Pharmacy Management System

Surabhi.K.S[1], M.Prabhakar[2]

[1]Assistant Professor, Department of Computer Applications, Nehru College of Management, Coimbatore, Tamilnadu, India [2]Student of II MCA, Department of Computer Applications, Nehru College of Management, Coimbatore, Tamilnadu, India

Abstract:

Pharmacy Management System application to help pharmacist to manage pharmacy in the systematic ways. Pharmacy Management System can make the work easier by giving the details of medicine when its name is entered. A computer gives the details of the medicine like rate of medicine, and expiry date of the medicine. It becomes very difficult in big medical stores to handle the details of all the medicines manually, so by using this pharmacy management system We can maintain the records of all the medicines. It is fed with the information whenever new medicines are brought and it is provided with expire date with search option. When we entire the name of medicine it gives the details of medicine. One of the most important responsibilities of pharmacy management is to supervise and manage the pharmacy employees in order to ensure healthy working relationships and outcomes. Each of these functions is critical to the pharmacy's operation and should be explained by the management.

However, most pharmacies faced problems such as insufficient service promotions, lack of coherence of pharmacy services in hospitals, poor drug information systems and the inconsistency of the pharmacy information management due to its manual processes. Now these are the problems that must be solved with this Pharmacy Management System Project Proposal.

INTRODUCTION:

A Pharmacy Management System (PMS) developed using PHP is a web-based application designed to manage the day-to-day operations of a pharmacy efficiently. It streamlines the workflow by automating various tasks, such as inventory management, drug dispensation, billing, and prescription management. PHP, being a server-side scripting language, enables the development of dynamic and user-friendly interfaces, allowing pharmacists and healthcare providers to access real-time information related to drug stock, patient prescriptions, and sales reports.

This system typically incorporates features like user authentication, role-based access control, and reporting tools, ensuring secure and accurate handling of sensitive data. With its ability to track medicine batches, expiry dates, and low-stock alerts, a PHP-based pharmacy management system enhances inventory accuracy and reduces manual errors. Ultimately, this system not only helps streamline pharmacy operations but also improves customer service by ensuring timely availability of medicines and reducing wait times for patients.

OBJECTIVES:

The primary objective of a Pharmacy Management System (PMS) using PHP is to streamline and automate the various tasks within a pharmacy, improving both efficiency and accuracy. By developing the system using PHP, which offers flexibility and scalability, the system aims to manage complex processes such as prescription handling, billing, and inventory management with minimal human intervention. Automating these processes reduces the likelihood of errors in medication dispensation, minimizes delays in service, and ensures a more organized workflow. Additionally, the system provides pharmacists with real-time data, allowing for better decision-making regarding stock levels and customer requirements.

Another significant objective of the PHP-based Pharmacy Management System is to enhance the security and confidentiality of sensitive data such as patient records, prescription history, and billing information. Through robust user authentication and role-based access control, the system ensures that only authorized personnel can access or modify critical data. This helps in maintaining compliance with healthcare regulations and standards, thus protecting the pharmacy from legal or financial risks. Moreover, secure storage of data and regular backups reduce the chances of data loss due to system failures or cyber-attacks.

The third objective is to improve customer service and satisfaction by ensuring that the pharmacy operates more efficiently. The system reduces waiting times by speeding up the billing and prescription fulfilment processes, allowing pharmacists to focus more on customer interactions and consultations. Features like automated notifications for low stock levels and expiry dates ensure that medicines are always available when needed, preventing stockouts and ensuring the timely delivery of healthcare products. Ultimately, the Pharmacy Management System using PHP aims to create a seamless experience for both pharmacy staff and customers.

RELATED WORKS:

In the development of a Pharmacy Management System (PMS) using PHP, several related works and existing systems have laid the foundation for this technology.

