Software Requirement Specification for Inventory System

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Problem Statement	Inventory System

Stack:

FRONT-END	1. HTML 2. CSS 3. JavaScript
BACKEND	1) Linux 2) Apache Webserver 3) PHP with Laravel framework
DATABASE	MYSQL
API	REST Ful API

Problem Statement: "The Portal of Plenty: A New Era for Inventory Management"

1. Introduction

a. Purpose:

- This document serves as a comprehensive guide to our Inventory System, detailing its purpose, features, interfaces, functionalities, constraints, and responses to external inputs. We aim to provide a clear understanding of how our system operates and its capabilities in aiding businesses in managing their inventory effectively. By outlining its robust features and adaptability, we seek to demonstrate the system's value in streamlining operations and enhancing efficiency. Our goal is to showcase how our Inventory System addresses the diverse needs of modern businesses, offering a solution that is both reliable and versatile. Through this overview, we aim to instill confidence in our system's ability to meet the challenges of inventory management and support business growth.

b. Scope of the Product:

- This Software System is indispensable for retail stores and pharmacies, offering centralized inventory management to streamline operations. Administrators benefit from comprehensive reporting, enabling informed decisions on sales trends and stock performance. Real-time updates and notifications enhance communication and workflow efficiency. The system's adaptability allows for customization to meet specific business needs. Its intuitive interface and user-friendly features simplify inventory tasks. Analytics capabilities enable effective resource allocation and demand forecasting. With scalability and flexibility, the system accommodates diverse requirements. Overall, it empowers businesses to optimize inventory management, drive growth, and maintain competitiveness.

- Administrators wield the power to seamlessly add, update, view, and remove products, as well as onboard new team members with ease. Moreover, they benefit from an intelligent alert system that notifies them when stock levels are low, ensuring timely replenishment. Additionally, the system effortlessly tracks orders and generates financial reports, facilitating accurate profit calculations. These reports can be conveniently sent to designated personnel via our integrated messaging platform upon request.

2. System Overview:
a. User:
i. Employee:

Employee are responsible for tasks such as receiving shipment, stocking shelves, fulfilling orders, and conducting inventory counts. They interact directly with the inventory system to perform these duties.

ii. Manager:

Managers can have the access to oversee various aspects of inventory management, including setting stock levels, implementing procedures, analyzing inventory data, and making strategic decision. They require access to more advanced features of the inventory system to monitor performance and optimize operations.

iii. Admin:

Administrators wield elevated privileges within the inventory system, enabling them to adjust settings, administer user accounts, produce reports, and supervise system functionality. Their pivotal role is integral to

maintaining the inventory system's seamless operation, including tasks related to system upkeep and issue resolution.

b. Features:

i. Login:

Secure access for authorized users to the inventory system, with multi-factor authentication options for enhanced security.

ii. Purchase Entry Portal:

Streamlined interface for recording incoming inventory purchases, with options for bulk upload and integration with supplier databases for seamless data entry.

iii. Sales Entry Portal:

User-friendly platform for inputting sales transactions, supporting various payment methods and customizable invoice templates.

iv. Availability of Stocks:

Real-time visibility into current stock levels and product availability, with customizable alerts for low stock thresholds and automatic reordering capabilities.

v. Reporting System:

Comprehensive reporting functionality to analyze inventory data and trends, including graphical representations and export options for further analysis.

vi. Get Remainders about the status:

Automated alerts to keep users informed about important updates or low stock levels, with customizable notification preferences and escalation protocols.

vii. Reports Generation:

Ability to generate detailed reports on sales, stock levels, and other key metrics, with scheduled report delivery options and interactive dashboards for dynamic data visualization.
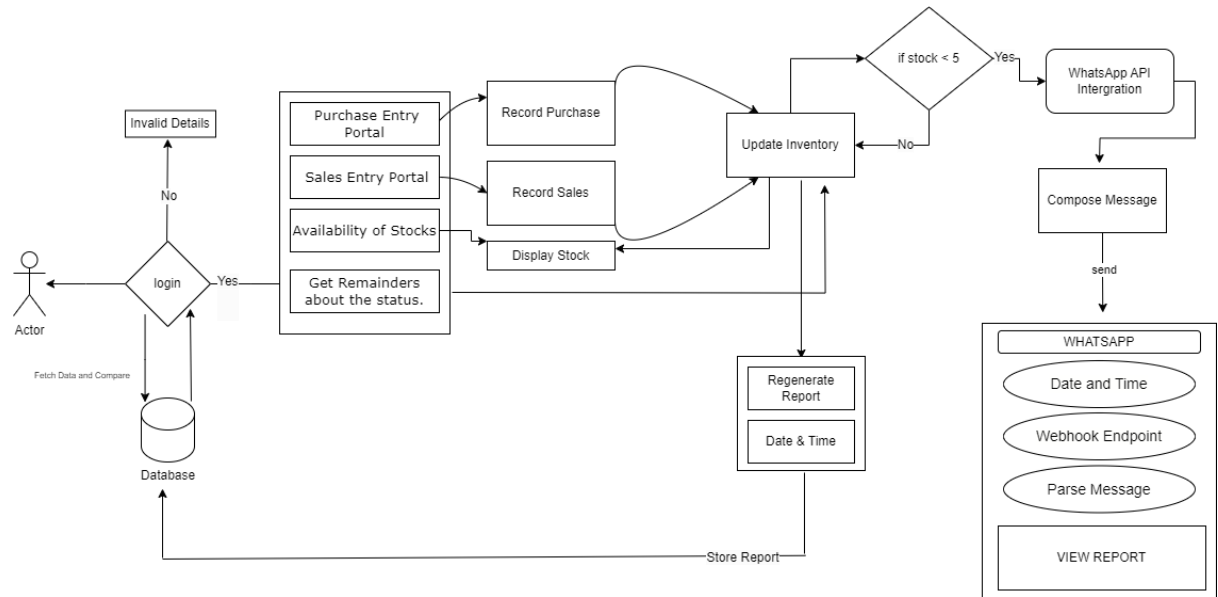
viii. Admin Access:

