- Project Title: Health Care Management System
- Course Code: CSE2004
- Course Title: Database Management Systems
- Class Number: **CH2020211700469**
- Semester: Winter 2020-21
- Slot: D1
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ABSTRACT

The purpose of the project entitled as “HealthCare Management System” is to computerize end to end management of Hospital by developing software which is user friendly simple, fast, and cost effective.

The main function of the system is to register and store patient and doctor’s details, create appointments for patient for specialized doctor and to generate the prescription by doctor. It also generates a sales report after the drugs are purchased. Any update or deletion of these details can also be done as and when required.

The login into the Health Care Management System is using a username and password. User can be created by two roles: Admin and Receptionist. The data can be retrieved easily by patient, doctor, Receptionist or pharmacist according to their role. The interface is very user-friendly

Introduction

To develop a Health Care Management system, we take care of patient registration, Doctor Registration, Appointment Management for Patients and Doctors, Prescription and drug information and sales reports generated by the Pharmacist.

Currently there is manual system in many healthcare clinics which is slow laborious and error prone, hence the need to computerize the same for quicker efficient results and customer satisfaction. The system is designed for multispecialty health clinics.

Project Motive

With every going day, there is a need to have a centralized mechanism where the inflow of outpatient request exceeds that which can be handled manually. Hence computerization of patient registration, create appointments for specialized doctors for the required patients, create prescriptions and also to maintain the drugs for the pharmacists through the computerization to bring better satisfaction.

Creating of automatic receipt would mean better service to the patients. It would also help in reducing the complexity of maintaining the records manually and thus less time is wasted on rework. In order to achieve this, the computerization of the Health Centre will help greatly in maintaining of proper information about the out patients, doctors, automatic room booking for patients appointments, generating prescriptions by the doctor, patients records and daily dispatching of the drugs to various patients, creating of sales reports for the pharmacists.

To develop a Heath Care Management system as from manual system to computerized system, and to maintain a centralized system for Patients, Doctor and Pharmacist. The current manual system is slow, tedious and error prone.

Main Features in this project:

- Maintaining records of indoor/outdoor patients

- Maintaining records of specialized Doctor
- Maintaining the appointment for patients for specified doctors
- Maintaining patient's prescription and medicines
- Providing billing details for the drugs purchased by the patients.
- Sales reports can be generated by the pharmacists

This project consists of three roles of login system known as the Doctor and Receptionist and Pharmacist. The system shall be secure enough and only accessible via valid usernames and passwords for each user.

Receptionist

- On discussing the receptionist's power on the project, the receptionist has full access to the system.
- Receptionist shall be to able create the user types(Doctor, Receptionist, Patient, Pharmacist).

Patient

- Receptionist shall be able to add the patient details.
- Receptionist shall be able to retrieve the patient details.
- Receptionist shall be able to able edit and delete the patient details.

Doctors

After creating the doctor by user, doctor shall be to login in to the system.

- Doctors shall be able to fill the registration form.
- Doctors shall be able to retrieve their details.
- Doctors shall be able to view the appointment details.
- After examining the patient, doctor shall be able to click the prescription button. It will take you to the prescription form for writing the prescription.
- Doctors shall be able to retrieve the prescription details.

Pharmacist

- Pharmacist shall be able to add the pharmacy items.
- Pharmacist shall be able to view the prescription details upon requested by doctor.
- Pharmacist shall be able to handle the inventory of the drugs.

- Pharmacist shall be able to generate the sales report

METHODOLOGY IN DEVELOPING PROJECT

The general methodology in developing a system is involved in different phases, which describe the system's life cycle model (software development lifecycle model) for developing software project. Like most systems, the life cycle of the computer based system also exhibits distinct phases.

As part of Requirement Analysis, the general requirement is collected from smaller health clinics.

Current system

Hospitals currently use a manual system for the management and maintenance of critical information. The current system requires numerous paper forms and often information is incomplete or does not follow any standards. Multiple copies of the same information exist in the hospital and may lead to inconsistencies in data in various data stores.

Proposed System

The Health Care Management System is designed for any hospital to replace their existing manual paper based system. The new system is to control the information of patients. Room availability, generate prescription and provide sales reports for pharmacists. These services are to be provided in an efficient, cost effective manner, with the goal of reducing the time and resources currently required for such tasks.

Software Specifications

The system application is designed in Java (Frontend) and database as MySQL. The webserver used is XAMPP server. NetBeans is used as IDE for developing the Java code. JDBC connectivity used for database connectivity (mysql-connector-java-5.1.47).

