User Interactive Pharmacy System

A Report Submitted
in Complete Fulfillment of the Requirements
for the Course of
Minor Project - II
In
Third year – Sixth Semester of
Bachelor of Technology
specialization
In
Artificial Intelligence and Machine Learning

Under
Mr. Samiran Das

By

500068858	**R177218085**	**Shrey Bansal**
500067783	**R177218086**	**Shreya Joshi**
500069816	**R177218051**	**Kashish Khurana**

DEPARTMENT OF INFORMATICS
SCHOOL OF COMPUTER SCIENCE
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES, BIDHOLI, DEHRADUN, UTTRAKHAND, INDIA

Jan, 2021

Project Title:

User Interactive Pharmacy System.

Abstract:

Pharmacy Management System is the system that stores data and provides the functionality to organize and maintain medication use process.
Nowadays, in these tough times of COVID-19, pharmacy management system will prove to be an essential tool for medication management and record keeping, etc. It is mostly used to manage the Pharmacy related activities like medical inventory, sales management as well as drugs storage and expiry management.
Many pharmacies in INDIA still runs manually and it is hard for them to manage the daily record. It takes the pharmacist assistant to check the expiry date of the medicine and a lot of time in managing the stocks.
In this project we have tried to implement a local system which uses **MySQL** and perform various operations of pharmacy including creating a purchase, sales record, summarizes the sale and other important features at the end of each working month, identifying slow moving stocks, identifying stock expiry etc.
All of the system is implemented in **JAVA** and GUI has been made in **JAVA Swing.** SQL queries are manipulated to extract the important insights and statistical learning from the database.
The Project highlights the OOPs concept such as polymorphism, inheritance, abstraction, encapsulation etc. The project would ultimately help the pharmacies for rolling out govt. medical organization like ICMR, IPA rules regarding certain drugs which can't be sold normally and will very useful in maintaining records.

Introduction:

The Pharmacy System is implemented for the eradication of the problems faced by the pharmacies such as generating monthly ledger , maintaining drugs stocks, check of expiry date of drugs etc. which are difficult in manual system. Besides, CPMS(Clinical pharmacy management system) is also able to customize paper prescriptions and medical orders according to "Prescription Administrative Policy" and related laws and regulations.[1,2].
This project is being developed for easy maintenance and supply of pharmaceutical products by chemist. In the pandemic times like of COVID-19, Govt. provides different SOP's to adhere the sale and purchase of several drugs and requires various approvals for the sale.
No formal knowledge is needed for the user to use this system as the system would be Graphical User Interactive(GUI) . Thus by this all it proves it is user-friendly. Pharmacy Management System , as described above, can lead to error free, secure, reliable and fast management system.

Literature Review:

Medicines management is the entire process of how medicines are selected, procured, delivered, prescribed, administered and reviewed to optimize the contribution they make to producing informed and desired outcomes of patient care. In the Philippines, medicines management occurs at all levels of government and is different during emergency and non-emergency times.[6]

Health service delivery in the Philippines has been repeatedly disrupted as a result of disasters and emergencies – particularly so after Typhoon Haiyan in November 2013. The objectives of this study were to document existing policies for medicines management in the Philippines during emergency and non-emergency periods and to assess the public sector medicines management system in Haiyan-affected areas during the response.

Objective

Project will include various features in order to answer various queries such as -

- Analysis of monthly sales of a particular drug.
- Expiry View of drugs for updating stock.
- Sale view to different drugs sold and the approval required for the critical drugs.
- Stock manager view for different kinds of products.

Methodology:

A Pharmacy Management System is implemented using Object Oriented Programming concepts like abstraction, encapsulation and polymorphism.
It is made user interactive with the help of Java Swing. Swing is a GUI widget toolkit for Java, which provides a more sophisticated set of GUI components. MySQL is used to maintain a database that performs various operations for a pharmacy like manages all the stuffs related to drugs, sale-record, stocks, transactions, expiry of drugs, predicting purchase requirements for coming month etc. The database itself is made by pharmacist or the user by adding or removing data as per his/her needs. One can add the stocks when available and can remove them in a friendly manner with the provided GUI.

Project will include various features in order to answer various queries such as

- Monthly ledger generator for accounting purposes
- Expiry View of drugs for ordering and updating stock.
- Sale view to different drugs sold and the approval required for the critical drugs
- Product manager view for different kinds of products.

