

## 4) Stock Maintenance System

### Problem Statement

The stock maintenance system tracks product inventory ~~across~~ across warehouses and retail points. It monitors stock levels, reorders, and reports. The system prevents overstocking and shortages. Real-time updates and alerts are necessary. It supports multi-location stock management.

### System Requirements Specification

#### 1. Introduction

##### 1.1. Purpose of the Document

To maintain accurate, up-to-date stock information and automate reorder processes to reduce manual errors.

##### 1.2. Scope of the Document

Covers inventory management, stock tracking, automatic reorder alerts, and inventory movement logs across locations.

##### 1.3. Overview

Includes system modules, interfaces, performance benchmarks, and development constraints for ~~implement~~ implementation.

#### 2. General Description

System maintains product list, stock counts, and vendor details. It provides dashboards for real-time stock overview and reorder alerts.



### 3. Functional Requirements:

Add / edit / remove stock items.

Update stock levels based on sales / purchase

Generate low-stock alerts

Produce inventory reports

### 4. Interface Requirements

User-friendly: GUI with role-based access

Interface with barcode scanners and accounting softwares

### 5. Performance Requirements

System should update stock changes within 1 second

Handle 100+ users and large inventory databases efficiently

### 6. Design Constraints

Must integrate with barcode scanners and POS systems.

Should use a centralized relational database.

Must be deployable on both cloud and local servers

Role-based access is mandatory

### 7. Non-functional Requirements

99.9% database accuracy

Real-time updates

Secure login and data protection

Should handle upto 100k inventory records

Minimal downtime during backups.

### 8. Preliminary Schedule and Budget

Schedule (3 months)

Month 1 - Requirements, DB setup, UI design

Month 2 - Stock operations, low stock alerts, user roles

Month 3 - Reporting, testing, deployment, training



## Budget Breakdown

Developer salaries - \$30000

UI design & Admin Panel - \$5000

Hardware Integration - \$5000

QA & testing - \$5000

Miscellaneous & Support - \$5000

Total Cost - \$50000

