1. Title of the Project

Pharmaceutical Management System

2. Introduction and Objectives of the Project

Introduction:

The Pharmaceutical Management System is designed to streamline and manage the operations of a pharmacy. It aims to provide an efficient way to handle inventory, sales, and billing processes. The system allows users to search for medicines, add them to a cart, and proceed to checkout. Additionally, it includes an admin interface for managing the stock of medicines.

Objectives:

- To automate the inventory management of the pharmacy.

- To provide an easy-to-use interface for customers to search and purchase medicines.

- To generate billing and maintain sales records.

- To ensure secure and efficient handling of customer and inventory data.

3. Project Category

RDBMS, Web Development, E-Commerce

4. Analysis

Data Flow Diagrams (DFDs)

- Level 0 DFD: Context Diagram showing the interaction between the pharmacy system and external entities (customers, admins).

- Level 1 DFD: Diagram showing the major processes such as User Management, Inventory Management, and Billing.

- Level 2 DFD: Detailed diagrams for processes such as Adding to Cart, Searching Medicines, and Checkout.

ER Diagram

Entities involved:

- User: Attributes include user\_id, name, email, password.

- Medicine: Attributes include medicine\_id, name, price, quantity.

- Cart: Attributes include cart\_id, user\_id, medicine\_id, quantity.

- Order: Attributes include order\_id, user\_id, total\_amount, order\_date.

Relationships:

- A user can have multiple carts.

- Each cart contains multiple medicines.

- Each order is associated with a user.

5. Number of Modules and Their Description

Modules:

1. Medicine Management

- Add/Edit/Delete Medicines (Admin)

- View Medicines (User)

2. Cart Management

- Add to Cart

- View Cart

- Update Cart

3. Search Functionality

- Search Medicines by Name

- Display Search Results

4. Billing and Checkout

- Generate Bill

- Empty Cart after Checkout

- Print Bill

5. Admin Dashboard

- View Sales Data

- Manage Inventory

6. Tools / Platform, Hardware and Software Requirement Specifications

Tools and Platforms:

- Backend: PHP, SQLite

- Frontend: HTML, CSS, JavaScript

- Development Environment: Visual Studio Code

Hardware Requirements:

- Processor: Intel Core i5 or higher

- RAM: 8GB or higher

- Hard Disk: 500GB or higher

Software Requirements:

- Operating System: Windows 10 or higher

- Web Server: Apache (XAMPP/WAMP)

- Database: SQLite

7. Are you doing this project for any Industry/Client?

No

8. Future Scope and Further Enhancement of the Project

- Mobile Application: Develop a mobile version of the system for easier access and usability.

- Machine Learning Integration: Predict stock requirements and suggest restocking based on sales trends.

- Multi-Language Support: Add support for multiple languages to cater to a wider audience.

- Automated Alerts: Send alerts for low stock and expiry dates.

- Customer Feedback: Integrate a feedback system to collect and analyze customer reviews for service improvement.