

**Savitribai Phule Pune University**  
**Modern Education Society's College of Engineering, Pune**  
19, Bund Garden, V.K. Joag Path, Pune 411001.

**ACCREDITED BY NAAC WITH A++ GRADE (CGPA 3.54)**

**DEPARTMENT OF COMPUTER ENGINEERING**



A REPORT ON  
**“PHARMACY MANAGEMENT SYSTEM”**  
**S.E. (COMPUTER)**

*SUBMITTED BY*

**Group No 7:**

1. Kalpesh Baviskar
2. Ashish Shisal
3. Saurabh Butale
4. Ayush Acharya
5. Omkar Latpate

*UNDER THE GUIDANCE OF*

**PROF. S. A. SAPKAL**  
**(Academic Year: 2022-2023)**

**Savitribai Phule Pune University**  
**Modern Education Society's College of Engineering, Pune**  
19, Bund Garden, V.K. Joag Path, Pune 411001.

**ACCREDITED BY NAAC WITH A++ GRADE (CGPA 3.13)**

**DEPARTMENT OF COMPUTER ENGINEERING**



## ***Certificate***

This is to certify that PBL entitled,

### **PHARMACY MANAGEMENT SYSTEM**

has been completed by 1) Mr. Kalpesh Baviskar (F21111021), 2) Mr. Ashish Shisal (F21111032), 3) Mr. Saurabh Butale (F21111033), 4) Mr. Ayush Acharya (F21111036), 5) Mr. Omkar Latpate (F21111046) of **SE COMP 1** in the Semester - II of academic year 2022-2023 in partial fulfillment of the Second Year of bachelor's degree in "Computer Engineering" as prescribed by the Savitribai Phule Pune University.

**Prof. S. A. Sapkal**  
**PBL Guide**

**Dr. N. F. Shaikh**  
**H.O. D**

Place: MESCOE, Pune.  
Date:    /    / 2023

## **ACKNOWLEDGEMENT**

*It gives me great pleasure and satisfaction in presenting this PBL on Topic **PHARMACY MANAGEMENT SYSTEM***

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*Students Name:*

**SE COMPUTER I:**

- 1) Kalpesh Baviskar - F21111021
- 2) Ashish Shisal – F21111032
- 3) Saurabh Butale – F21111033
- 4) Ayush Acharya – F21111036
- 5) Omkar Latpate – F2111046

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## **1) PROBLEM STATEMENT**

Managing pharmacy records on paper is a tedious, time-consuming, and difficult task, and may lead to inaccurate calculations which can make customers dissatisfied.

This project will help pharmacists to use time efficiently and maintain records of inventory accurately.

## **2) OBJECTIVES**

Objectives of our project are as follows:

1. To Streamline inventory management.
2. To Enhance prescription processing.
3. To Improve patient record-keeping.
4. To enhance the efficiency of management in medical stores.
5. To provide search facilities based on various factors like stocks and theirs.
6. To keep track and manage all information.

### **3) INTRODUCTION**

The Pharmacy Management System is a complete dispensing workflow management system that is designed to improve accuracy, and efficiency.

Most Pharmacies are still doing their whole work manually, this kind of work may lead to mistakes by workers and lead to a major problem.

Therefore, to solve this kind of problem the urgent need is to develop a Pharmacy management system that will prove beneficial for the Pharmacy.

By using this software, we can maintain the stock very well and maintain inventory control.

This system can help pharmacy to handle the incomings and outgoings more smoothly and in a better way.

Our Pharmacy Management System aims to maintain inventory, incoming and outgoing of more smoothly and in a better way.

## **4) MOTIVATION**

When we visit Pharmacy store, we see following issues faced by pharmacist and customers:

- i. Time efficiency
- ii. Ambiguity about availability of medicine.
- iii. Maintaining large scale of data manually.

So, in a medical store doing manual work, having a huge queue of customers can lead to above mentioned issues. So, by implementing a medical management system can help build an efficient Pharmacy store and can lead to customer satisfaction.

Above mentioned issues are faced by all of us, our friends, family members in day-to-day life, this motivated us to think about solutions which lead to implementation of this project.