Design:

The requirements are collected and Entity relation diagram is drawn. From the ER diagram, the tables are finalized after normalization. The insert, update and select queries from specified tables are finalized and then code developed in Java.

Database Design (ER diagram, Tables, Normalization)

System Specification

- **Hardware requirement**

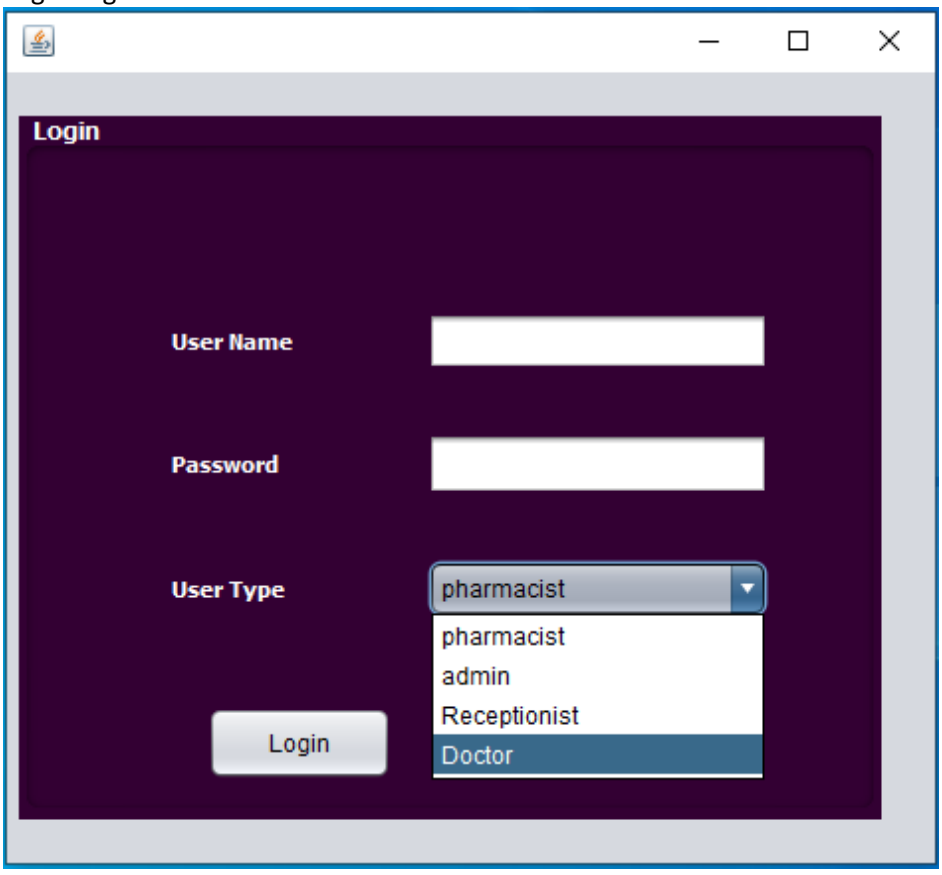
Processor - Intel Celeron class Processor with 2.0 GHz

