

Medical Store Management System

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<p>Keyword:</p> <p>Inventory, process automation, supply replenishment, expiry alarm, medical administration.</p>	<p>ABSTRACT</p> <p>This paper outlines the development of a modern and user-friendly application medical supply stores are currently searching for services that can offer staff and customers accurate and dependable care. Every retailer is working to computerize their processes in order to give their clients superior services. The system utilized for medicine stock inventory in medical stores is called the medical store management system. The store manager can keep track of and oversee every activity in the medical shop thanks to this system. This technology helps with performance analysis and makes it possible for the medical store's staff to provide services in a way that is more methodical and efficient, both of which enhance the business. The everyday operations of the medical shop, including managing expiration dates, keeping track of monthly sales records, managing tablet information, and stock details, may all be organized with the help of medical store management software. Details about the merchandise that the shop purchases and the stock that it sells may be kept up to date with the help of the medical store management software. The "Medical Store Management System" project is an application designed to provide medical stores with efficient inventory control and management. The owner is administered via this application. The medical shop management system was created as an application program to lessen the amount of manual labor required to operate medical stores. It also assists in keeping track of all the financial, inventory, and sales information. The project's ultimate goal is to automate the manual method that is currently in place and replace it with a computerized system for inventory control and medical store management. The owner will be able to oversee the entire operation of the medical store with the help of this system, which will manage inventory sales, stock levels, and produce sales, reports, among other things.</p>
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INTRODUCTION

The passage discusses the importance of efficient inventory management systems for organizations, particularly focusing on pharmacies. It highlights the challenges of traditional inventory techniques and the need for coordination and monitoring, especially in multi-store environments. Aims to develop a mobile-based application to streamline inventory management processes, including tracking stock arrivals, administration to patients, and production workflows. It emphasizes the significance of managing inventory flow to meet customer demands and ensure productivity. In the present time, the medical stores are looking for the services that are accurate and reliable for providing services to the customers and workers. Every store is making efforts to computerize their activities for providing better services to the customers. The medical store management system is the system used for medicine stock inventory in the medical stores. This system enables the manager of the store to record and manage all activities of the medical shop.

This system also enables the workforce of the medical store to offer their services in a manner which is more efficient and systematic which also improves the medical store, this also helps in analyzing the performance of the store. The medical store management software can organize the daily activities in the medical store such as information of tablets, details of stock, maintaining records of sold medicines on monthly basis, expiry date management. The medical store management software enables to maintain the details of purchase stock by the store and the details of the selling stock.

Organizing everyday operations is possible with the help of medical shop management software at the medical supply business, including pill information, stock details, monthly sales records of medications, and expiration date management.

With the aid of this system, which will monitor inventory sales, stock levels, and generate sales reports, among other things, the owner will be able to supervise every aspect of the medical store's operations. The main objective of the proposed approach is to create an application program to reduce the quantity of manual labor. The main goal is to replace the antiquated, labor-intensive inventory record-keeping system. Maintaining an orderly medication record will be made easier with the help of this tool,

which also makes it simple to search for and obtain specific information about any type drug. For this reason, the goal of this project is to create an efficient inventory system to handle every detail. With the help of an application called "Medical Store Management System," the current manual system for inventory control and store management will be automated.

The primary objective of this proposal is to address the shortcomings of traditional inventory management techniques in pharmacies and provide a robust solution that meets the unique needs of the pharmaceutical industry. By implementing an efficient inventory management system, pharmacies can improve their ability to meet customer demands, reduce errors, optimize inventory levels, and ultimately drive sustainable growth.

The "Medical Store Management System" project is an application designed to provide medical stores with efficient inventory control and management. Owner administration is the purpose of this program. The medical shop management system is created as application software to lessen the amount of manual labor required to run medical enterprises. It also aids in the management of all financial, inventory, and sales data. The creation of an application program to decrease the amount of manual labor is the primary goal of the suggested strategy. The primary objective is to replace the labor-intensive, outdated approach for keeping inventory records. It makes it easier to search for and find particular information about any kind of drug. The owner will be able to oversee every facet of the medical store's operations with the help of this system, which will, among other things, monitor inventory sales, stock levels, and generate sales reports.