## 5) LITERATURE REVIEW

| Sr. No | Research Paper Name   | Proposed Methodology  | Limitations  |
|--------|---|---|--|
| 1.     | <b>Pharmacy Management System: A Review</b><br><br>Published in 2022.               | Makes use of DBMS. This data is also important for users of store systems such as Gilead Pharmacy in reducing medical errors and speculation caused by a lack of quick information about pharmacy continuity.   | Not provided any technical details.<br><br>Not provided any potential drawback.                              |
| 2.     | <b>Efficient Medical Management System for Pharmacist</b><br><br>Published in 2021. | To design maintenance software, we required Python, a powerful cross-platform language, any device with a Windows or GNU/Linux Interface, application and the dynamic content will be fulfilled by SQL.   | The paper only focuses on the perspective of pharmacist.   |
| 3.     | <b>Survey On Pharmacy Management System</b><br><br>Published in 2021.               | Record of patient and their transaction should be stored in an organized manner. Pharmacists maintain their sales record and other record and keep them updated in real time with the current stock of medicines they have with security of previous data getting stored in SQL database. | Not compared to the existing pharmacy management systems to determine its relative strengths and weaknesses. |



## 6) Methodology/ Proposed System Block Diagram

We have created a pharmacy management using PYTHON programming language.

We have created following modules for our system:

- 1) Add New Medicine : - Adding new entry for medicine.
- 2) Update : - Updating available medicine according.
- 3) Display whole slot : - Displaying all medicine information available in system.
- 4) Delete : - Deleting old and used information from system.
- 5) Search : - Searching needed medicine.
- 6) Maintain Database : - Maintaining Database easily.

We have used various libraries like Tkinter, PIL, SQLite3 for various function like GUI interface and Database file management.

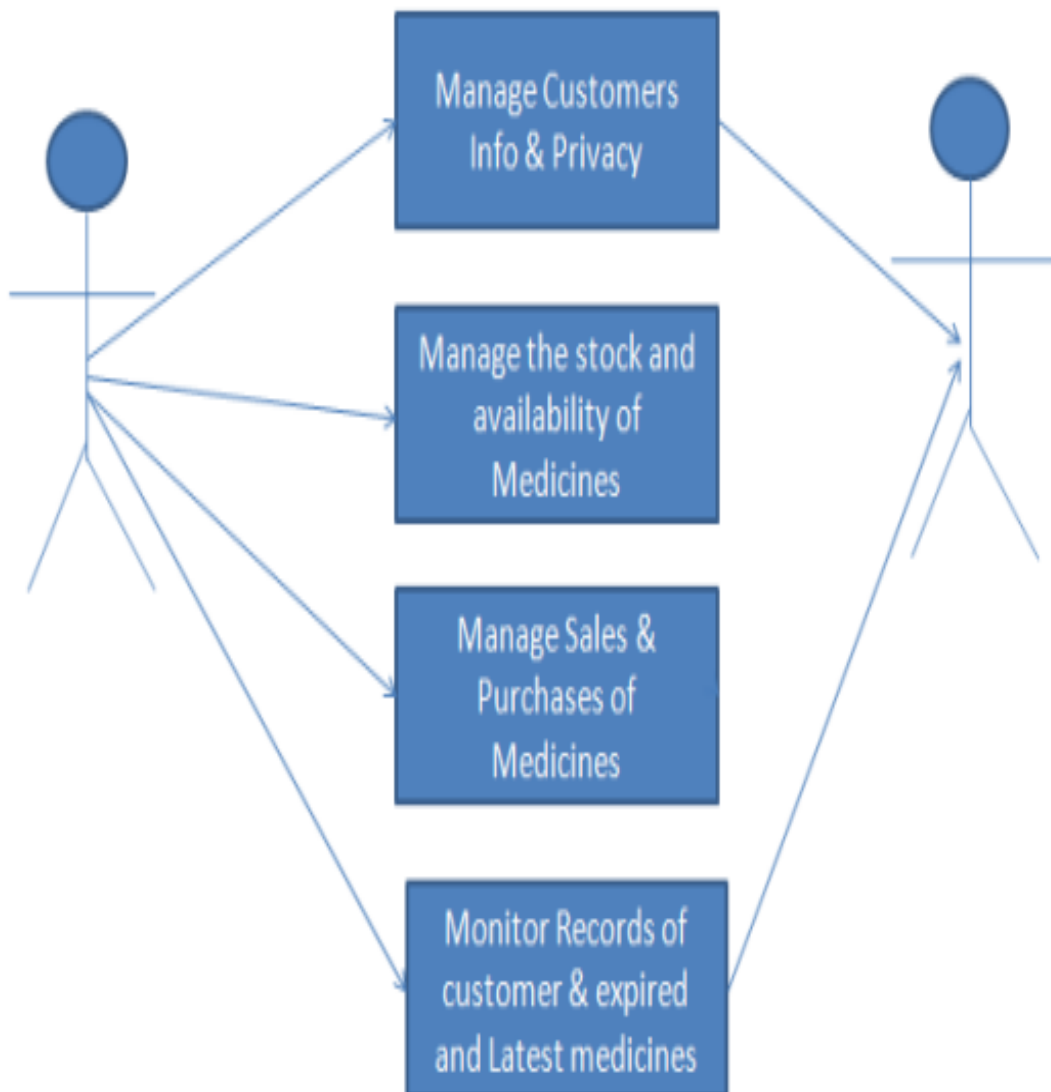
Above modules are shown in following image which are created for admin page.