References:

[1.] Cao M. Wang Ang and his Variorum of medical recipes (Yi fang ji jie) Zhonghua Yi Shi Za Zhi. 2000;30:179–81. [PubMed] [Google Scholar]

[2.] Morgan S, Hanley G, Cunningham C, Quan H. Ethnic differences in the use of prescription drugs: A cross-sectional analysis of linked survey and administrative data. Open Med. 2011;5:e87–93. [PMC free article] [PubMed] [Google Scholar]

[3] Currie J, Lin W, Zhang W. Patient knowledge and antibiotic abuse: Evidence from an audit study in China. *J Health Econ.* 2011;30:933–49. [PubMed] [Google Scholar]

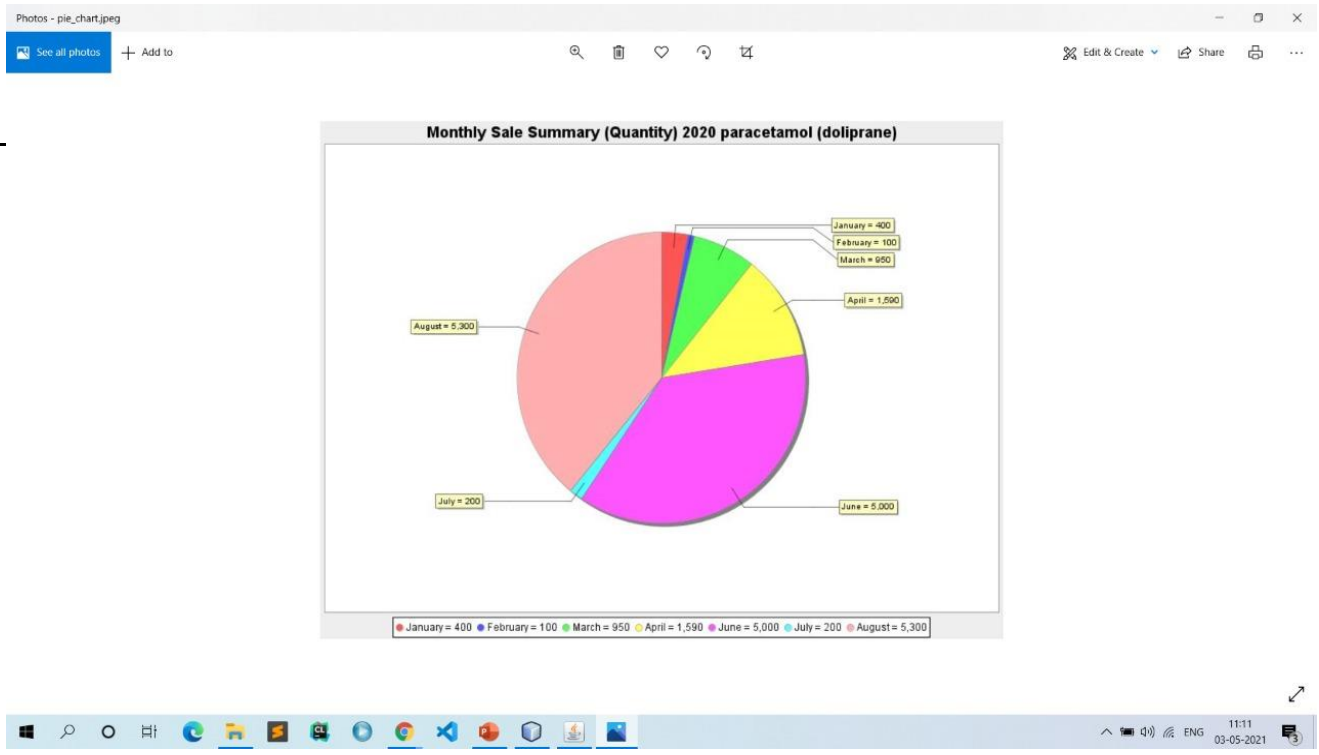
[4.] Mahajan B, Kjar D, Godwin D, Robertson A, Ponder T. PS1-26: Data quality issues/checks while building virtual data warehouse enrollment, demographics, provider and utilization tables from scratch. *Clin Med Res.* 2011;9:184–5. [Google Scholar]

[5.] Yang TH, Ku CY, Yen DC, Hsieh WH. Electronic Hand-Drafting and Picture Management System. *J Med Syst.* 2012;36:2297–307. [PubMed] [Google Scholar]

