Rent-a-car - Car Rental Management System:

Problem Statement:

The Rent-a-Car Car Rental Management System offers a complete solution tailored to the needs of car rental businesses, providing efficient management of vehicle fleets, reservations, rentals, customers, and administrative tasks. This system is designed to simplify operations and elevate customer satisfaction through its intuitive interface and comprehensive features.

Functional Requirements:

1. Vehicle Management
   - The system should allow the addition, modification, and deletion of vehicles in the rental fleet.
   - Each vehicle entry should include details such as make, model, year, registration number.
   - The system keeps track of how many cars of a certain brand and type are available in the car fleet.

2. Reservation System
   - Customers should be able to check the availability of vehicles based on specified criteria like date, location, and vehicle type.
   - Users should be able to make online reservations, specifying the pickup and drop-off locations, dates, and vehicle preferences.
   - The system should prevent double bookings by updating the availability status in real-time.

3. Borrowing functionality.
   - A customer can pick up the car at the car renting location.
   - A customer can return the car to the car renting location.
   - The customer pays for the car when the car is returned.

4. Customer functionality:
   - We can add, remove, update and find customers in the car rental application. You can search customers on customer number, name and email address. Every customer has a unique customer number.

5. Rental Pricing and Invoicing
   - The system should calculate rental charges.