Specialized privileges for administrators to manage system settings, user accounts, and configurations, including role-based access controls and audit trails for compliance purposes.
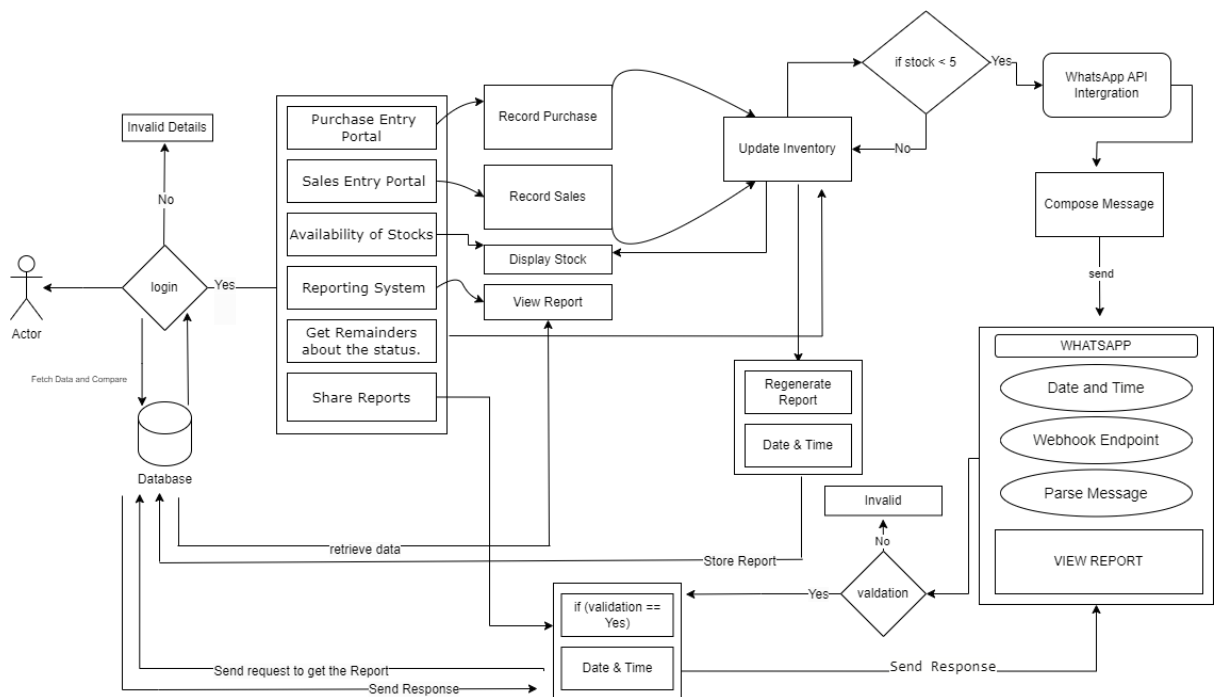
ix. Inventory Tracking:

Advanced tracking features for serial numbers, lot numbers, and expiration dates, with batch management capabilities and recall notifications.
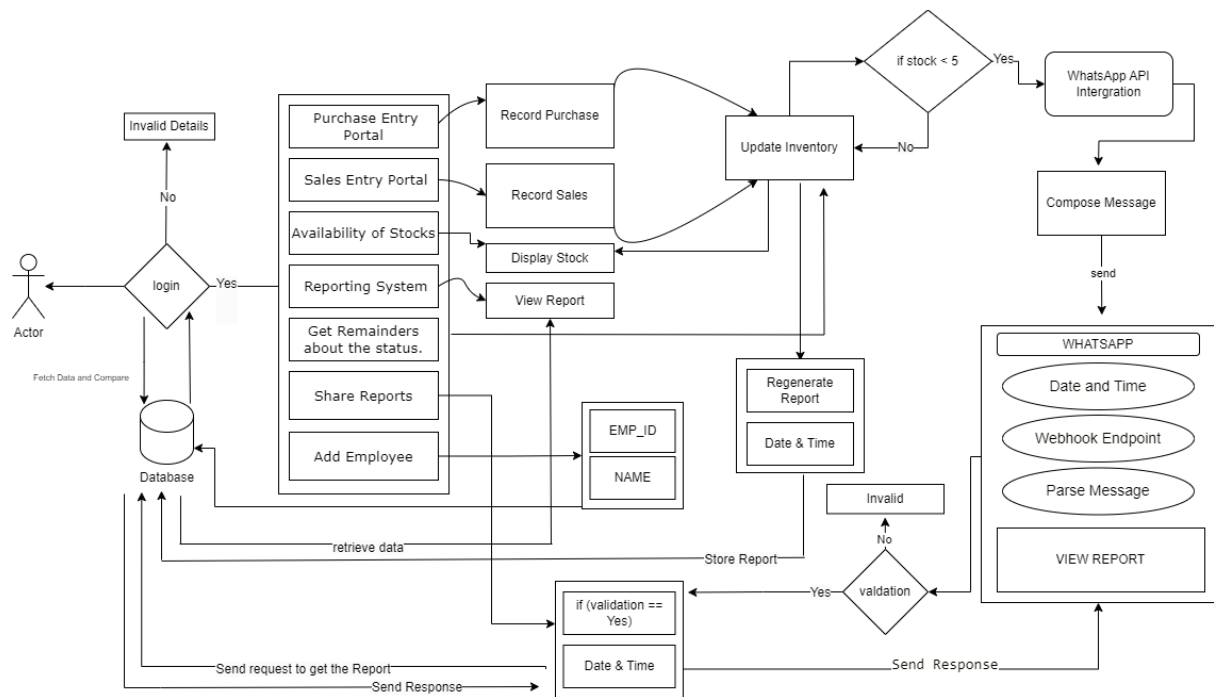
Employee Interface

Manager's Interface

Admins Interface

3. Requirement:

a. Functional Requirements:

1. Purchase Entry Portal:

- Users should be able to input purchase information like item name, quantity, date of purchase, supplier details, and price.
- Validation procedures should be included in the purchase entry form to ensure accurate data entry.
- Users can store drafts of purchase entries and return them later. The system should allow dynamic additions and facilitate insertion of multiple items within a single record.
- Purchase-related documents or receipts should be attached for reference and auditing purposes.

2. Sales Entry Portal:

- The sales entry form should allow users to log sales transactions and record details like item name, quantity sold, sales date, client information, and price.

- It should have validation features and draft saving functionality, similar to the buy entry site.
- The system should validate sales transactions to ensure products are in stock and quantities are within allowable levels.
- The sales entry portal should provide options for different payment methods (e.g., cash, credit card, check) and record payment details accordingly.

3. **Availability of stock**:

- The system should maintain an updated inventory of available stocks, allowing users to check stock levels efficiently.
- Users should be able to view the current stock levels for each item in the inventory, including details such as available quantity, reorder point, and location.
- The system should provide alerts or notifications when stock levels fall below a predefined threshold, prompting users to reorder items to replenish the inventory.
- Stock availability information should be accessible from both the purchase entry portal and the sales entry portal to facilitate decision-making and prevent overselling or stockouts.

4. **Reporting System:**

- Generates reports on various basis for insights into purchases, sales, stock levels, and revenue.
- Offers customizable report templates for specific time periods, data filters, and aggregation options.
- Presents reports visually appealing with tables, charts, and graphs for trend visualization.
- Allows exporting reports in PDF, Excel, or CSV for further analysis.
- Schedules automated report generation and delivery based on predefined schedules or triggers.

5. **Status Remainder:**

- Users should receive reminders about pending tasks or low stock levels.
- Reminders should be configurable for user preferences.
- System should support notifications via email, SMS, and in-app alerts.
- Reminders should include actionable links for immediate action.

6. **Reporting Sharing via Messaging Service:**
- Enables report sharing via messaging services.
- Integrates with messaging APIs for seamless report sharing.

- Allows users to select reports, choose recipients, and customize content.
- Includes secure links for direct report access from messaging platform.

b. **Non- Functional Requirements:**

1. **Performance:**
   - The system should handle a large volume of data efficiently.
   - Response time for generating reports should be minimal.
   - The system should be able to handle a large volume of data efficiently, especially during report generation and database operations.

2. **Security:**
   - Implement user authentication and authorization mechanisms to ensure data security.

3. **Usability:**
   - Design an intuitive user interface for easy navigation and data entry. Provide tooltips and help sections for guidance on using various features.
   - The web application should have a user-friendly interface with intuitive navigation and responsive design to ensure usability across different devices.

4. **Reliability:**
   Ensure the system is reliable and robust, with minimal downtime and data integrity maintained at all times.

5. **Scalability:**
   From small Retails to Large ones the system will to be scalable, allowing for future growth and expansion without significant architectural changes.

4. FLOWCHART: