Project Name: Bike and Car Rental System Portal
Branch DAC Mar-2024

Documentation On

“Bike and Car Rental System Portal”

DAC Mar 2024

Guided By: Bakul Joshi

Submitted By :
Group No: 22

- **Manish Rathod** **220343020055**
- **Shubham Khedekar** **220343020096**
- **Atharva Kalokhe** **220343020020**
- **Saurav Dutal** **220343020091**

Table of Contents

1. Introduction **5**

1.1 Document Purpose **5**

1.2 Project Background **5**

1.3 Aim & Objectives **5**

2. Business Requirements Overview **6**

3.Functional Requirements **6**

3.1 Customer Module **6**

3.2 Service Center Module **7**

3.3 Admin Module **7**

4. Non-Functional Requirement **7**

5. Use Case Diagram **9**

5.1 Customer **9**

5.2 Owner **10**

5.3 Admin **11**

6. Project Architecture Diagram **12**

7. Database Design **13**

7.1 Customer **13**

7.2 Owner **13**

7.3 Vehicle **14**

7.4 Category **14**

7.5 Login **14**

7.6 Brand **15**

7.7 Type **15**

7.8 Model **15**

7.9 Bookings **16**

7.10 Payments **16**

7.11 Roles **17**

7.12 City **17**

8. E-R Diagram **18**

9. Snapshots **19**

10. Conclusion and Future scope **25**

List of Figures

Use Case Diagrams 09

Fig 1 Customer……..09

Fig 2 Owner……...10

Fig 3 Admin..... 11

Fig 4 Project Architecture ……12

Fig 5 ER Diagram..... 18

1. Introduction:

1.1 Document Purpose:

This document communicates the business requirements and scope for developing bike and car rental system portal. The scope of this document is to define the functional and non functional requirements, business rules and other constraints requirements.

1.2 Project Background:

Currently, there is no unified and cost-efficient system for renting bikes and cars. Individuals seeking to rent vehicles often face fragmented services, lack of transparency in pricing, and limited availability information. Traditional rental methods involve multiple intermediaries, each potentially adding to the cost and complexity of renting a vehicle. This leads to inefficiencies and dissatisfaction among customers. The proposed system aims to centralize and streamline the process, providing a transparent, user-friendly platform where users can easily find, book, and rent vehicles.

1.3 Aim & Objectives:

The main objective of this project is to build a website that will help users from various locations to rent bikes and cars seamlessly. This system will allow users to view available vehicles, compare prices, and make reservations online. It will also offer additional features such as reviews, ratings, and support for various payment methods to enhance the user experience. Additionally, it will provide vehicle owners with a platform to list their vehicles for rent, thereby increasing their revenue potential.

2. Business Requirements Overview:

- Bike and Car Rental System is a public web and mobile application.
- Bike and Car Rental System will be available globally, but in phase 1, the main target is the local market, with a focus on urban areas and tourist destinations.
- There are mainly two types of users: Renters and Vehicle Owners.
- Renters can search for available bikes and cars, compare rental prices, read reviews, and book vehicles online.
- Vehicle Owners can list their bikes and cars for rent, manage bookings, and track rental activity.
- Bike and Car Rental System provides functions that connect renters and vehicle owners efficiently.
- Bike and Car Rental System will be maintained by an Administrator.

3. Functional Requirements Overview:

Bike and Car System Portal consists of four modules described as below.

1. Customer Module
2. Owner Module
3. Admin Module

3.1 Customer Module

- Customer can register and create his own account.
- Customer can login.
- Customer can post requirement.
- Customers can browse available bikes and cars for rent.
- He can view detailed information about each vehicle, including pictures, specifications, and rental rates
- He can check availability and book vehicles for specific dates and times.
- Customer can view their confirmation status.
- He can choose payment option to pay the rent.
- Customers can view their past rental history.

- Customer can give feedback.

3.2 Owner Module

- Vehicle Owners can register and create their own account.
- Owners can list their bikes and cars for rent, providing detailed information, pictures, and rental rates.
- Owners can view request .
- Owners can update vehicles information.
- Owners can confirm request booking.
- Owners can view transaction history.

3.3 Admin Module

- Admins can view both customer and owner accounts.
- Admins can oversee the listing of vehicles.
- Admin can create brand
- Admin can view transactions.
- Admin can view feedback.
- Admin can create account.
- Admin can disable account.

Admins can monitor all bookings and transactions within the system.

4. Non-Functional Requirement:

- The website should use professional design, look and feel and color scheme.
- Users will have no limitations for accessing the application through the Internet. The portal being an internet application, it is difficult to specify an exact number of visitors or users. Hence, we will target the system to support sufficient users on the

launch of phase 1.

- Being a public website, the site must follow general usability guidelines for menus, navigation, colors, links and other actions provided on the screens.
- The system should be designed in such a manner that the user will be able to complete tasks in a minimum number of steps.

5. Use-Case Diagram

a. Customer:

