PHARMACY DATABASE MANAGEMENT

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Problem Statement

The purpose of the project is to design and implement a Pharmacy Database Management Application . 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.

Tools And Technologies Used

- JDK
- MySQL connector java
- JDBC Driver

Implementation description

The project is done by creating a front end using **swing** and **awt**. The back end is then connected to the main program by using the interconnection of **JDBC Driver** and the database already created.

This program may be used by pharmaceutical stores having a database to preserve. The software used can generate reports, as according to the consumer’s necessities. The software can print the drug name, description, stock quantity and price.

Below are functionalities of this project:

- Adding a new drug to the database
- Adding more stock for existing drugs
- Fetching details of a drug using drugname
- Removing stock
- ie insertion deletion and search

Source Code

```
import javax.swing.*;
import java.io.*;
import java.awt.*;
import java.awt.event.*;
import javax.sound.sampled.*;
import java.sql.*;
import java.util.*;

class start extends JFrame implements
ActionListener
{

      JRadioButton r1;
      JLabel l1,l2;
      Container c;
      JButton b1,b2,b3;
      int  dw=0;
      Font f=new Font("Andika",Font.BOLD,15);

      start()
```

```
      {
        setTitle("PHARMACY DATA");

setDefaultCloseOperation(WindowConstants.EXIT
_ON_CLOSE);
        r1=new JRadioButton("Dark/Light");
        l1=new JLabel("PHARMACY DATABASE
MANAGEMENT");
        l2=new JLabel("WELCOME");
        b1=new JButton("Get Details");
        b2=new JButton("Enter data");
       b3=new JButton("Delete data");

        add(r1);
        add(l1);
        add(b1);
        add(b2);
        add(b3);
        add(l2);

        c=getContentPane();
        l1.setFont(f);
        l2.setFont(f);
        c.setBackground(Color.lightGray);
```

```
        b1.setBackground(Color.ORANGE);
        b1.setForeground(Color.WHITE);
        b2.setBackground(Color.ORANGE);
        b2.setForeground(Color.WHITE);
        b3.setBackground(Color.ORANGE);
        b3.setForeground(Color.WHITE);
        r1.setBackground(Color.LIGHT_GRAY);
        r1.setForeground(Color.WHITE);
        l1.setForeground(Color.BLACK);
        l2.setForeground(Color.BLACK);

    setSize(450,250);
    r1.setBounds(410,10,20,20);
     l1.setBounds(70, 20, 400, 40);
    b1.setBounds(40, 90, 120, 50);
    b2.setBounds(170, 90, 120, 50);
  b3.setBounds(300, 90, 120, 50);
    l2.setBounds(185, 160, 120, 50);
    setLayout(null);
    setVisible(true);

   b1.addActionListener(this);
   b2.addActionListener(this);
```

```
        b3.addActionListener(this);
        r1.addActionListener(this);

    }
      public void actionPerformed(ActionEvent ae)
      {
            if (ae.getSource() == r1)
            {
/* on checking the radio button on the top right
cornor of the app page app turns to dark mode
and back to light on deselecting */

                  if(dw==0)
                  {

      c.setBackground(Color.DARK_GRAY);

      b2.setBackground(Color.ORANGE);
                        b2.setForeground(Color.WHITE);

      r1.setBackground(Color.DARK_GRAY);
                        r1.setForeground(Color.BLACK);
                        l1.setForeground(Color.WHITE);
                        l2.setForeground(Color.WHITE);

                        dw=1;
```

```
            }
            else
        {
                c.setBackground(Color.lightGray);

    b2.setBackground(Color.ORANGE);
                b2.setForeground(Color.WHITE);

    r1.setBackground(Color.LIGHT_GRAY);
                r1.setForeground(Color.WHITE);
                l1.setForeground(Color.BLACK);
                l2.setForeground(Color.BLACK);

                dw=0;
            }
     }

 /* on pressing b1 the getdetails page is
displayed using the following code..
ikewise each class object is created*/

     if (ae.getSource() == b1) {
        viewdata n = new viewdata();
     }
     if (ae.getSource() == b2) {
```

```
            enterdata e= new enterdata();
          }
          if (ae.getSource() == b3) {
            removedata rm=new removedata();
          }
        }
}
class enterdata extends JFrame implements
ActionListener
{
/* to setup connectivity to database connection
methods are declared in each classes in this
method jdbc driver is required and the
connection is made using the connector. Also the
username password port address etc are also
given to setup connectivity. Here PHARMACY is
the database that is connected to this file which
was previously created in mysql with a table
having few drug names and their some attributes
*/
    public static Connection connect()
    {
    try {

      Class.forName("com.mysql.jdbc.Driver");
```

```
                Connection con =
DriverManager.getConnection("jdbc:mysql://local
host:3306/PHARMACY","root","sheriyenna");
                System.out.println("connected");
                return con;
        }
            catch (Exception ex)
            {
                ex.printStackTrace();
                return null;
            }
    }
      JRadioButton r1;
      int dw1;
      JLabel l1,l2,stock;
      JTextField ta,st;
      JButton back,b2,b3,pub;
      JComboBox<String> jb;
      ButtonGroup bg;
      Container c;
      String[] optionsToChoose=new String[200];

      String sm="";
```

```
Font f=new Font("Andika",Font.BOLD,18);
enterdata()
{
 optionsToChoose[0]="Dolo 650";
optionsToChoose[1]="Paracetamol";
optionsToChoose[2]="Cetirizine";
 setTitle("PHARMACY DATA");

setDefaultCloseOperation(WindowConstants.EXIT
_ON_CLOSE);
 r1=new JRadioButton("Dark/Light");
 l1=new JLabel("ADD TO EXISTING STOCK");
 l2=new JLabel("Drug Name");
 back=new JButton("Back");
 b2=new JButton("New");
 b3=new JButton("Submit");
 stock=new JLabel("Stock Quantity");
 st=new JTextField(20);
 jb = new JComboBox<>(optionsToChoose);

 add(back);
 add(r1);
 add(l1);
 add(b3);
```

```
add(b2);
add(l2);
add(jb);
add(stock);
add(st);
c=getContentPane();
l1.setFont(f);
c.setBackground(Color.lightGray);
back.setBackground(Color.ORANGE);
    back.setForeground(Color.WHITE);
    b2.setBackground(Color.ORANGE);
    b2.setForeground(Color.WHITE);
    b3.setBackground(Color.ORANGE);
    b3.setForeground(Color.WHITE);
    r1.setBackground(Color.LIGHT_GRAY);
    r1.setForeground(Color.WHITE);
    l1.setForeground(Color.BLACK);
    l2.setForeground(Color.BLACK);
    stock.setForeground(Color.BLACK);
jb.setBackground(Color.WHITE);
setSize(500,300);
r1.setBounds(460,10,20,20);
l1.setBounds(140, 20, 300, 40);
```

```
        back.setBounds(50,200,100,35);
        b3.setBounds(350,200,100,35);
        b2.setBounds(180,200,100,35);
        l2.setBounds(50, 90, 120, 40);
        stock.setBounds(50, 140, 120, 40);
        st.setBounds(180, 140, 270, 40);
        jb.setBounds(180, 90, 270, 40);
        setLayout(null);
        setVisible(true);
        b2.addActionListener(this);
        b3.addActionListener(this);
        r1.addActionListener(this);

      back.addActionListener(this);
    }
    Connection connection=connect();

      public void actionPerformed(ActionEvent a)
      {
/* The following line gets the currently selected
text in the dropdown list and stores it to a string
sm so that it can be used as drug name for
queries through which the user can select the
drug name through a JcomboBox which is much
more easier */
```

```
            sm = jb.getItemAt(jb.getSelectedIndex());
            int i=0;
/* Here the query is stored in a string which is
later used to execute a query to make a resultset
and fetch the drugname column and get the
details to the array which stores the dropdown
list drug names ,But it didnt go well as expected.
This part of the programme needs a little
updation and should be also made use in the
newdrug session so that the drop down list gets
the values of the newly created drugs too*/
            String ex="SELECT DRUGNAME FROM
MEDICINE";
            try{
            PreparedStatement
jcb=connection.prepareStatement(ex);
               ResultSet jbc = jcb.executeQuery();
               while(jbc.next())
               {
                        optionsToChoose[i]=
jbc.getString("DRUGNAME");
                        i++;
                  }
            }
            catch (SQLException e) {
```

```
                // TODO Auto-generated catch block
                e.printStackTrace();
                System.out.println("Couldnt add to
database");

            }

            if (a.getSource() == r1) {

                if(dw1==0)
                {

        c.setBackground(Color.DARK_GRAY);

        r1.setBackground(Color.DARK_GRAY);
                        r1.setForeground(Color.BLACK);
                        l1.setForeground(Color.WHITE);
                        l2.setForeground(Color.WHITE);

        stock.setForeground(Color.WHITE);
                        dw1=1;
                }
                else
            {
                        c.setBackground(Color.lightGray);
```

```
        r1.setBackground(Color.LIGHT_GRAY);
                        r1.setForeground(Color.WHITE);
                        l1.setForeground(Color.BLACK);
                        l2.setForeground(Color.BLACK);

