# **CAMPUS CAR POOL**

# **Introduction:**

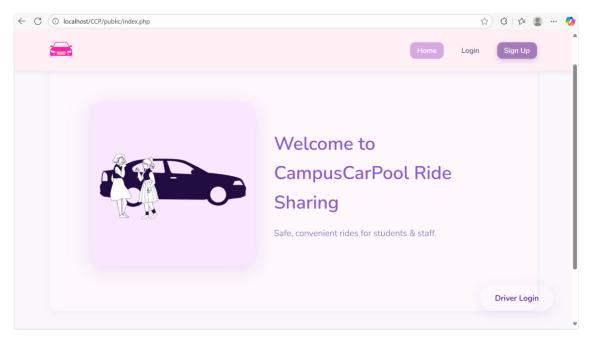
A web-based ride-sharing service called Campus Carpool was created especially for students to make long-distance travel easier. PHP is used for server-side logic, CSS is used for styling, and MySQL with phpMyAdmin on XAMPP is used for database administration. The two primary modules of the system are the driver side and the user (student) side. Users can book posted rides, send ride requests to drivers, and search for available rides on the student side. Viewing driver profiles is another feature of the student module that promotes safety and trust. The ability for drivers to accept or reject student ride requests has been simplified. The three primary tables in the database design—drivers, users, and ride\_requests—are straightforward and effective. This structure guarantees efficient handling of requests, user data, and ride details. The project shows how students' travel can be optimized within a campus ecosystem using a small but effective web application. All things considered, Campus Carpool offers a cost-effective, secure, and student-friendly ride-sharing option that is also cost effective.

# **Problem statement:**

For everyday or sporadic long-distance travel, students frequently struggle to find reasonably priced and secure transportation. Commercial ride-hailing applications, such as Ola or Uber, are not specifically designed with students in mind and can be expensive. There isn't a specific platform that allows students to communicate with drivers on campus. The need for straightforward ride requests and confirmations between students and drivers is not met by current solutions. Many students rely on haphazard arrangements that are unreliable and unsafe in the absence of such a system. Organizing and handling numerous ride requests is another challenge for drivers. There isn't a single platform that enables communication and ride confirmation between the two parties. A system that allows students to safely book rides, view driver profiles, and send ride requests is required to address this issue. Drivers should also have little trouble accepting or rejecting ride requests. By providing a database-backed, campus-specific, and lightweight ride-sharing platform, CampusCarpool fills this gap.

# **PROJECT WORKFLOW**

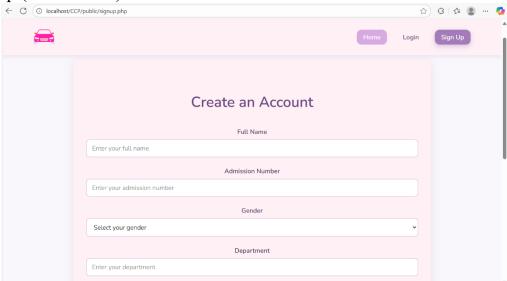
# 1) Index page

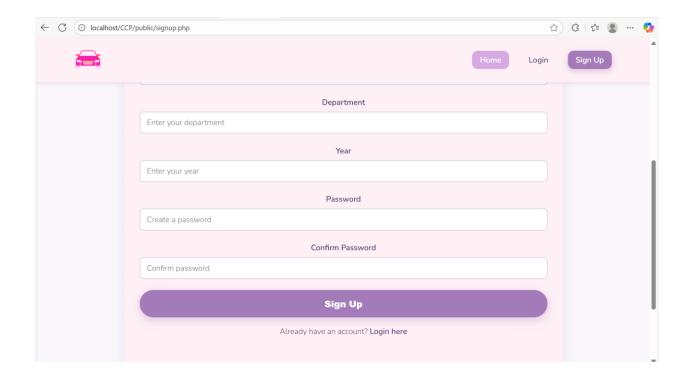


## Consists of

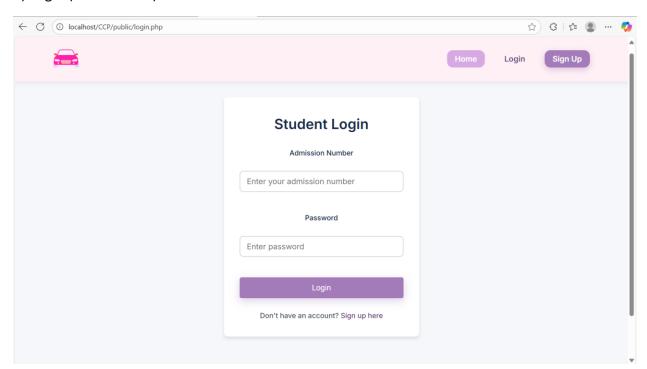
- Home → index page
- Login → Student login page
- Driver Login → Driver login page
- Signup → Sign up page of student

