PHARMACY MANAGEMENT SYSTEM

PROJECT REPORT

FOR EDUCATIONAL TRAINING

BACHELOR OF TECHNOLOGY DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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(APPROVED BY A.I.C.T.E , NEW DELHI & AFFILIATED BY RTU, Kota) RIICO INDUSTRIAL AREA KALADWAS, UDAIPUR





SESSION 2020-2021

This is to certify that SAYYAD SARFRAZ ALI, VIVEK KUMAR, TUSHAR YADAV, SAMEER SHEIKH II year Students of department of Computer Science and Engineering of Techno India NJR Institute of Technology have successfully completed project on "Pharmacy Management System".

Mr. Gaurav Kumawat

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ABSTRACT

Description:-

This program can be used in any pharmaceutical shops having a database to maintain. The software used can generate reports, as per the user's requirements. The software can print invoices, bills, receipts etc. It can also maintain the record of supplies sent in by the supplier. Here, the admin who are handling the organization will be responsible to manage the record of the employee. Each employee will be given with a separate username and password.

Features :-

- Managing Information such as Adding, Updating, Deleting items such i.e Companies
 - , Agents and medicines
- Billing System also included
- User authentication
- Different interfaces corresponding to different user-levels

INTODUCTION

General Introduction:-

The main aim of the project is the management of the database of the pharmaceutical shop. This project is insight into the design and implementation of a Pharmacy Management System. This is done by creating a database of the available medicines in the shop. The primary aim of pharmacy management system is to improve accuracy and enhance safety and efficiency in the pharmaceutical store. The aim of this project is to develop software for the effective management of a pharmaceutical store. We have developed this software for ensuring effective policing by providing statistics of the drugs in stock.

Description on the topic:-

This program can be used in any pharmaceutical shops having a database to maintain. The software used can generate reports, as per the user's requirements. The software can print invoices, bills, receipts etc. It can also maintain the record of supplies sent in by the supplier. Here, the admin who are handling the organization will be responsible to manage the record of the employee. Each employee will be given with a separate username and password.

Problem Definition:-

The aim of the project is to create an effective software to help the pharmacist to maintain the records of the medicines, handle user details, generate invoice, check and renew validity and provide a scope of communication between users by using inbuilt messaging system. Pharmacy management system deals with the maintenance of drugs and consumables in the pharmacy unit. This pharmacy management system is user friendly.

SYSTEM ANALYSIS

Objectives :-

- -> Primary objective -
- •To gain practical experience by modeling a software based on real world problem.
- •To understand how to work on Front-end (Java) and Back-end (MySQL) by using server database.
- -> Secondary objective -
- •To develop an application that deals with the day to day requirement of any pharmacy.
- •To develop the easy management of the medicines (drugs).
- •To handle the inventory details like sales details, purchase details and stock expiry and quantity.
- •To provide competitive advantage to the pharmacy.
- •To provide details information about the stock on details necessary and help locate it in shop easily.
- •To make the stock manageable and simplify the use of inventory in the pharmacy.

HARDWARE & SOFTWARE SPECIFICATIONS

HARDWARE REQUIREMENTS:

Processor : Intel P-IV system

Processor Speed: 250MHz to 833MHz

RAM : 512MB RAM

Hard Disk : 40GB

SOFTWARE REQUIREMENTS:

Operating System : Windows XP

JAVA IDE : Apache NetBeans

Database : Sql Server

Database Connectivity: JDBC

SOFTWARE DESIGN

Software Implementation: -

JAVA JFRAME

The javax.swing.JFrame class is a type of container which inherits the java.awt.Frame class. JFrame works like the main window where components like labels, buttons, textfields are added to create a GUI.

Unlike Frame, JFrame has the option to hide or close the window with the help of setDefaultCloseOperation(int) method.

Iframe features-

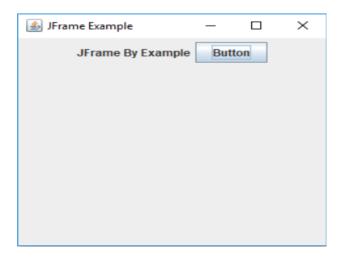
- JIt's a window with title, border, (optional) menu bar and user-specified components.
- It can be moved, resized, iconified.
- It is not a subclass of JComponent.
- Delegates responsibility of managing user-specified components to a content pane, an instance of JPanel.