        stock.setForeground(Color.BLACK);
                        dw1=0;
                    }
         }
         if (a.getSource() == b2) {
            newdrug nd = new newdrug();
         }
         if (a.getSource() == back) {
            dispose();
         }
         if (a.getSource() == b3) {

                    float price=0f;
                    String description="";

           int
stk=Integer.parseInt(st.getText().trim());
            try
```

```
            {
                String sq="SELECT STOCK FROM
MEDICINE WHERE DRUGNAME=?";
                PreparedStatement sw =
connection.prepareStatement(sq);
                sw.setString(1,sm);
                ResultSet stoo=sw.executeQuery();
                int stoc=0;

                while(stoo.next())
                                stoc=stoo.getInt("STOCK");

                String sql="SELECT
PRICE,DESCRIPTION FROM MEDICINE WHERE
DRUGNAME=?";
                PreparedStatement
stmt=connection.prepareStatement(sql);
                stmt.setString(1,sm);
                ResultSet pric = stmt.executeQuery();
                while(pric.next())
                {
                                price= pric.getFloat("PRICE");

      description=pric.getString("DESCRIPTION");
                        }
```

```
                String sql1="UPDATE MEDICINE
SET PRICE=? WHERE DRUGNAME=?" ;
                PreparedStatement
stmt1=connection.prepareStatement(sql1);
                stmt1.setFloat(1, price);
                stmt1.setString(2, sm);
            int n=stmt1.executeUpdate();

                String sql2="UPDATE MEDICINE
SET DESCRIPTION=? WHERE DRUGNAME=?" ;
                PreparedStatement
stmt2=connection.prepareStatement(sql2);
                stmt2.setString(1, description);
                stmt2.setString(2, sm);
            n=stmt2.executeUpdate();

            stk=stk+stoc;
                String sql3="UPDATE MEDICINE
SET STOCK=? WHERE DRUGNAME=?" ;
                PreparedStatement
stmt3=connection.prepareStatement(sql3);
                stmt3.setInt(1, stk);
                stmt3.setString(2, sm);
            n=stmt3.executeUpdate();
```

```
/* this following code creates a dialogue box to
display some message to the user */


JOptionPane.showMessageDialog(null,"Added to
Database!");
                    stmt.close();
                    }
                    catch (SQLException e)
                    {
                        e.printStackTrace();
                        System.out.println("Couldnt
add to database");
                    }
                }

            }
}
class removedata extends JFrame implements
ActionListener
{
   public static Connection connect()
   {
            try
            {
```

```
        Class.forName("com.mysql.jdbc.Driver");
                Connection con =
DriverManager.getConnection("jdbc:mysql://local
host:3306/PHARMACY","root","sheriyenna");
                System.out.println("connected");
                return con;
          }
             catch (Exception ex)
             {
                ex.printStackTrace();
          }
             return null;
      }

        JRadioButton r1;
        int dw1;
        JLabel l1,l2,stock;
        JTextField ta,st;
        JButton back,b3,pub;
        JComboBox<String> jb;
        ButtonGroup bg;
        Container c;
```

```
String[] optionsToChoose={"Dolo
650”,”Paracetamol”, "Cetirizine"};
Font f=new Font("Andika",Font.BOLD,18);
String sm="";
removedata()
{

 setTitle("PHARMACY DATA");

setDefaultCloseOperation(WindowConstants.EXIT
_ON_CLOSE);
 r1=new JRadioButton("Dark/Light");
 l1=new JLabel("DELETE FROM STOCK");
 l2=new JLabel("Drug Name");
 back=new JButton("Back");
 b3=new JButton("Submit");
 stock=new JLabel("Stock Quantity");
 st=new JTextField(20);
 jb = new JComboBox<>(optionsToChoose);

 add(back);
 add(r1);
 add(l1);
 add(b3);
```

```
add(l2);
add(jb);
add(stock);
add(st);
c=getContentPane();
l1.setFont(f);

c.setBackground(Color.lightGray);
back.setBackground(Color.ORANGE);
    back.setForeground(Color.WHITE);
    b3.setBackground(Color.ORANGE);
    b3.setForeground(Color.WHITE);
    r1.setBackground(Color.LIGHT_GRAY);
    r1.setForeground(Color.WHITE);
    l1.setForeground(Color.BLACK);
    l2.setForeground(Color.BLACK);
    stock.setForeground(Color.BLACK);
jb.setBackground(Color.WHITE);

setSize(500,300);
r1.setBounds(460,10,20,20);
l1.setBounds(150, 20, 300, 40);
back.setBounds(50,200,100,35);
```

```
    b3.setBounds(350,200,100,35);
    l2.setBounds(50, 90, 120, 40);
    stock.setBounds(50, 140, 120, 40);
    st.setBounds(180, 140, 270, 40);
    jb.setBounds(180, 90, 270, 40);
    setLayout(null);
    setVisible(true);

   b3.addActionListener(this);
   r1.addActionListener(this);
   back.addActionListener(this);
     String sm;
  }
Connection connection=connect();

  public void actionPerformed(ActionEvent a)
  {
        sm = jb.getItemAt(jb.getSelectedIndex());
        if (a.getSource() == r1) {

             if(dw1==0)
             {

  c.setBackground(Color.DARK_GRAY);
```

```
r1.setBackground(Color.DARK_GRAY);
                r1.setForeground(Color.BLACK);
                l1.setForeground(Color.WHITE);
                l2.setForeground(Color.WHITE);

stock.setForeground(Color.WHITE);
                dw1=1;
            }
            else
        {
                c.setBackground(Color.lightGray);

r1.setBackground(Color.LIGHT_GRAY);
                r1.setForeground(Color.WHITE);
                l1.setForeground(Color.BLACK);
                l2.setForeground(Color.BLACK);

stock.setForeground(Color.BLACK);
                dw1=0;
            }
  }
  if (a.getSource() == back) {
      dispose();
  }
```

```
/* Here the stock in the database of the selected
drugname in the dropdown list is found and the
string from the textfield stock is fetched and
converted to integer and that much stock is
deleted from the database for the given drug */
        if (a.getSource() == b3) {
            int
sto=Integer.parseInt(st.getText().trim());
            try {
                String sq="SELECT STOCK FROM
MEDICINE WHERE DRUGNAME=?";
                PreparedStatement stmt =
connection.prepareStatement(sq);
                stmt.setString(1,sm);
                ResultSet stoo=stmt.executeQuery();
                int stoc=0;
                while(stoo.next())
                stoc=stoo.getInt("STOCK");
                if(stoc>sto)
                {
                            String sql="UPDATE
MEDICINE SET STOCK="+(stoc-sto)+" WHERE
DRUGNAME="+"\""+sm+"\"";

                            stmt.execute(sql);
```

```
      JOptionPane.showMessageDialog(null,"Stock
modified!");
                    }
                    else

      JOptionPane.showMessageDialog(null,"Stock
empty!");
                        stmt.close();
                    }
                    catch (SQLException e)
                    {
                        e.printStackTrace();
                        System.out.println("Couldnt
add to database");
                    }
                }
            }
}
 class viewdata extends JFrame implements
ActionListener
{
    public static Connection connect()
    {
    try {
```

```
        Class.forName("com.mysql.jdbc.Driver");

        Connection con =
DriverManager.getConnection("jdbc:mysql://local
host:3306/PHARMACY","root","sheriyenna");
            System.out.println("connected");
        return con;
        }
    catch (Exception ex) {
        ex.printStackTrace();
        }
    return null;
    }
      JRadioButton r1;
      int dw1;
      JLabel l1,l2,desc,stock,pr;
      JTextField ta,p,st;
      JButton back,b1,clear,pub;
      ButtonGroup bg;
      JTextArea des;
      Container c;
      JComboBox<String> jb;
      String[] optionsToChoose={"Dolo
650","Paracetamol","Cetirizine"};
```

```
Font f=new Font("Andika",Font.BOLD,18);
String sm="",de;
viewdata()
{

 setTitle("PHARMACY DATA");

setDefaultCloseOperation(WindowConstants.EXIT
_ON_CLOSE);
 r1=new JRadioButton("Dark/Light");
 l1=new JLabel("FETCH DATA !");
 l2=new JLabel("Drug Name");
 ta=new JTextField(20);
 b1=new JButton("Get Details");
 back=new JButton("Back");
 clear=new JButton("Clear");
 desc=new JLabel("Description");
 des=new JTextArea();
 stock=new JLabel("Stock Quantity");
 st=new JTextField(20);
 pr=new JLabel("Price");
 p=new JTextField(20);
 jb = new JComboBox<>(optionsToChoose);
```

```
add(back);
add(r1);
add(l1);
add(jb);
add(b1);
add(clear);

add(l2);
add(ta);
add(desc);
add(des);
add(stock);
add(st);
add(pr);
add(p);
c=getContentPane();
l1.setFont(f);
c.setBackground(Color.lightGray);
back.setBackground(Color.ORANGE);
    back.setForeground(Color.WHITE);
    b1.setBackground(Color.ORANGE);
    b1.setForeground(Color.WHITE);
```

```
        clear.setBackground(Color.ORANGE);
        clear.setForeground(Color.WHITE);
        r1.setBackground(Color.LIGHT_GRAY);
        r1.setForeground(Color.WHITE);
        l1.setForeground(Color.BLACK);
        l2.setForeground(Color.BLACK);
        desc.setForeground(Color.BLACK);
        pr.setForeground(Color.BLACK);
        stock.setForeground(Color.BLACK);
    jb.setBackground(Color.WHITE);
     setSize(500,500);
     r1.setBounds(460,10,20,20);
      l1.setBounds(175, 20, 250, 40);
      back.setBounds(50,390,100,35);
     b1.setBounds(330, 80, 120, 40);
