

4. ~~Stock~~ Maintenance System

Problem Statement:

Create a stock maintenance system for a retail business that effectively manages inventory. The system should track stock levels, handle product information, process sales transactions, generate reports & manage users. Emphasize usability, scalability & adherence to software engineering principles.

1. Introduction:

1.1: Purpose

The purpose of this document is to define the specifications and requirements for the development of a Stock Maintenance System.

1.2. Scope

The document describes the overall working and objectives of Stock Maintenance System.

1.3. Overview

The Stock Maintenance System is designed to facilitate the management of stock inventory for businesses. It provides functionalities for stock entry, stock tracking, stock movement, and reporting, ensuring accurate and timely management of stock levels.

2. General Description

The Stock Maintenance System facilitates the following functions:

- * Stock Entry: Allows users to add new stock items to the inventory.

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- * **Stock Tracking:** Provides real-time tracking of stock levels, including current stock quantities, location and availability.
 - * **Stock Movement:** Enables users to track the movement of stock items within the organization, including transfers between warehouses, sales and returns.
 - * **Reporting:** Generates reports on stock-related activities, including stock levels, stock movement history, and inventory valuation.

3. Functionality Requirements

- * **Stock Entry:**
 - * Ability to add, edit, and delete stock items from the inventory database.
- * **Stock Tracking:**
 - * Real-time monitoring of stock levels, including available quantity, location and status (e.g. in stock, out of stock).
- * **Stock Movement:**
 - * Tracking of stock movement within the organization.
- * **Reporting:**
 - * Generation of reports to provide insights into stock-related activities.

4. Interface Requirements

4.1. User interface:

- * Intuitive and user-friendly interface for easy navigation and data entry.

4.2. System interface:

- * Integration with barcode scanners for efficient stock entry and tracking.

2. Performance Requirements

5.1. Response time:

- * Quick response time for stock-related queries and transactions to ~~secure~~ ensure user productivity.

5.2. Scalability:

- * Ability to handle a large volume of stock items and transactions as the business grows.

6. Design Constraints

6.1. Platform Compatibility

- + Compatibility with various operating systems and web browsers to ensure accessibility across different devices.

6.2. Hardware Limitations:

- + Optimization for both desktop and mobile devices to support users in different environments.

7. Non-Functional Attributes:

Non-functional attributes essential for the Stock Maintenance System include:

- * **Security:** Implementation of access controls and encryption mechanisms to protect sensitive stock data from unauthorized access.
- * **Reliability:** Reliable backup and recovery mechanisms to prevent data loss and ensure system availability.
- + **Performance:** Efficient performance to handle concurrent users and large datasets without compromising speed or responsiveness.