| Ref No. | Company Name    | Type Of Medicine | Medicine Name | Lot No. | Issue Date | Expiry Date | Uses         | Side Effects | Prec & Warning    | Dosage    | Medicine Price | Product Qt. |
|---------|-----------------|------------------|---------------|---------|------------|-------------|--------------|--------------|-------------------|-----------|----------------|-------------|
| 101     | brufin industry | Capsule          | brufin        | 20012   | 24-05-2023 | 12-04-2025  | stomach pain | Drowsiness   | Avoid alcohol/for | 2 per day | 30             | 290         |

**User case diagram for**  
**PHARMACY MANAGEMENT SYSTEM**

**PHARMACY MANAGEMENT SYSTEM**



## **7) Software and Hardware Requirements**

### **Software Requirements:**

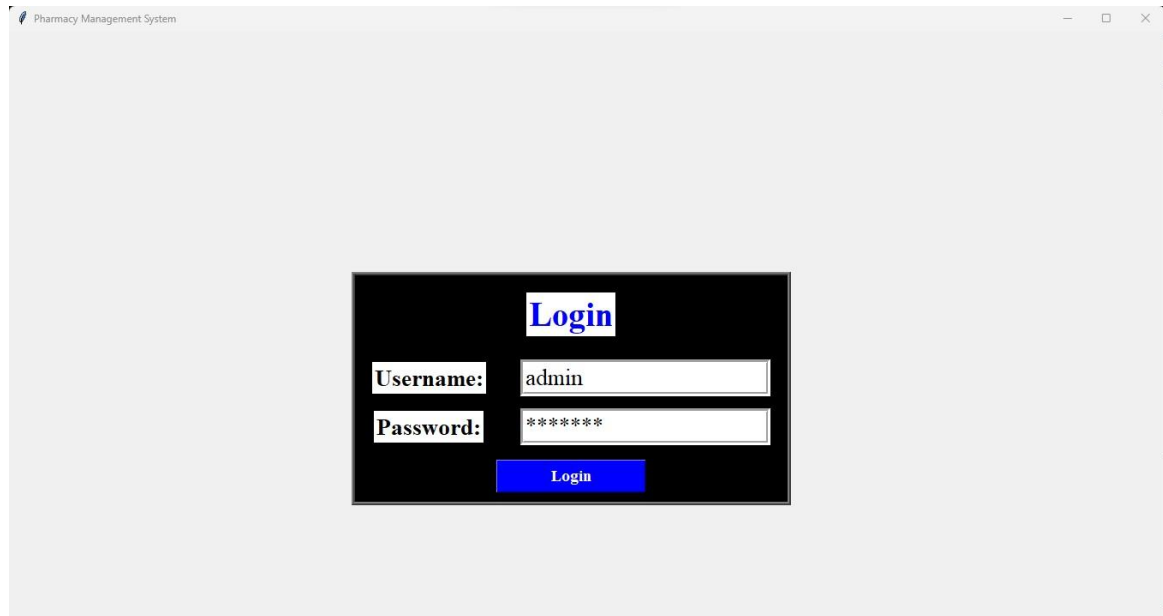
1. Frontend: Python
2. Backend: SQL Lite3
3. IDE: Visual Studio, PyCharm
4. Operating System: 64-bit OS Windows, MAC OS, Ubuntu
5. Libraries:
  - i. Tkinter
  - ii. PIL
  - iii. Random