     clear.setBounds(350,390,100,35);
     l2.setBounds(50, 140, 120, 40);
     ta.setBounds(180, 140, 270, 40);
     desc.setBounds(50, 210, 120, 40);
     des.setBounds(180, 190, 270, 80);
     stock.setBounds(50, 280, 120, 40);
     st.setBounds(180, 280, 270, 40);
     pr.setBounds(50, 330, 120, 40);
```

```
    p.setBounds(180, 330, 270, 40);
    jb.setBounds(180, 80, 140, 40);
    setLayout(null);
    setVisible(true);

   b1.addActionListener(this);
   clear.addActionListener(this);
   r1.addActionListener(this);

   back.addActionListener(this);
}
Connection connection=connect();
  public void actionPerformed(ActionEvent a)
  {

        if (a.getSource() == r1) {

            if(dw1==0)
            {

  c.setBackground(Color.DARK_GRAY);

  r1.setBackground(Color.DARK_GRAY);
                  r1.setForeground(Color.BLACK);
                  l1.setForeground(Color.WHITE);
```

```
                l2.setForeground(Color.WHITE);

desc.setForeground(Color.WHITE);
                pr.setForeground(Color.WHITE);

stock.setForeground(Color.WHITE);
                dw1=1;
            }
            else
        {
                c.setBackground(Color.lightGray);

r1.setBackground(Color.LIGHT_GRAY);
                r1.setForeground(Color.WHITE);
                l1.setForeground(Color.BLACK);
                l2.setForeground(Color.BLACK);

desc.setForeground(Color.BLACK);
                pr.setForeground(Color.BLACK);

stock.setForeground(Color.BLACK);
                dw1=0;
            }
     }
```

```
        if (a.getSource() == clear) {
            ta.setText("");
            st.setText("");
            des.setText("");
            p.setText("");
        }
        if (a.getSource() == back) {
            dispose();
/* dispose is used to get back to the previous App
page. So a back button can be implemented with
this method */
        }
/* When the get details button is pressed the
details curresponding to the drugname selected
in the JcomboBox is fetched from the database
and shown in the appropriate fields*/
         if (a.getSource() == b1) {
                    sm =
jb.getItemAt(jb.getSelectedIndex());
                    ta.setText(sm);
                    int stocc=0;
                    float pri=0;
                    String de="";
                    try{
```

```
                String sq="SELECT
STOCK,PRICE,DESCRIPTION FROM MEDICINE
WHERE DRUGNAME=?";
                PreparedStatement stmt =
connection.prepareStatement(sq);
                stmt.setString(1, sm);
                ResultSet stoo=stmt.executeQuery();
                while(stoo.next())
                {
                     stocc=stoo.getInt("STOCK");
                     pri=stoo.getFloat("PRICE");

     de=stoo.getString("DESCRIPTION");
                }
                     String stoccc=""+stocc;
                     String prii=""+pri;

                     des.setText(de);
                     p.setText(prii);
                     st.setText(stoccc);
                }
                catch (SQLException e) {
                 // TODO Auto-generated catch block
                 e.printStackTrace();
```

```
            }

        }
      }
}
 class newdrug extends JFrame implements
ActionListener
{
    public static Connection connect()
    {
    try {
            Class.forName("com.mysql.jdbc.Driver");

            Connection con =
DriverManager.getConnection("jdbc:mysql://local
host:3306/PHARMACY","root","sheriyenna");
                    System.out.println("connected");
            return con;
        }
            catch (Exception ex) {
        ex.printStackTrace();
        }
    return null;
    }
```

```
JRadioButton r1;
int dw1;
JLabel l1,l2,desc,stock,pr;
JTextField ta,p,st;
JButton back,b3,clear,pub;
ButtonGroup bg;
JTextArea des;
Container c;
Font f=new Font("Andika",Font.BOLD,18);
newdrug()
{

  setTitle("PHARMACY DATA");

setDefaultCloseOperation(WindowConstants.EXIT
_ON_CLOSE);
   r1=new JRadioButton("Dark/Light");
   l1=new JLabel("ADD NEW MEDICINE DATA");
   l2=new JLabel("Drug Name");
   ta=new JTextField(20);
   back=new JButton("Back");
   clear=new JButton("Clear");
   b3=new JButton("Submit");
   desc=new JLabel("Description");
```

```
des=new JTextArea();
stock=new JLabel("Stock Quantity");
st=new JTextField(20);
pr=new JLabel("Price");
p=new JTextField(20);



add(back);
add(r1);
add(l1);
add(clear);
add(b3);
add(l2);
add(ta);
add(desc);
add(des);
add(stock);
add(st);
add(pr);
add(p);
c=getContentPane();
l1.setFont(f);
```

```
c.setBackground(Color.lightGray);
back.setBackground(Color.ORANGE);
    back.setForeground(Color.WHITE);
    b3.setBackground(Color.ORANGE);
    b3.setForeground(Color.WHITE);
    clear.setBackground(Color.ORANGE);
    clear.setForeground(Color.WHITE);
    r1.setBackground(Color.LIGHT_GRAY);
    r1.setForeground(Color.WHITE);
    l1.setForeground(Color.BLACK);
    l2.setForeground(Color.BLACK);
    desc.setForeground(Color.BLACK);
    pr.setForeground(Color.BLACK);
    stock.setForeground(Color.BLACK);
setSize(500,500);
r1.setBounds(460,10,20,20);
l1.setBounds(100, 20, 300, 40);
back.setBounds(50,390,100,35);
clear.setBounds(180,390,100,35);
b3.setBounds(350,390,100,35);
l2.setBounds(50, 120, 120, 40);
ta.setBounds(180, 120, 270, 40);
desc.setBounds(50, 190, 120, 40);
```

```
    des.setBounds(180, 170, 270, 80);
    stock.setBounds(50, 260, 120, 40);
    st.setBounds(180, 260, 270, 40);
    pr.setBounds(50, 310, 120, 40);
    p.setBounds(180, 310, 270, 40);
    setLayout(null);
    setVisible(true);

   clear.addActionListener(this);
   r1.addActionListener(this);
    b3.addActionListener(this);
   back.addActionListener(this);
}
  public void actionPerformed(ActionEvent a)
  {
    Connection connection=connect();
        if (a.getSource() == r1) {

              if(dw1==0)
              {

  c.setBackground(Color.DARK_GRAY);

  r1.setBackground(Color.DARK_GRAY);
```

```
                r1.setForeground(Color.BLACK);
                l1.setForeground(Color.WHITE);
                l2.setForeground(Color.WHITE);

desc.setForeground(Color.WHITE);
                pr.setForeground(Color.WHITE);

stock.setForeground(Color.WHITE);
                dw1=1;
            }
            else
        {
                c.setBackground(Color.lightGray);

r1.setBackground(Color.LIGHT_GRAY);
                r1.setForeground(Color.WHITE);
                l1.setForeground(Color.BLACK);
                l2.setForeground(Color.BLACK);

desc.setForeground(Color.BLACK);
                pr.setForeground(Color.BLACK);

stock.setForeground(Color.BLACK);
                dw1=0;
            }
```

```
        }
        if (a.getSource() == clear) {
            ta.setText("");
            st.setText("");
            des.setText("");
            p.setText("");
        }
        if (a.getSource() == back) {
            dispose();
        }
        if(a.getSource()==b3)
        {
              String drugname=ta.getText();
              String description=des.getText();
              String stoc=st.getText();
              int stock=Integer.parseInt(stoc);
              String pric=p.getText();
              Float price=Float.parseFloat(pric);
                try  {
/* this creates a new row in the table and the
values are given according to the values entered
by user in the textfields and textarea */
```

```
                    String sql="INSERT INTO
MEDICINE(DRUGNAME,PRICE,DESCRIPTION,STOC
K) "+"VALUES (?,?,?,?)";
                    PreparedStatement stmt =
connection.prepareStatement(sql,Statement.RET
URN_GENERATED_KEYS);
                    stmt.setString(1, drugname);
                    stmt.setFloat(2, price);
                    stmt.setString(3,
description);
                    stmt.setInt(4, stock);
                    int t =
stmt.executeUpdate();
/* assigning an integer this value is not necessary
it is needed during the debugging time to check
if the stmt is successfully executed or not */


JOptionPane.showMessageDialog(null,"New drug
added!");
            stmt.close();
            } catch (SQLException e) {
                e.printStackTrace();
            }
```

```
            }

        }
    }

    public class App
    {
        int dw=0;
        Clip clip;
        AudioInputStream audioInputStream;
        static String filePath;
        public App()
        throws UnsupportedAudioFileException,
        IOException, LineUnavailableException
        {
            audioInputStream =
AudioSystem.getAudioInputStream(new
File(filePath).getAbsoluteFile());
            clip = AudioSystem.getClip();
            clip.open(audioInputStream);
        }

        public static void main(String[] args)
```

```
    {

/*This commented portion is a special addition to
the code... It plays a wav file or another java
supported audio formats in this case we included
the audio in the same directory and filepath is
given. The audio piece is played at the starting of
the application.....
          try
          {
               filePath = "./pharmacystart.wav";
               App pl=new App();

               pl.play();

          }
          catch(Exception e)
          {
               System.out.println("Error playing
audio");
               e.printStackTrace();
          }*/
          start s = new start();
//the start page class is called here
```