Jframe use-

Whenever you create a graphical user interface with Java Swing functionality, you will need a container for your application. In the case of Swing, this container is called a JFrame. All GUI applications require a JFrame.

Jframe Example-

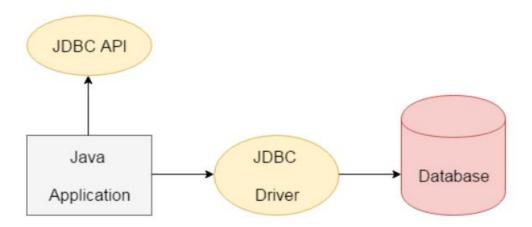
```
1. import java.awt.FlowLayout;
2. import javax.swing.JButton;
3. import javax.swing.JFrame;
4. import javax.swing.JLabel;
5. import javax.swing.Jpanel;
6. public class JFrame Edureka{
7. public static void main(String s[]) {
8. JFrame frame = new JFrame("JFrame Example");
9. JPanel panel = new JPanel();
10.panel.setLayout(new FlowLayout());
11.JLabel label = new JLabel("JFrame By Example");
12.JButton button = new JButton();
13.button.setText("Button");
14.panel.add(label);
15.panel.add(button);
16.frame.add(panel);
17.frame.setSize(200, 300);
18.frame.setLocationRelativeTo(null);
19.frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
20.frame.setVisible(true);
21.}
22.}
```



JDBC

JDBC stands for Java Database Connectivity. JDBC is a Java API to connect and execute the query with the database. It is a part of JavaSE (Java Standard Edition). JDBC API uses JDBC drivers to connect with the database. There are four types of JDBC drivers:

- JDBC-ODBC Bridge Driver.
- Native Driver.
- Network Protocol Driver.
- Thin Driver.



We can use JDBC API to handle database using Java program and can perform the following activities:

- 1. Connect to the database
- 2. Execute queries and update statements to the database
- 3. Retrieve the result received from the database.

Java Database Connectivity with MySQL-

To connect Java application with the MySQL database, we need to follow 5 following steps.

In this example we are using MySql as the database. So, we need to know following informations for the MySQL database:

- **Driver class:** The driver class for the mysql database is **com.mysql.jdbc.Driver**.
- Connection URL: The connection URL for the mysql database is jdbc:mysql://localhost:3306/JDBC where jdbc is the API, mysql is the database, localhost is the server name on which mysql is running, we may also use IP address, 3306 is the port number and JDBC is the database name. We can use any database name we need, just replace JDBC with any other database name.
- **Username:** The default username for the mysql database is **root**.
- **Password:** It is the password given by the user at the time of installing the mysql database. In this example, we are going to use root as the password.

SQL

SQL stands for Structured Query Language. It is used for storing and managing data in relational database management system (RDMS). It is a standard language for Relational Database System. It enables a user to create, read, update and delete relational databases and tables.

Important SQL commands-

1. SELECT

The SELECT statement is used to select data from a database. The data returned is stored in a result table, called the result-set.

SELECT SYNTAX-

SELECT column1, column2, ...

FROM table_name;

2. INSERT INTO

The INSERT INTO statement is used to insert new records in a table.

INSERT INTO SYNTAX-

INSERT INTO table_name (column1, column2, column3, ...)

VALUES (value1, value2, value3, ...);

3. UPDATE

The UPDATE statement is used to modify the existing records in a table.

UPDATE SYNTAX-

UPDATE table_name

 $SET\ column1 = value1,\ column2 = value2,\ ...$

WHERE condition;

WHERE CLAUSE IS USED SO THAT ONLY REQUIRED FIELDS ARE UPDATED, OMITTING WHERE CLAUSE COULD RESULT IN UPDATING ALL RECORDS IN TABLE

4. DELETE

The DELETE statement is used to delete existing records in a table.