### **Hardware Requirements:**

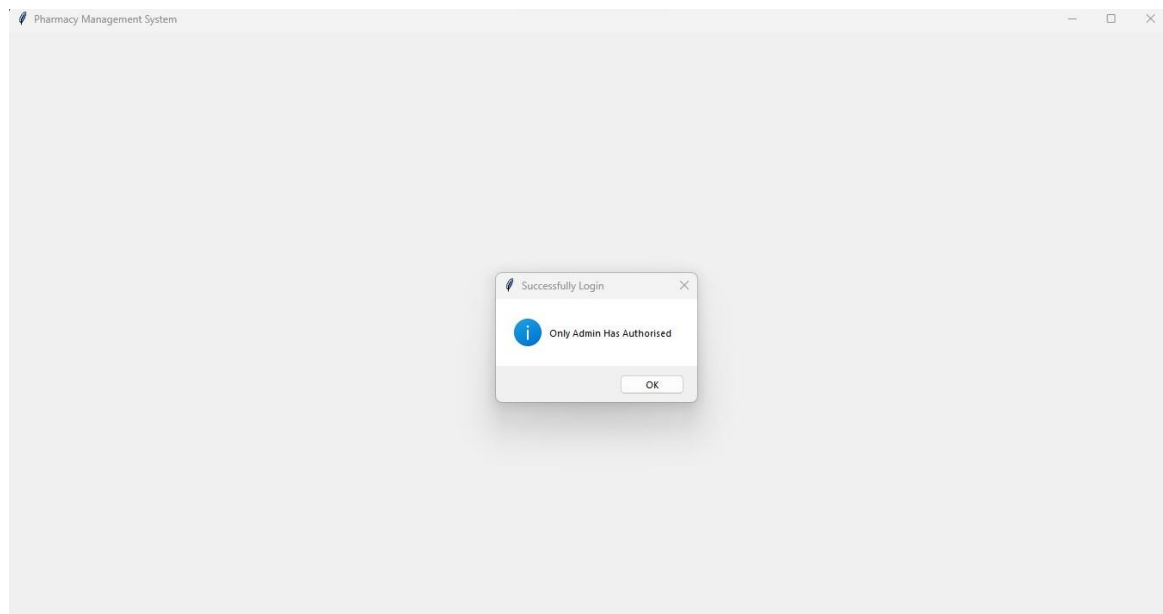
1. Processor: 11<sup>th</sup> Gen Intel® Core™ i3
2. RAM: 8 GB
3. Main Memory: 2GB
4. Peripherals: Color Monitor, Keyboard, Mouse

## 8) Implementation & Result

### 1) Admin Login Page



### Admin Login done successfully



## 2) Interface of software

Pharmacy Management System

# PHARMACY MANAGEMENT SYSTEM

**Medicine Information**
Reference No. :  Dosage :   
Company Name :  Tablet Price :   
Type Of Medicine :  Tablet Quantity :   
Medicine Name :   
Lot No. :   
Issue Date :   
Expiry Date :   
Uses :   
Side Effect :   
Prec & warning:



New Medicine Add department

Reference No:   
Med. Name:

| Ref | Medicine Name |
|-----|---------------|
| 100 | Paracetamol   |
| 101 | brufin        |
| 102 | desprine      |
| 103 | multivitamin  |