# 2) Signup (student side)



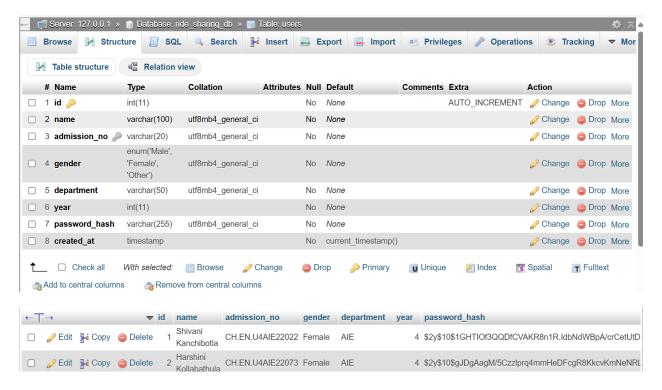


## 3) Login (student side)

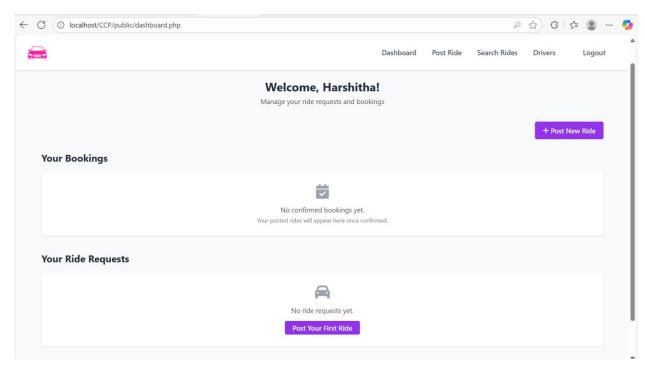


 When a student signs up it will add the credentials in the Users table of the ride\_sharing\_db database, and the password is saved in hash values.

#### 4) Users table schema



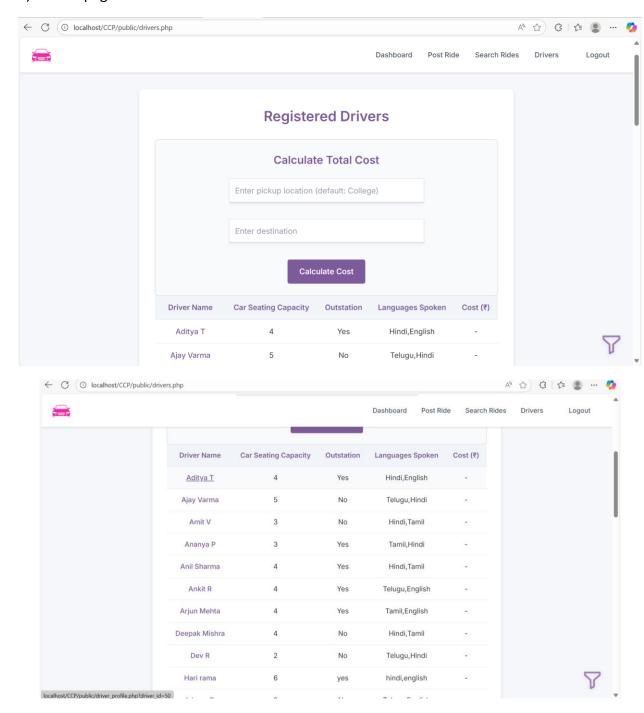
## 5) Dashboard (Student side)