Set up notifications to inform pharmacy employees when prescription drugs or medical supplies are about to expire. By preventing the dispensing of expired products, this function helps to maintain regulatory compliance and to provide real-time data analysis. To provide real-time data analysis. This enables pharmacies to make informed decisions promptly based on up-to-date information about inventory levels, trends in demand, and stock movements. With access to accurate and timely data, pharmacies can optimize their inventory levels, reduce the risk of stockouts or overstocking, and improve overall operational efficiency.



PROPOSED METHODOLOGY

1. Inventory Management

This module involves tracking the stock levels of medicines and medical supplies. It includes functionalities such as adding new items to the inventory, updating quantities as items are sold or received, and setting reordering thresholds to ensure that stock levels are maintained.

2. Supplier Management

This feature enables the medical store Management System to maintain a database of suppliers. It includes storing supplier contact information, managing purchase orders, tracking delivery schedules, and evaluating supplier performance.

3. Sales Management

This module records all sales transactions made at the medical store. It includes capturing details such as the medicines sold, quantities, prices, price remaining (if any), and customer information. This data is crucial for generating invoices and analysing sales patterns.

4. Prescription Management

Operator can input and store prescription details for future reference. This includes recording customer information, prescribed medications, dosage instructions, and any additional notes provided by healthcare providers.

5. Alerts Notification

The Medical Store Management System sends alerts and reminders to staff members for various purposes. For example, it may notify when stock levels are running low, medicines are nearing their expiration dates.

6. Prescription Management



The shelves module enhances prescription management by providing operator with accurate information about the availability and location of prescribed medications. Operators can quickly retrieve the required medicines from the designated shelves and fulfil prescription orders efficiently.

7. Medicine Management

The medicine module serves as the central repository for storing information about all available medicines and medical supplies. It includes details such as medication names, dosages, expiry dates, pricing, and stock levels. Operator of Dhanraj Medical Store can easily search for and retrieve medicines from this module during prescription fulfilment.

Requirement	Normal Requirements	Expected Requirements	Excited Requirements
Database Management	✓	✓	
Loading Time		✓	
Browser Compatibility	✓	✓	
Code Structure	✓		
Responsive Design		✓	
Compliance	✓		
Performance		✓	
Typography Choices			✓
Testing		✓	
Development Process		✓	
Performance Testing		✓	✓
Animations and Smooth Scrolling			✓
Chatbot Integration			✓

Table 1. Performance Metrics

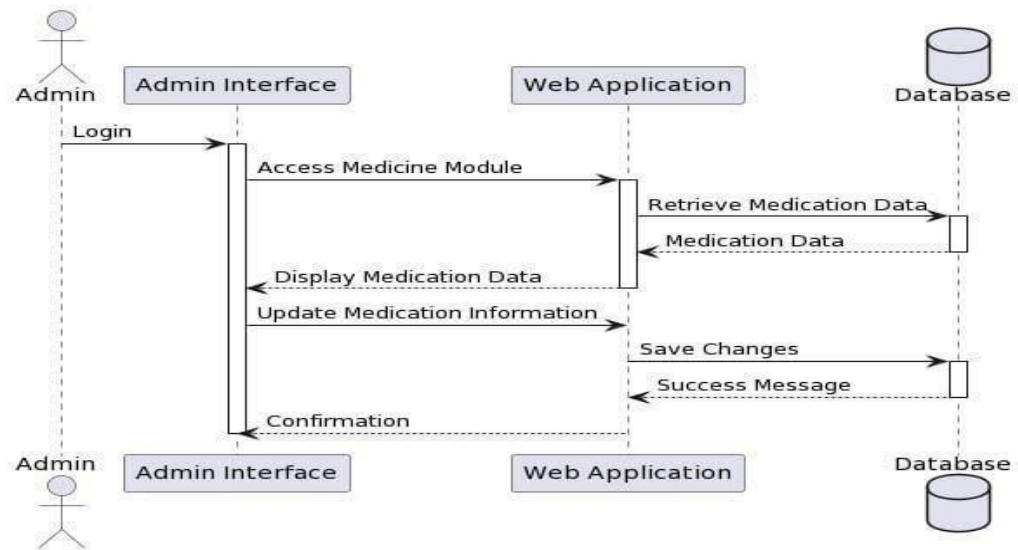


Figure 1. Sequence Diagram

EXPERIMENTAL RESULTS

Fig. Admin Module

Admin Module

A medical shop management system's admin module serves as the foundation for the efficient and seamless functioning of the whole program. Its primary features include data integrity, user permissions, and centralized management, all of which are vital to preserving the system's security and functionality. The admin module accomplishes centralized management by giving administrators a single interface through which to monitor and administer any component of the system.