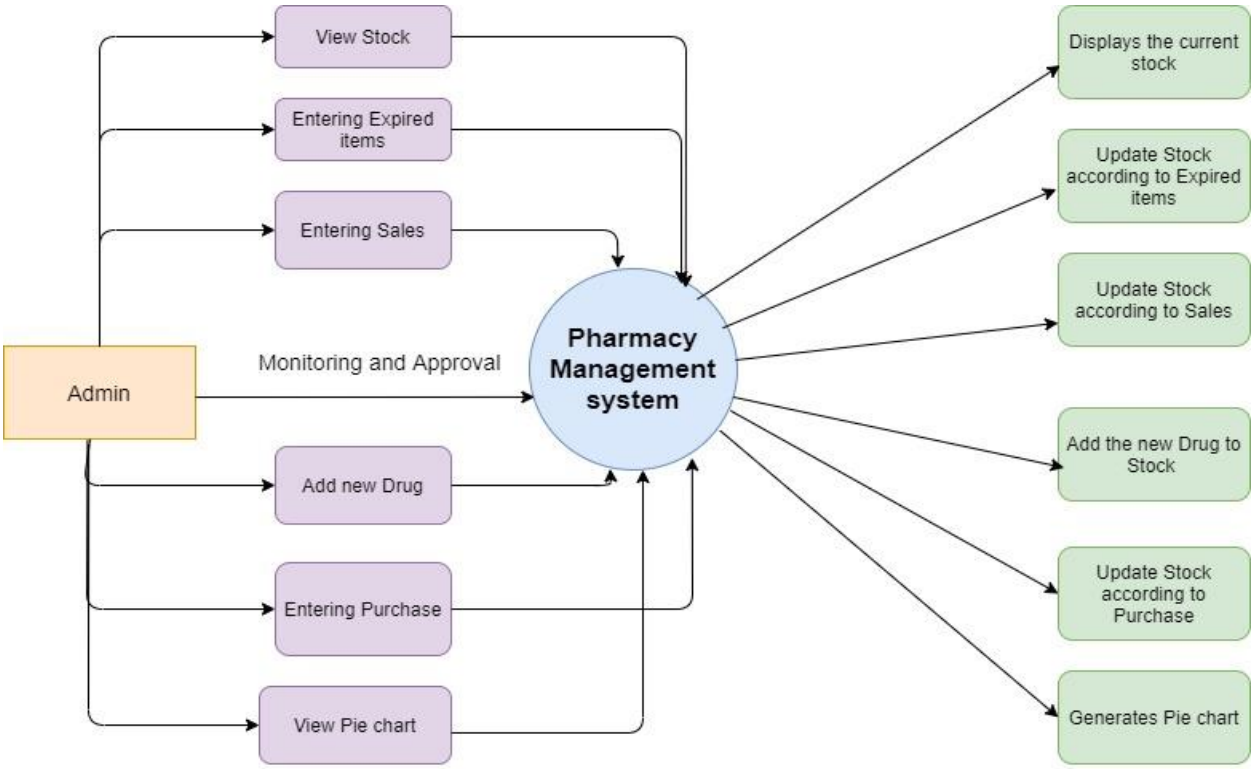
[6.] Book by Western Pac Surveil Response J. (2015).

Result

Monthly sales summary of a particular drug



Result Analysis



The aim of the project was to create a user interactive Pharmacy Management System. This was implemented successfully according to the given diagram.