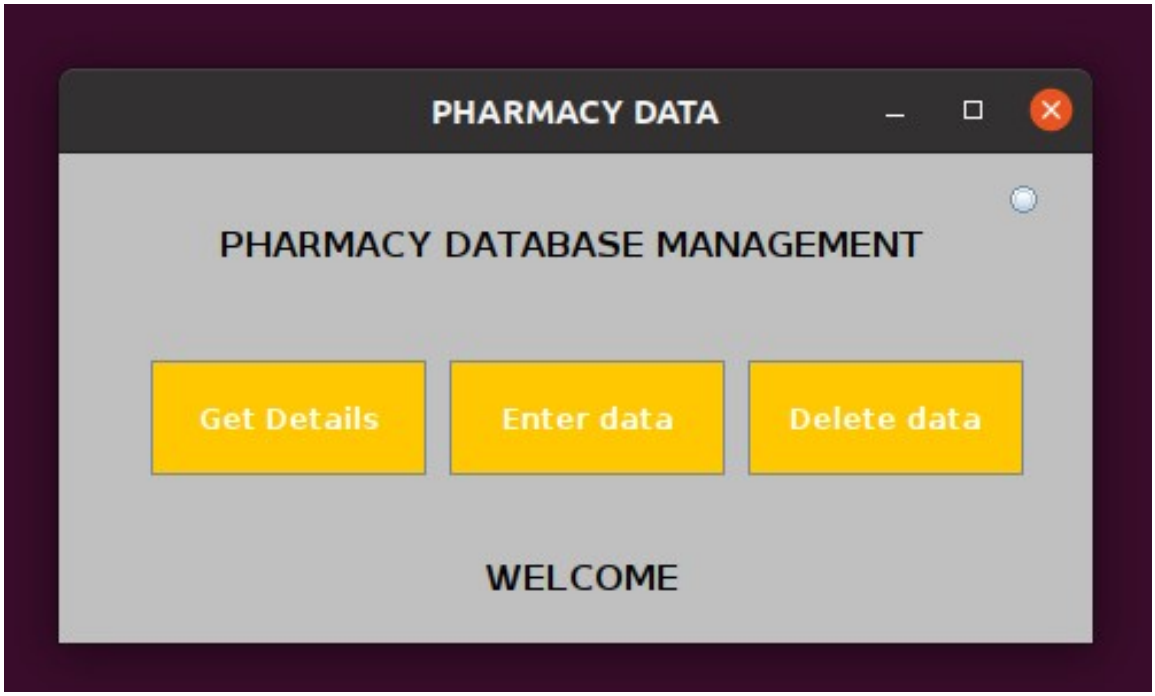
```
    }

    public void play()
    {
        clip.start();
    }
}
```