RAM	-	256 MB
Hard Disk	-	40 GB
Keyboard	-	101 keys
Mouse	-	Any pointing device

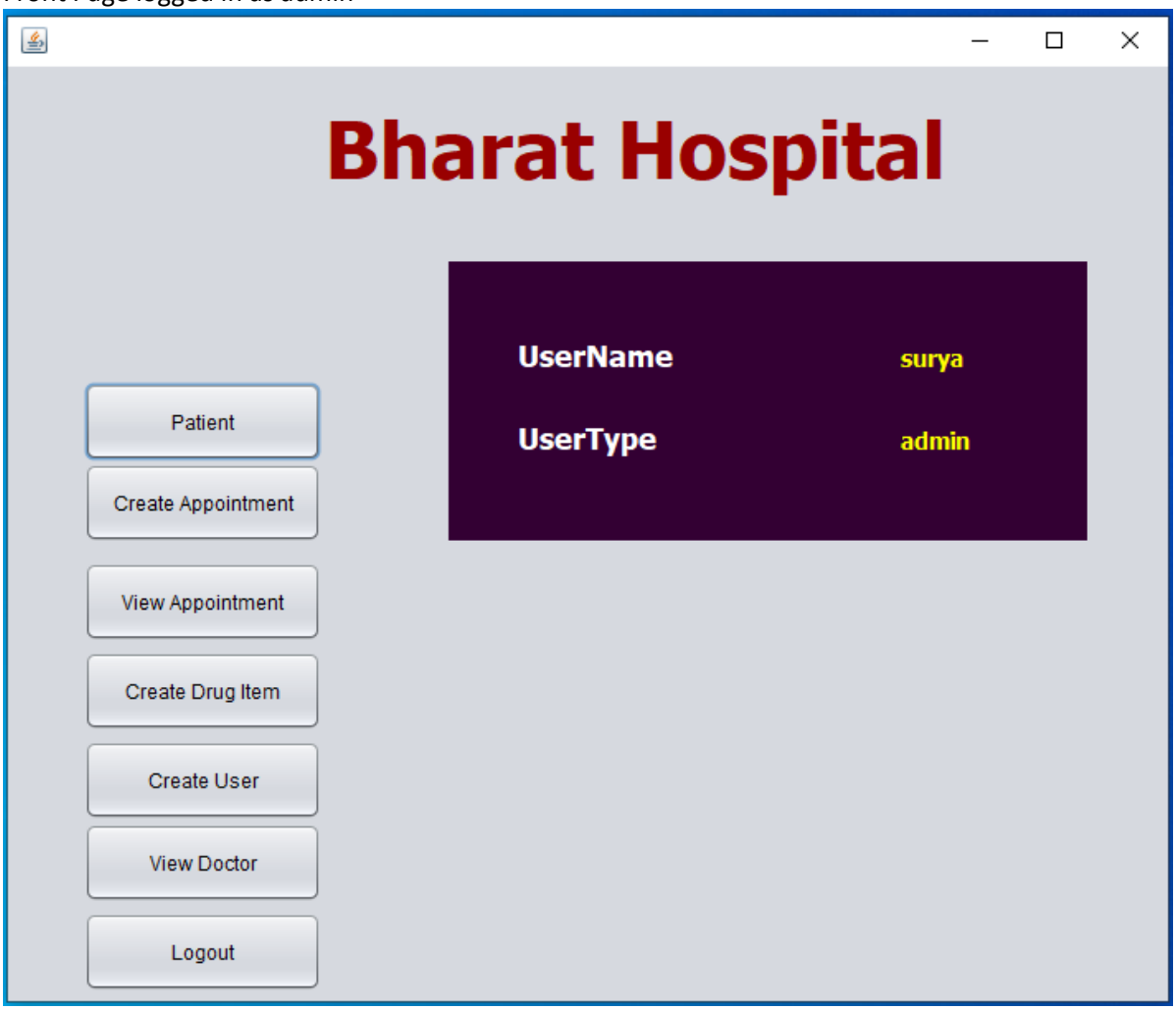
- **Software requirement**
  - Front end:
    - Java
  - IDE:
    - NetBeans
  - Webserver:
    - XAMPP Server
  - Back end:
    - MySQL
    - JDBC
  - Operating System:
    - Windows 10