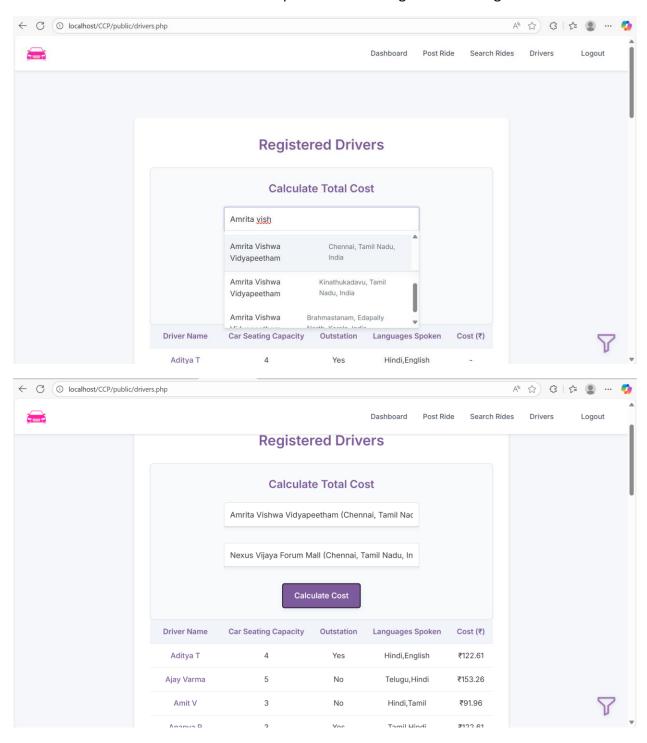
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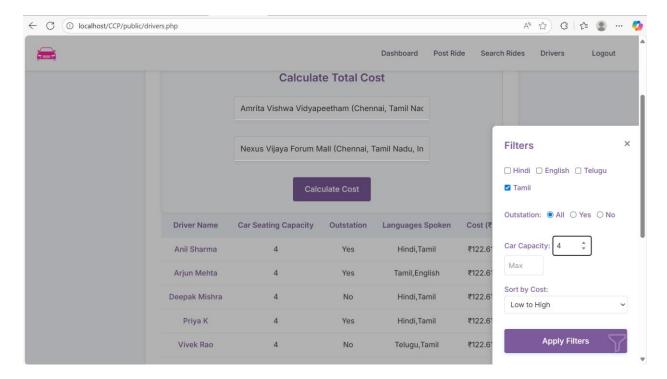
- Post ride function
- Search rides → where the rides that are posted can be searched
- Drivers  $\rightarrow$  The driver selection upon detailed driver profile verification can be done.
- Logout

### 6) Drivers page

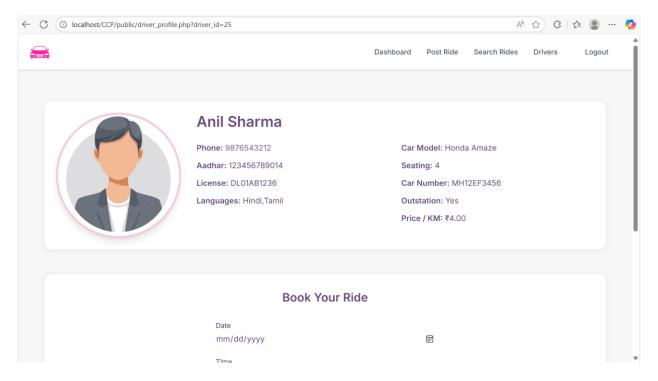


- The drivers page on student side consists of all the registered drivers.
- Based on user entered pickup and drop locations and the price per km that is taken by each driver the cost is calculated.
- Filter option provides the facility to filter based on language, car seating capacity and outstation offered or not and also prices in ascending or descending order.

