4. Stock Maintenance System

1. Introduction

1.1 Purpose:

The purpose of this document is to outline the requirements and specifications for the development of Stock Maintenance System (SMS). This SRS will provide a clear understanding of the project objectives, scope & deliverables; ensuring that developers, users & evaluators share common vision of the system.

1.2 Scope:

This document defines the overall working & goals of SMS. It specifies how the system will manage stock details, handle updates, track inventory & generate reports for decision making. It also includes cost estimation & the expected schedule for completion of system.

1.3 Overview:

The SMS is a ~~software~~ solution designed to automate stock & inventory designed to automate stock & inventory management for business. It will allow users to add update & delete stock records, track incoming & outgoing goods, generate alerts for low stock items and prepare reports for better planning.

## 2. General Description

The stock maintenance system will cater to the needs of warehouse mangers, shopkeepers & administrators. It will provide features such as stock entry & update, supplier details tracking, sales & dispatch records & inventory reporting. The system will be accessible through web browsers & desktop applications, designed to be user friendly & scalable.

## 3. Functional Requirements

### 3.1 Stock Entry & Update

* Add new stock items with details like name, supplier, price & quantity
* Update & delete stock records as required.

### 3.2 Inventory Tracking

* Monitor real time stock levels
* Generate alerts when items reach reorder levels

### 3.3 Sales & Dispatch Management

* Record all sales transactions
* Update stock automatically after each sale & dispatch

### 3.4 Reports & Analytics

* Generate reports on stock levels, sales & supplier performan
* Provide graphical analysis for trends & forecasts.

## 4. Interface Requirements

### 4.1 User Interface

* A dashboard for administrators & storekeepers to view stock status.

* Accessible via web browsers & desktop applications with simple navigation

4.2 Integration Interfaces

* Support barcode scanners for item identification
* Integration with accounting systems for seamless financial reporting.

5: Performance Requirements

5.1 Response time

* The system should reflect stock updates within 1s of a transaction

5.2 Scalability

Should handle upto 10k stock records simultaneously without performance loss

5.3 Data Integrity

Ensure accurate & consistent data across all stock entries & transactions.

6. Design Constraints

6.1 Hardware Limitations

Must run on standard PCs & barcode scanners available in warehouses or shops.

6.2 Software Dependencies

* Requires a relational database (MySQL / PostgreSQL)
* Developed any modern programming frameworks such as Java Spring Boot or Python Django.

7. Non Functional Attributes

7.1 Security

* Provide authentication & role based access control for users

7.2 Reliability

* Ensure reliable stock tracking with automatic backups

7.3 Usability

* Simple & intuitive user interface with easy search & filter options

7.4 Portability

* Compatible with windows & Linux OS

7.5 Maintainability

* Code will be modular to allow future updates or enhancements

8. Preliminary Schedule & Budget

The stock maintenance system is estimated to be developed in 5-6 months, including design, implementation, testing & deployment phases. The estimated budget is around 9 lakhs, covering software development, database setup, infrastructure & initial maintenance for one year.