DELETE SYNTAX-

DELETE FROM table_name WHERE condition;

WHERE CLAUSE IS USED TO DELETE ONLY REQUIRED FIELDS, OMITTING WHERE CLAUSE COULD RESULT IN DELETING ALL RECORDS IN TABLE

DATA FLOW DIAGRAM

Pharmacy Management System Data flow diagram is often used as a preliminary step to create an overview of the Pharmacy without going into great detail, which can later be elaborated.it normally consists of overall application dataflow and processes of the Pharmacy process. It contains all of the userflow and their entities such all the flow of Pharmacy, Medicines, Agents, Company, Sells, Login. The below diagrams has been used for the visualization of data processing and structured design of the Pharmacy process

Zero Level Data Flow Diagram (0 Level DFD] Of Pharmacy Management System:-

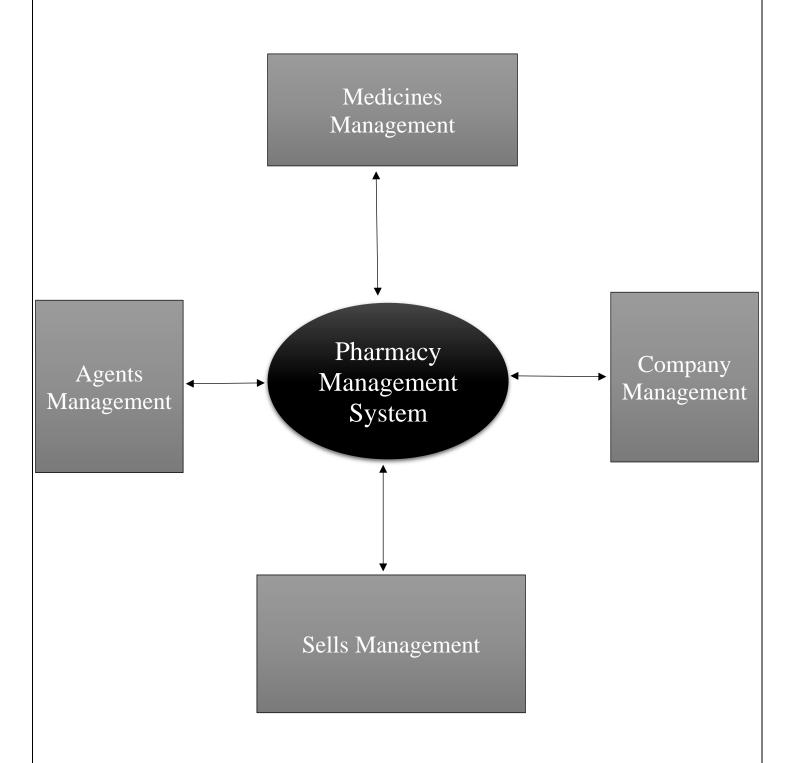
This is the Zero Level DFD of Pharmacy Management System, where we have eloborated the high level process of Pharmacy. It's a basic overview of the whole Pharmacy Management System or process being analyzed or modeled. It's designed to be an at-a-glance view of Sells, Agents record, Medicines, Companies record and Login showing the system as a single high-level process, with its relationship to external entities of Pharmacy, Medicines. It should be easily understood by a wide audience, including Pharmacy and Sells In zero leve DFD of Pharmacy Management System, we have described the high level flow of the Pharmacy system.

High Level Entities and process flow of Pharmacy Management System:-

- Managing all the Agents
- Managing all the Medicines
- Managing all the Company

• Managing all the Sells

Zero Level Data Flow:-



ER Diagram

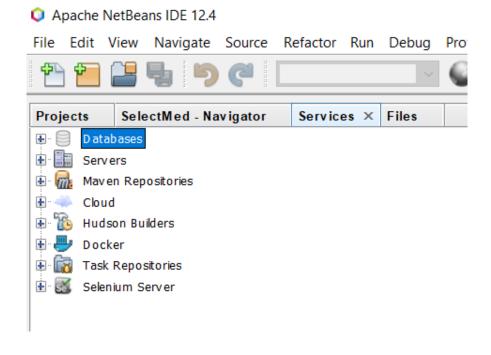
This ER (Entity Relationship) Diagram represents the model of Pharmacy Management System Entity. The entity-relationship diagram of Pharmacy Management System shows all the visual instrument of database tables and the relations between Medicines, Company, Pharmacy, Sells etc. It used structure data and to define the relationships between structured data groups of Pharmacy Management System functionalities. The main entities of the Pharmacy Management System are Pharmacy, Medicines, Stocks, Company, and Sells.