OUTPUT

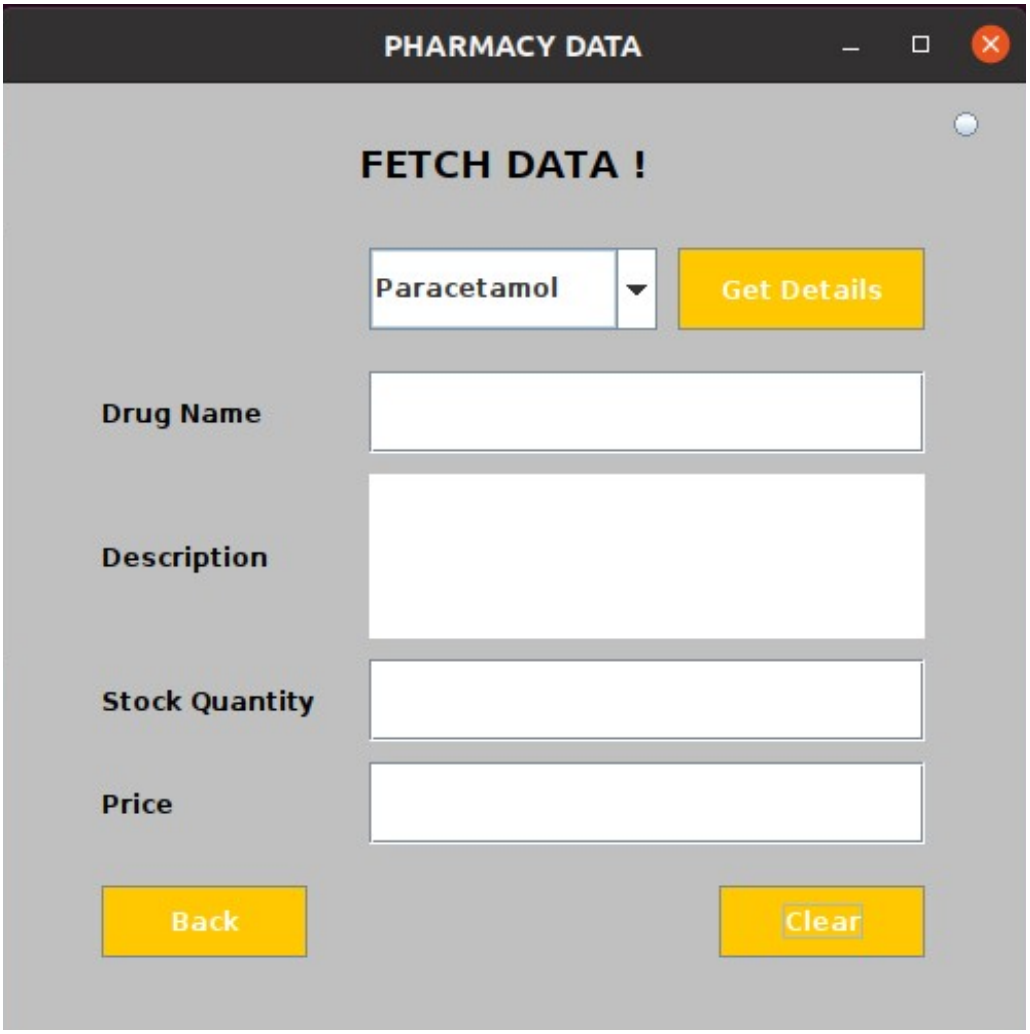
1)Executing the programme

- On compilation and execution the audio specified pharmacystart.wav is played and this start window is opened up

