride information relevant to the profile functionality.

## Contact Us

This page includes layout elements such as navigation bar, forms, and placeholders for ride information relevant to the contact us functionality.

## Difference

* | Feature | \*\*Cab (Taxi Services)\*\* | \*\*Car Pooling\*\* |
* | ------------------------ | ------------------------------------------------- | --------------------------------------------------- |
* | \*\*Ownership\*\* | Operated by a commercial service (like Ola, Uber) | Privately owned vehicles shared by individuals |
* | \*\*Driver\*\* | Professional/paid driver | Usually one of the passengers (non-professional) |
* | \*\*Purpose\*\* | Point-to-point transport service | Shared ride to reduce cost, fuel, and traffic |
* | \*\*Booking\*\* | Booked via app/phone call | Coordinated via apps, social platforms, or manually |
* | \*\*Cost\*\* | Higher, fixed by company or meter-based | Lower, typically split among riders |
* | \*\*Flexibility\*\* | High; goes wherever passenger wants | Moderate; fixed routes or mutual agreement needed |
* | \*\*Privacy\*\* | Generally private or ride-share option | Less private; shared with multiple people |
* | \*\*Regulation\*\* | Heavily regulated | Lightly regulated (depending on region) |
* | \*\*Availability\*\* | On-demand (24/7 in cities) | Depends on driver availability and route match |
* | \*\*Environmental Impact\*\* | Neutral (single purpose trip) | Eco-friendly (multiple people, one vehicle) |

