

STOCK MAINTENANCE SYSTEM

PROBLEM STATEMENT:

A company needs a stock maintenance system to keep track of its inventory levels, sales, and restocking needs. The system should allow employees to add and remove items from the inventory, update inventory levels based on sales, and generate reports to help manage inventory levels and restocking schedules.

The system should have the following functionalities:

Inventory Management: The system should allow employees to add new items to the inventory, remove items that are no longer available for sale, and update inventory levels as items are sold or restocked.

Sales Tracking: The system should keep track of sales for each item and update inventory levels accordingly.

Restocking: The system should generate alerts when inventory levels fall below a certain threshold and suggest restocking quantities based on historical sales data and expected demand.

Reporting: The system should generate reports on inventory levels, sales trends, and restocking needs to help manage inventory levels and restocking schedules.

Security: The system should have user authentication and access controls to ensure that only authorized personnel can access and modify inventory data.

The stock maintenance system should be easy to use and scalable to accommodate the company's growth. It should also integrate with other systems such as accounting and order management to provide a seamless experience for employees and customers.

Software Requirement Specification(SRS)

1 Introduction:

- 1.1 **Purpose of this Document:** The entire process of Stock maintenance is done in a manual manner. Considering the fact that the number of customers for purchase is increasing every year, a maintenance system is essential to meet the demand. So this system uses several programming and database techniques to elucidate the work involved in this process.
- 1.2 **Scope of this document** – The System provides an interface to the customer where they can fill in orders for the item needed.
 - The sales person is concerned with the issue of items and can use this system.
 - Provide a communication platform between the customer and the sales person.
- 1.3 **Overview** – SRS includes two sections: overall description and specific requirements. Overall Description will describe the major role of the system components and interconnections. Specific Requirements will describe roles & functions of the actors.
- 1.4 **General description:** In this, general functions of product which includes objective of user, a user characteristic, features, benefits, about why its importance is

mentioned. It also describes features of user community.

2 Functional Requirements:

REQ-1: The system shall be internet oriented and require an online server

REQ-2: The system shall save the product details, customer details, supplier details, sales details, purchase details and stock details in remote database.

REQ-3: The system shall allow the customer to log in and buy the products i.e sales process.

REQ-4: The system will allow manager to view and print product details, customer details, supplier details, sales details, purchase details and stock details.

REQ-5: The system will allow to send purchase order to supplier and receives Invoice

REQ-6: The system will allow admin to manage and update product details, stock details, customer details and supplier details.

3 Interface Requirements:

User-friendly interface: The interface should be easy to navigate and understand for users with varying levels of technical proficiency.

Dashboard: The system should have a dashboard that provides an overview of the stock levels, alerts, and notifications.

Stock management: The interface should allow users to manage stock levels, including adding, editing, and deleting products, as well as tracking inventory and managing stock levels.

Order management: The interface should allow users to manage orders, including creating new orders, tracking orders, and updating orders.

Reporting: The system should have reporting functionality that allows users to generate reports on stock levels, orders, and other relevant data.

Search functionality: The interface should have a search function that enables users to quickly find products, orders, and other relevant data.

Security: The interface should have robust security features to protect against unauthorized access and ensure data privacy.

Integration: The system should be easily integrable with other applications and systems, such as payment gateways and accounting software.

Mobile compatibility: The interface should be compatible with mobile devices to allow

users to manage stock levels and orders on-the-go.

Customization: The interface should be customizable to fit the specific needs of the user or organization, such as custom branding, colors, and layouts

4 Performance Requirements:

Speed: The system should be able to quickly and efficiently process large amounts of data, including real-time updates of stock levels, orders, and deliveries.

Accuracy: The system should be highly accurate in tracking inventory levels, as well as in processing orders and shipments to ensure that the correct items are being shipped and received.

Scalability: The system should be able to handle growing amounts of inventory and increasing numbers of transactions as the business grows.

Reliability: The system should be highly reliable, with minimal downtime or errors that could lead to loss of sales or inventory.

Security: The system should be secure, with appropriate measures in place to prevent unauthorized access, data breaches, and other security risks.

User-friendliness: The system should be easy to use and navigate, with clear and intuitive interfaces that allow employees to quickly and efficiently perform their tasks.

Customizability: The system should be flexible and customizable to meet the specific needs of the business, including the ability to add new features and integrations as needed.

Reporting and analytics: The system should provide detailed reporting and analytics capabilities, allowing the business to track key performance metrics, identify trends, and make data-driven decisions to improve inventory management and overall performance.

5 Design Constraints:

Inventory size: The size of the inventory that the system will be managing is a critical design constraint. It determines the amount of storage space required, the number of items that can be managed, and the scalability of the system.

Accuracy and reliability: The system should be accurate and reliable to ensure that the inventory data is always up-to-date and accurate. This means that the system should be designed to minimize errors, redundancies, and inconsistencies in the data.

Real-time updates: The system should provide real-time updates of inventory levels, orders, and shipments. This ensures that inventory levels are always up-to-date, and orders can be processed and shipped promptly.

Security: The system should be designed with security in mind to prevent unauthorized

access to the inventory data. This includes access controls, authentication mechanisms, and data encryption.

Integration with other systems: The system should be designed to integrate with other systems, such as point-of-sale systems, accounting systems, and shipping systems. This ensures that data is shared seamlessly between different systems and that the inventory data is always accurate.

Usability: The system should be designed with ease-of-use in mind, to ensure that users can easily navigate the system and perform the necessary tasks. This includes intuitive interfaces, clear documentation, and training materials.

Cost-effectiveness: The system should be designed to be cost-effective, taking into account the cost of hardware, software, and maintenance. This ensures that the system provides value for money and is affordable for the organization

6 Non-Functional Attributes:

- **Security:** The system should ensure that inventory data is secure and protected against unauthorized access, data breaches, and cyber-attacks.
- **Reliability:** The system should be reliable and available 24/7 with minimum downtime to ensure that stock maintenance is not disrupted.
- **Scalability:** The system should be scalable and able to handle increased demand during peak periods, such as seasonal sales or promotional campaigns.
- **Usability:** The system should be easy to use and navigate, with clear and concise instructions to guide users through the inventory management process.
- **Performance:** The system should have a fast response time and be able to handle multiple user requests simultaneously.
- **Accessibility:** The system should be accessible to users with disabilities and comply with accessibility standards.
- **Interoperability:** The system should be interoperable with other systems, such as point of sale systems, to ensure smooth data exchange and processing.
- **Compliance:** The system should comply with all relevant laws, regulations, and standards, including data privacy and security regulations.
- **Maintainability:** The system should be easy to maintain and upgrade
- **Availability:** The system should have a high level of availability, with minimum downtime for maintenance

- Portability: The system should be portable and able to run on multiple platforms.
- Flexibility: The system should be flexible and adaptable to different inventory management models and strategies, such as just-in-time or first-in-first-out

7 Preliminary Schedule and Budget:

Schedule:

Requirements gathering.....	2 weeks
System design.....	5 weeks
Implementation.....	4 weeks
Unit testing.....	2 weeks
Final testing.....	3 weeks

Budget:

The budget for whole project is : Rs.30,000