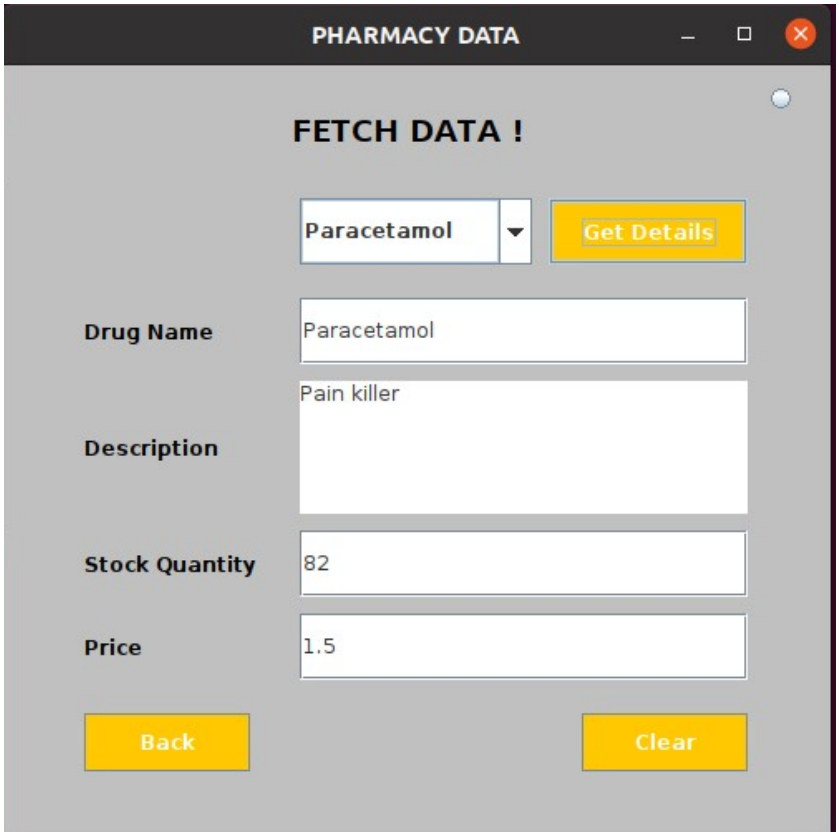


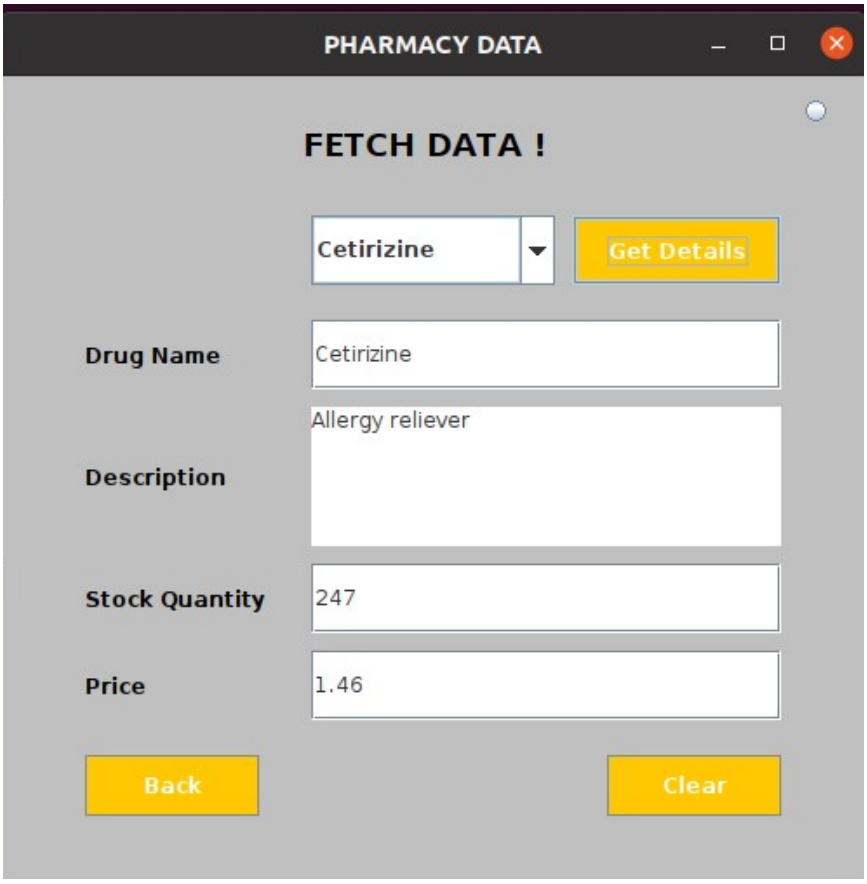
2)Get details

On clicking the Get details button this page opens up ...!



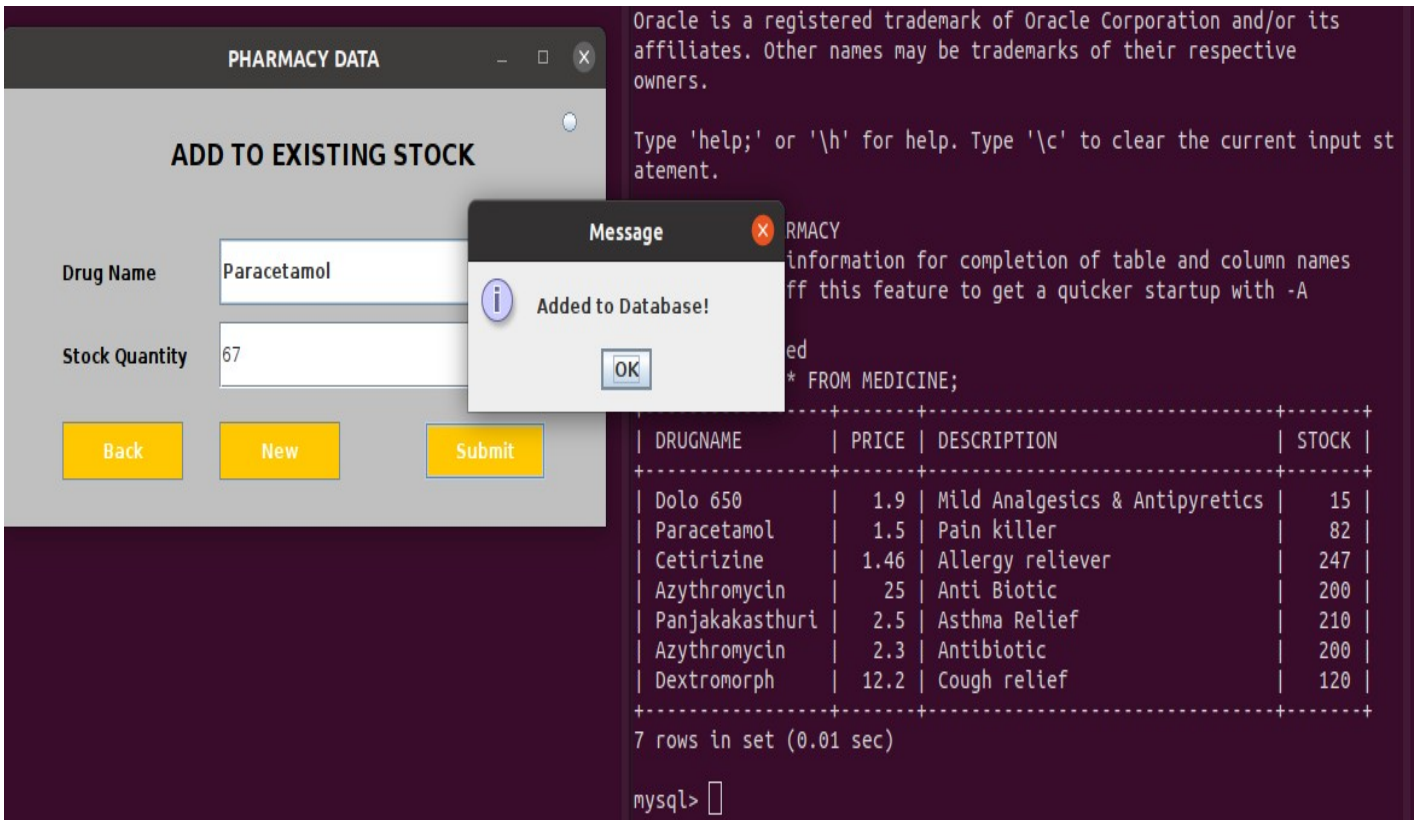
selecting an option from the list and pressing the Get Details button on this page results in.....

