**Functional Requirements of Rent-a-car**

1. **User Management**

The system shall allow customers to register and create user accounts with valid credentials.

Users shall be able to log in securely using their registered email and password.

The system shall support role-based access, distinguishing between customers, Car Rental Staff, and administrators.

1. **Car Inventory Management:**

Car Rental Staff shall be able to add new cars to the rental fleet, providing essential details such as car model, make, year, and availability status.

Car Rental Staff shall have the capability to update and maintain vehicle information, including registration details, insurance status, and optional accessories.

The system shall facilitate tracking the location of each car in the rental fleet for efficient inventory management.

1. **Rental Booking Management**

Customers shall have access to a user-friendly interface for browsing available cars, viewing car details, and checking rental availability.

The system shall allow customers to select desired rental dates, pick-up and drop-off locations, and optional extras for their booking.

Car Rental Staff shall have the authority to review, modify, and approve rental booking requests based on car availability and user preferences.

The system shall provide timely notifications to customers about the status of their booking and any changes made to the reservation.

1. **Rental Invoicing and Payment Processing**

The system shall generate detailed rental invoices for customers, including rental charges, optional extras, and applicable taxes.

Car Rental Staff shall be able to process payment transactions securely through integrated and reliable payment gateways.

The system shall support various payment methods, including credit/debit cards, online wallets, and cash payments (if applicable).

1. **Vehicle Status Tracking:**

Car Rental Staff shall be able to update the status of each vehicle (e.g., available, in maintenance, out of service) based on its condition and availability.

The system shall provide real-time updates on vehicle availability and location to avoid overbooking and optimize fleet utilization.

1. **Rental Reports Generation:**

The system shall offer a comprehensive reporting module that generates various reports, such as rental transactions, revenue analysis, and fleet status

Car Rental Staff and administrators shall have access to these reports for business analysis, decision-making, and performance evaluation.