Fig. Dashboard

Dashboard

Dashboard provides a comprehensive overview of an application. The dashboard serves as a centralized platform within an application, providing a condensed yet comprehensive overview of its performance and data. By offering a snapshot of critical information, such as sales figures, inventory levels, and user engagement, the dashboard empowers users to monitor, analyze, and manage various aspects of the application's functionality from a single interface.

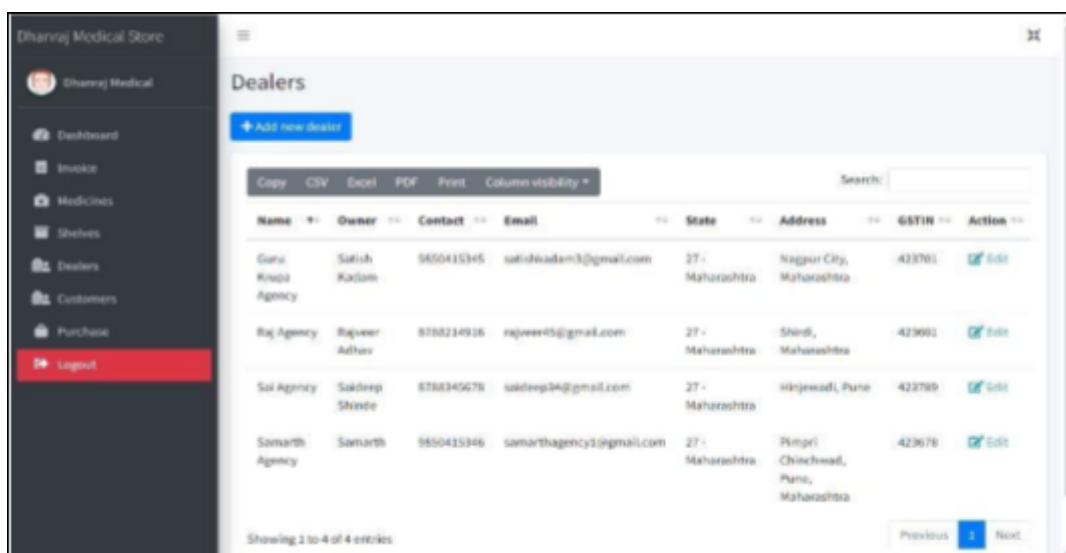


Fig. Dealer Module

Dealer Module

Dealer module contains all the information about the dealer. The dealer module is where you'll find everything about a dealer. It holds their contact details, transaction history, product preferences, and any other relevant information.

Date	Dealer	Total	Paid	Balanced	Actions
Feb. 1, 2024	Guru Krupa Agency	₹1000.0	₹1000.0	₹0.0	Edit
Feb. 17, 2024	Samarth Agency	₹500.0	₹450.0	₹50.0	Edit
Feb. 20, 2024	Raj Agency	₹750.0	₹750.0	₹0.0	Edit
Feb. 23, 2024	Guru Krupa Agency	₹0.0	₹0.0	₹0.0	Edit

Fig. Purchase Module

Purchase Module

The purchase module is a database where all information about medicines acquired from dealers is stored. It keeps track of details such as the name of the medicine, quantity purchased, purchase date, cost, and supplier information. This module facilitates efficient management of inventory, enables timely replenishment of stock, and ensures accurate record-keeping of purchases.

Name	Actions
A-1-1	Edit
A-1-2	Edit
A-1-3	Edit
B-2-1	Edit
B-2-2	Edit
C-3-1	Edit
C-3-2	Edit
C-3-3	Edit
C-3-4	Edit
C-3-5	Edit
C-3-6	Edit
C-3-7	Edit
C-3-8	Edit

Fig. Shelves Module

Shelf Module

The shelf module in an application is specifically crafted to oversee the organization and arrangement of medicines within the physical space. It provides functionalities to allocate specific locations for each medicine, ensuring efficient management of inventory and easy retrieval of medications when needed. Through this module, users can categorize medicines based on various criteria such as type, or expiry date.