SAMPLE SCREENSHOTS

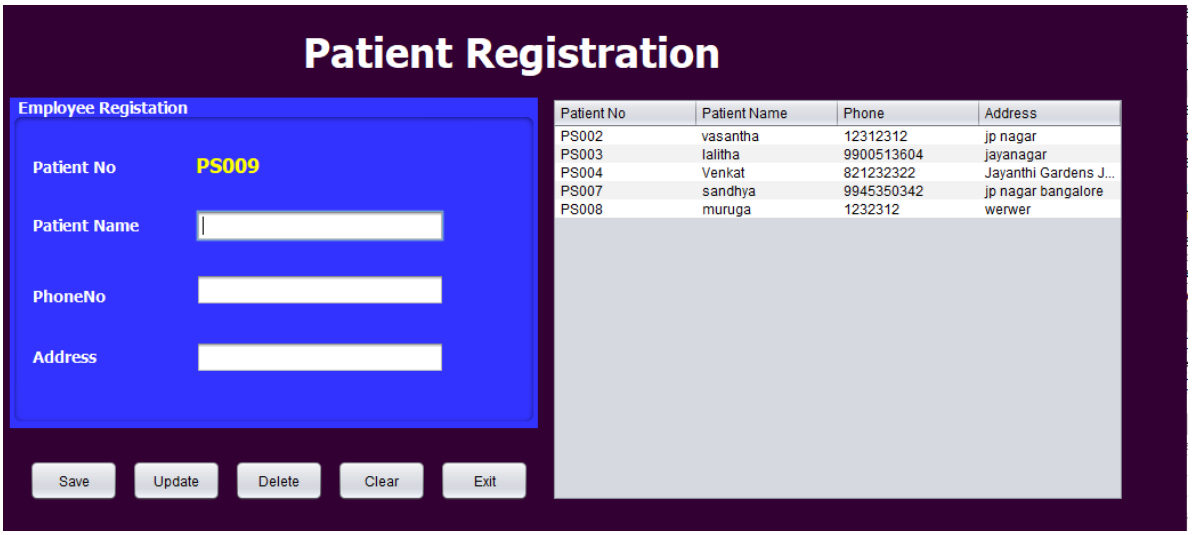
Login Page



Front Page logged in as admin



Patient


Patient Registration
Employee Registation
Patient No
PS009
Patient Name
PhoneNo
Address
Save
Update
Delete
Clear
Exit
Patient No
Patient Name
Phone
Address
PS002
vasantha
12312312
jp nagar
PS003
lalitha
9900513604
jayanagar
