Software Requirements Specification

for

Vehicle Transportation Arrangement

Version 1.0 approved

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Revision History

Name	Date	Reason For Changes	Version

- **Introduction**
- **Purpose**

The purpose of the above topic is to provide a comprehensive guide on how to arrange vehicle transportation. It aims to assist individuals or businesses in understanding the steps involved in transporting vehicles from one location to another efficiently and safely. The purpose is to offer guidance on researching transportation options, selecting a suitable transport company, preparing the vehicle for transport, coordinating pickup and delivery, and ensuring a smooth process overall. This information is intended to help readers make informed decisions and effectively manage the transportation of their vehicles.

1.2 Document Conventions

• **Intended Review Contracts Carefully:** Read through the contract provided by the transport company thoroughly before signing. Pay attention to terms and conditions, cancellation policies, liability clauses, and any additional fees or charges.
• **Timing and Scheduling**: Plan your vehicle transportation with consideration to timing and scheduling constraints. Book transportation well in advance, especially during peak seasons or if you have specific delivery deadlines.
• **Communication with the Transport Company:** Maintain open communication with the transport company throughout the process. Provide accurate contact information and stay in touch to address any concerns or updates regarding pickup, transit, or delivery.
• **Understand Delivery Options:** Discuss delivery options with the transport company, such as door-to-door delivery versus terminal-to-terminal. Choose the option that best suits your convenience and budget

1.3 Product Scope

The aims to provide a user-friendly platform for transportation vehicles. It facilitates vehicle reservations, management of bookings, and tracking transportation history. Additionally, the system offers administrative features for managing vehicle fleets, pricing, and customer accounts.

2. Overall Description

2.1 Transportation Options: There are various transportation methods available, each with its advantages and considerations:

- **Open Transport**: Vehicles are loaded onto an open carrier trailer. This method is cost-effective but exposes the vehicle to weather and road debris.
- **Enclosed Transport**: Vehicles are transported in an enclosed trailer, providing protection from weather and road hazards. This option is more expensive but suitable for valuable or delicate vehicles.
- **Drive-away Services**: Hiring a driver to drive the vehicle to its destination. This can be more affordable but adds mileage to the vehicle.
- **Rail Transport**: Some companies offer rail transport for vehicles over long distances, which can be a cost-effective option.
- **Shipping Container**: For international transportation, vehicles can be shipped in containers.

2.2 Arrangement Process:

- **Research and Selection**: Researching and selecting a reputable transport company based on factors such as experience, customer reviews, insurance coverage, and pricing.
- **Booking**: Making arrangements with the chosen transport company, including scheduling pickup and delivery times, providing necessary documentation, and agreeing on pricing and payment terms.
- **Preparation**: Preparing the vehicle for transport by removing personal belongings, securing loose parts, and ensuring it's in good condition for transit.
- **Loading and Transit**: The vehicle is loaded onto the chosen transport vehicle (trailer, railcar, etc.) and transported to its destination.
- **Delivery and Inspection**: Upon arrival, the vehicle is inspected for any damages incurred during transit. Any discrepancies are documented and addressed with the transport company.

2.3 Documentation and Communication: Throughout the process, proper documentation is maintained, including contracts, insurance certificates, receipts, and inspection reports. Communication with the transport company is essential to address any concerns or updates regarding pickup, transit, or delivery.

2.4 Customer Satisfaction: Ensuring that customers are satisfied with the transportation service is paramount. This includes timely delivery, adherence to safety standards, responsiveness to inquiries or concerns, and overall professionalism in the handling of the transportation process.

3. External Interface Requirements

3.1 Transportation Service Providers:

- **Communication Channels**: Establishing communication channels with transportation service providers to coordinate pickup, delivery, and any special requirements.
- **Contractual Agreements**: Defining the terms of service, including pricing, insurance coverage, and liability, through contractual agreements with transport companies.

3.2 Customers:

- **Booking Process**: Providing a user-friendly interface for customers to book transportation services, including options for selecting transportation methods, specifying pickup and delivery locations, and obtaining quotes.
- **Communication**: Offering multiple communication channels for customers to inquire about transportation arrangements, track their shipments, and address any concerns or issues.

3.3 Regulatory Agencies:

- **Compliance Requirements**: Ensuring compliance with local, state, and federal regulations governing vehicle transportation, including permits, licensing, and safety standards.
- **Documentation**: Providing necessary documentation to regulatory agencies, such as vehicle registration, insurance certificates, and inspection reports, to demonstrate compliance.

3.4 Insurance Providers:

- **Policy Verification**: Verifying insurance coverage for vehicles during transit and providing documentation to insurance providers as needed.
- **Claims Processing**: Facilitating the claims process in the event of any damages or incidents during transportation, including providing documentation and coordinating with insurance adjusters.

3.5 Logistics Partners:

- **Transportation Coordination**: Collaborating with logistics partners, such as freight brokers or shipping companies, to facilitate transportation arrangements for vehicles across different modes of transport, such as rail or sea.

3.6 Government Agencies:

- **Customs and Border Protection**: Ensuring compliance with customs regulations and facilitating the clearance process for international vehicle transportation, including providing necessary documentation and paying any duties or tariffs.
- **Transportation Authorities**: Coordinating with transportation authorities to obtain permits, licenses, or clearances for oversized or specialized vehicle transportation.

3.7 Financial Institutions:

- **Payment Processing**: Facilitating payment processing for transportation services, including providing secure payment options and invoicing customers for services rendered.
- **Transaction Records**: Maintaining accurate transaction records for financial reporting and auditing purposes.

4. System Features

4.1 Vehicle Functions

- **4.1.1 Description and Priority**

This feature enables customers to browse available vehicles, make reservations, and manage bookings.
Priority: High

4.1.2 Stimulus/Response Sequences

- **Stimulus**: Customer selects a vehicle for transportation.
- **Response**: System displays vehicle details and booking options.

4.1.3 Functional Requirements

- REQ-1: Display list of available vehicles.
- REQ-2: Allow customers to search for vehicles based on criteria such as location, date, and vehicle type.
- REQ-3: Enable customers to reserve vehicles by providing necessary details.
- REQ-4: Provide confirmation and booking details upon successful reservation.

4.2 Fleet Management

4.2.1 Description and Priority

This feature allows administrators to manage vehicle fleets, add new vehicles, update vehicle information, and track maintenance schedules.
Priority: Medium

4.2.2 Stimulus/Response Sequences

- **Stimulus**: Administrator adds a new vehicle to the fleet.

- **Response**: System updates the vehicle inventory and displays confirmation message.

4.2.3 Functional Requirements

- REQ-5: Enable administrators to add new vehicles to the fleet with detailed specifications.
- REQ-6: Allow administrators to update vehicle information such as availability, pricing, and maintenance status.
- REQ-7: Provide reporting and analytics features for analysing fleet performance and usage patterns.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

- **Response Time**: The system should respond to user interactions within 2 seconds.
- **Scalability**: The system should be able to handle concurrent user requests without performance degradation.