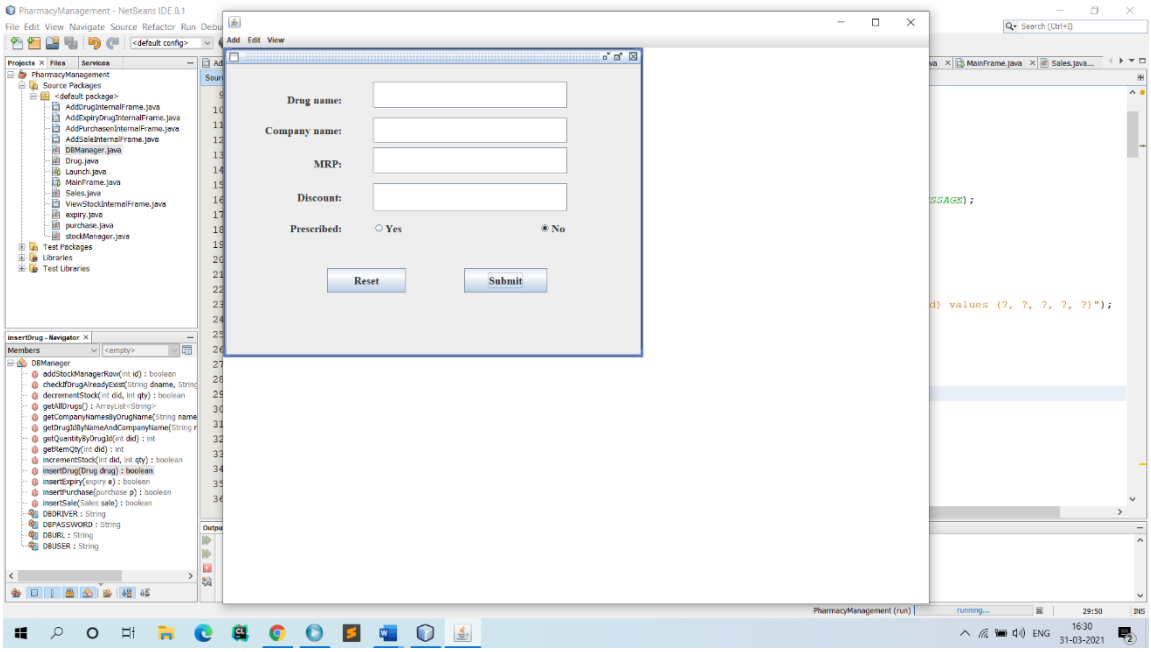
Conclusion:

We successfully implemented a Pharmacy management system which helps in-

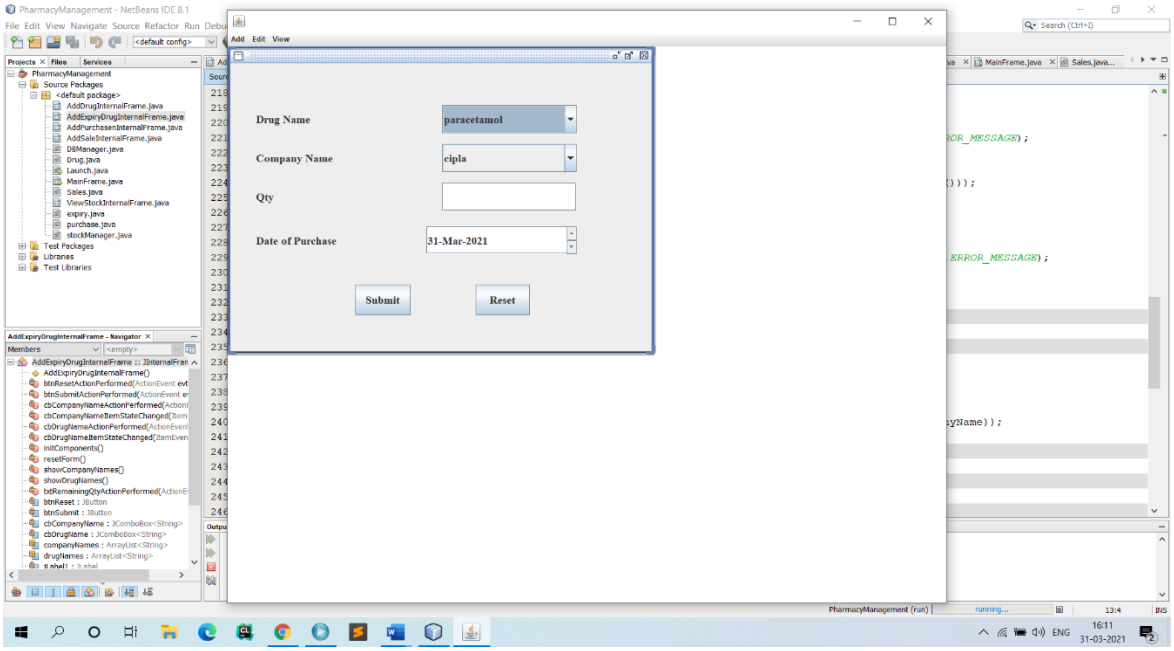
- Adding new drugs to the stock
- Managing purchase of a drug
- Managing sales of a drug
- Handling expired drugs
- Viewing the stock for a particular Drug
- Analysis of monthly sales of a particular drug.