Pharmacy Management System entities and their attributes:

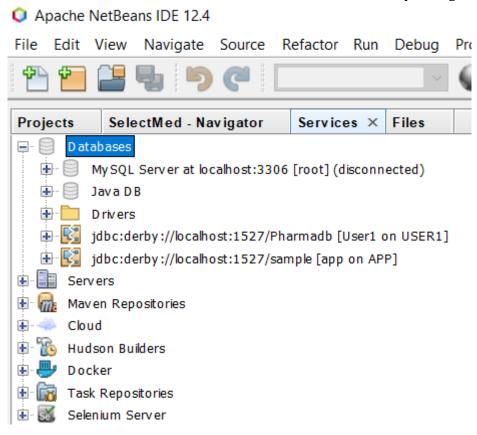
- Agents Entity: Attributes of Agents are Agent id, Agent name, Agent age, Agent password, Agent gender, Agent phone.
- Medicines Entity: Attributes of Medicines are medicine id, medicine name, medicine company, medicine price, medicine quantity, medicine mfg_date, medicine exp_date.
- Company Entity: Attributes of Company are company id, company name, comapny experience, company phone, company address.
- Selling Entity: Attributs of Selling are bill_no, medicines_name, medicines_qty.

DATABASE DESIGN

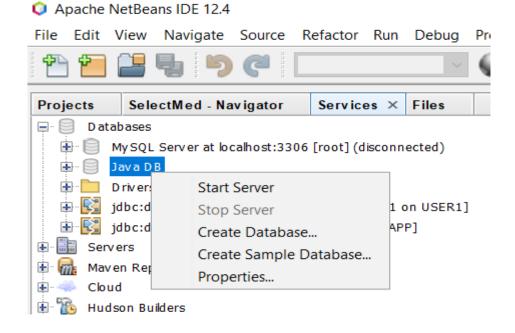
• Step 1 – In NetBeans IDE got to Services option and click on + symbol in databases



• Step 2 – Right click on **Java DB**



• Step 3 – Click on **Create database**



• Step 4 – Fill details and click **ok**.

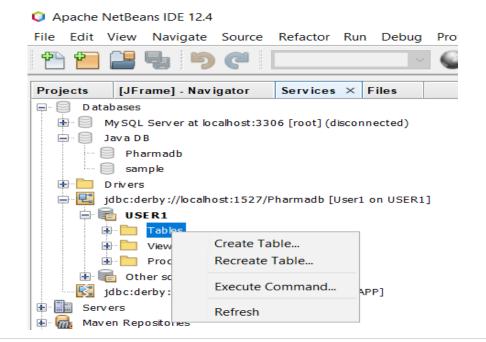
Pharmacy Management System



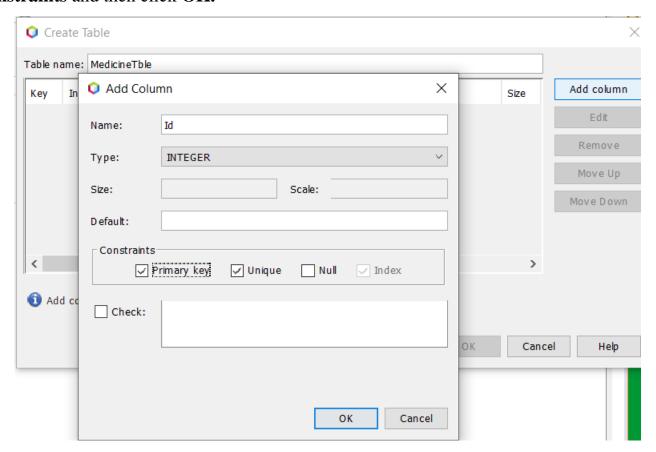
• Step 5 - Now your database has created with name **USER1.**



• Step 6 - Now select **Create table**



Step 7 – Write **Table name** and then **Add column** and fill detail like **Name**, **Type**, **Size**, and **constraints** and then click **OK**.