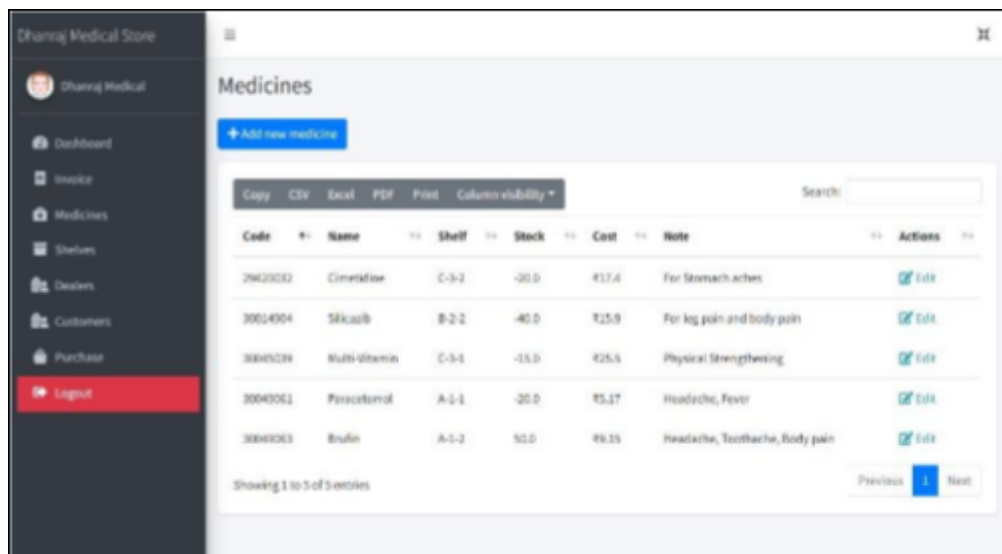


Fig. Medicine Module

Medicine Module

The Medicine module is a dedicated section of the application focused on organizing and managing medication-related data. Its primary objective is to ensure accurate prescription processes by providing comprehensive information about various medications. This includes details such as medicine name, cost, stock, description. Overall, the Medicine module plays a crucial role in facilitating safe and effective medication management within the application.

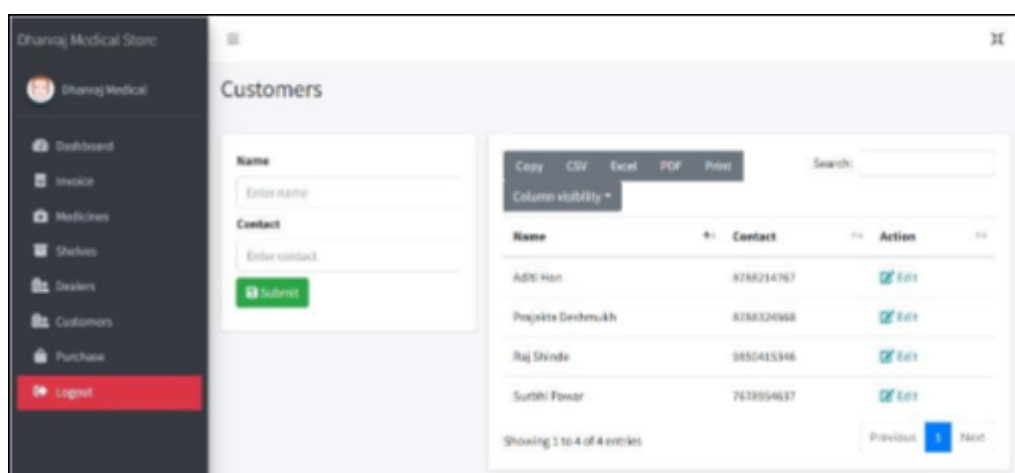
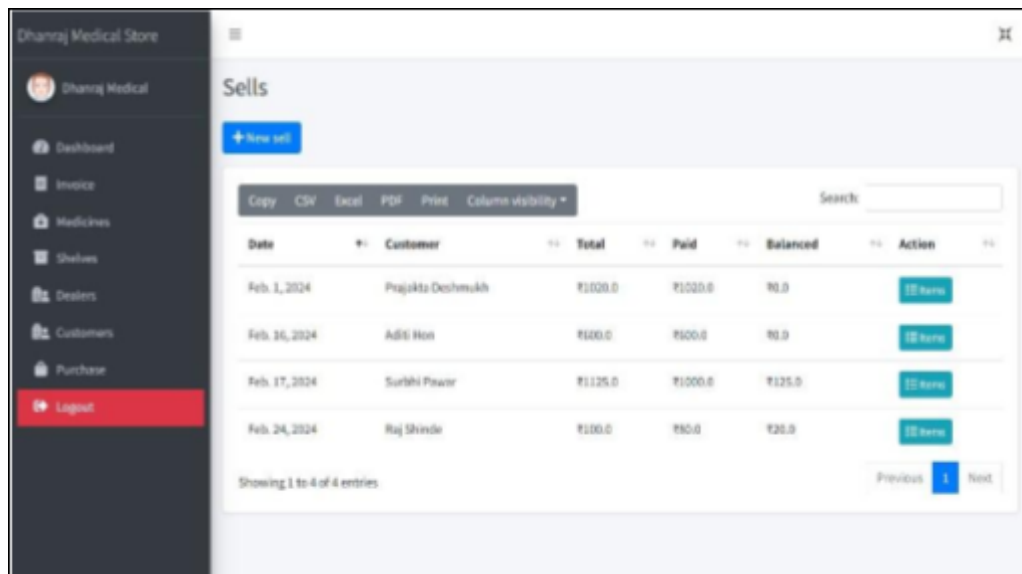


