

Car Dealership Management System

1. Introduction

1.1 Purpose

This document describes the Software Requirements Specification (SRS) for the **Car Dealership Management System**. The system is designed to manage car listings, offers (bids), users, and administrative operations involving customers, employees, and administrators.

1.2 Definitions, Acronyms, and Abbreviations

- **SRS:** Software Requirements Specification
 - **User:** Any person registered in the system
 - **Customer:** A user who can make offers on cars
 - **Employee:** A dealership staff member
 - **Admin:** System administrator with full privileges
 - **Offer/Bid:** A proposed price submitted by a customer to buy a car
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2. Overall Description

2.1 Product Perspective

The system is a web-based application consisting of:

- Frontend (Web UI)
 - Backend (API & business logic)
 - Database (Users, Cars, Offers)
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2.2 User Classes and Characteristics

2.2.1 Customer

- Can register and log in
- Can browse available cars
- Can make offers (bids) on cars
- Can view offer status

2.2.2 Employee

- Must be approved by Admin
- Can create, edit, and delete car listings
- Can view and approve customer offers

2.2.3 Administrator

- Full system access
 - Can create, edit, delete, and confirm offers
 - Can ban and unban users
 - Can approve or reject employee accounts
 - Can manage all cars and users
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3. Functional Requirements

3.1 Authentication & Authorization

- FR-1: The system shall allow users to register and log in
- FR-2: The system shall support role-based access control (Customer, Employee, Admin)
- FR-3: The system shall prevent banned users from accessing the system

3.2 Car Management

- FR-4: Employees and Admins can create car listings
- FR-5: Employees and Admins can edit car listings
- FR-6: Employees and Admins can delete car listings
- FR-7: Customers can view available cars only

3.3 Offer (Bid) Management

Customer

- FR-8: Customers can create offers (bids) on cars
- FR-9: Customers can view their offer history and status

Employee

- FR-10: Employees can view all offers
- FR-11: Employees can Approve customer offers
- FR-12: Employees can create offers for buying cars

Admin

- FR-13: Admins can create, edit, and delete offers
- FR-14: Admins can confirm offers

3.4 User Management (Admin Only)

- FR-15: Admins can ban users
- FR-16: Admins can unban users
- FR-17: Admins can approve or reject employee accounts
- FR-18: Admins can view all registered users

4. Non-Functional Requirements

4.1 Security

- NFR-1: Passwords shall be encrypted
- NFR-2: Access control shall be enforced based on user roles

4.2 Performance

- NFR-3: System should handle multiple concurrent users
- NFR-4: API responses should be under 2 seconds

4.3 Usability

- NFR-5: User interface shall be intuitive and responsive
- NFR-6: System shall support desktop and mobile devices

4.4 Reliability

- NFR-7: System uptime shall be at least 99%

4. Use Case Summary

Actor	Use Cases
Customer	Register, Login, View Cars, Make Offer, View Offer Status
Employee	Manage Cars, View Offers, Aprove Offers
Admin	Manage Users, Confirm Offers, Ban/Unban Users, Approve Employees

5. Conclusion

This SRS defines the functional requirements of the Car Dealership Management System, ensuring clear role separation and secure offer handling.

