

(B) Stock maintenance system

Problem Statement:

Design and implement an SMS to manage stock for a stock maintenance system.

1. Introduction

1.1 Purpose of Document

This document specifies the requirements for the Stock Maintenance System, including features, and constraints to help organizations track, manage, and update inventory levels efficiently.

1.2 Scope of Document:

The SMS will automate stock records, real-time updates of quantities, generation of records alert, and reporting of stock usage. It will allow present stock, and ensure transparency in stock controls.

1.3 Overview:

The system will

- * record stock inwards ~~and~~.
- * track available quantities of each item.
- * generate alerts for low stock levels.
- * provide sales and consumption reports.
- * support user roles.

2) General Description

The SMS functions as a centralised inventory system if enabled to keep accurate stocks.

It includes

- * Admin: full control over system, user management
- * Stock Manager: helps update stock, set record level regularly
- * Staff: view stock, request items, update usage.

- 3) functional Requirements
- ✓ Add, Edit, delete stock records
 - ✓ Update stock levels upon purchase, sales
 - ✓ on consumptions
 - ✓ Generate supplies automatic Itoby
for low / records , stocks.
 - * maintain Supplies info
 - * promote daily, weekly and monthly stock.

4) Interface Requirements:

- * User Interface : web dashboard with lyrics and role based
- * External interface : Barcode / scanner,
POS System Integration.
- * API integration: REST APIs for integration

5) performance requirement:

- * Handle 500 concurrent user
- * Support up to 1 million static records
- * Average response time \leq 3 seconds for queries and updates.

6) Design constraints:

- * Database must be relational
- * must run on standard windows / linux
- * Secure
- * Should comply accounting formats.

7) non functional attributes:

- * Security
- * Reliability
- * Usability
- * Maintainability

8) Preliminary Schedule and Budget

Schedule

Requirement analysis	: 1 week
System design	: 2 weeks
Development	: 6 weeks
Testing	: 1 week
Deployment / testing	- 1 week
Total	- 12 weeks

Estimated Budget:

- 24 - 25 lakh