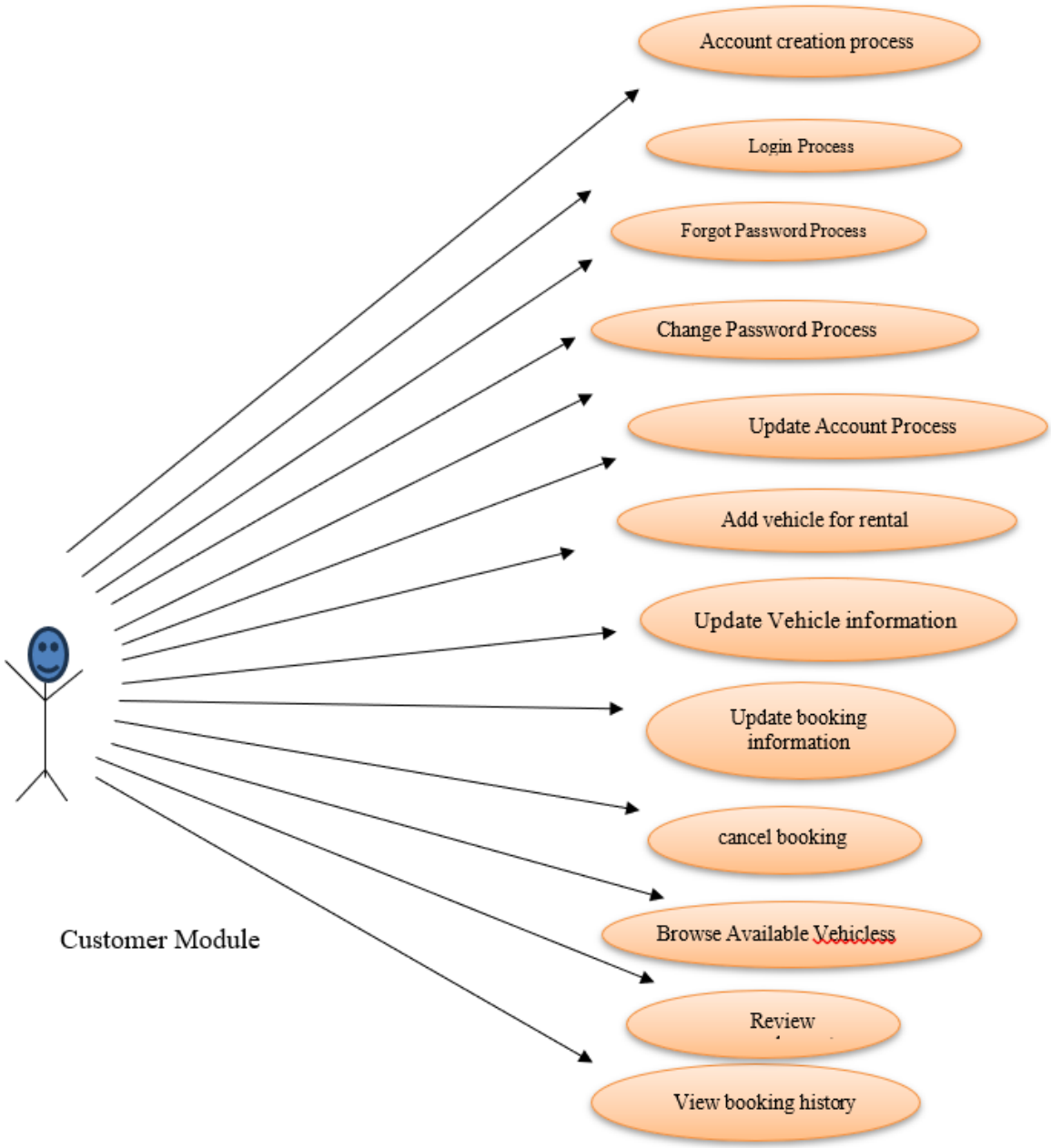


Fig. Use-Case Diagram for Customer

b. Owner:

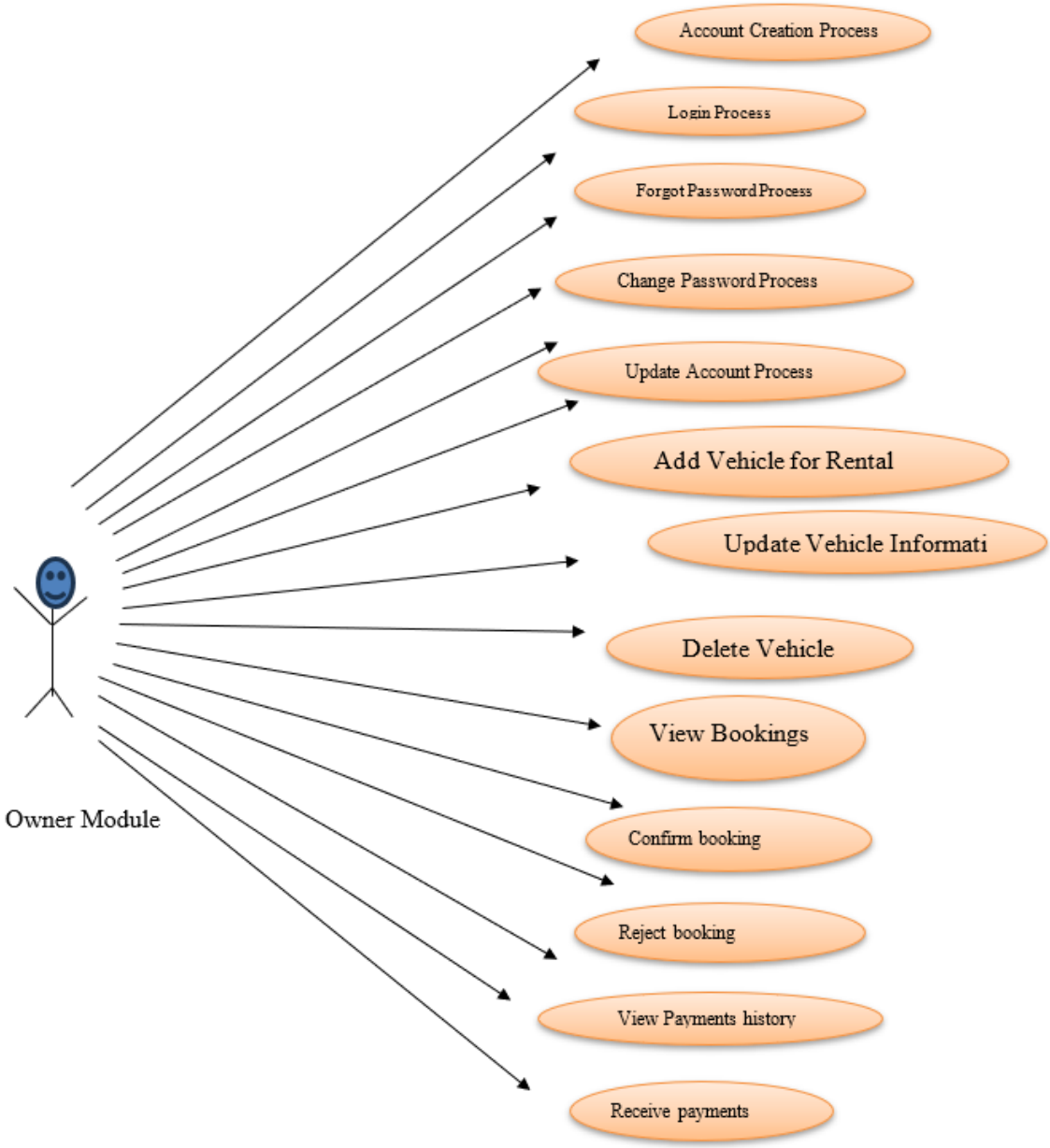


Fig. Use-Case Diagram for Owner

c. : Admin :

