

QuickShip Logistics Functional Requirements

This document outlines the functional requirements of the proposed system, aiming to transition QuickShip Logistics from manual processes to an automated, real-time route optimization system that connects all departments in a seamless workflow. This outlined functional requirements aligns with each stakeholder's roles and interests, providing necessary tools for tasks and decision-making, and directly addressing identified pain points.

Functional Requirements for the Solution

1. Automated Route Planning

- The system shall automatically generate optimized delivery routes based on real-time traffic data and delivery locations.
- The system shall allow users to manually adjust routes while retaining the ability to revert to the optimized version.

2. Real-Time Shipment Tracking

- The system shall provide real-time tracking updates for all shipments, accessible by both internal teams and customers.
- The system shall send automated notifications to customers regarding the status of their deliveries, including delays or changes.

3. Streamlined Order Review Process

- The system shall automatically flag incomplete or inconsistent order information for review before processing.
- The system shall enable users to quickly approve or reject orders based on predefined criteria.

4. Enhanced Communication Tools

- The system shall include a messaging feature that allows team members to communicate directly within the platform.
- The system shall provide a dashboard that displays key updates and alerts relevant to all departments involved in the logistics process.

5. Structured Customer Feedback Collection

- The system shall implement a feedback mechanism that allows customers to submit their reviews and concerns easily.
- The system shall categorize and prioritize customer feedback for review and action by relevant teams.

6. Data Analytics and Reporting

- The system shall generate analytics reports on delivery performance, customer satisfaction, and operational efficiency.
- The system shall allow users to customize reports based on specific metrics and timeframes.

7. User Access and Security

- The system shall implement role-based access control to ensure that users can only access information relevant to their roles.
- The system shall encrypt sensitive data to protect against unauthorized access and data breaches.

Grouping Requirements by Stakeholder/Feature, Ensuring Each Links to a Business Need

Grouped Functional Requirements by Stakeholder and Feature

1. Logistics Team

- **Automated Route Planning**
 - The system shall automatically generate optimized delivery routes based on real-time traffic data and delivery locations.
 - **Business Need:** Enhance Process Efficiency.
- **Streamlined Order Review Process**
 - The system shall flag incomplete or inconsistent order information.
 - **Business Need:** Improve Data Accuracy and Accessibility.

2. Customer Service Team

- **Real-Time Shipment Tracking**
 - The system shall provide real-time tracking updates for shipments, accessible by both internal teams and customers.
 - **Business Need:** Increase Visibility and Transparency.
- **Structured Customer Feedback Collection**
 - The system shall implement a feedback mechanism for customer reviews.
 - **Business Need:** Establish a Robust Customer Feedback Mechanism.

3. Dispatchers

- **Enhanced Communication Tools**
 - The system shall include a messaging feature for dispatch coordination.
 - **Business Need:** Enhance Communication and Collaboration.
- **Route Adjustment Capabilities**
 - The system shall allow dispatchers to modify routes based on real-time conditions.
 - **Business Need:** Improve Operational Flexibility.

4. Truck Drivers

- **Mobile Access to Route Information**
 - The system shall provide drivers with access to real-time route details and updates on a mobile platform.
 - **Business Need:** Increase Efficiency and Reduce Delays.
- **Safety and Compliance Alerts**
 - The system shall notify drivers of safety regulations and compliance requirements.
 - **Business Need:** Ensure Safety and Regulatory Compliance.

5. Vendors/Suppliers

- **Inventory Management Integration**
 - The system shall facilitate real-time inventory tracking and updates from suppliers.
 - **Business Need:** Improve Data Accuracy and Supply Chain Efficiency.

6. Customers

- **Real-Time Shipment Tracking**
 - The system shall provide customers with real-time updates on their shipments.
 - **Business Need:** Increase Visibility and Transparency.
- **Feedback Submission Capability**
 - The system shall allow customers to submit feedback easily.
 - **Business Need:** Foster Continuous Improvement.

7. IT Department

- **User Access and Security**
 - The system shall implement role-based access control.
 - **Business Need:** Optimize Resource Utilization.

8. Management/Executives

- **Data Analytics and Reporting**
 - The system shall generate analytics reports on delivery performance.
 - **Business Need:** Foster Continuous Improvement and Strategic Decision-Making.

9. Finance Department

- **Cost Tracking and Reporting**
 - The system shall track shipping costs and generate financial reports.
 - **Business Need:** Optimize Resource Utilization and Manage Budgets.