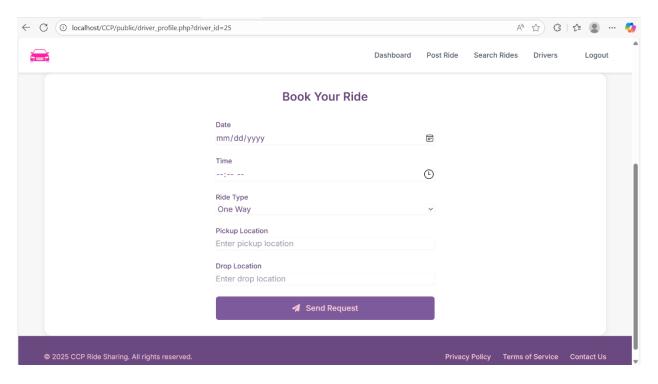


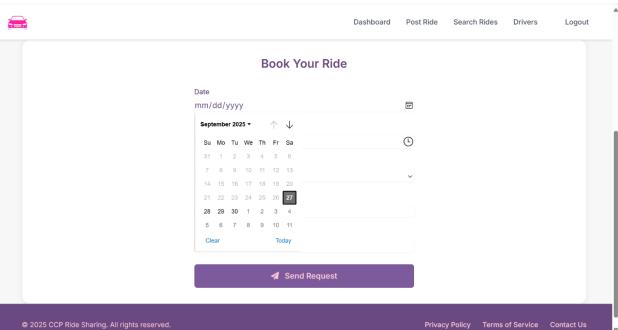


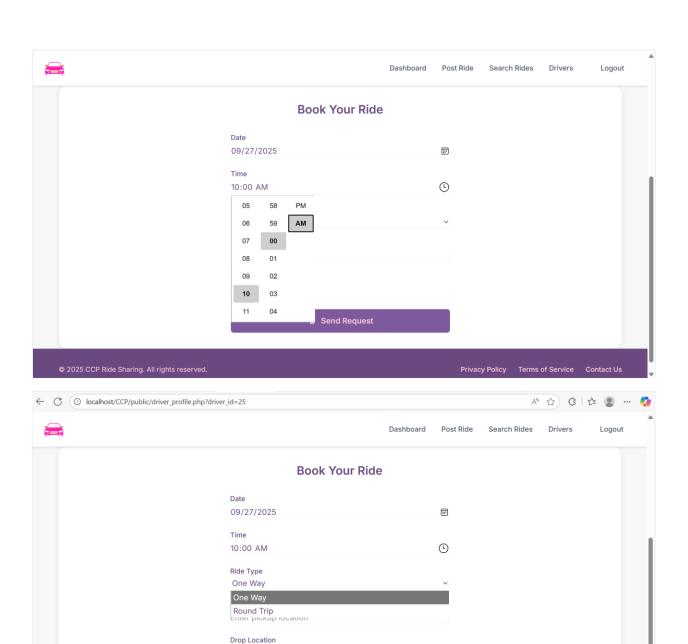
### 7) Driver profile



- The driver detailed profile can be viewed upon tapping driver name on the drivers page.
- In this there is detailed profile of driver and also a Book your ride option which sends a request notification to the driver.
- The notification status can be viewed on dashboard. (Of both student and Driver)

