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Medical Management System

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Abstract : Medical Management system Created using Python with Tkinter framework and SQLite3.The goal of this project is to create an easy-to-use and maintain application of a Management System for a Medical Store. This application is designed with inventory management and database access with CRUD(create, read, update, and delete) properties.

After the application is created the system has a user-friendly interface that allows the user to perform tasks easily and efficiently. The inventory management module allows the user to manage the stock of medicines, track the expiry date of medicines, and receive alerts when the stock level of a particular medicine falls below the minimum threshold.

The system is easy to use, and secure, and provides valuable insights through various reports and analytics. The Medical management system can be customized to meet the specific needs of a medical store, such as integrating with electronic health records, implementing smart shelves.

In conclusion, the Medical management system is an essential tool for medical store owners and managers who want to streamline their operations and provide better service to their customers. By automating inventory management, sales, and other processes, the system helps in maximizing profitability, reducing costs, and improving overall business performance.

Keywords:- Medical Management System, Python, TKinter, Sqlite3.

I. INTRODUCTION

The purpose of the Medical management system is to automate the existing manual system with the help of computerized equipment and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy access and manipulation of the same. The objective of the management system is to increase the accuracy and improve the safety and efficiency of the pharmacy store.

The detail of medicine available in the medical store is easily managed and organized using this system. The Medical management system also helps keep track of the available stock of medicine and updates them regularly. The goal of this project is to develop software for the effective management of the store.

II. LITERATURE REVIEW

The existing Medical management system is time-consuming and requires more manpower to function well. Secondly, the scope of the offline medical store is limited to the local area and is available for fixed timing. All the data management involving product availability, searching, billing, and other report generation are done manually which indeed are very time-consuming.

In Our medical management system, the Searching of products and product stock can be maintained by a single click. The product record can be easily tracked At any time.

III. PROBLEM STATEMENT

Modern medical stores face several operational challenges that hinder their efficiency and effectiveness. Manual and paper-based processes for inventory management, order processing, and reporting often lead to errors, delays, and inefficiencies. Additionally, the lack of real-time visibility into inventory levels, inadequate supplier management, and limited data analytics capabilities further exacerbate these issues. The absence of a comprehensive and integrated management system specifically tailored to the needs of medical stores results in suboptimal inventory control, increased costs, customer dissatisfaction, and missed business opportunities.

Given these challenges, there is a clear need for a robust and tailored management system that can streamline and automate critical processes, provide real-time visibility into inventory levels, improve supplier management, and enable data-driven decision-making.

This system should prioritize accuracy, efficiency, scalability, and security to optimize operations, enhance customer satisfaction, and drive business growth in the ever-evolving healthcare landscape.

we aim to address these challenges by developing and implementing a medical management system using the Python tkinter library and SQL Lite3. The system will encompass modules for inventory management and supplier management.

IV. METHODOLOGY

MODULES

Inventory Module: The inventory module is a crucial component of the medical management system that handles the management and tracking of products and stock levels. It allows users to effectively manage inventory, ensuring optimal stock levels, minimizing wastage, and avoiding stockouts.

Login Module: The login module provides a secure and controlled access mechanism for users to log into the medical management system. It ensures that only authorized personnel can access the system and perform specific actions based on their assigned roles.

Stock Module: The stock module focuses on managing stock movement within the medical store. It tracks the inflow and outflow of products, facilitates stock adjustments, and provides visibility into stock levels.