Database Tables:-

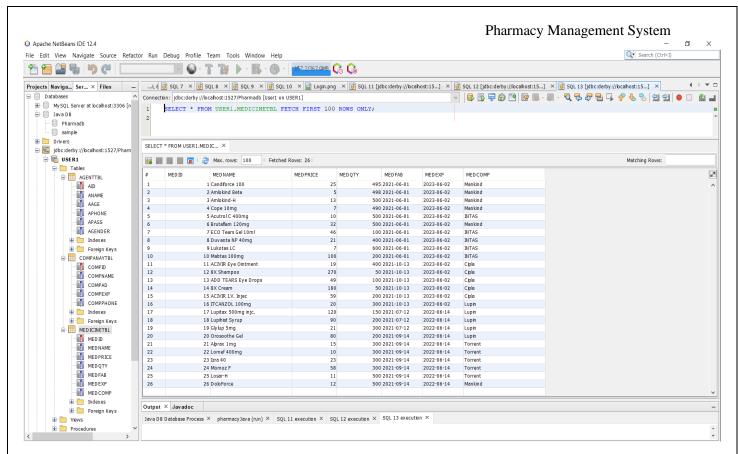


Fig:- Medicines Table

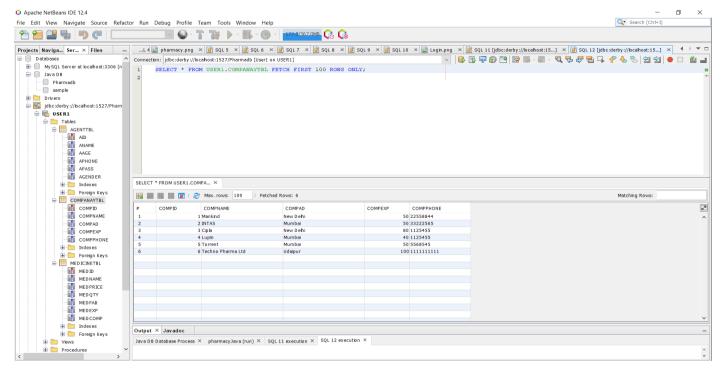


Fig:-Companies Table

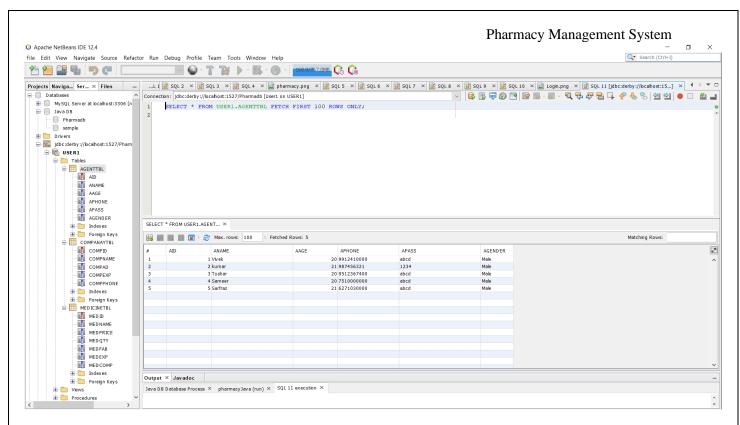
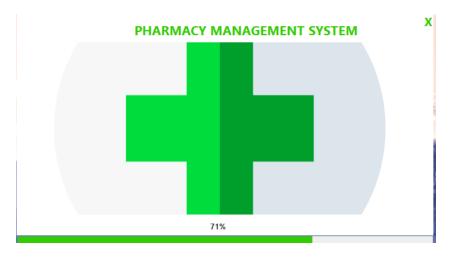