Add  
Update  
Delete  
Clear

Add Medicine Update Delete Reset Exit Search By  Search Show All

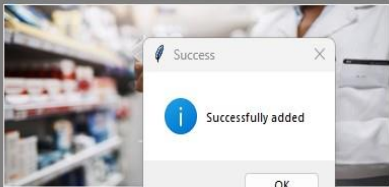
| Ref No. | Company Name     | Type Of Medicine | Medicine Name | Lot No. | Issue Date | Expiry Date | Uses               | Side Effects   | Prec & Warning     | Dosage           | Medicine Price | Product Qt. |
|---------|------------------|------------------|---------------|---------|------------|-------------|--------------------|----------------|--------------------|------------------|----------------|-------------|
| 100     | Mercury Drug Sto | Tablet           | Paracetamol   | 100     | 02-11-2022 | 02-28-2025  | Fever              | vomit          | dont use to much   | 3 per day        | 10             | 100         |
| 102     | desk industry    | Tablet           | desprine      | 20220   | 10-10-2021 | 10-11-2024  | headache and bo    | no side effect | no precution       | 1 per day        | 10             | 200         |
| 103     | vita industry    | Capsule          | multivitamin  | 1005    | 21-03-2023 | 21-05-2024  | physical strength  | no side effect | use minimum        | 1 per day        | 50             | 350         |
| 104     | soft industry    | Drops            | softvisc      | 2002    | 24-12-2023 | 24-01-2025  | increase eye visio | headache       | keer in cold place | 2 drops in 1 day | 250            | 120         |
| 101     | med industry     | Tablet           | brufin        | 1025    | 12-04-2022 | 12-04-2023  | headache           | no side effect | keep in cold plac  | 2 per day        | 20             | 300         |

## 3) Medicine Added Successfully

Pharmacy Management System

# PHARMACY MANAGEMENT SYSTEM

**Medicine Information**
Reference No. :  Dosage :   
Company Name :  Tablet Price :   
Type Of Medicine :  Tablet Quantity :   
Medicine Name :   
Lot No. :   
Issue Date :   
Expiry Date :   
Uses :   
Side Effect :   
Prec & warning:



New Medicine Add department

Reference No:   
Med. Name:

| Ref | Medicine Name |
|-----|---------------|
| 100 | Paracetamol   |
| 101 | brufin        |
| 102 | desprine      |
| 103 | multivitamin  |

Add  
Update  
Delete  
Clear

Add Medicine Update Delete Reset Exit Search By  Search Show All

| Ref No. | Company Name  | Type Of Medicine | Medicine Name | Lot No. | Issue Date | Expiry Date | Uses  | Side Effects | Prec & Warning     | Dosage    | Medicine Price | Product Qt. |
|---------|---------------|------------------|---------------|---------|------------|-------------|-------|--------------|--------------------|-----------|----------------|-------------|
| 100     | para industry | Tablet           | Paracetamol   | 1002    | 24-12-2022 | 25-12-2024  | fever | Nausea       | Check for interact | 2 per day | 20             | 340         |

#### 4) Medicine Updated Successfully

Pharmacy Management System

## PHARMACY MANAGEMENT SYSTEM

**Medicine Information**
Reference No. :   
Company Name :   
Type Of Medicine :   
Medicine Name :   
Lot No. :   
Issue Date :   
Expiry Date :   
Uses :   
Side Effect :   
Prec & warning :   
Dosage :   
Tablet Price :   
Tablet Quantity :   

Stay Home Stay Safe

**New Medicine Add department**

Reference No: 100  
Med. Name: Paracetamol

| Ref | Medicine Name |
|-----|---------------|
| 100 | Paracetamol   |
| 101 | brufin        |
| 102 | desprine      |
| 103 | multivitamin  |

Add  
Update  
Delete  
Clear

Add Medicine Update Delete Reset Exit Search By Ref No. 104 Search Show All

| Ref No. | Company Name     | Type Of Medicine | Medicine Name | Lot No. | Issue Date | Expiry Date | Uses         | Side Effects | Prec & Warning     | Dosage    | Medicine Price | Product Qt. |
|---------|------------------|------------------|---------------|---------|------------|-------------|--------------|--------------|--------------------|-----------|----------------|-------------|
| 100     | para industry    | Tablet           | Paracetamol   | 1002    | 24-12-2022 | 25-12-2024  | fever        | Nausea       | Check for interact | 2 per day | 20             | 340         |
| 101     | brufin industry  | Capsule          | brufin        | 20012   | 24-05-2023 | 12-04-2025  | stomuch pain | Drowziness   | Avoid alcohol/fo   | 2 per day | 30             | 290         |
| 102     | desprin industry | Tablet           | desprine      | 12030   | 02-01-2023 | 02-04-2026  | headache     | Nausea       | Store properly     | 2 per day | 50             | 450         |