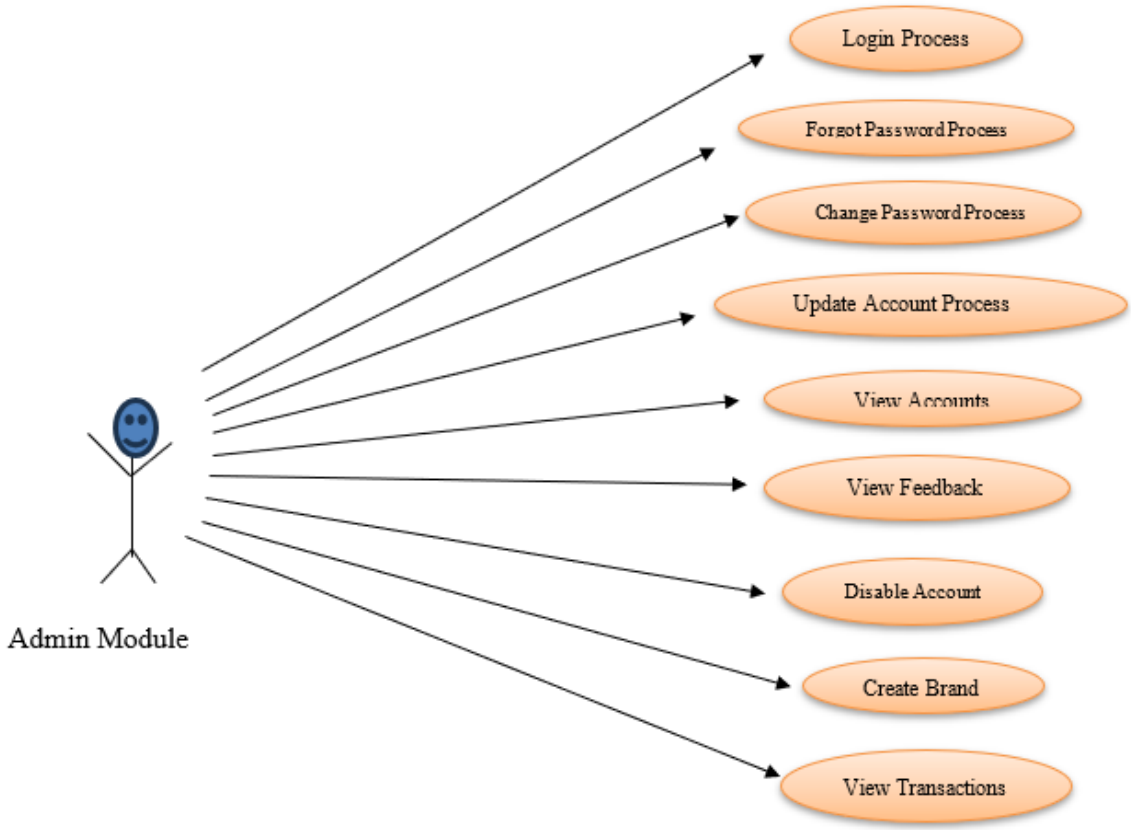


Fig. Use-Case Diagram for Admin

6.Project Architecture Diagram:

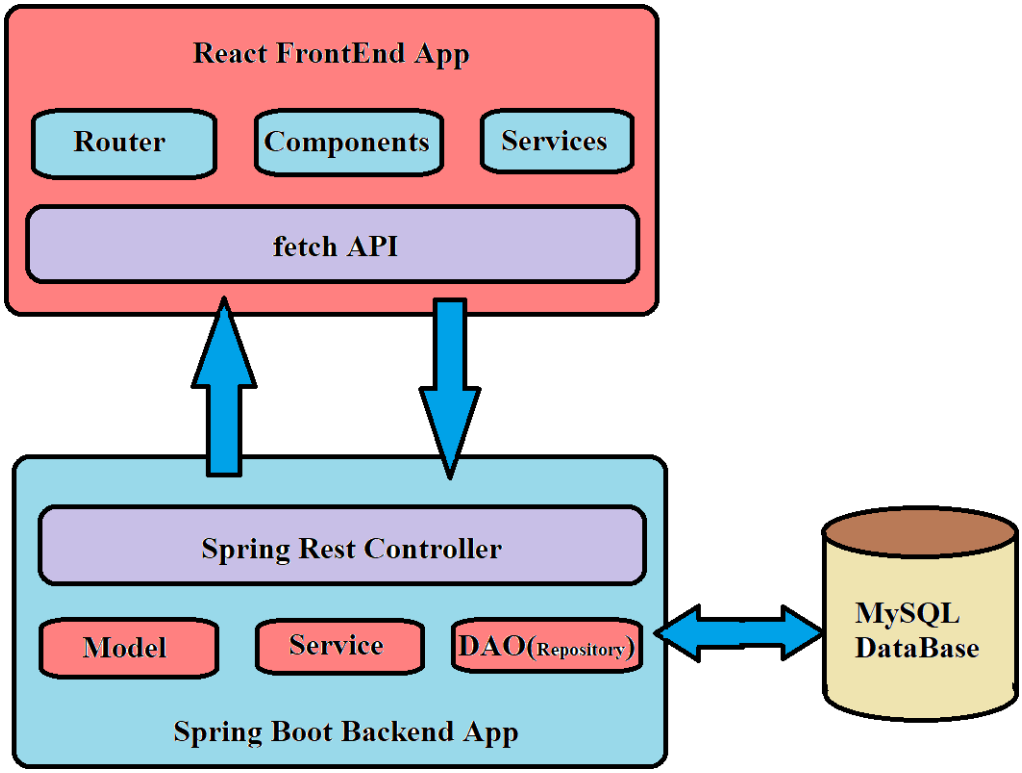


Fig. Project Architecture Diagram

7. Database Design:

1. Customer table:

Field	Type	Null	Key	Default	Description
user_id	Integer		Foreign Key	Null	Unique user ID
name	Varchar(100)			Null	Name of customer
Phone_number	Integer			Null	Contact number of customer
Email id	Varchar(100)			Null	email id of customer
driving_license_no	Varchar(100)			Null	Driving license no of customer
Aadhar_number	Varchar(100)			Null	Address of customer
Customer_id	Integer		Primary key	Null	Login ID of customer

2. Owner table:

Field	Type	Null	Key	Default	Description
user_id	Integer		Foreign key	Null	Unique ID of owner
name	Varchar(100)			Null	Name of owner
emailid	Varchar(100)			Null	Email ID of owner
Phone_number	Integer			Null	Contact no of owner
driving_license_no	Varchar(100)			Null	Driving license no of owner
Aadhar_number	Integer		Foreign key	Null	Aadhar no of owner of vehicle
Customer_id	Integer		Primary key	Null	Customer ID of owner

3.Vehicle table:

Field	Type	Null	Key	Default	Description
Vehicle_id	Integer		Primary key	Auto-increment	Unique ID of the vehicle
Buying_year	Varchar(100)			Null	Buying year of vehicle
Model_id	Varchar(100)		Foreign key	Null	Model of the vehicle
Registration_no	Integer			Null	Registration year of the vehicle
Owner_id	Integer		Foreign key	Null	Owner ID of the vehicle's owner
Customer_id	Integer		Foreign key	Null	Unique customer ID

4. Login table:

Field	Type	Null	Key	Default	Description
Role_id	Integer		Foreign key	Null	Role ID
User_id	Integer		Primary key	Null	User ID
password	Varchar(100)			Null	Respective password
username	Varchar(100)			Null	Username
Active_status	Varchar(100)			Null	Status of active or unactive user

5.Category table

Field	Type	Null	Key	Default	Description
Category_id	Integer		Primary key	Null	Category id
Category_name	Varchar(45)			Null	Name of the category
Deposit	Integer			Null	Deposit

6.Brand table:

Field	Type	Null	Key	Default	Description
Brand_id	Integer		Primary key	Null	Brand ID
Brand_name	Varchar(100)			Null	Brand Name

7.Type table:

Field	Type	Null	Key	Default	Description
Type_id	Integer		Primary key	Null	Type id
Type_name	Varchar(100)			Null	Name of Type

8.Model table:

Field	Type	Null	Key	Default	Description
Model_id	Integer		Primary key	Null	Unique Model ID
Model_name	Varchar(45)			Null	Name of Model
Brand_id	Integer		Foreign Key	Null	Brand Id
Charges	Integer			Null	Charges per day

9. Bookings table:

Field	Type	Null	Key	Default	Description
Booking_id	Integer		Primary key	Null	Booking ID
Starting_date	Varchar(45)			Null	Starting date to rent vehicle
Customer_id	Integer		Foreign Key	Null	Customer id od customer
Vehicle_id	Integer		Foreign Key	Null	Vehicle id
Booking_date	Varchar(20)			Null	Date of booking vehicle
End_date	Integer			Null	End Date
status	Varchar(45)			Null	Status of vehicle

10. Payment table:

Field	Type	Null	Key	Default	Description
Payment_id	Integer		Primary key	Null	Payment ID
Booking_id	Integer		Foreign key	Null	Booking id of vehicle
Payment_date	Varchar(45)			Null	Date of Payment
amount	Integer			Null	Amount to be paid
Payment_method	Varchar(45)			Null	Mode of Payment

11. Area table:

Field	Type	Null	Key	Default	Description
Area_id	Integer		Primary key	Null	Unique area ID
Area_name	Varchar(45)			Null	Name of the area
City_id	Integer		Foreign Key	Null	City ID

12. City table:

Field	Type	Null	Key	Default	Description
City_id	Integer		Primary key	Null	City ID
City_name	Varchar(45)			Null	Name of the City

13. Role table:

Field	Type	Null	Key	Default	Description
Role_id	Integer		**Primary key**	Null	Role ID
Role_name	Varchar(45)			Null	Name of Role

8. ER-Diagram:

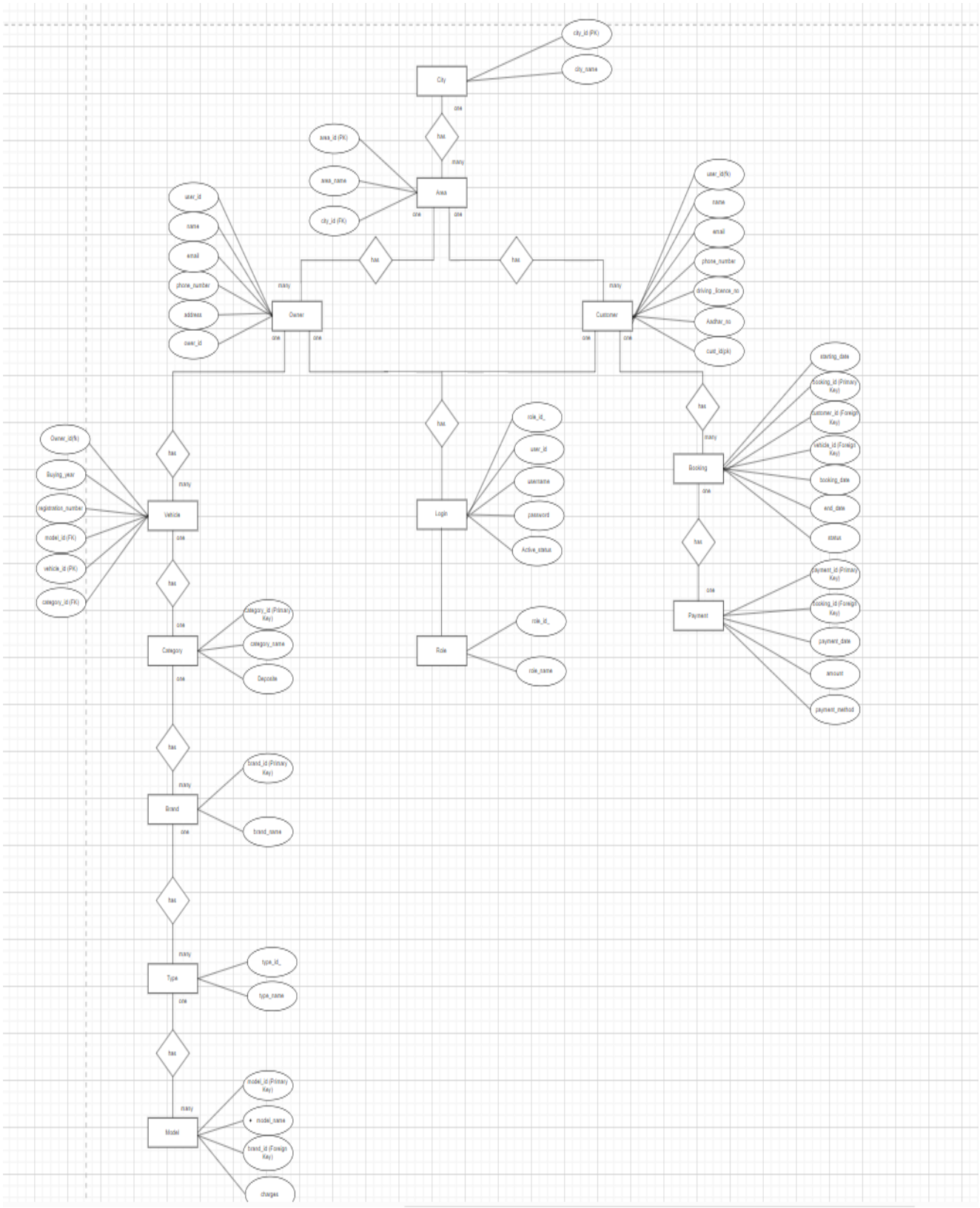
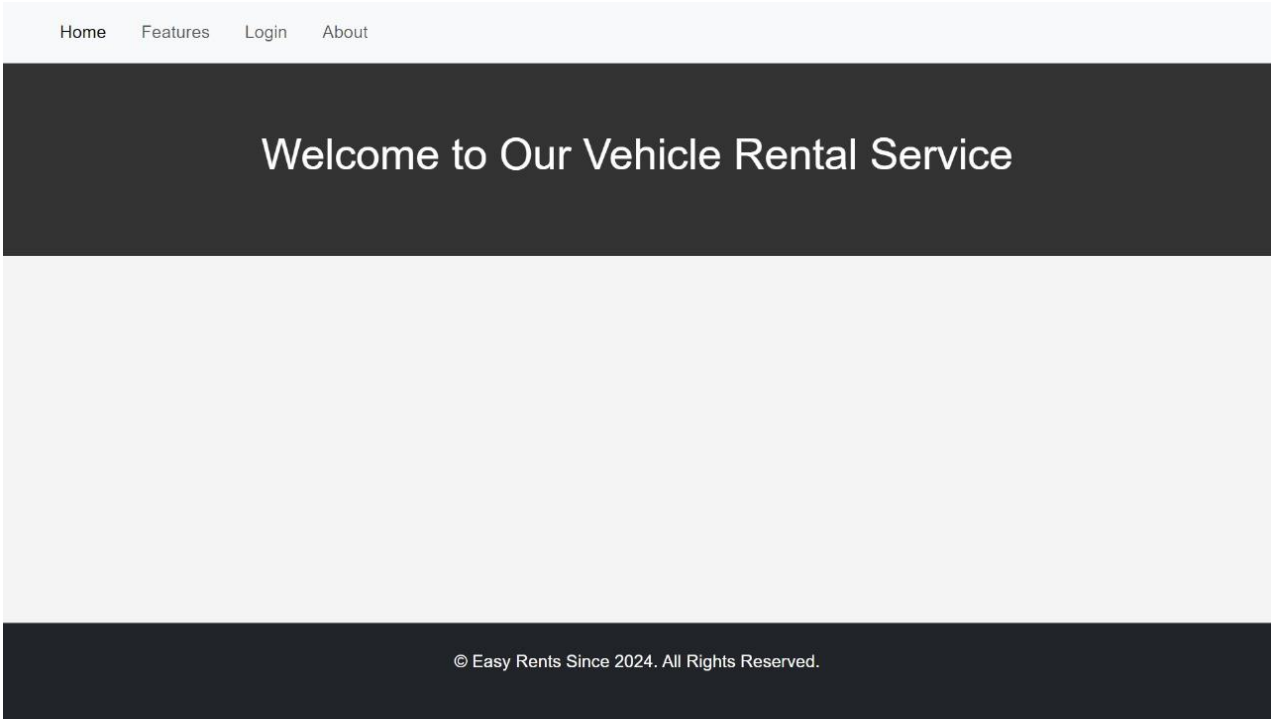