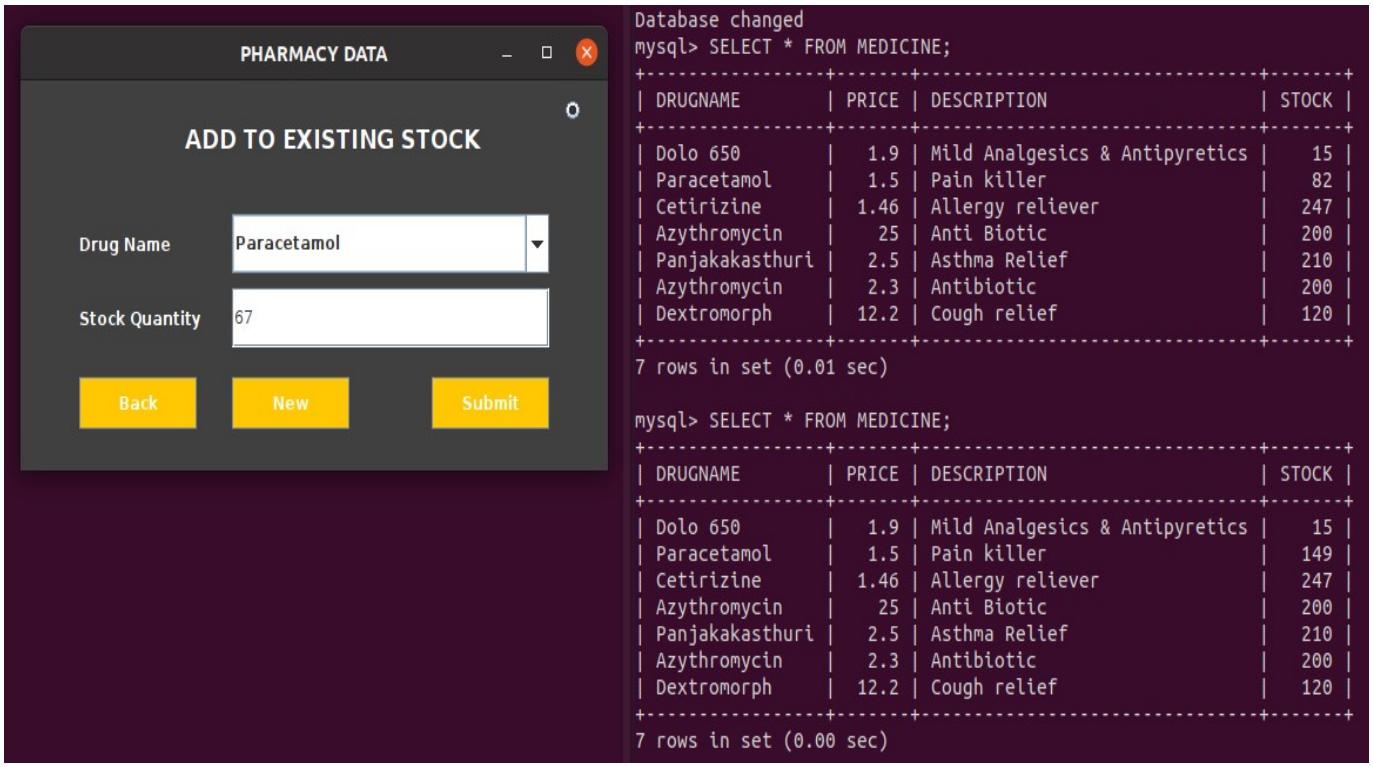

PHARMACY DATA
FETCH DATA !
Paracetamol
Get Details
Drug Name
Paracetamol
Description
Pain killer
Stock Quantity
82
Price
1.5
Back
Clear


PHARMACY DATA
FETCH DATA !
Cetirizine
Get Details
Drug Name
Cetirizine
Description
Allergy reliever
Stock Quantity
247
Price
1.46
Back
Clear

3)Enter data

- clicking button clear results in clearing the textfields
- clicking back button disposes the current frame and goes back to the previous
- now pressing the Enter data button displays a new window
- chooses drugname from dropdown list and enters the stock to be added presses submit button a message window popups telling added to database
- table before the change is shown in mysql shell in the first figure and changed one in the second figure