A.USER INTERFACE:

The user interface (UI) of a Pharmacy Management System (PMS) developed using PHP is designed to be intuitive, user-friendly, and efficient, catering to both pharmacy staff and management. The UI typically includes clear navigation menus, a dashboard, and easily accessible modules for different pharmacy operations. Key elements such as inventory management, prescription handling, and sales tracking are organized in a structured manner, allowing users to quickly find and use the functionalities they need.

MODULES:

- Dash Board
- Categories
- Manufacturing
- **Report**
- **Billing**

B.DATA SECURITY:

Data security is a critical aspect of any Pharmacy Management System (PMS) developed using PHP. The system deals with sensitive information, such as patient records, prescription history, inventory details, and financial transactions. To ensure this data is protected from unauthorized access or potential breaches, the system must implement robust security measures. PHP, when used with proper security practices, allows developers to build secure applications that safeguard pharmacy data and ensure compliance with regulatory standards like HIPAA (Health Insurance Portability and Accountability Act).

C.DATA DIAGRAM:

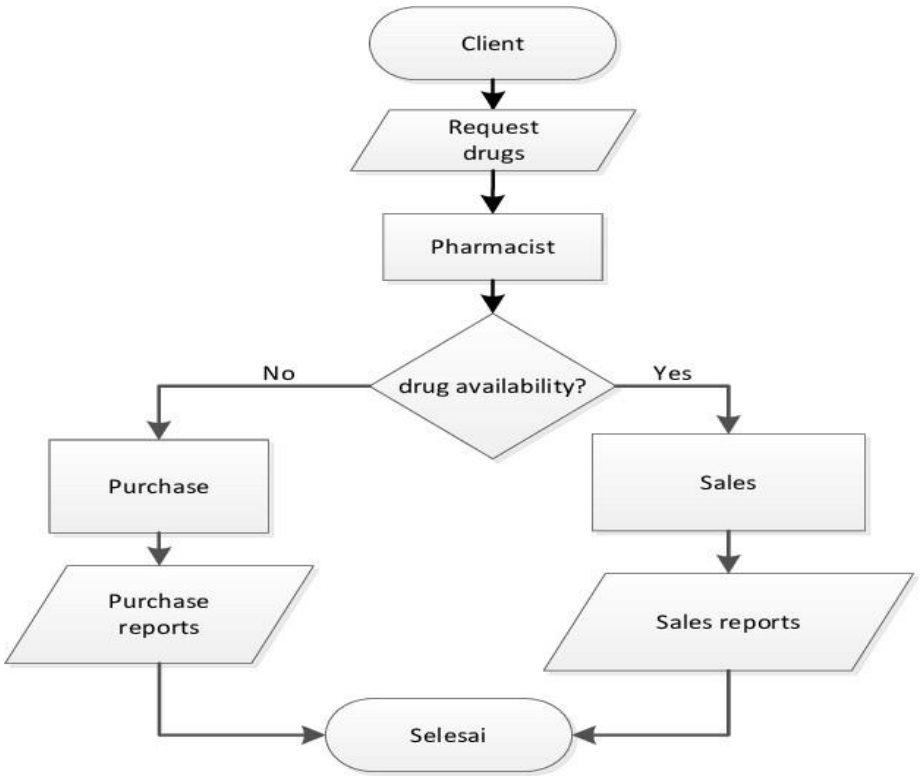

Figure 1.Data Flow Diagram

METHODOLOGY:

The methodology for developing a Pharmacy Management System (PMS) using PHP typically follows a structured and iterative approach, ensuring that the system is robust, user- friendly, and secure. Below is a common methodology breakdown for such a project:

A. Requirement Analysis:

The first step is gathering detailed requirements from stakeholders, including pharmacists, pharmacy staff, and system administrators. This phase helps in identifying the core functionalities needed, such as inventory management, billing, prescription handling, and user authentication. Additionally, non-functional requirements such as performance, security, and scalability are defined. The outcome of this phase is a clear set of objectives and features that the system must fulfill.