PS004
Venkat
821232322
Jayanthi Gardens J...
PS007
sandhya
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jp nagar bangalore
PS008
muruga
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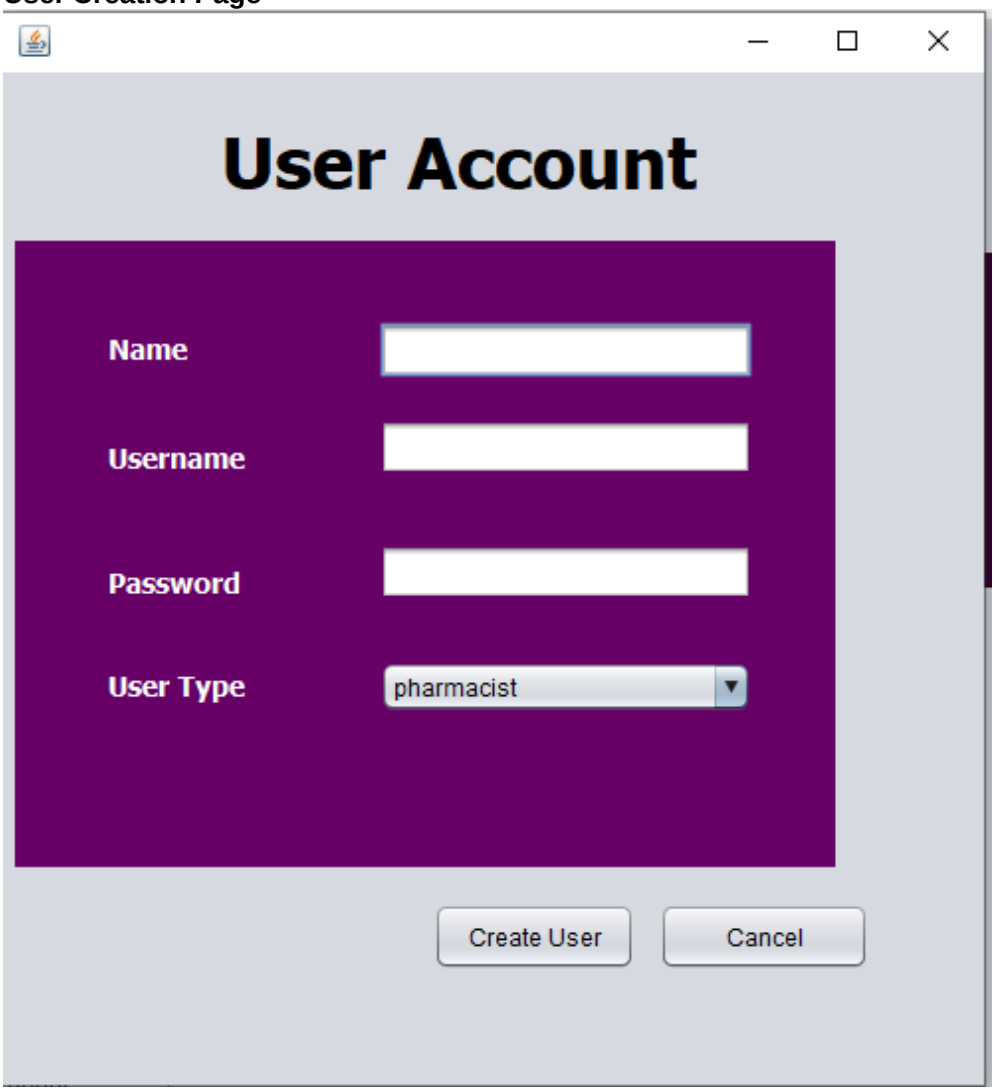
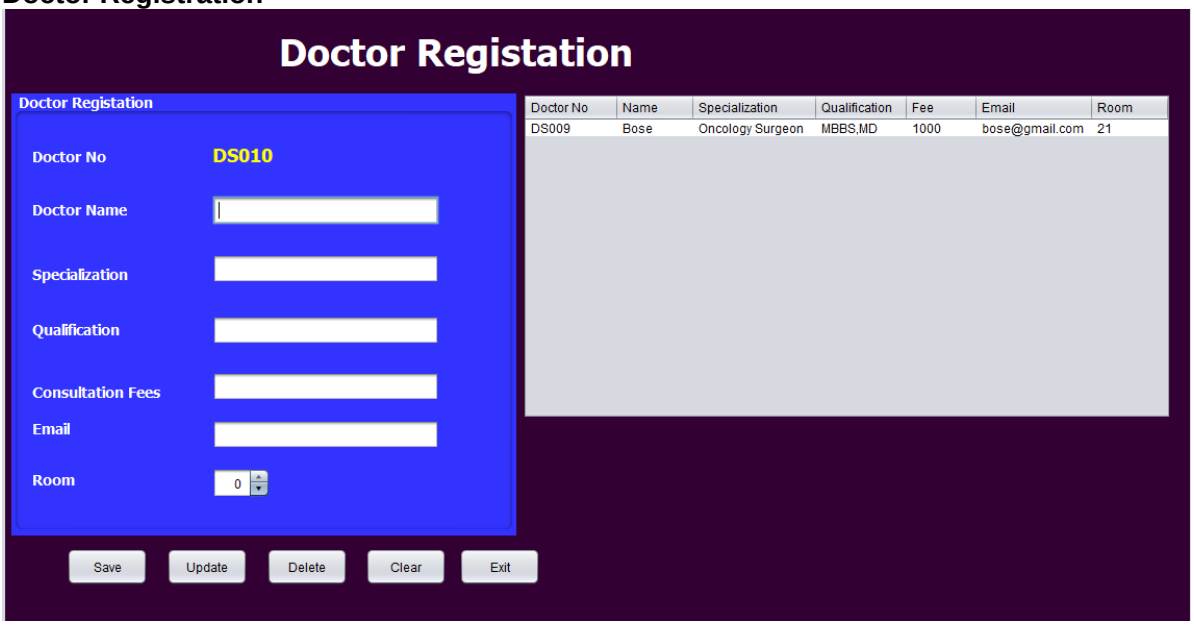
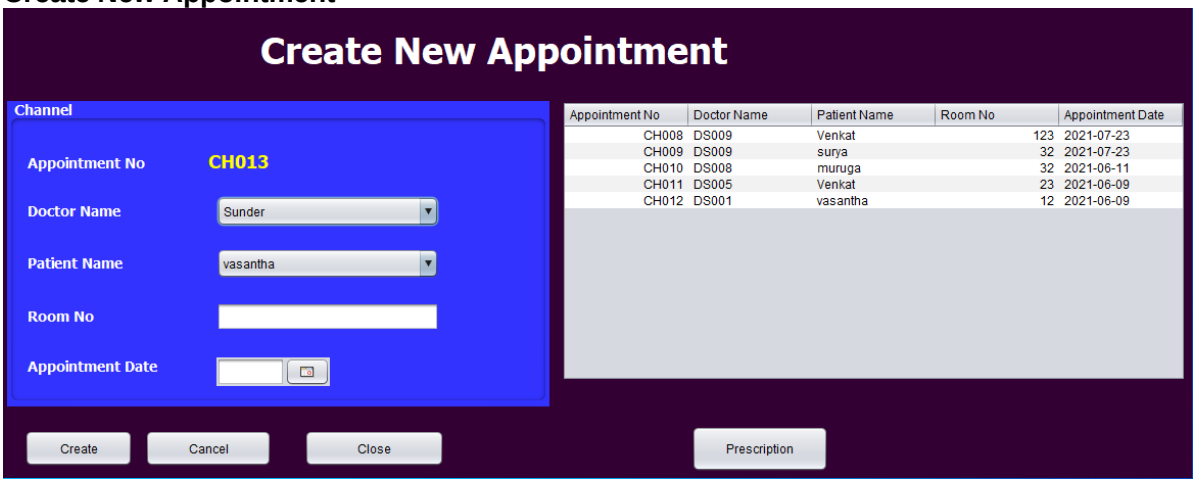
User Creation Page