5.2 Security Requirements

- **Data Encryption**: User data and transactions should be encrypted using HTTPS protocol.
- **Access Control**: Role-based access control should be implemented to restrict unauthorized access to system functionalities.
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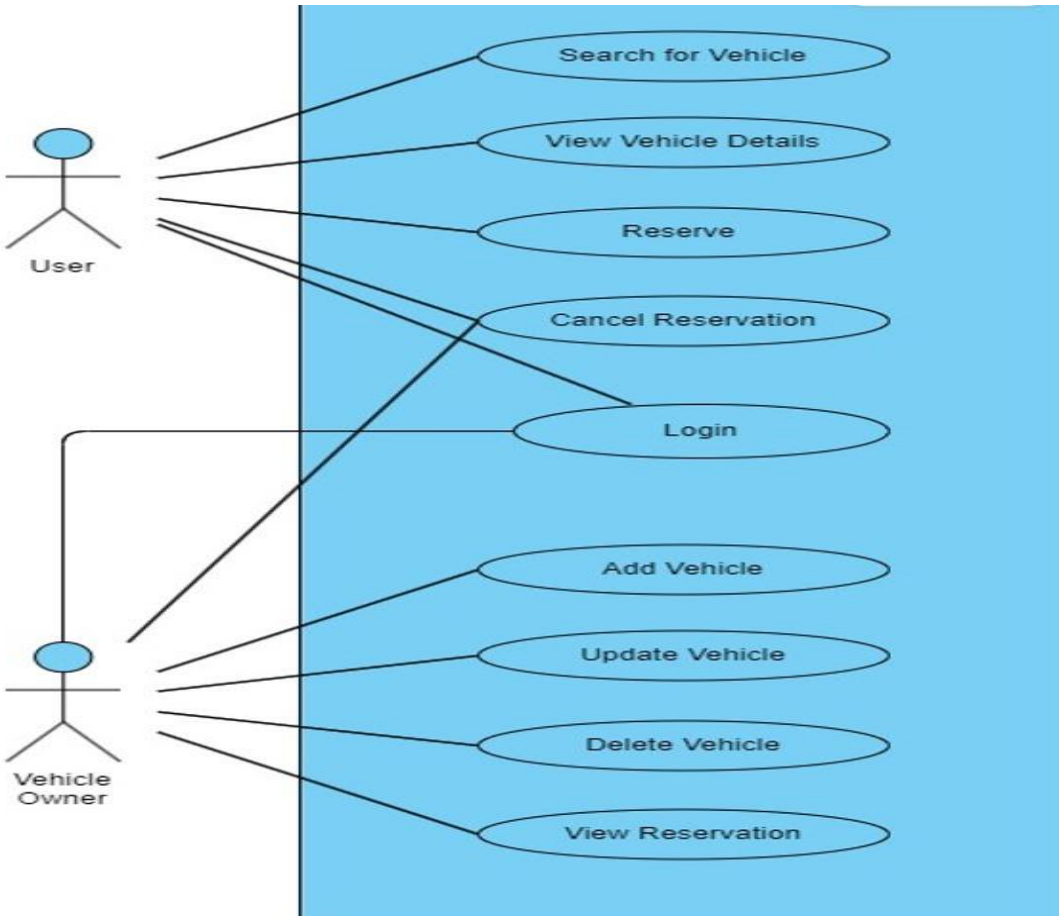
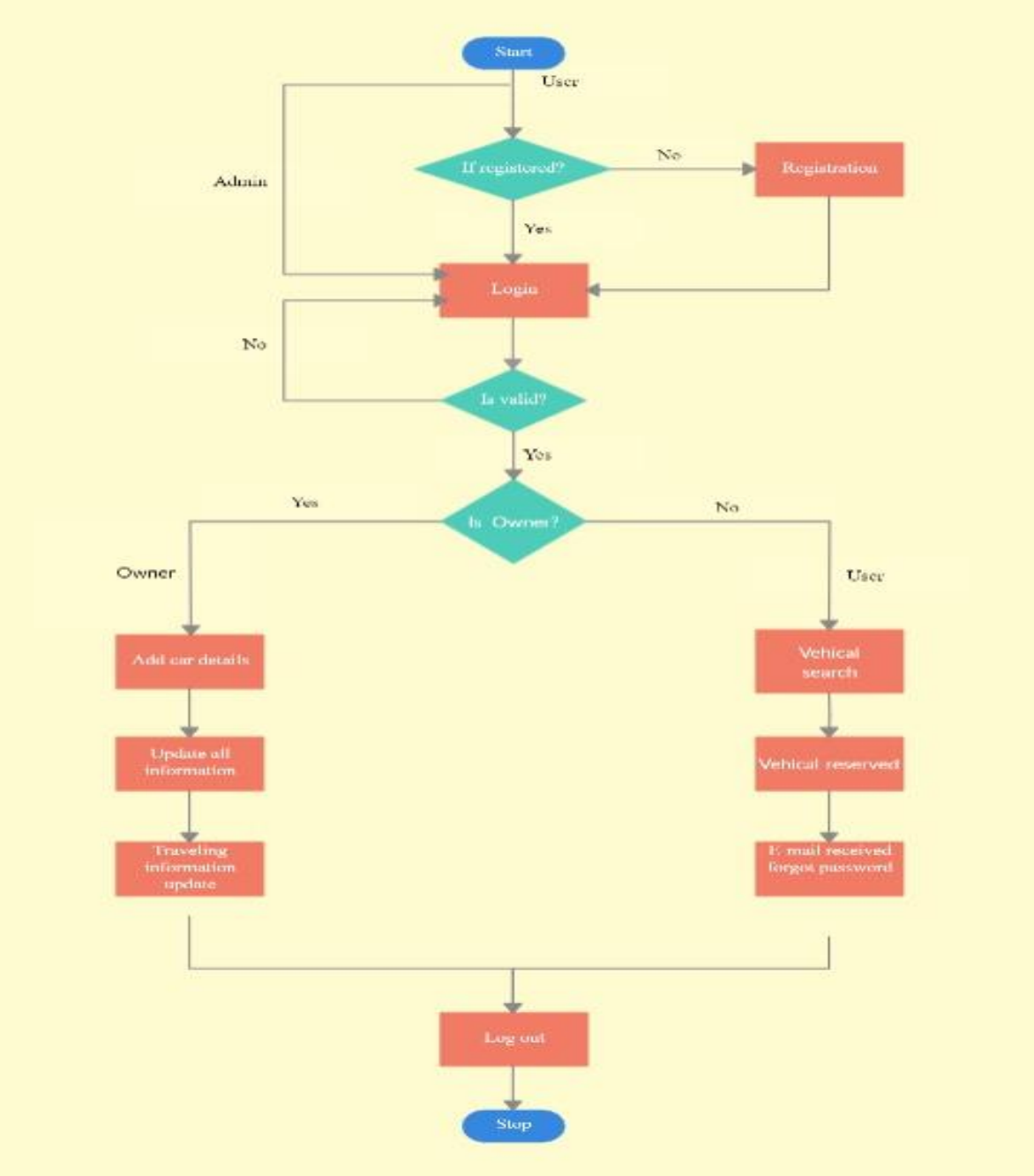
6. System Diagram

6.1 Use Case Diagram



6.2 Activity Diagram