ARCHITECTURE

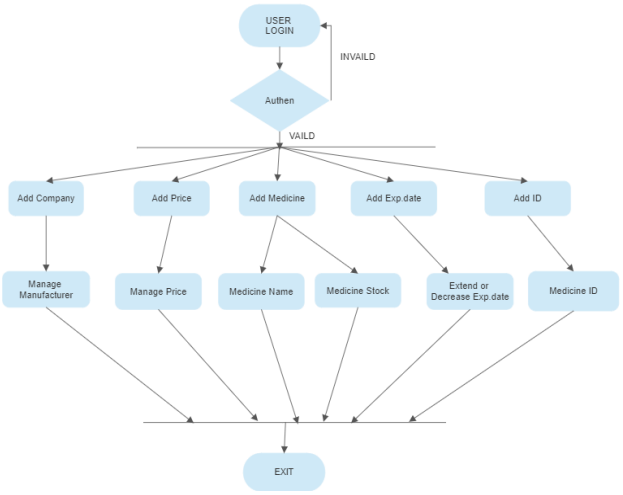

Fig 1 : architecture

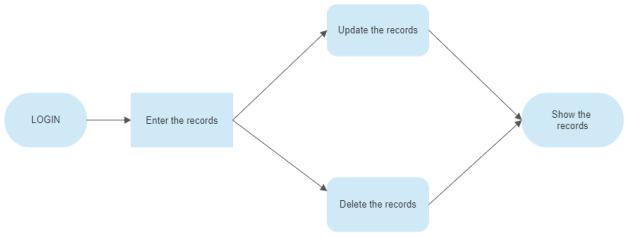

Fig 2 : Data Flow Diagram

V. EXPERIMENTAL RESULTS

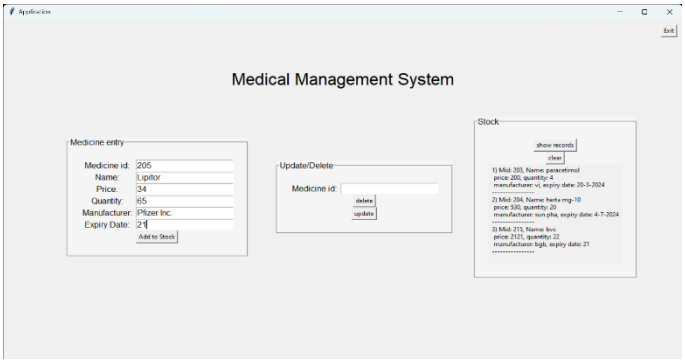

Fig 3 : Main page

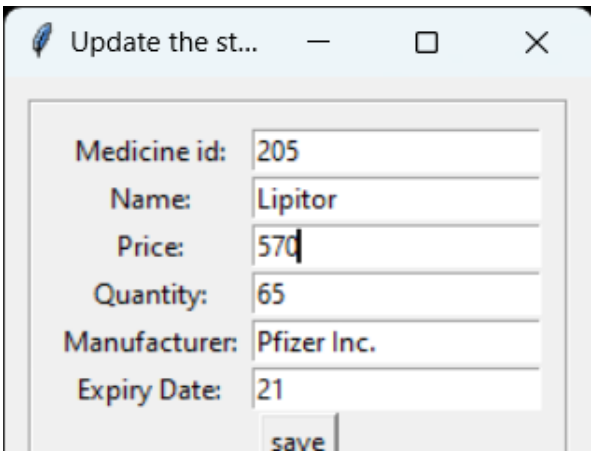

Fig 4 : Update page

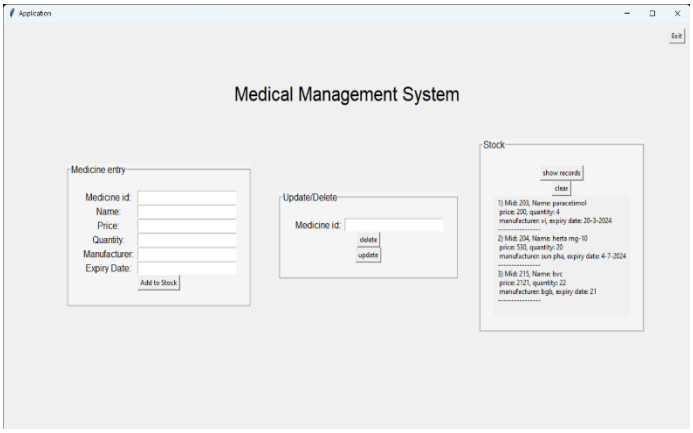

Fig 5 : Home page

VI. CONCLUSION

The Medical Management System provides a simple and effective solution for managing medical inventory and tracking medication usage.
Its user-friendly make it a valuable tool for healthcare providers in a variety of settings.
This Medical Management System will be an essential tool for users who want quality care while managing their inventory efficiently.
In summary, a Medical management system is an indispensable tool for medical store owners and managers who want to ensure efficient operations, increased profitability, and improved customer satisfaction

VII. FUTURE WORK

We want to add a user login page and put authentication on it with security keys.
We want to scale the application to have more than one page and want to add more options to data entry fields to store more details.We want to expand the inventory section to show the data entries in more and concise way.

VIII. REFERENCES

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