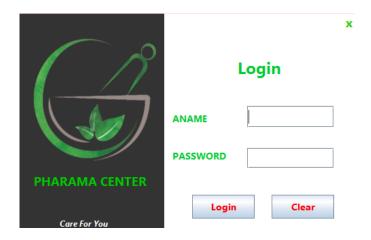
Fig:- Users Table

Input and Output Screens

Loading Screen

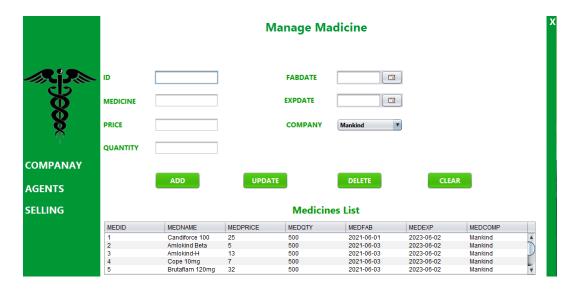


Login Screen

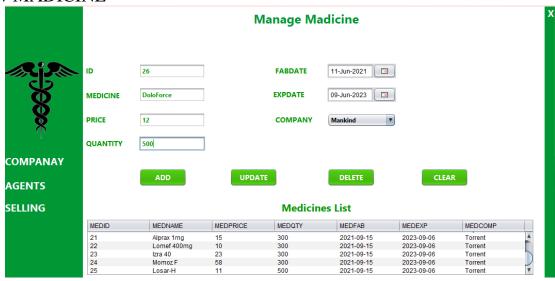


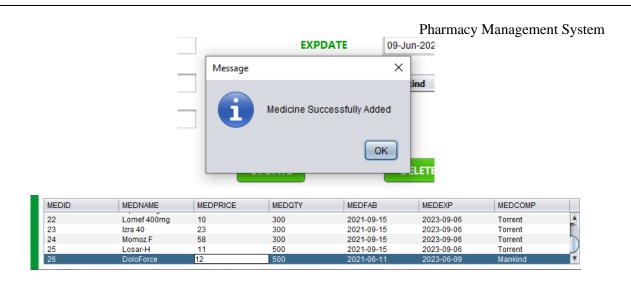
MADICINE MANAGER-

You can manage your stocks here



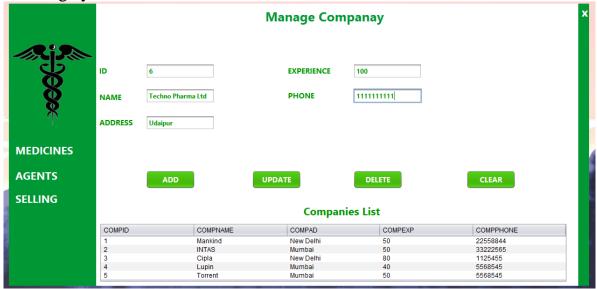
ADD new MADICINE



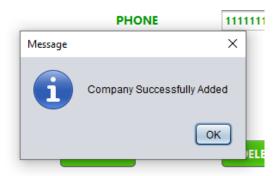


MANAGE COMPANAY-

You can manage your SUPPLY COMPANY HERE



ADD New Company



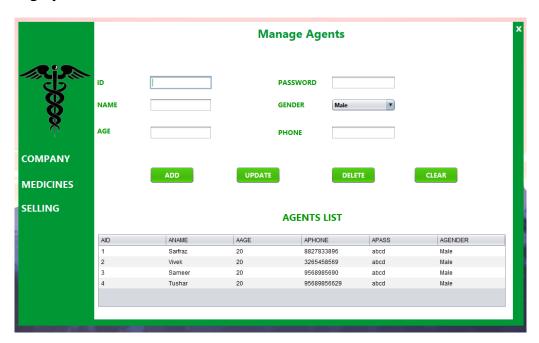
Pharmacy Management System

Companies List

		•			
COMPID	COMPNAME	COMPAD	COMPEXP	COMPPHONE	
2	INTAS	Mumbai	50	33222565	A
3	Cipla	New Delhi	80	1125455	
4	Lupin	Mumbai	40	5568545	
5	Torrent	Mumbai	50	5568545	
6	Techno Pharma Ltd	Udaipur	100	1111111111	V