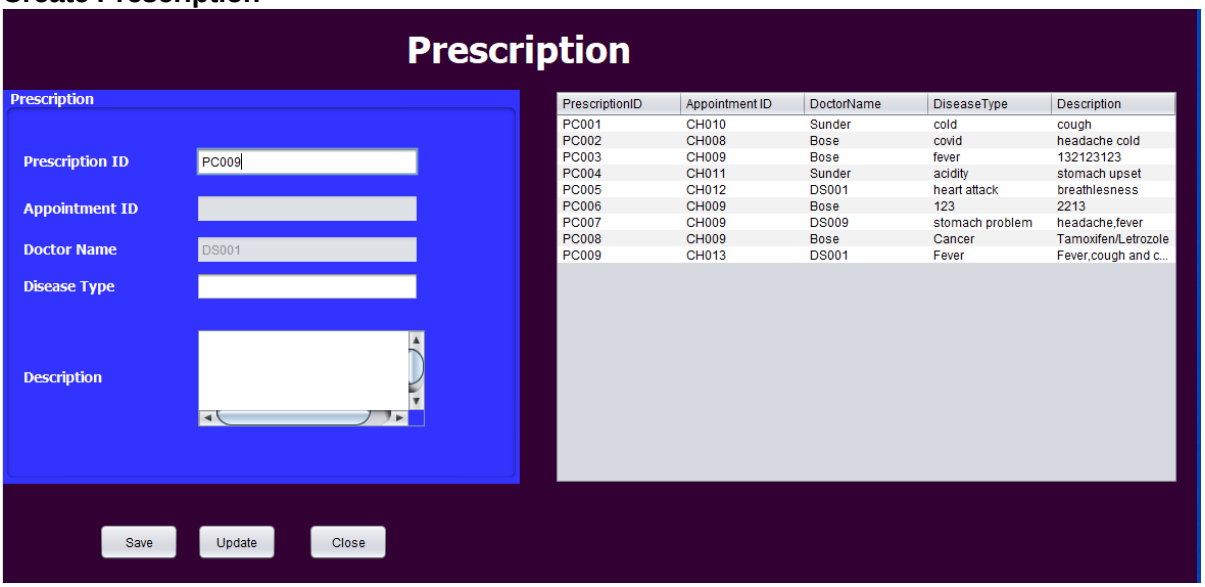
Doctor Registration



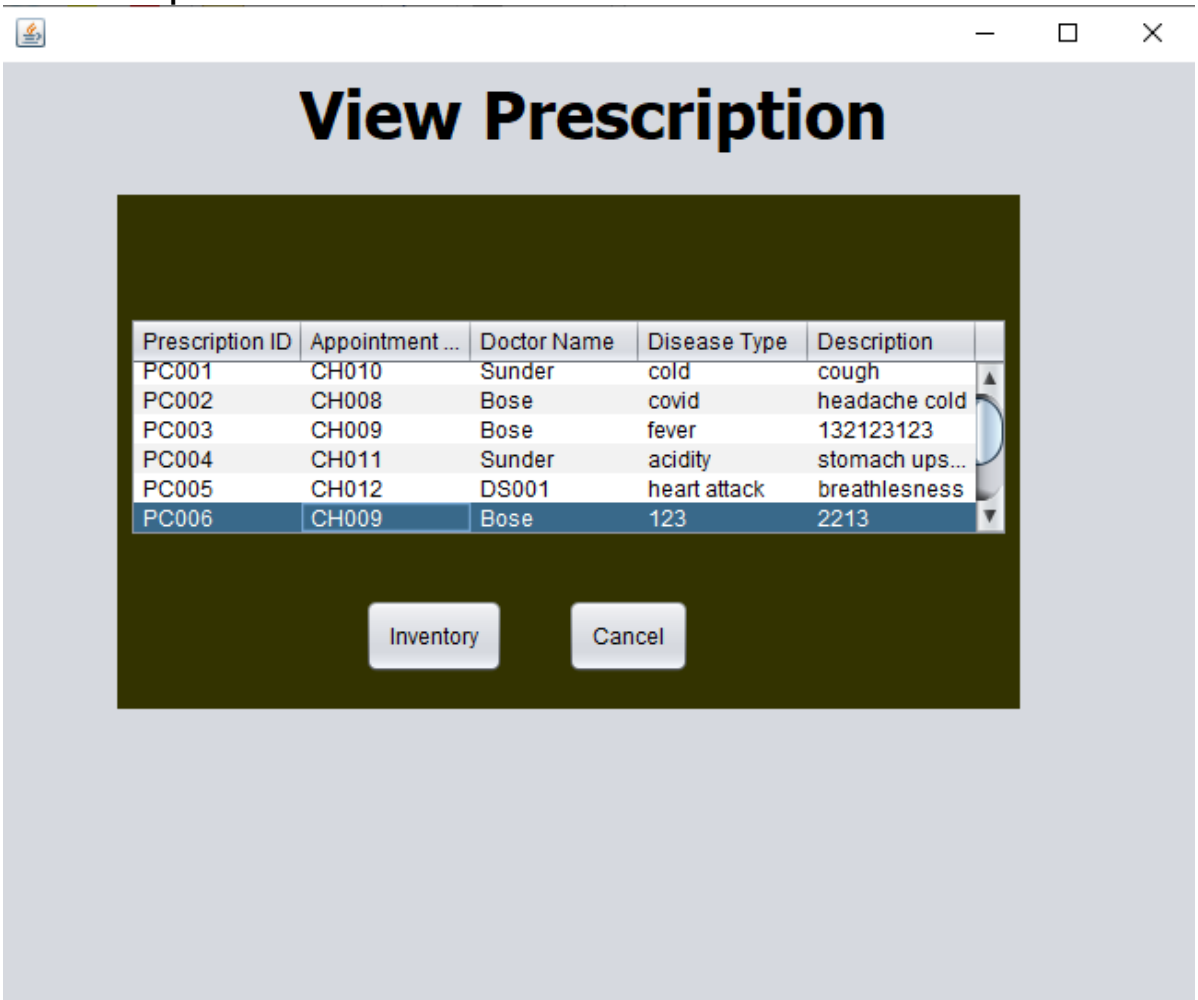
Create New Appointment



Create Prescription

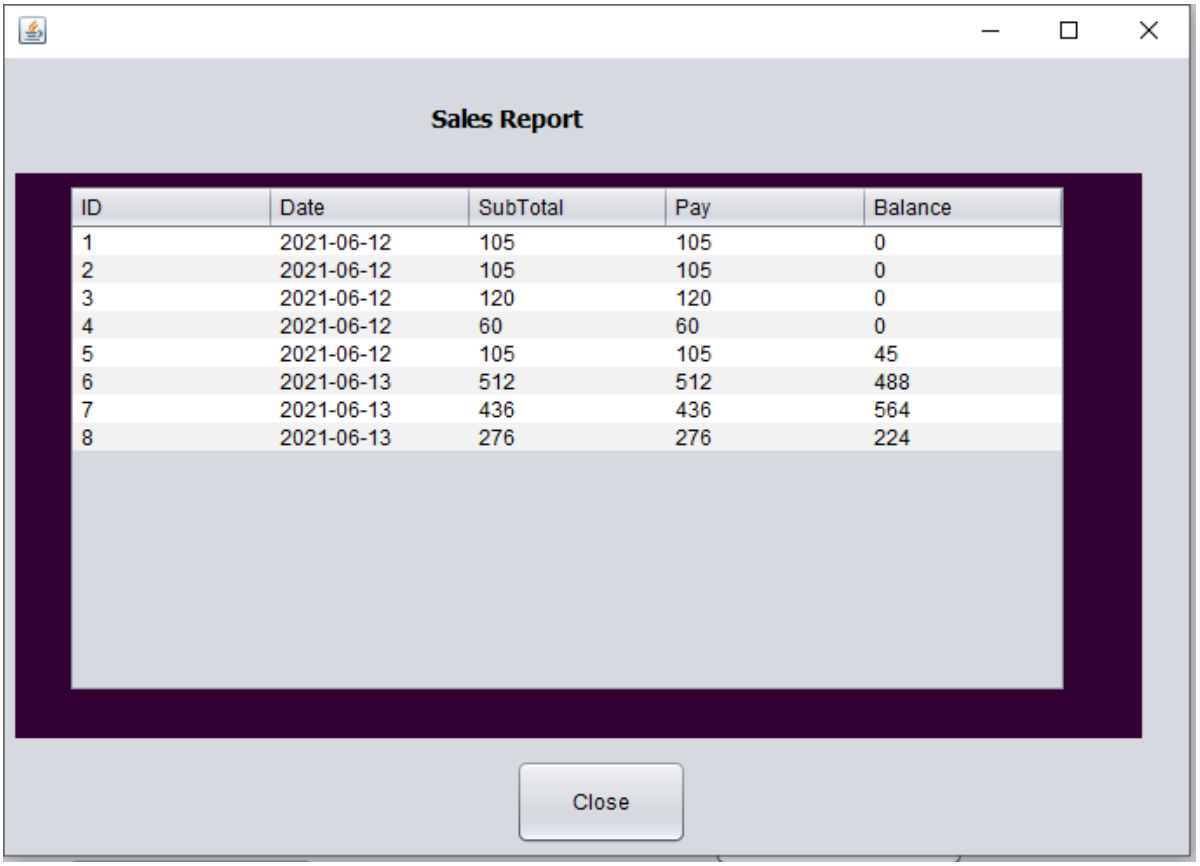


View Prescription

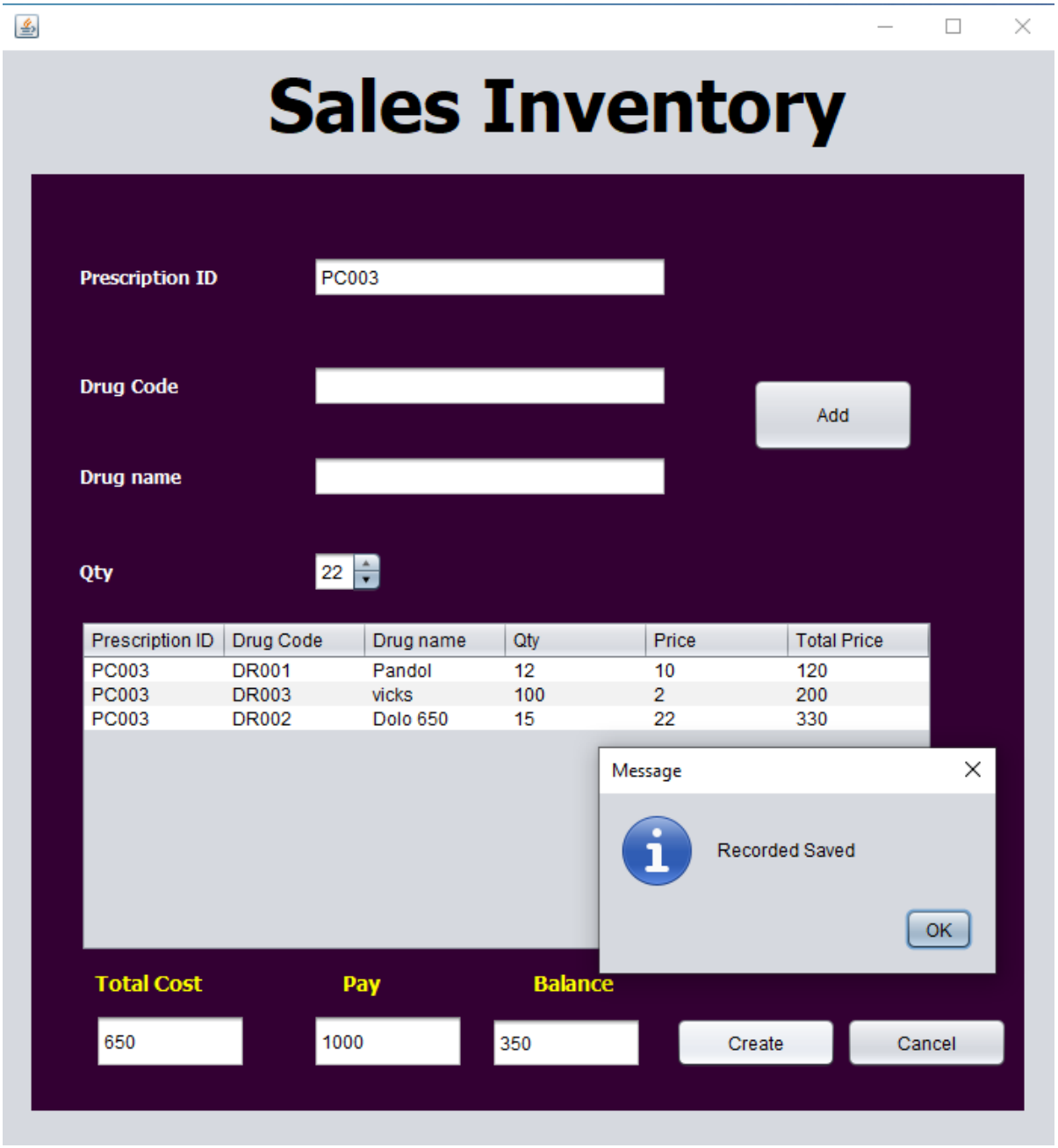


Create New Drug

Sales Report for Drugs



Sales Inventory for Drugs



Conclusion

The project Health Care Management System is for computerizing the working for a simple multispecialty healthcare system. It takes care of all the requirements of a hospital and is capable to provide easy and effective storage of information related to patients coming to the hospital. It automates the patient, doctor registration, generates prescription automatically for patient and doctor. It also provides sales report for the pharmacist associated in the same system.