



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: T048
Development Technology :	MERN Stack – Mongo DB / Express Js / React Js / Node Js	

Description of the Project:

Client and the current business:

In Sri Lanka, there are numerous vehicle owners who offer their vehicles for rent, primarily targeting customers in their local areas. These businesses are often run individually and managed manually. Potential renters seeking to hire a vehicle must first locate or contact a vehicle owner, inquire about the vehicle's details and availability, and continue this process until they find a vehicle that suits their needs. Once a suitable vehicle is found, renters can reserve it for their journey by submitting the necessary documents. Then they pay a security deposit and take possession of the vehicle. After the rental period, the vehicle owner calculates the duration and distance of the ride to generate a bill. The bill amount is deducted from the security deposit, and the remaining balance is returned to the renters.

Current Problem:

In the current system, renters must individually contact each vehicle owner to obtain vehicle details and availability. This process involves manually managing bookings, payments, and bill generation, among other activities. This process is time-consuming, offers limited accessibility, and lacks efficiency.

Another issue is the absence of a platform for individuals, not businesses, to rent out their vehicles when they are not in use. In the existing system, there is no provision for individuals to rent out their vehicles to those who may need them.

Innovative solution you are planning to provide:

We plan to develop an online platform that bridges the gap between vehicle owners and renters. This platform will enable owners to list their vehicles, providing relevant details such as the model, condition, rental price, and availability.

This platform will not only cater to large businesses but also allow any individual to rent out their vehicles. Renters can search and filter vehicles based on their preferences, easily find available dates, and gather comprehensive information about the vehicle. They can gain insights about the vehicle through ratings, reviews, and photos.

The system will handle bookings and payments digitally, streamlining the process based on the information provided.



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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

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</u> <ul style="list-style-type: none">• Booking Management: Renters can check vehicle availability, place booking requests, and manage their bookings. Vehicle owners have the ability to confirm or reject these bookings.• Payment Management: System will generate a bill based on booking details. Renters can pay this bill and will receive a confirmation message or email upon successful payment and users can view their payment history along with the associated booking details.
2.	Chandrasekara C.M.P.V	<u>Admin Management</u> hr <ul style="list-style-type: none">• User account management, payment management, vehicle & drivers' management and review & ratings management are all monitored by the admin. If an issue comes up, the admin will solve it.• Admins can generate reports on various aspects of the business, such as revenue, utilization rates, and popular vehicle models. Maintaining the security of the platform, protecting user data is done by the admin.• Adding, viewing, updating and deleting new admins is done by admin management.



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3.	Wijewantha H.D.C	<u>Ads Management</u> customer <ul style="list-style-type: none">• Create the land page and connect other pages to it. Create filtering and searching functionalities in the land page and we provide ability to save their frequently used filters for future use and provide an option to apply them with a single click. If they no longer need it, they can remove it.• We provide a whatchlist for customers. If any customer interested in a vehicle, he can add it into favorite section and create the whatchlist manageable ability to the customers like update and delete them.
4.	Nathasha K.D.S	<u>Vehicle and Drivers Management</u> vehicle <ul style="list-style-type: none">• Vehicle Management: Rental vehicle owners seamlessly integrate images, availability information, and detailed descriptions of their vehicles. Owners also update the status regularly, ensuring accurate information about whether the vehicle is currently on rent or not.• Driver management: Rental vehicle owners, when adding vehicles to the system, provide detailed descriptions of available drivers for their vehicles. These driver profiles are regularly updated, indicating whether the drivers are currently available for hire or not, ensuring accurate and up-to-date information.
5.	Jayasundara J.M.T.P	<u>Customer Support</u> condition Check <ul style="list-style-type: none">• Users of this system can communicate in real time Provides guidance to users about the system. Users are allowed to submit general questions and provide answers in the common platform• For specific questions or further details, an admin can solve the problems by calling, mail or chat. Offer 24/7 customer support availability, especially in the case of emergencies or unexpected issues.
6.	Tharuka M.S	<u>Discounts and Packages Management</u> Owner <ul style="list-style-type: none">• Discounts Management: By providing discounts, owners have the flexibility of giving discounts involves adding,



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		<p>updating and deleting discount offers based on various criteria with a limit time of period.</p> <ul style="list-style-type: none">• Packages Management: Customers can book packages for specific occasions with one or more vehicles including options with additional services according to customer's preferences.
7.	Silva M.W.P.R.K	<p><u>User (Renters + Owners) Management</u> driver</p> <ul style="list-style-type: none">• User Registration and Authentication: User can create an account by providing their personal details and enable users to login to their accounts using the username and password. System sends a message to the email to confirming the account creation.• User Profile Management: Allow users to update the profile information like personal details, payment methods. Also users can upload a profile picture and can be changed when they want.
8.	Abeysekara W.R.G.M	<p><u>Reviews and Ratings Management</u></p> <ul style="list-style-type: none">• After using any vehicle service, users can receive an email containing a link to provide reviews and ratings. Users have the option to rate both the vehicle and the driver on a scale of one to five stars, and share their experience through a review.• Users can view reviews and ratings from other customers on the vehicle details page.