B. System Design:

Once the requirements are clear, the system's architecture and design are planned. This involves creating data flow diagrams (DFDs), entity-relationship diagrams (ERDs), and database schema designs to define how the data will be structured and managed. During this phase, the selection of technologies like PHP for backend development, MySQL for database management, and HTML/CSS/JavaScript for front-end development is finalized. The design also considers security measures, such as SSL implementation, database encryption, and user roles for access control.

C. Data Base Structure:

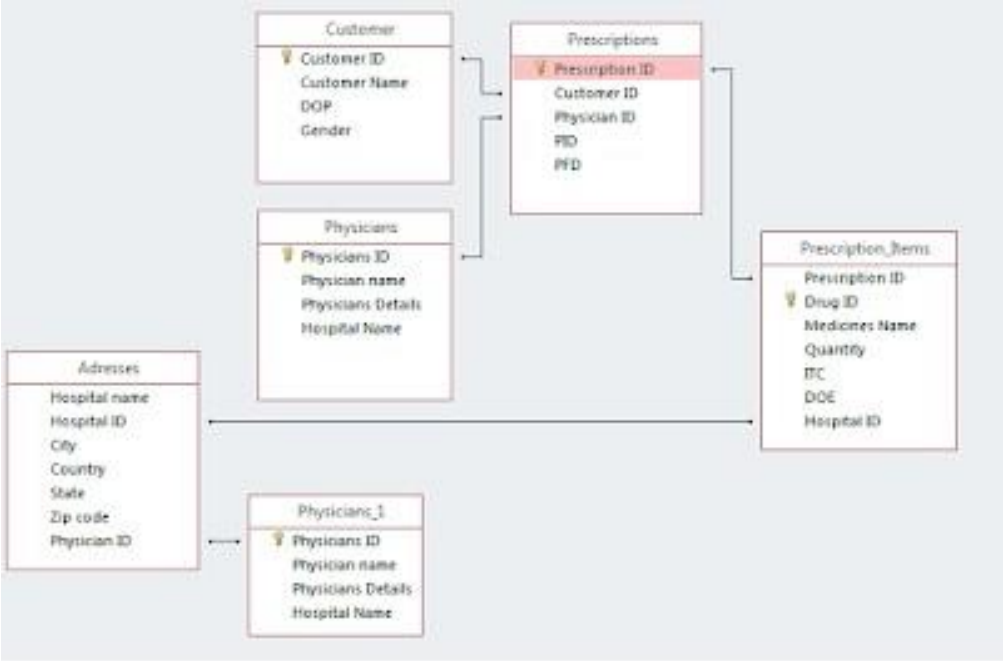

Figure 2. Data Base Tables Structure

RESULTS:

The system automates key pharmacy tasks such as inventory management, prescription handling, billing, and reporting. This reduces the time and effort needed for manual processes and improves overall productivity. With real-time tracking of drug stock, batch numbers, and expiration dates, the system helps minimize stockouts, overstocking, and wastage. Automated alerts for low-stock and nearing expiration ensure timely restocking and safe dispensing of medications. By automating prescription handling, the system reduces wait times for customers. Pharmacists can quickly dispense medications and generate bills, leading to a more streamlined customer experience.

A typical interface of a pharmacy management system with features like:

1. **Dashboard** with stock alerts, sales summaries, and low-stock notifications.
2. Prescription Management interface with patient records and prescriptions.

3. Billing Interface showing generated bills and payment options.
4. Inventory Tracking screen with stock levels, batch numbers, and expiration dates

CONCLUSION:

In conclusion, a Pharmacy Management System (PMS) built using PHP offers a comprehensive solution for automating and streamlining various pharmacy operations. By leveraging PHP's flexibility and dynamic capabilities, the system enhances efficiency in key areas such as inventory management, prescription processing, billing, and reporting. It minimizes manual errors, speeds up service delivery, and improves overall workflow. Moreover, the system's ability to integrate real-time data allows pharmacy staff to make informed decisions, ensuring timely stock replenishment and accurate dispensing of medications.

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