

4. Stock Maintenance System (SMS)

1. Introduction

1.1. Purpose

To define the requirements of an automated stock/inventory management system.

1.2. Scope:

The system tracks goods in/out, monitors inventory levels, generates stock alerts, and maintains supplier records.

1.3. Overview:

SMS will streamline inventory management for warehouses, shops, and enterprises.

2. General Description

Supports store managers, staff, and suppliers by maintaining stock records, purchase orders, and consumption reports.

3. Functional Requirements:

Stock Management: Add, update, and delete stock items.

Supplier Management: Maintain supplier details and purchase history.

Inventory Tracking: Track stock in/out with dates.

Low-Stock Alerts: Notify users of critical stock levels.

Reports: Generate purchase, consumption and balance stock reports.

4. Interface Requirements

UI: Intuitive dashboard for stock visualization

Integration: Barcode scanner integration

5. Performance Requirements

Handle 200 concurrent users

Response time ≤ 3 seconds.

Real-time update of stock levels

6. Design Constraints

Relational DB (MySQL/Oracle).

Backend: Java / Spring Boot or Node.js

7. Non-Functional Requirements

Security: Access control for managers and staff

Reliability: Backup and recovery system

Scalability: Support for multi-warehouse operations

Usability: Easy to operate with minimal training

8. Preliminary Schedule & Budget

Development duration: 5 months

Estimated budget: \$75,000