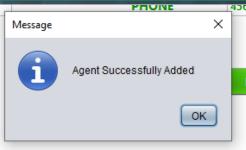
Manage Agents-

You can manage your AGENTS here



ADD New Agent

Pharmacy Management System **Manage Agents** PASSWORD GENDER AGE PHONE 4569871235 COMPANY DELETE CLEAR **MEDICINES** SELLING **AGENTS LIST** AAGE APHONE APASS AGENDER Sarfraz Vivek 20 8827833896 3265458569 9568985690 20 abcd Male Sameer abcd Male 95689856629

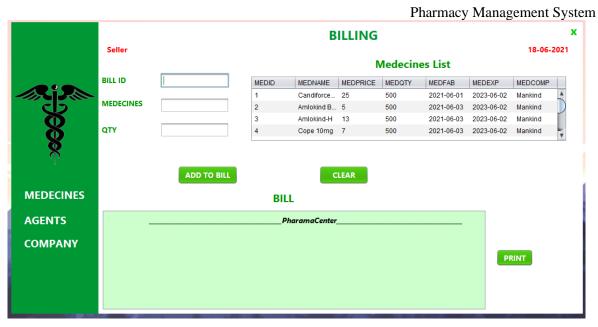


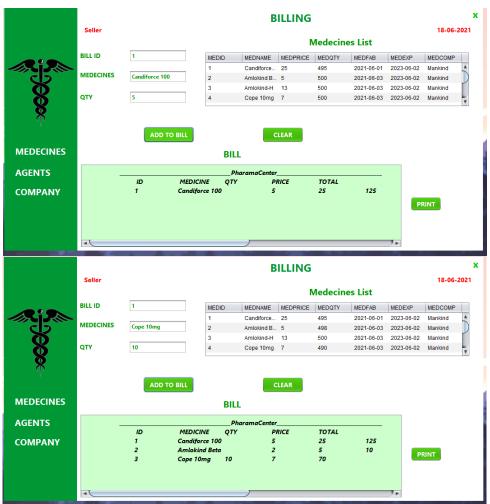
AGENTS LIST



BILLING

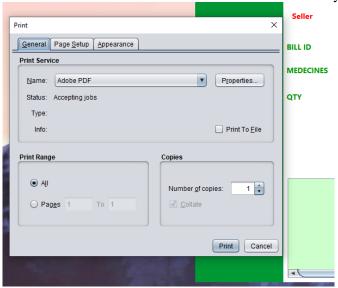
You can Generate a Bill Here

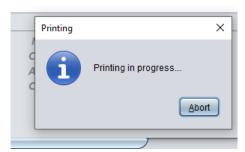




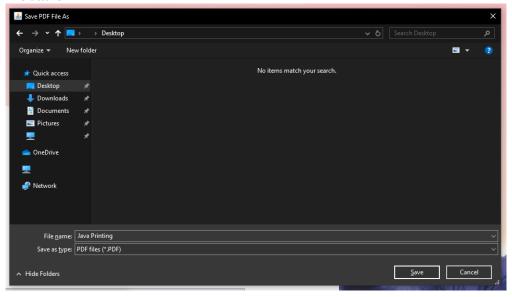
Print BILL

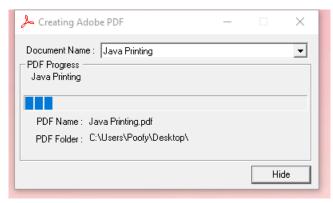
Pharmacy Management System





Save File To Location







CONCLUSIONS AND FUTURE SCOPE:-

- Detailed information gathering has to be done. Without that the purpose for using the software won't be satisfied properly.
- However, it can give good profits in the long run.
- Implementing the software requires change in the business practices.
- Efficient organization of all knowledge is the analysis company and easy analysis access and retrieval of information is possible.
- In this project we can also include BAR CODE facility using the bar code reader, which will detect the expiry date and the other information about the related medicines.
- Company using this software will always be able to plan in future and always be aware of their financial position in the market.
- It leads to ease in functioning of business processes.
- The project can be made more robust by including biometric verification.
- There is also a scope to expand by implementing newer technologies like cloud etcetera.

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