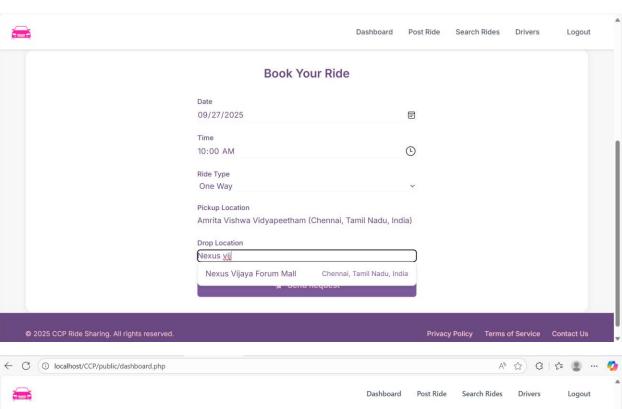


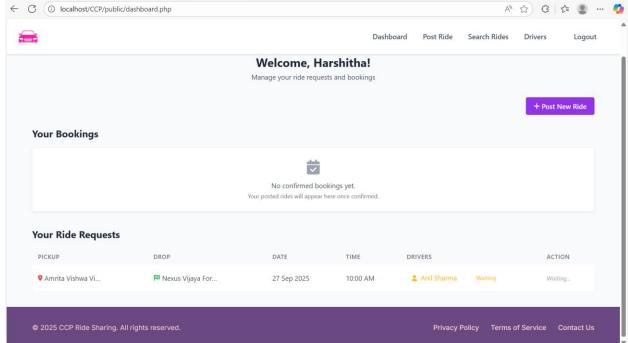




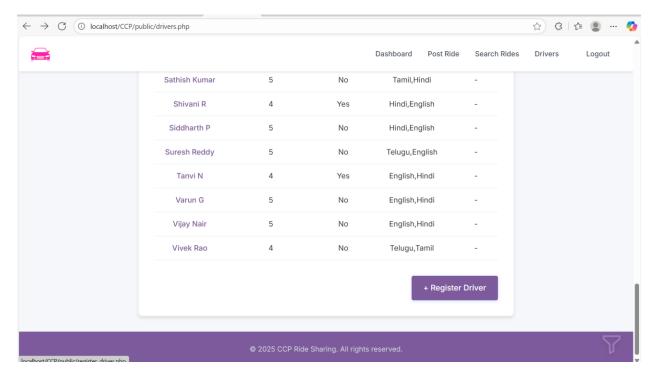
Send Request

Enter drop location

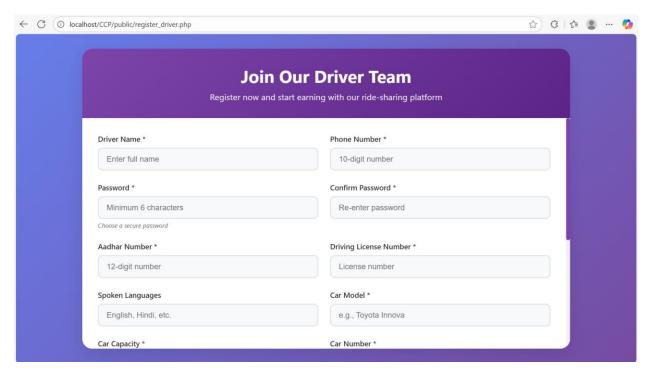


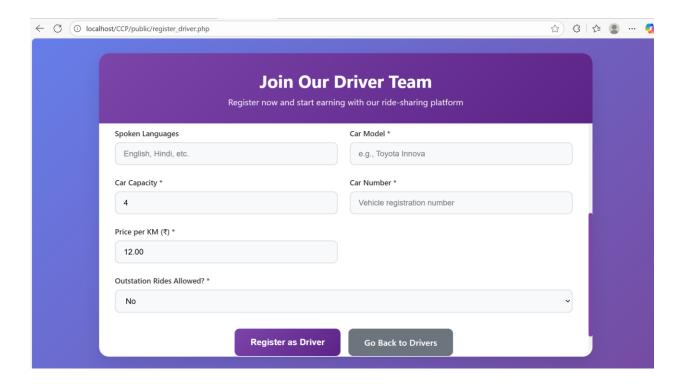


We can register for new driver too on drivers page, which leads to driver signup, this ensures that the all of the available drivers are verified by students and not outsiders.