Fig. E-R diagram shows database of Bike And Car Rental System Portal

9. Snapshots:

9.1 Home Page:

Following snapshot shows the Home page for Vehicle Service Management System

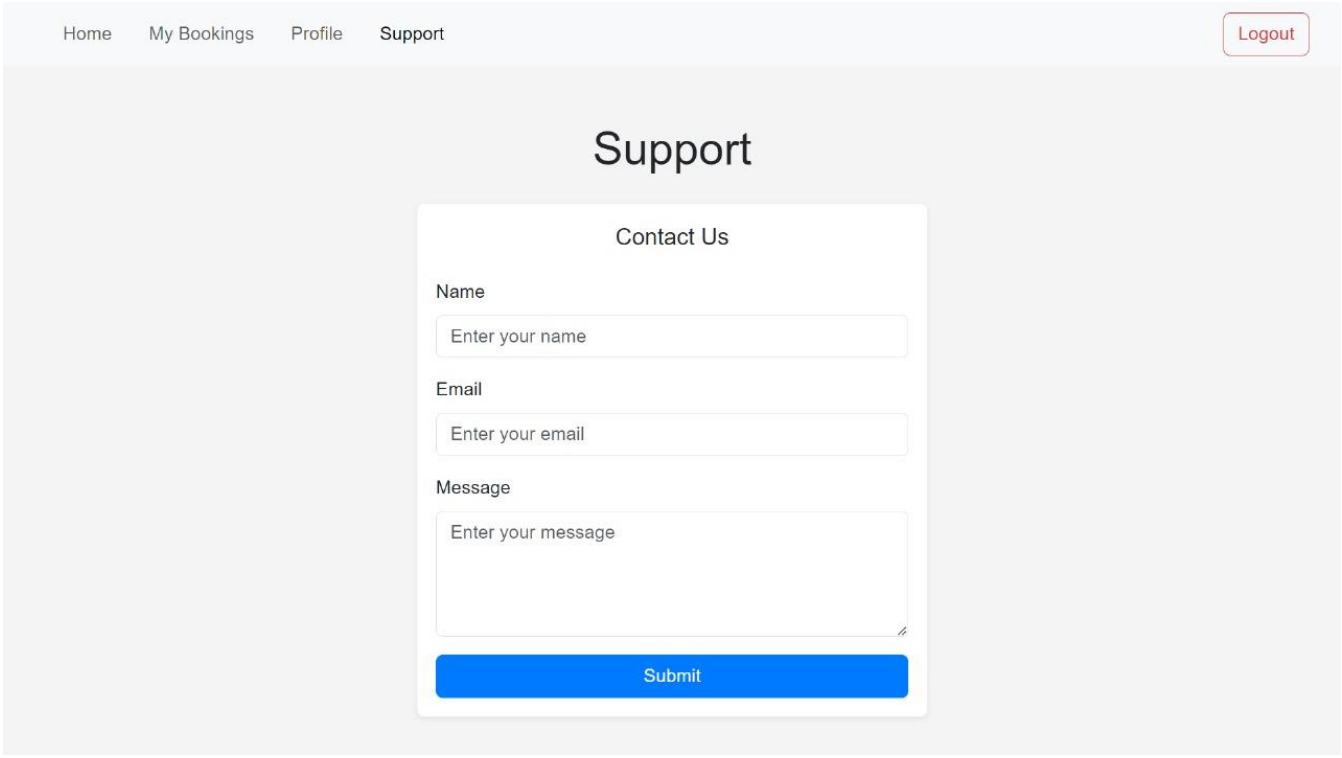


This page contains following controls

- Home
- Features
- About
- Login

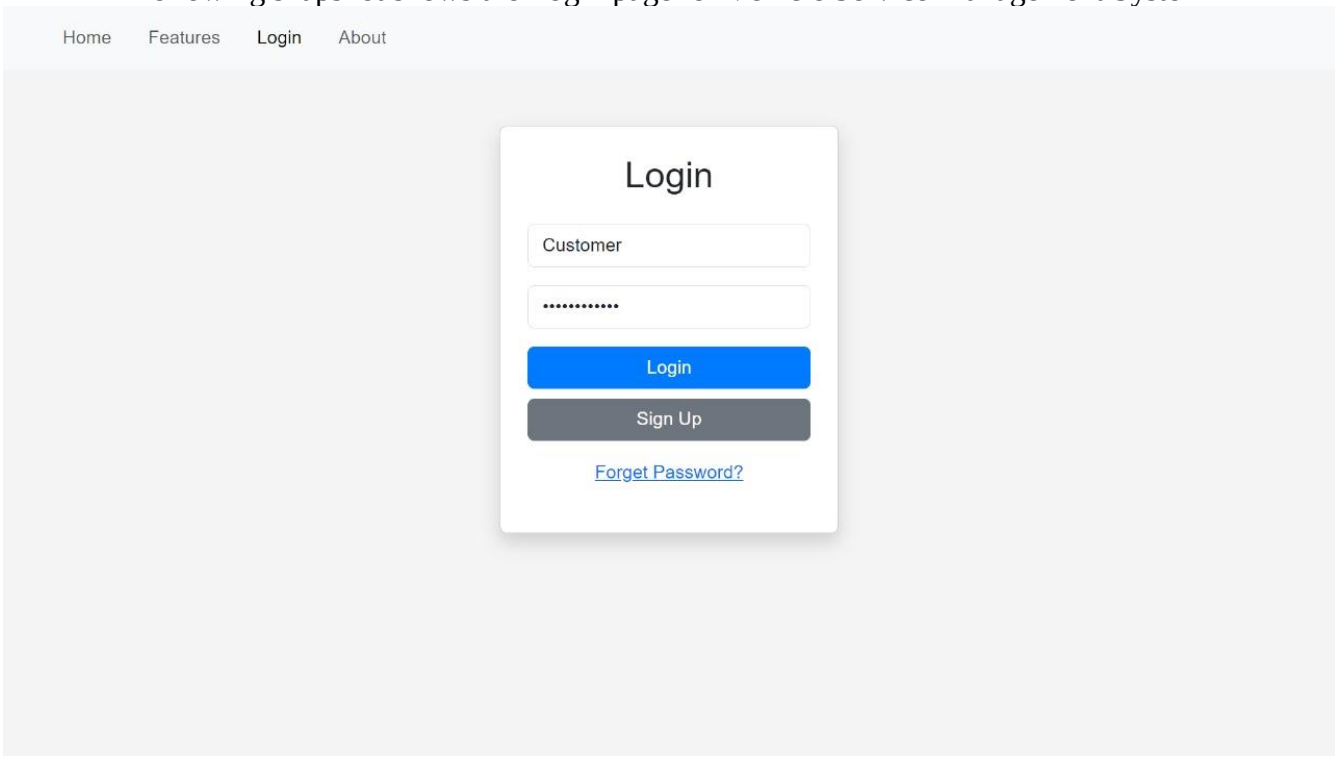
9.2 Support Page:

Following snapshot shows the Service Center page for Vehicle Service Management System



9.3 Login Page:

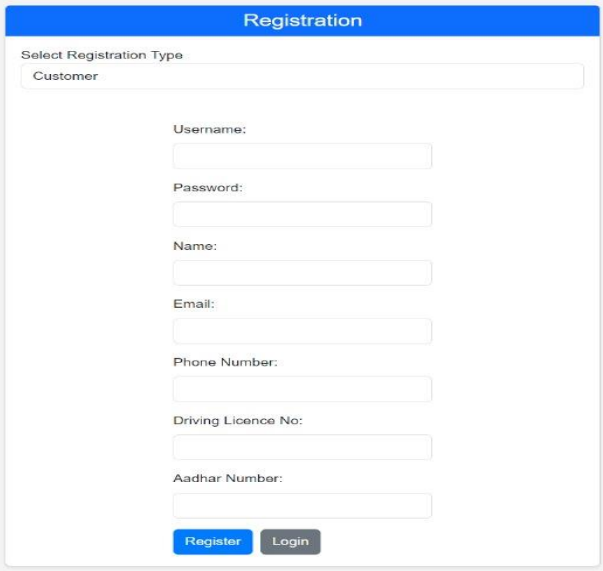
Following snapshot shows the Login page for Vehicle Service Management System



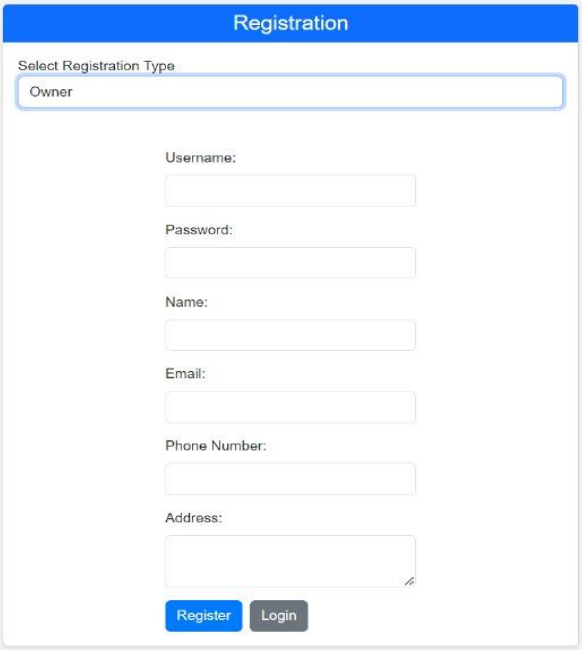
9.4 Sign Up Page:

Following snapshot shows the Sign Up page for Vehicle Service Management System

- Customer Registration Page:

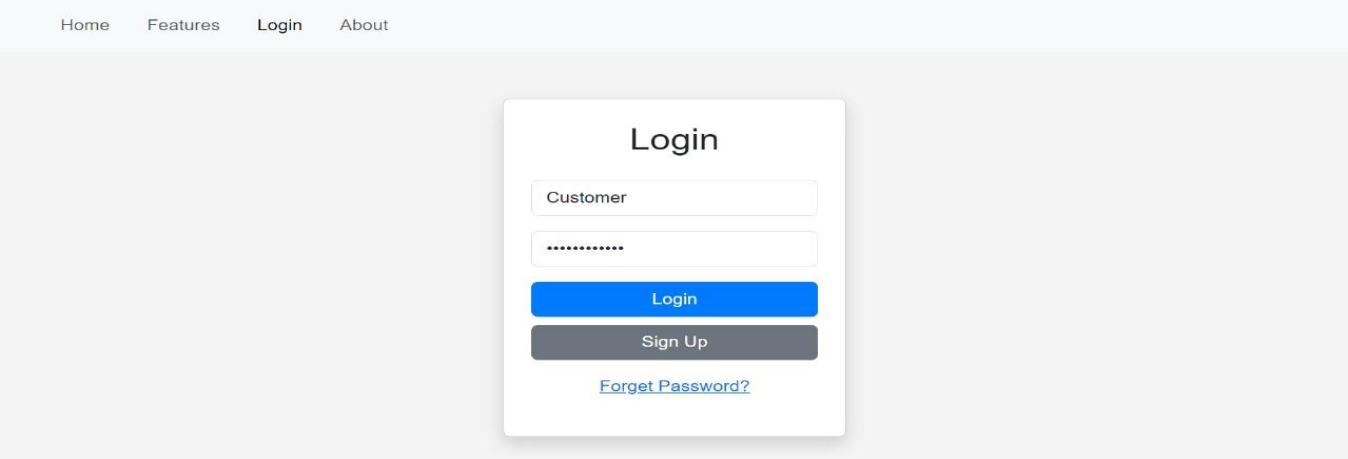


- Owner Registration Page:

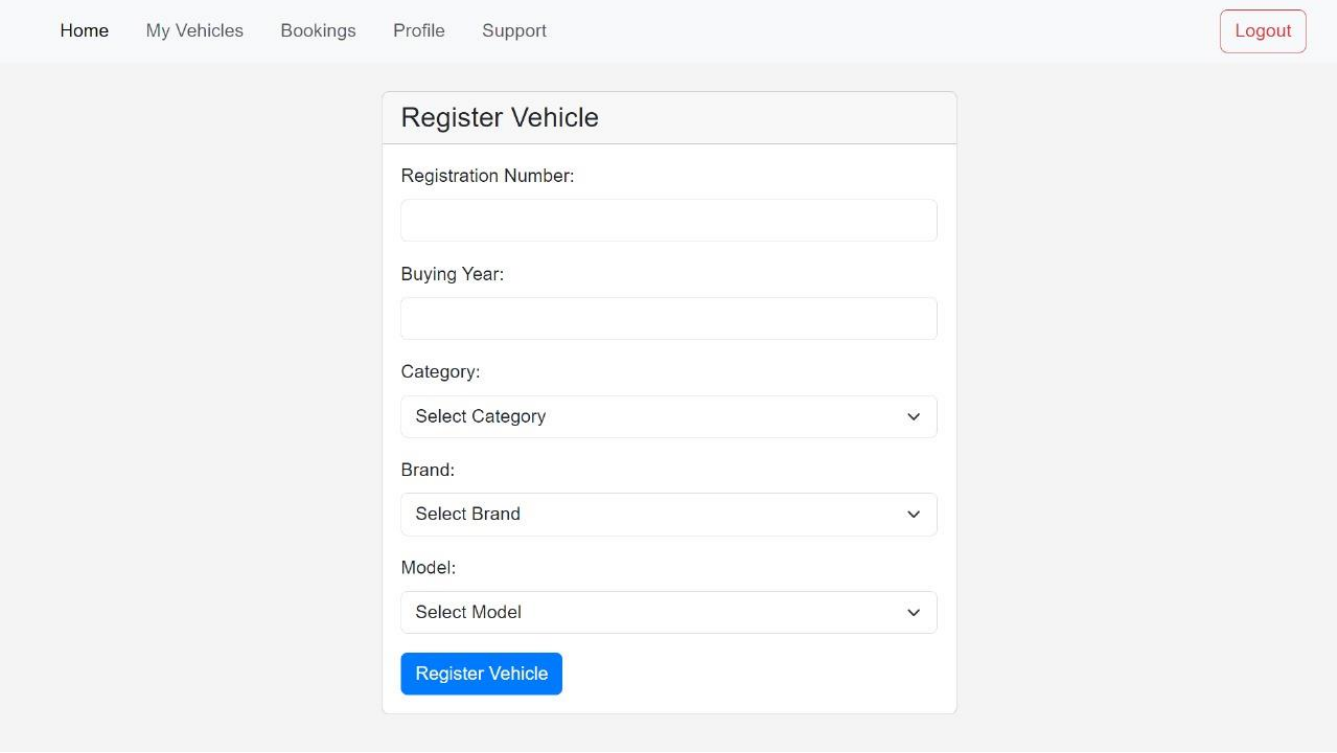


9.5 User login Page:

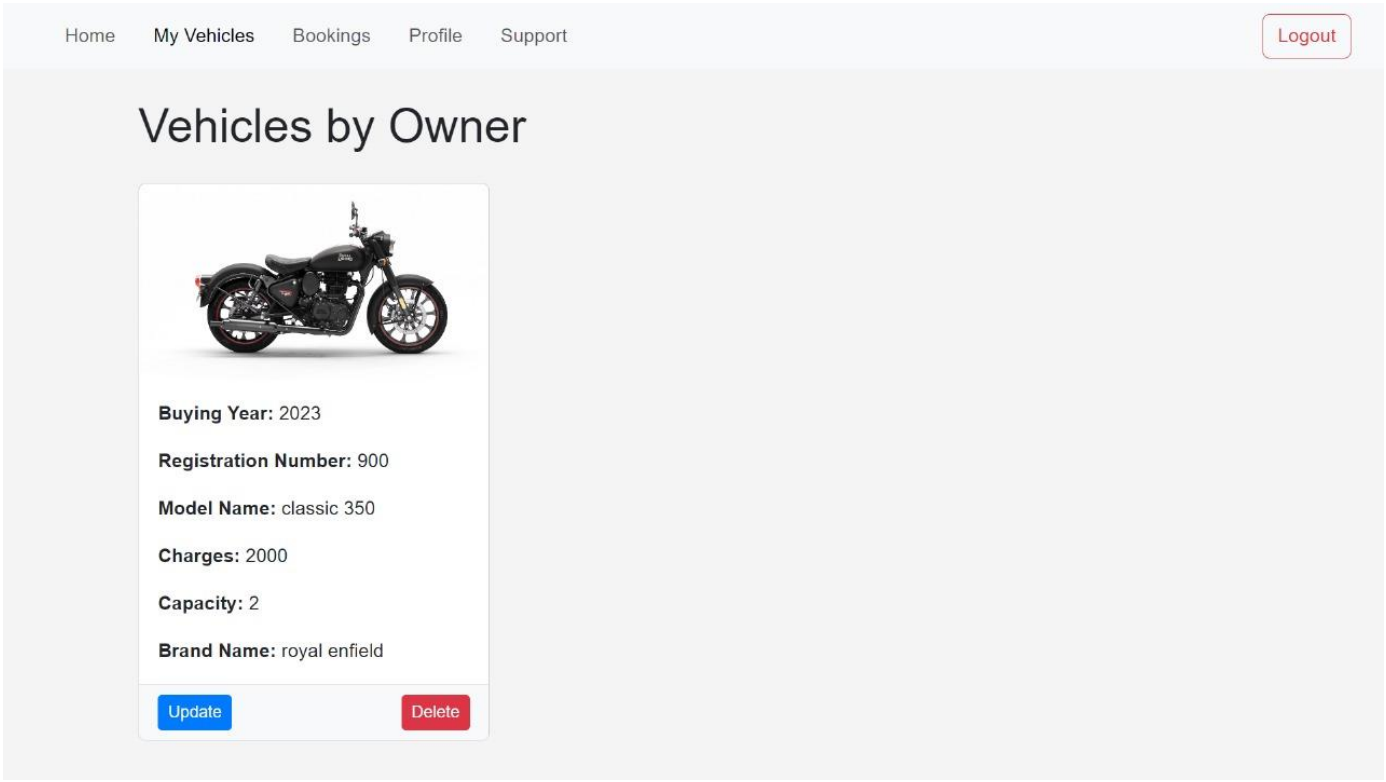
Following snapshot shows the User Login page



