SRS document for Stock Maintance

1. INTRODUCTION

1.1 Purpose of this document:

To specify the software requirements for a stock Maintance System, which helps manage and track inventory levels, orders, sales and deliveries.

1.2 Scope of this document:

Users can add, update, and remove stock items, track stock levels, generate reports and manage suppliers, The system supports notifications for low stock levels and facilities order management.

1.3 Overview.

This document provides detailed information about the requirements & general procedures for stock management.

2. General Description

2.1 Product Perspective:

→ Staff Perspective:

* View details of stock items, including quantities, descriptions, prices and suppliers
* Generate and view reports on stock levels, sales, and orders.

→ Management Perspective:

* Access analytical dashboards for inventory trends, low stock alerts and financial summaries.
* Manage supplier details & performance.

2.2 Product Functions:
* Add, update and delete stock items
* Track stock levels and manage reordering
* Generate reports (sales, inventory, status, supplier performance)
* Manage suppliers & purchase orders
* Receive notifications for low stock levels

2.3 User characteristics:
* Users include inventory staff, managers and suppliers.
* Staff must have basic computer skills to operate the system.

2.4 General Constraints:
* Users must have appropriate permissions to add or modify stock.
* The system must operate within the organization's existing IT infrastructure.
* Stock updates should occur in real time to ensure data accuracy.

2.5 Assumptions and Dependencies.
* Users will input accurate stock information.
* The system will rely on existing database infrastructure for data storage.
* Users will have internet access for online features, if applicable.

3. Functional Requirements:

1. Stock Management System:
   → Users can add new stock items, including SKUs, descriptions, and qualities.
   → Users can update existing stock details and remove stock items as necessary.

2. Reporting System:
   → Generate reports on inventory levels, sales data, and supplier information.

3. Notification System:
   → Automated alerts for low stock levels & reorder reminders.

4. Supplier Management:
   → Add and manage supplier details, including contact information & pricing.

4. Interface Requirements:

* User Interface (UI): Be intuitive & easy to navigate
* API interface: enables external systems to interact with stock maintanance system.
* Database Interface: Responsible for interacting with the underlying database to manage stock & related data.

5. Performance Requirements:

* Response Time: System should return stock results within 2 seconds.
* Availability: The system should be available 99.9% of the time, excluding scheduled maintanence.
* Error Handling: The system should provide user friendly error messages & recovery options.
* Security: All sensitive data should be encrypted in storage & during transmission.

6. Design Constraints:

1. Database Structure:
The database must be relational DBMS to maintain structured inventory data.

2. Microservices Architecture:
The system should be developed using microservices for modular functionality and scalability.

3. Integration with existing systems:
The stock maintanance system must integrate with existing ERP & accounting systems.

4. Hardware limitations:
The system must operate on standard server hardware specified by the organization.

7. Non Functional Requirements:

→ Performance: The system should process stock updates within 2 seconds.

→ Scalability: Capable of handling inventory data for atleast 10,000 stock items.

→ Security: Ensure confidentiality of sensitive supplier and stock information.

→ Usability: Intuitive UI that requires minimal training for new users.

8. Preliminary Schedule & Budget:

The stock maintanance system project is estimated to take appron 5 months to complete. This includes hiring staff & engineers, planning & designing the software architecture, developing the system, conducting tests etc.
A budget of 35 lakhs is required to cover personelle costs, database costs etc.