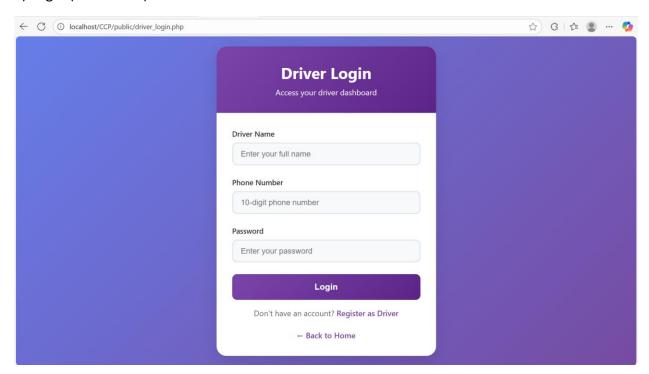


#### 8) Signup (Driver side)

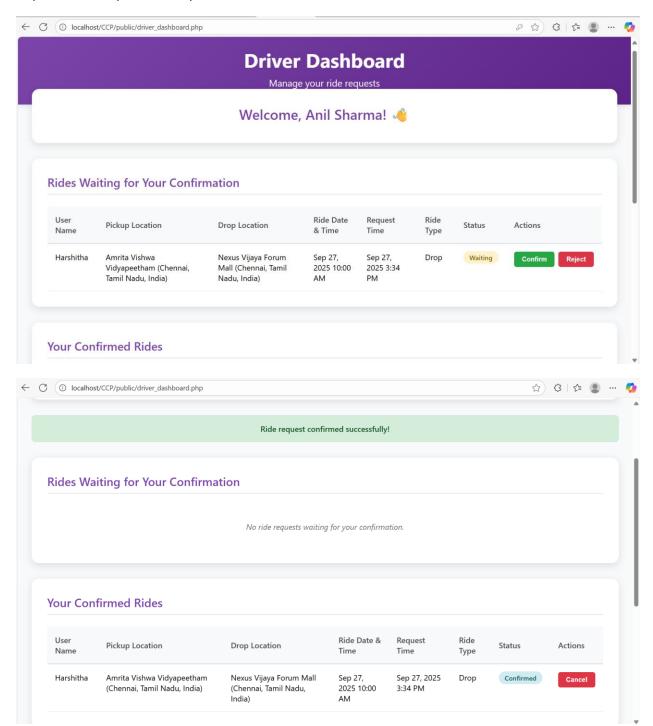


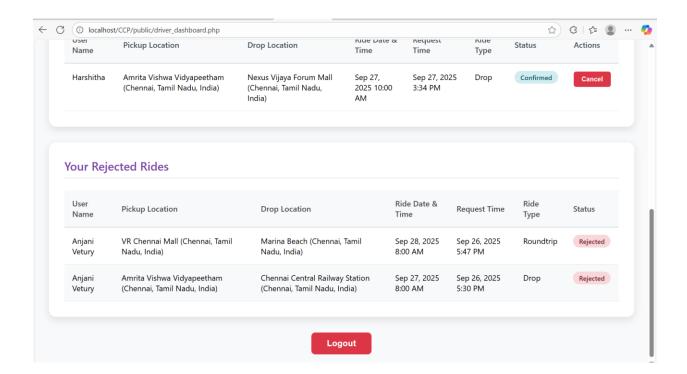


## 9) Login (Driver side)

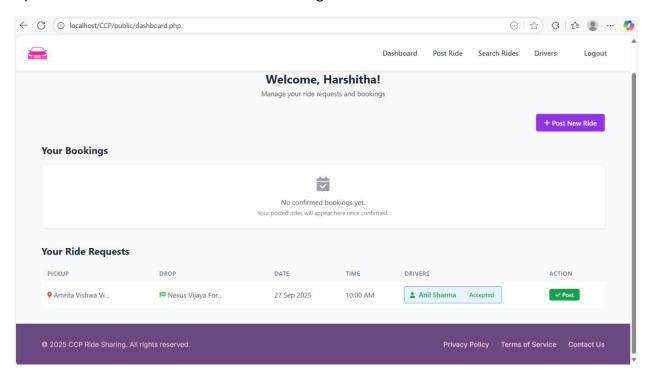


## 10) Dashboard (Driver side)

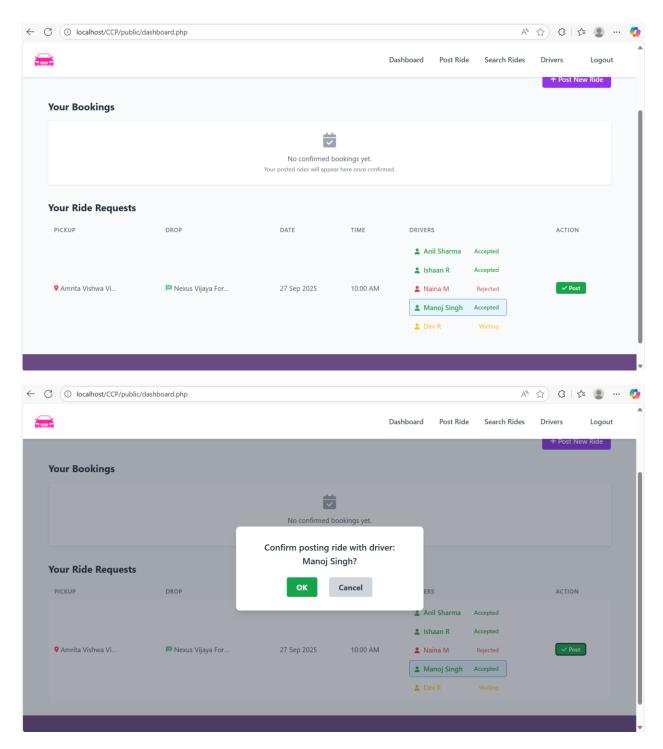




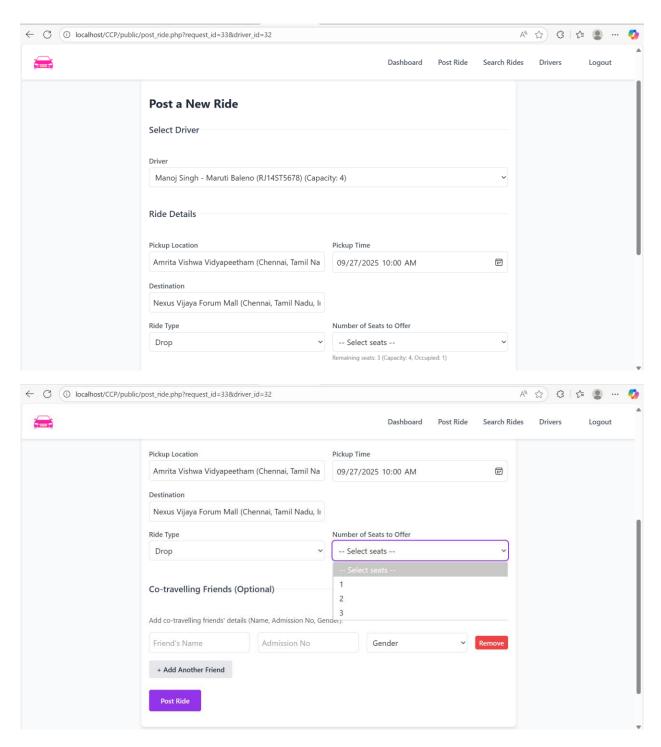
#### Upon confirmation from driver the status changes on the dashboard of student



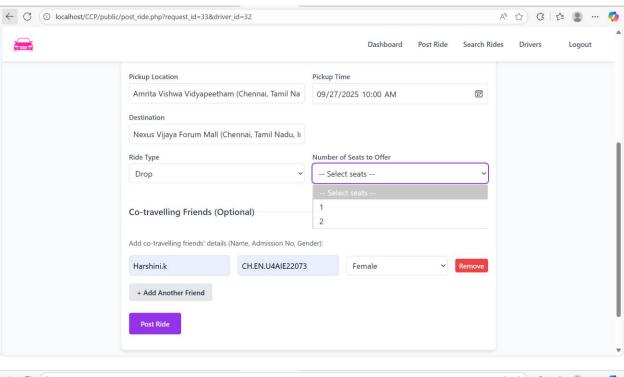
- For same ride, request can be sent to multiple drivers
- Only accepted drivers can be selected to post a ride

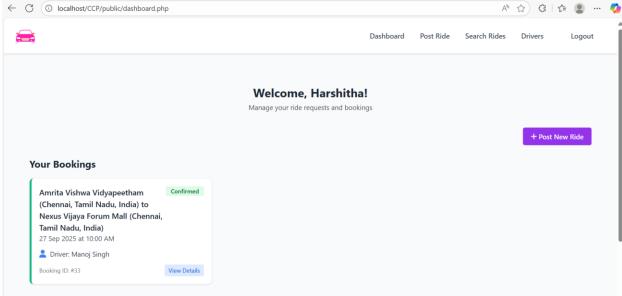


Upon selecting driver, it is redirected to post ride page, where most off the information is picked up through the previously provided by the user

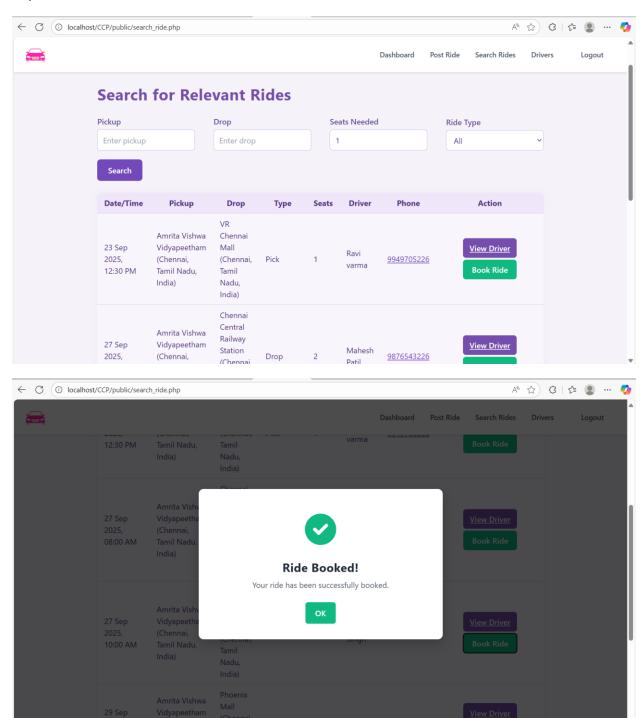


The seating capacity is dynamically changed by the available seats in the car (let's say 4 seats are available in the car, 1 seat already occupied by user and if no friend of user is added available seats are 3 if not the available seats are dynamically changed)



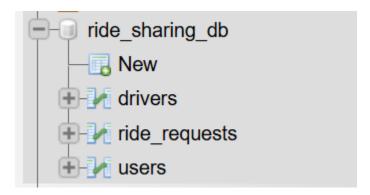


#### 11) Search rides

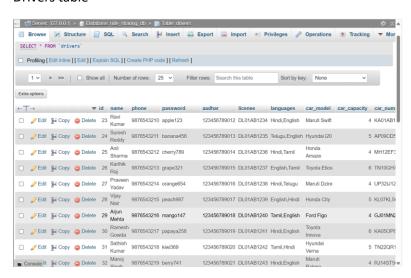


Using the **Photon API (photon.komoot.io)**, which is based on OpenStreetMap data, the project incorporates a **location search function**. An API request is made to retrieve locations that match when a user enters at least three characters in the pickup or destination field. Along with information like name, city, state, country, and geographic coordinates, the API returns a list of potential locations. Users can choose precise pickup and drop-off locations with ease thanks to the dynamic display of these results as suggestions. This method provides accurate and intuitive location search functionality while making the system dependable, lightweight, and independent of for-profit map services. **XAMPP**, which offers a user-friendly local server environment for PHP and **MySQL**, is used in the development of this project. phpMyAdmin, a web-based tool that makes it easier to create and manage tables like users, drivers, and ride\_requests, is used to manage the database. The relational database used to effectively store and retrieve all ridesharing data is MySQL. The main editor for coding and development is Visual Studio Code (VS Code), which has tools like syntax highlighting, debugging, and productivity-boosting extensions. The CampusCarpool platform can be implemented and tested with ease thanks to the full development stack that these tools provide.

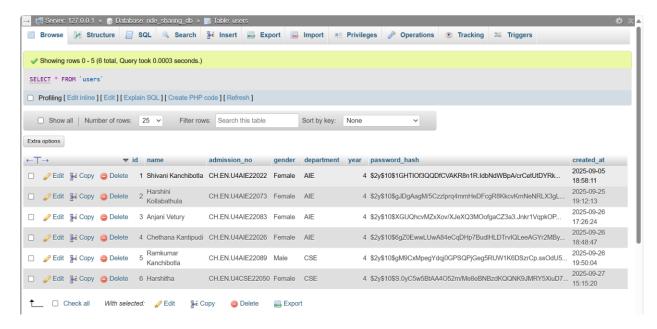
### DATABASE (phpMyAdmin)



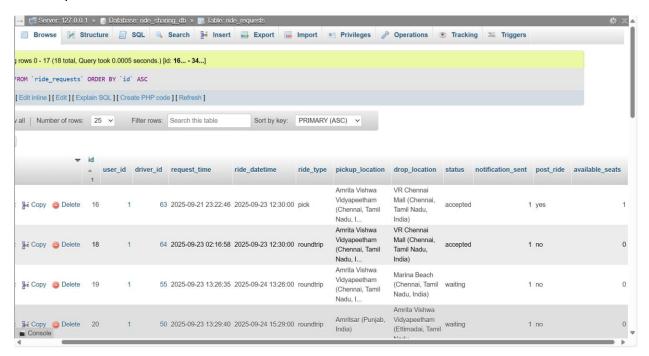
#### Drivers table



#### Users table



#### Ride requests table



### **Future scope:**

- Live ride tracking is the process of tracking a ride after it has begun by integrating a real-time map (such as the Google Maps API or Photon API).
- Co-passenger Management: Improved tools to view and manage other travelers prior to booking a ride.
- Integrated Payments: A safe online payment method that makes transactions simple.
- Midway Pickups: There is the option to schedule or permit pickups at halfway points on the journey.
- Blacklist Feature: For comfort and safety, prevent certain users from being recommended as co-passengers.
- Gender Preference: To increase comfort and trust, include preference filters for both drivers and passengers.

### **Conclusion:**

In conclusion, Students can share rides easily and effectively with CampusCarpool, which lowers the cost, increases safety, and facilitates long-distance travel. The platform's XAMPP development environment, phpMyAdmin database management, and PHP and MySQL backend make it simple to set up and administer. The current version focuses on essential functions like booking, ride posting, and driver confirmations, but it also establishes a strong basis for upcoming improvements like secure payments, live tracking, co-passenger management, and ride recommendations based on user preferences. Through shared travel experiences, this project not only encourages economical commuting but also strengthens the student body.