Appendix

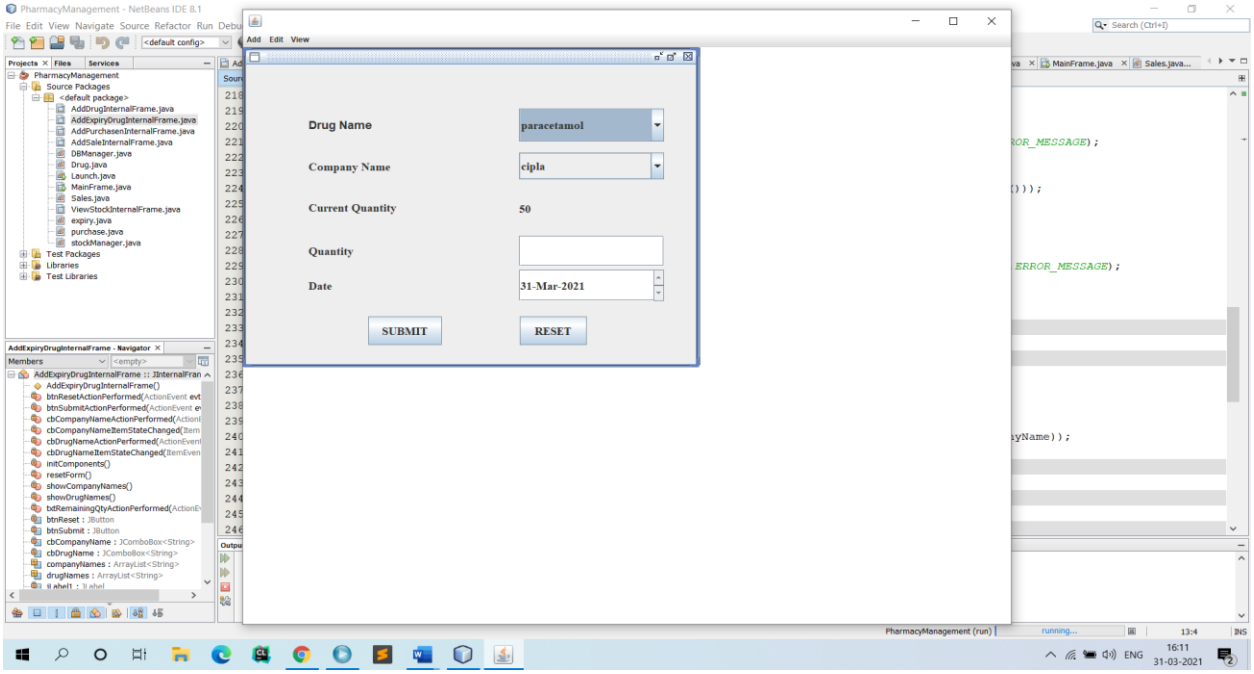
-Creating record for new DRUG-



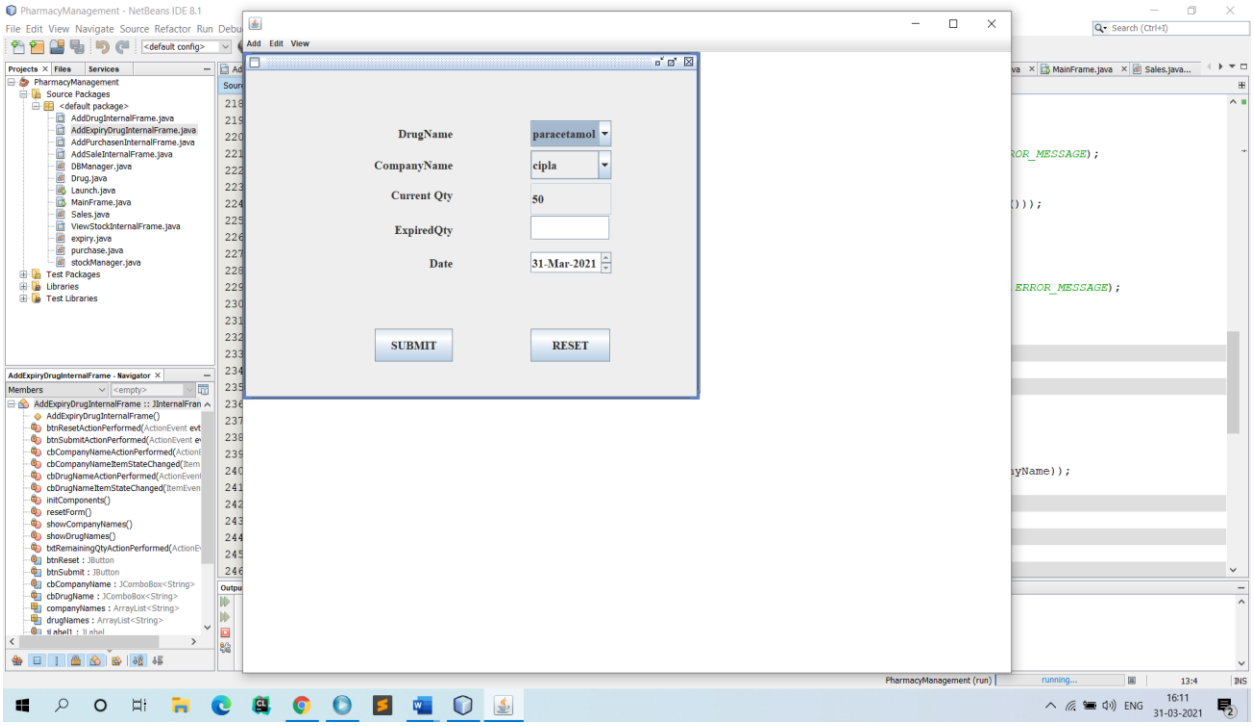
-Creating PURCHASE for DRUG-



