STOCK MAINTENANCE SYSTEM

1. Introduction

1.1 Purpose of this Document: The purpose of this document is to outline the requirements and specifications for the development of a Stock Maintenance system. It will provide a clear understanding of the project objectives, scope and deliverables.

1.2 Scope of this Document: This document defines the overall working and main objectives of the Stock Maintenance System. It includes a description of the development cost and estimated time required for the project.

1.3 Overview: The Stock Maintenance System is a software solution designed to automate inventory tracking, stock updates, purchase order, and sales monitoring. It ensures efficient inventory management, prevents stockouts and provides reporting for better decision making.

2. General Description
The Stock Maintenance System will serve administrators, warehouse staff and managers. It will handle product details, stock levels, supplier management and sales records. The system will be designed for ease of use and accessible across multiple platforms.

3. Functional Requirements

3.1 Product Management
- Add, update and delete product details.
- Assign unique identifiers for each product.

3.2 Stock Tracking
- Monitor stock levels in real-time
- Set minimum and maximum stock thresholds.
- Generate alerts for low stock or overstock situations.

3.3 Supplier Management
- Maintain supplier details and purchase history.
- Generate and manage purchase orders.

3.4 Sales Management
- Record sales transactions.
- Automatically update stock levels after each sale.

3.5 Reporting
- Generate daily, weekly and monthly reports.
- Provide analysis on fast and slow-moving items.

4. Interface Requirements

4.1 User Interface
- User-friendly interface for administrators and staff.
- Accessible via desktop, web and mobile devices.

4.2 Integration Interfaces

- Integration with barcode scanners and POS systems
- Integration with accounting software for financial tracking.

5. Performance Requirements

5.1 Response Time: Stock updates and transaction processing should occur within 2 seconds.

5.2 Scalability: Capable of handling at least 50,000 product entries and 10,000 daily transactions.

5.3 Data Integrity: Ensure accuracy and consistency of stock records across all modules.

6. Design Constraints

6.1 Hardware Limitations: The system should be compatible with standard hardware such as barcode scanners, printers & POS terminals.

6.2 Software Dependencies:
- Utilize a relational database management system.
- Support secure communication protocols and cloud deployment options.

7. Non-Functional Attributes

7.1 Security
- Provide authentication and access control.
- Protect sensitive sales data with encryption.

7.2 Relaibility: Ensure continuous availability with backup and recovery features.

7.3 Scalability: Designed to support future business expansion.

7.4 Portability: Accessible on web, desktop and mobile platforms.

7.5 Usability: Intuitive dashboards with graphical stock insights.

7.6 Reusability: Modular codebase for easy integration with ERP systems.

7.7 Compatibility: Compatible with standard POS and warehouse management devices.

7.8 Data Integrity: Maintain accurate transaction and stock logs.

8. Preliminary Schedule and Budget
The development of the stock Maintenance system is estimated to take 7 months with a budget of $150,000. This includes project planning, development, testing and deployment phases.