Fig. Customer Module

Customer Module

Names and phone numbers are the main pieces of information about customers that are stored in the application's database, the Customer module. This module makes it possible for organizations to handle client records effectively by retrieving and updating contact information as needed.



Date	Customer	Total	Paid	Balanced	Action
Feb. 1, 2024	Prajakta Deshmukh	₹1020.0	₹1020.0	₹0.0	View Item
Feb. 16, 2024	Aditi Honi	₹100.0	₹100.0	₹0.0	View Item
Feb. 17, 2024	Surbhi Pawar	₹1125.0	₹1000.0	₹125.0	View Item
Feb. 24, 2024	Raj Shinde	₹100.0	₹0.0	₹20.0	View Item

Fig. Invoice Module

Invoice Module

The invoice module is specifically designed to streamline and manage the entire sales process within the application. The invoice module also includes features for managing payments, tracking payment statuses, and generating receipts. By centralizing the sales process, this module helps businesses maintain efficiency, accuracy, and transparency in their transactions.

CONCLUSION

In conclusion, a well-implemented medical store management system is indispensable for the efficient and effective functioning of pharmacies and medical stores. By integrating features such as inventory management, prescription tracking, sales

monitoring, and customer database management, these systems streamline operations, enhance accuracy, and improve patient care.

Through meticulous inventory management, pharmacies can ensure the availability of essential medications, minimize stockouts, and optimize purchasing decisions. Prescription tracking capabilities enable pharmacists to provide accurate dispensing, manage refill reminders, and promote medication adherence among patients. Sales monitoring and reporting functionalities offer insights into business performance, optimize inventory levels, and maximize profitability.

Moreover, the ability to maintain comprehensive customer profiles facilitates personalized interactions, tailored recommendations, and continuity of care. By leveraging patient data, pharmacists can offer proactive health advice, medication reminders, and individualized support, ultimately enhancing patient satisfaction.

A medical store management system, in its simplest form, is the cornerstone of effective pharmacy operations, empowering pharmacists to provide patients with high-quality care, maximize business success, and cultivate good experiences. Accepting cutting-edge approaches to medical store management will be essential to addressing the changing demands of healthcare practitioners and patients as technology develops further.

The implementation of a robust medical store management system emerges as a critical cornerstone in optimizing the operations and services offered by pharmacies and medical stores. Through its multifaceted functionalities encompassing inventory management, prescription tracking, sales monitoring, and customer database management, this system revolutionizes the way healthcare products are dispensed and managed.



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