



Sri Lanka Institute of Information Technology

Information Technology Project

Year2, Semester 2 - 2024

Project Charter

Title of the Project :	Vehicle Rental Management System	
Campus & Batch :	Malabe/Weekdays	Group No: ITP_B4_04
Development Technology :	MERN Stack – Mongo DB / Express Js / React Js / Node Js	

Description of the Project:

Client and the current business:

In Sri Lanka, many individual vehicle owners rent out their vehicles, creating a diverse vehicle rental market. Some businesses operate small-scale, with only one or two vehicles, while others manage larger fleets of twenty or more. Despite size differences, both types of owners operate independently.

Clients seeking rentals have two primary options: hiring a vehicle with a driver or renting one themselves. The first option, chauffeur service, requires the renter to pay for the ride after the trip concludes. After the renter settles the bill, the vehicle owner pays the driver their agreed-upon fee for the rental. The second option, self-drive rental, involves a slightly more complex process. Renters must pay a security deposit and provide required documentation for identification purposes. This ensures the owner has a record of who rented the vehicle, particularly in unforeseen situations. For self-drive rentals, the process concludes after the renter returns the vehicle. The owner then calculates the total distance and time driven. If the renter exceeds the agreed-upon limits, additional charges are added to the bill. Similarly, any damage incurred during the rental period will result in additional charges. The final bill amount is deducted from the initial security deposit, and the remaining balance is refunded to the renter.

Current Problem:

The way people rent vehicles in Sri Lanka right now has problems for both vehicle owners and people who want to rent them. Especially for people with just one or two vehicles, or people who sometimes rent out their own vehicle when they're not using it. These small businesses and individuals don't usually have special systems to manage their rentals. Big companies might, but we're not focused on them, we want to help the smaller players. Because of this, these smaller businesses and individuals often advertise their vehicles on social media or some unrelated websites like ikman.lk, but these websites aren't really designed for renting vehicles. This creates some problems, which we have a solution for.

Finding the right vehicle becomes another hurdle for renters. They often resort to searching on Facebook or other social media platforms, asking people they know for leads, or directly contacting individual owners to check specifics and availability. This process can be tedious and unreliable, especially for those seeking options outside the bigger cities where large companies' apps might not be present. Our website aims to address this issue as well.



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Innovative solution you are planning to provide:

We are planning to provide a online system for solve current problems. Vehicle owners, whether they have a single motorbike or a fleet of hundreds of trucks, can effortlessly list their vehicles on our platform. We empower they to run their business on their own terms, with just a few basic guidelines for a smooth system. Choose to rent their vehicles directly to renters or offer them with driver services. For the driver option, the system seamlessly manages and pays their drivers. Rental bills are automatically calculated based on time and distance traveled, making things hassle-free.

Renters, finding the perfect vehicle is mere seconds away. Check their availability instantly! Our main goal is to create the best platform for vehicle owners to list their vehicles and manage their business in their own way, and for renters to find the perfect vehicle quickly and easily.

Details of the Group Members: *(Provide the details of the group leader in the first row)*

	Name with Initials (Surname first)	Registration Number	Contact Phone Number	Email
1.	Jayasekara M.P.S.S	IT22580344	0772629286	it22580344@my.sliit.lk
2.	Chandrasekara C.M.P.V	IT22286246	0762404667	it22286246@my.sliit.lk
3.	Wijewantha H.D.C	IT22137128	0776183693	it22137128@my.sliit.lk
4.	Nathasha K.D.S	IT22230638	0703886818	it22230638@my.sliit.lk
5.	Jayasundara J.M.T.P	IT22281128	0786414979	it22281128@my.sliit.lk
6.	Tharuka M.S	IT22101242	0701215676	it22101242@my.sliit.lk
7.	Silva M.W.P.R.K	IT22124876	0777372445	it22124876@my.sliit.lk
8.	Abeysekara W.R.G.M	IT22271150	0776501141	it22271150@my.sliit.lk



