

Stock Maintenance System

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statement

business maintain stock records manually, leading to errors, misplaced inventory, delays in restocking. A stock maintenance system is needed to automate inventory management, ensure real-time stock updates and reduce human errors.

Document

Introduction

1.1 Purpose

The purpose of this document is to define the functional and non-functional requirements for stock maintenance system. This system will automate stock tracking, help businesses maintain optimal inventory levels.

1.2 Scope:

The SMS will:

- Track stock levels in warehouses
- Update inventory in real time during purchases and sales.
- Generate alerts for low stock and overstock.
- Provide reports.

1.3 Overview

SMS will consist of

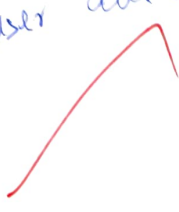
Inventory Module: Manage stock categories suppliers.

- Automatic stock deduction
- Alerts and notifications
- Generate daily / weekly / stock reports

2. General Description

- System will be web based with multiple
- users are store keepers, managers and administrators
- Dashboard for users, APIs for integration
- Centralised SQL-based stock database
- Ensure accuracy, security and real-time synchronisation

3. Functional Requirements

- Add, update and delete product details
 - Record purchase and sales transactions
 - Automatic alerts / notifications for low stock
 - Generate stock usage and sales reports
 - User authentication with role based access
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4. Interface Requirements

• User Interfaces:

Dashboard for storekeepers and managers

• Software:

SQL database for stock records

• Rest APIs for integration

• Hardware:

Barcode scanner or RFID for product entry

• Communication:

Secure communication over HTTPS

5. Performance Requirements

• Real time update of stock levels after every transaction

• support 500+ concurrent users

• Database should handle 50,000+ product records efficiently

• Alerts generated within 2 seconds.

6. Design Constraints

• Must follow data security policies for business records.

• Daily data backups

• Should be deployable on both cloud platforms and on-premise servers

7. Non Functional Attributes

• Security: The transactions happening must be secure

• Intuitive Interface

• Automated backup and recovery system

- the market prices and stock values must be reliable
- User authentication

2. Preliminary Schedule and Budget

Week 1-2: Requirement gathering and analysis

Week 3-5: Development of Database

Week 6-7: Testing

Week 8-9: Deployment.

Budget:

Development costs - £12,00,000

Hardware Infrastructure - £4,00,000

Security compliance - £2,00,000

Testing & Maintenance - £5,00,000

Total = £23,00,000

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