#### 5) Medicine Deleted Successfully

Pharmacy Management System

## PHARMACY MANAGEMENT SYSTEM

**Medicine Information**
Reference No. : 101  
Company Name : brufin industry  
Type Of Medicine : Capsule  
Medicine Name : brufin  
Lot No. : 20012  
Issue Date : 24-05-2023  
Expiry Date : 12-04-2025  
Uses : stomach pain  
Side Effect : Drowziness  
Prec & warning: Avoid alcohol/food conflict  
Dosage : 2 per day  
Tablet Price : 30  
Tablet Quantity : 290  

Stay Home Stay Safe

**New Medicine Add department**

Reference No: 100  
Med. Name: Paracetamol

| Ref | Medicine Name |
|-----|---------------|
| 100 | Paracetamol   |
| 101 | brufin        |
| 102 | desprine      |
| 103 | multivitamin  |

Add  
Update  
Delete  
Clear

Add Medicine Update Delete Reset Exit Search By Ref No. 101 Search Show All

| Ref No. | Company Name     | Type Of Medicine | Medicine Name | Lot No. | Issue Date | Expiry Date | Uses         | Side Effects | Prec & Warning     | Dosage    | Medicine Price | Product Qt. |
|---------|------------------|------------------|---------------|---------|------------|-------------|--------------|--------------|--------------------|-----------|----------------|-------------|
| 100     | para industry    | Tablet           | Paracetamol   | 1002    | 24-12-2022 | 25-12-2024  | fever        | Nausea       | Check for interact | 2 per day | 20             | 340         |
| 101     | brufin industry  | Capsule          | brufin        | 20012   | 24-05-2023 | 12-04-2025  | stomuch pain | Drowziness   | Avoid alcohol/fo   | 2 per day | 30             | 290         |
| 102     | desprin industry | Tablet           | desprine      | 12030   | 02-01-2023 | 02-04-2026  | headache     | Nausea       | Store properly     | 2 per day | 50             | 450         |

## **9) Challenges Faced**

While implementing our PBL project PHARMACY MANAGEMNET SYSTEM, we have faced following challenges:

1. Installing different inbuilt Python Packages.
2. Creating a database file and importing in a program.
3. Solving runtime errors.
4. Finding the system bugs and fixing them.

To solve the challenges faced we have explored internet.



## 10) Conclusion

We have concluded the following results by implementing the **PHARMACY MANAGEMNET SYSTEM**:

- The effective implementation of this software will manage all the needs of pharmacy.
- It can provide easy and effective storage of information related to activities happening in the Medical Store.
- Due to automation the pharmacist does his or her work much faster.

## Future Scope

In future we can add some new features and changes that we want, which will make the system more user-friendly.

- This system helps pharmacists to improve supply, cost, management, and sales from the inventory.
- But the parts that can be further developed are, creation of a login page for the owner, maintaining the record of the suppliers, creating appointment facility for doctor system.
- This system can also be made to develop a management system for shopkeepers.



## 11) References

1. Python for Desktop Applications: How to develop, pack and deliver Python applications with Tkinter by Tran Duc Loi.
2. Python in a Nutshell: A Desktop Quick Reference, Third Edition by Alex Maratelli, Anna Ravenscroft, Steve Hoiden.
3. <https://ijesc.org/upload/4c640fa99bfccdcf6f90430972e263e6.Pharmacy%20Management%20System%20A%20Review.pdf>
4. W. J. Bicket, J. P. Gagnon. (1981). Purchase and inventory control for hospital pharmacies. Topics in hospital pharmacy management / Aspen Systems Corporation
5. **www.ijettcs.org**
6. [https://aipublications.com/uploads/issue\\_files/7IJEED-JUN20218-Pharmacy.pdf](https://aipublications.com/uploads/issue_files/7IJEED-JUN20218-Pharmacy.pdf)
7. [https://www.irjmets.com/uploadedfiles/paper/volume\\_3/issue\\_12\\_december\\_2021/18007/final/fin\\_irjmets1641021488.pdf](https://www.irjmets.com/uploadedfiles/paper/volume_3/issue_12_december_2021/18007/final/fin_irjmets1641021488.pdf)
8. <https://www.ijettcs.org/Volume5Issue5/IJETTCS-2016-10-26-40.pdf>
9. <https://learnprogramo.com/medical-store-management-system-project-in-c-download-with-code-1/>
10. <https://projectworlds.in/tag/medical-store-management-system-c-code/>