STOCK MAINTENANCE SYSTEM

1. Introduction

1.1 Purpose:
This document outlines the requirements and specifications for a stock maintenance system. It provides clarity on objectives, scope and deliverables.

1.2 Scope of this document
The system will track stock levels, inventory transactions, supplier details and generate real time reports.

1.3 Overview
The stock maintenance system ensures accurate Pnventory management & preventing overstocking or stockouts.

~~2. Functional Requirements~~

2. General description
It will be used by inventory managers and sales teams. Features include purchase tracking, sales monitoring and automatic re-order alerts.

3. Functional Requirements

3.1 Stock management

- The system should maintain a detailed record of all stock items, including item name, category, quantity, supplier, and purchase/expiry dates. Stock levels should update automatically when items are sold or purchased.

3.2 Supplier management

- Each supplier's details (name, contact info, supply history) should be stored. The system should allow tracking of which supplier provided which stock items.

3.3 Order Processing

- The system should handle both incoming stock (purchases) and outgoing stock (sales or transfers). It should update inventory records automatically when a transaction is complete.

3.4 Alerts and Notifications

When the quantity of any item falls below the minimum threshold, the system should alert managers so they can reorder stock in time.

3.5 Reporting
The system should generate reports such as current stock levels, items near expiry, sales history and supplier performance. These reports help management make informed decisions.

4. Interface Requirements
- Dashboard for stock levels
- Integration with ERP and POS systems.

5. Performance Requirements
- Handle 1000 inventory transactions per second
- 99.9% uptime measurement.

6. Design Constraints
- Database: Oracle, MySQL
- Works with barcode scanners and RFID tags.

7. Non functional attributes

7.1 Security
Access should be restricted based on roles. Sensitive supplier and financial data must be encrypted.

7.2 Reliability
The system should ensure high uptime to support day-to-day business operations. In case of server failure, backup servers should restore functionality quickly.

7.3 Scalability
As a company grows, the system should support thousands of stock items and multiple warehouses without slowing down

7.4 Portability
The application should be deployable across different operating systems and support both on-premises servers and cloud infrastructure.

7.5 Usability
Inventory dashboards must be visually clear, with charts and alerts. Staff with minimal training should be able to update stock easily.

7.6 Compatibility
The system should integrate with POS systems, ERP software, and devices like barcode scanners and RFID readers.

8. Schedule and Budget

Estimated 7 months with a budget of $120,000