27/08/25

④ Stock Maintenance system

Problem statement:

Managing stock manually often leads to errors like overstocking, shortages, and misplaced inventory records. This not only increases costs but also disrupts business operations. A digital stock maintenance system is needed to track inventory in real-time, maintain accurate records and generate quick reports, ensuring that businesses can manage their stock efficiently.

SRS:

1. Introduction

1.1 Purpose of the document:

This document specifies the requirements for the stock Maintenance system. It is meant for developers, testers, ~~stra~~, managers, and stakeho- -lders to ensure that the system effectively tracks stock levels, manages inventory updates.

1.2 Scope of the document

The SMS is a web-based system designed to simplify stock and inventory management.

1.3 Overview

The Stock Maintenance System will provide a

centralized platform for managing items, categories, suppliers, and transactions.

2. General Description

2.1 Product Functions
- Maintain stock records of items with categories
- Allow adding, updating, and deleting product details.
- Track purchases, sales, and stock adjustments.
- Provide low-stock alerts and reorder reminders

2.2 User characteristics
- Store Managers: Manage stock, track sales/purchases, and view alerts.
- Staff: Update stock transactions and generate simple reports.
- Admins: Configure settings, manage user roles and oversee full system.

3. Functional Requirements.

FR1. Stock management: The system shall allow users to add, update and delete stock items.

FR2. Supplier Management: The system shall maintain supplier details.

FR3. Sales and purchase Management: The system shall record purchases and sales.

FR4. Alerts and notification: The system shall provide low-stock alerts.

FR5. Reporting: The system shall generate inventory and sales reports.

4. Interface Requirements

4.1 User interfaces : A responsive web dashboard for admins and managers.

4.2 Hardware interfaces : Supports barcode scanners for fast stock entry.

5. Performance Requirements -

- Must handle upto 150 concurrent users.
- Stock updates should reflect in real time.
- Reports must be generated within 3 secs.
- Daily automatic backups required.

6. Design constraints

- Built using open-source tech.
- Must support responsive design for desktop and mobile.

7. Non Functional Attributes.

7.1 Security : HTTPS for data transmission.

7.2 Usability : Simple and intuitive UI for staff.

7.3 Maintainability : Modular design for easy updates.

7.4 Reliability : System should recover from crashes without data loss.

8. Preliminary schedule and budget.

8.1 Schedule

Phase	Timeline
Requirements Analysis	2 weeks.
UI/UX design	2 weeks.
Development	7 weeks.
Testing + QA	3 weeks.

8.2 Budget

Total estimated budget → $24,300.