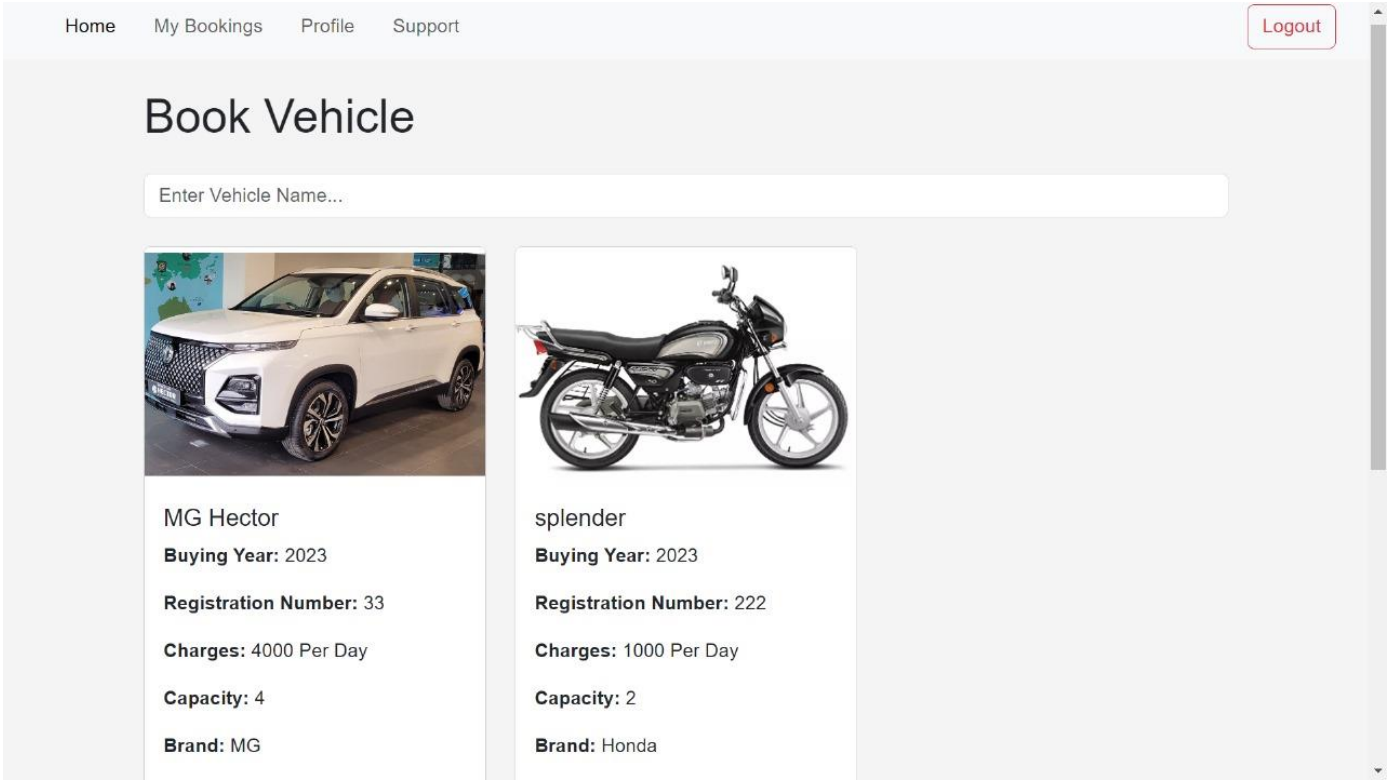
Vehicle registration



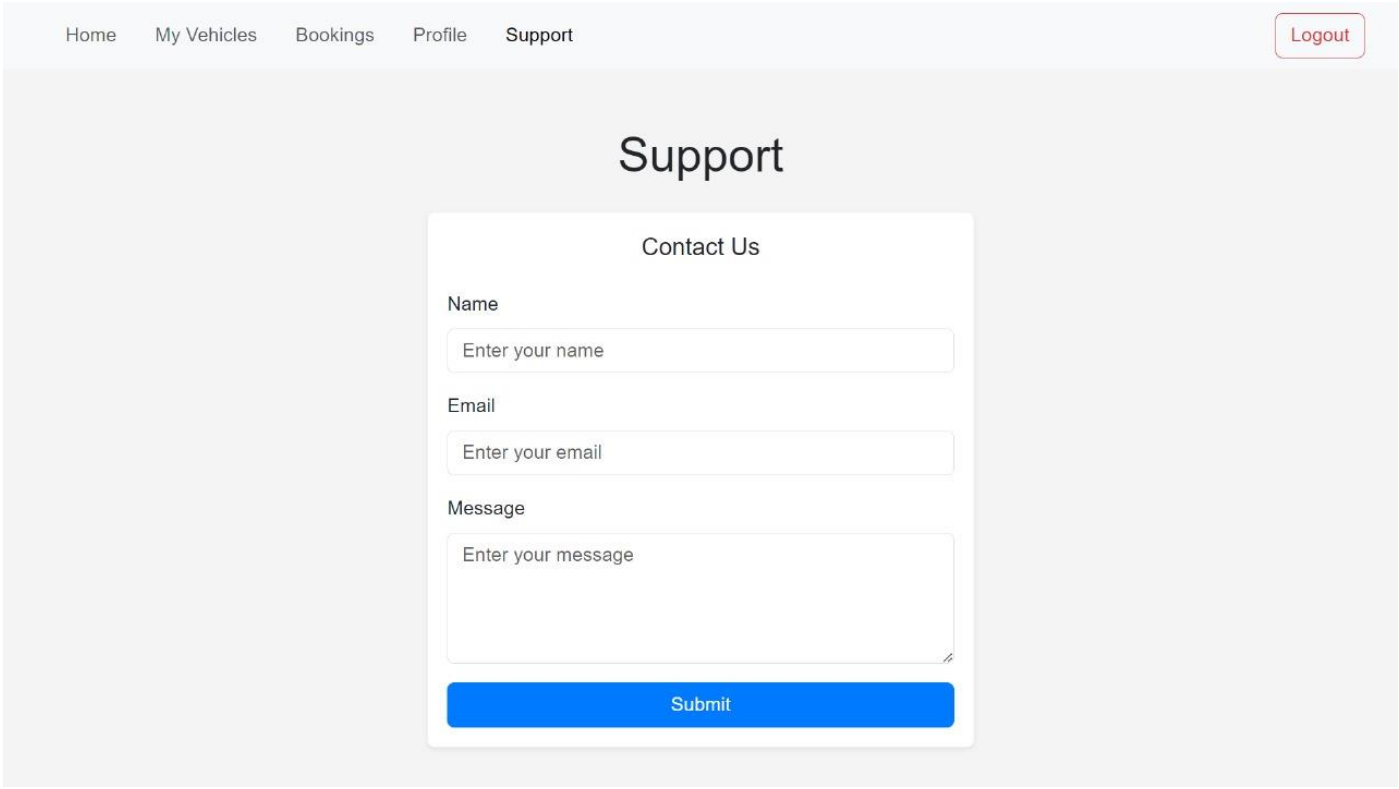
- Vehicle information



- Rent Vehicle



- Support


Home
My Vehicles
Bookings
Profile
Support
Logout
Support
Contact Us
Name
Enter your name
Email
Enter your email
Message
Enter your message
Submit

CONCLUSION AND FUTURE SCOPE

Bike And Car Rental Portal System provides better booking platform to get customers and vehicle owners connected.

Our system provides a very user-friendly platform where user can easily register vehicle, login, search , rent vehicles.

Our system is aimed to do efficient management of various tasks like update profile,, upload vehicle, view bookings.

It digitally manages the renting provision on a single platform.

Few things which we have kept aside for right now as our platform is new in the market but in future we desire to add are to establish this service provision across pan India, to create flexible renting of vehicles as per customer's requirement and to notify customer about vehicle's renting progress, booking completion via SMS or email.