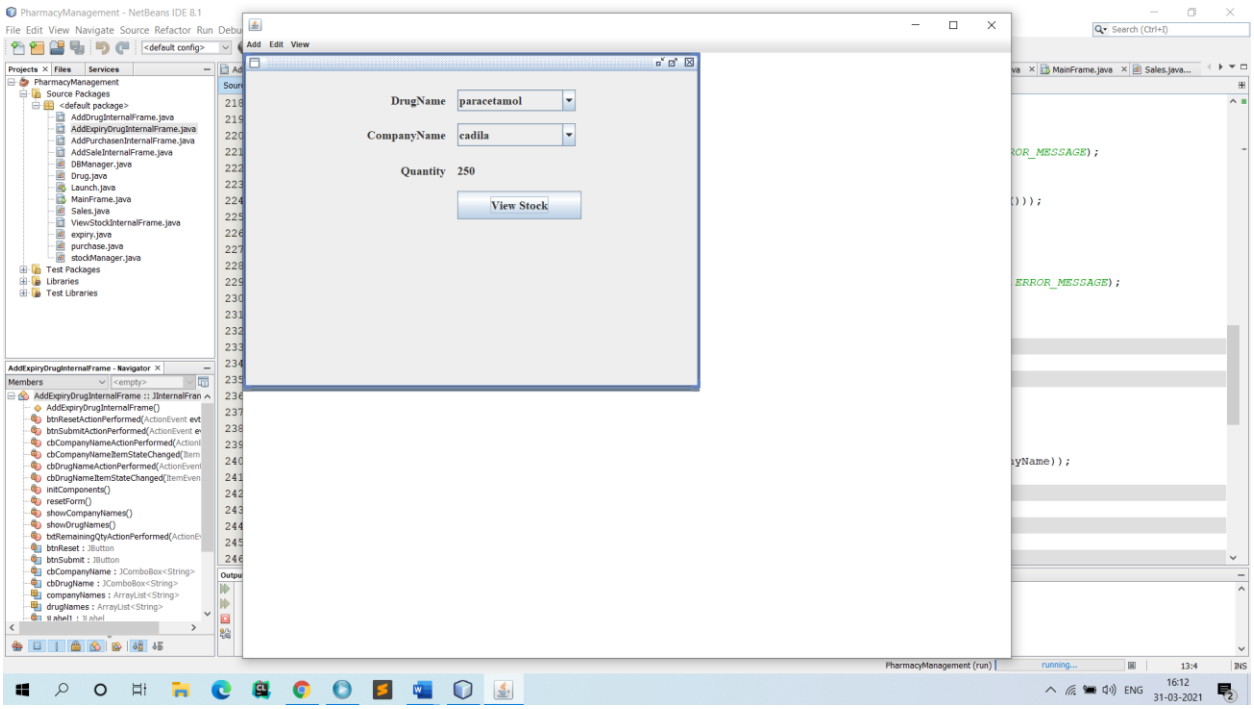
-Creating SALES for a DRUG-



-Identifying medicines which are going to EXPIRE-



- STOCK MANAGER :-



-Analyze Drug sale