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List of Functions Developed by the Group Members:

	Name with Initials	Description of the Function
1.	Jayasekara M.P.S.S	<u>Booking and Payment Management System</u> <ul style="list-style-type: none">• Renters can Search and book vehicles after check vehicle availability, pay booking fees and rental costs securely online, View booked trips and past rentals.• Owners can manage vehicle availability and booking requests, receive timely and secure payments for bookings, Track individual vehicle earnings and performance, manage driver payments (hire option), View booking details and renter information.• System can generate bills automatically and Secure online booking and payment processing.
2.	Chandrasekara C.M.P.V	<u>Human Resources Management System</u> <ul style="list-style-type: none">• Adding, viewing, updating and deleting new employees is done by HR manager.• Salary allocation and changes based on overtime and bonuses are completed by the HR manager.• HR managers are capable of handling employee departures by documenting the reason for termination.• HR manager can monthly reports on allocated salaries for employees, rental performance and revenue generate
3.	Wijewantha H.D.C	<u>Customer management system</u> <ul style="list-style-type: none">• Simplified User Experience:<ul style="list-style-type: none">○ User registration, authentication, and profile management features provided.○ Secure login enables users to edit profiles and view payment histories.○ Convenient booking management options allow for deletion or editing of bookings.• Enhanced Rental Features:<ul style="list-style-type: none">○ Display of vehicle ads with comprehensive information within the system.○ Advanced filtering capabilities facilitate personalized searches.○ Renters can create favorite lists for preferred service providers or vehicles, accessible with a single click for quick access.



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4.	Nathasha K.D.S	<u>Vehicle Management System</u> <ul style="list-style-type: none">• Vehicle Manager can perform essential features like adding, updating and deleting fleets, monitoring vehicle conditions and generating rental reports.• Vehicle Manager can add the vehicle to the system after the vehicle owner fills the form containing the vehicle information after approval by the Maintenance Manager.• The vehicle manager can manage the availability of vehicles for rent.
5.	Jayasundara J.M.T.P	<u>Maintenance Management System</u> <ul style="list-style-type: none">• Maintenance Manager can add vehicles to repair list for checking vehicle's condition and maintain monthly condition report.• Maintenance Supporter can check all conditions of vehicles in repair list and inform vehicle repairer about them.• Vehicle Repairer can repair vehicles that informed form Maintenance Supporter.
6.	Tharuka M.S	<u>Vehicle Owner Management System</u> <ul style="list-style-type: none">• Vehicle owners can register and create profiles by providing personal and vehicle details.• Owners can assign drivers to vehicles and input driver details.• Owners can add vehicles to their fleet after a thorough check by a designated vehicle manager.• Owners have the flexibility to update or delete driver/vehicle information as needed.• They receive notifications for new booking requests and other important updates and they can confirm them.• Owners have access to financial reports and histories, providing insights into rental earnings, expenses, and other financial details.
7.	Silva M.W.P.R.K	<u>Driver Management System</u> <ul style="list-style-type: none">• Drivers interested in joining the platform can follow the registration process and the system verifies the driver's identity, driving license, and other required credentials.• After a successful verification, a driver profile is created in the system. The system manages and stores essential documents such as driving licenses.• Drivers can view the location, reserved date, no. of days through the system.



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		<ul style="list-style-type: none">Performance metrics, such as driving behavior, response to traffic rules, and customer feedback, are collected and analyzed. Complaints to the drivers will be notified by the driver manager to the relevant driver.
8.	Abeysekara W.R.G.M	<p><u>Reviews and Ratings Management System</u></p> <ul style="list-style-type: none">Renter can add, edit, and delete reviews ratings, and complaints anytime about his experience with the vehicle or driver.The renter can add a complaint about the vehicle or driver after the validation of the email that belongs to the renter.If the renter adds a complaint about the driver, the driver manager can review the complaint and get a decision about that driver.If the renter adds a complaint about the vehicle, the vehicle manager can review the complaint.User can ratings with star box and update or delete any time.