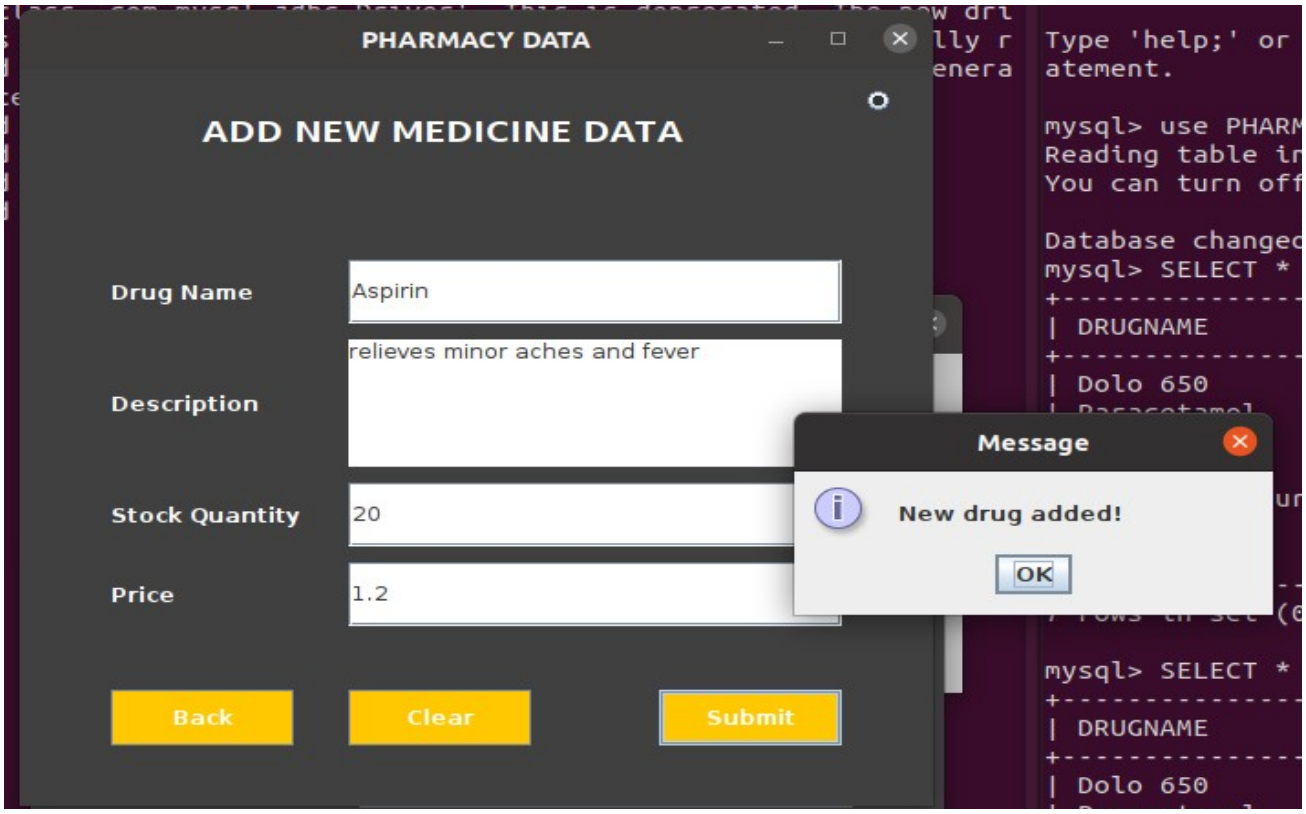





```
Database changed
mysql> SELECT * FROM MEDICINE;
+----------------+-------+------------------------------+-------+
| DRUGNAME       | PRICE | DESCRIPTION                  | STOCK |
+----------------+-------+------------------------------+-------+
| Dolo 650       |   1.9 | Mild Analgesics & Antipyretics |    15 |
| Paracetamol    |   1.5 | Pain killer                  |    82 |
| Cetirizine     |  1.46 | Allergy reliever             |   247 |
| Azythromycin   |    25 | Anti Biotic                  |   200 |
| Panjakakasthuri |   2.5 | Asthma Relief                |   210 |
| Azythromycin   |   2.3 | Antibiotic                   |   200 |
| Dextromorph    |  12.2 | Cough relief                 |   120 |
+----------------+-------+------------------------------+-------+
7 rows in set (0.01 sec)

mysql> SELECT * FROM MEDICINE;
+----------------+-------+------------------------------+-------+
| DRUGNAME       | PRICE | DESCRIPTION                  | STOCK |
+----------------+-------+------------------------------+-------+
| Dolo 650       |   1.9 | Mild Analgesics & Antipyretics |    15 |
| Paracetamol    |   1.5 | Pain killer                  |   149 |
| Cetirizine     |  1.46 | Allergy reliever             |   247 |
| Azythromycin   |    25 | Anti Biotic                  |   200 |
| Panjakakasthuri |   2.5 | Asthma Relief                |   210 |
| Azythromycin   |   2.3 | Antibiotic                   |   200 |
| Dextromorph    |  12.2 | Cough relief                 |   120 |
+----------------+-------+------------------------------+-------+
7 rows in set (0.00 sec)
```

- clicking the radio button on the top right corner changed the text colors to white and background to dark grey.
- The stock of Paracetamol changed from 82 to 149.
- pressing New button from this page makes another window to open up
- Drug Name,Description,Stock Quantity and Price of the new drug is typed and submit button is pressed resulting in the popup message box as shown



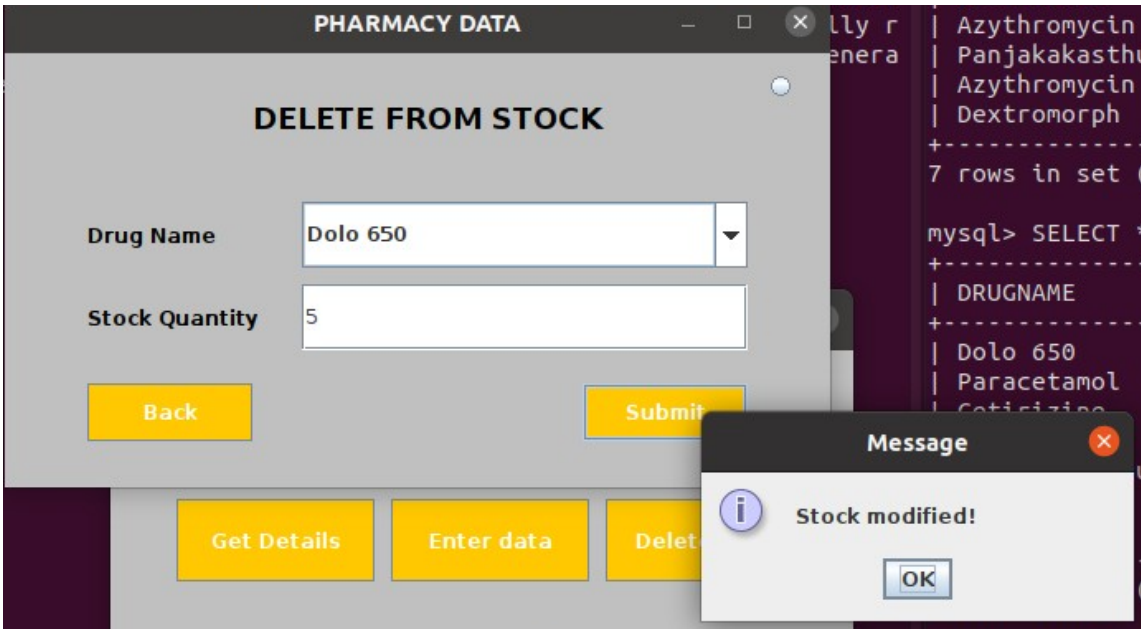

```
mysql> SELECT * FROM MEDICINE;
+-----------------+-------+---------------------------------+-------+
| DRUGNAME        | PRICE | DESCRIPTION                     | STOCK |
+-----------------+-------+---------------------------------+-------+
| Dolo 650        |   1.9 | Mild Analgesics & Antipyretics |    15 |
| Paracetamol     |   1.5 | Pain killer                     |   149 |
| Cetirizine      |  1.46 | Allergy reliever                |   247 |
| Azythromycin    |    25 | Anti Biotic                     |   200 |
| Panjakakasthuri |   2.5 | Asthma Relief                   |   210 |
| Azythromycin    |   2.3 | Antibiotic                      |   200 |
| Dextromorph     |  12.2 | Cough relief                    |   120 |
+-----------------+-------+---------------------------------+-------+
7 rows in set (0.00 sec)

mysql> SELECT * FROM MEDICINE;
+-----------------+-------+---------------------------------+-------+
| DRUGNAME        | PRICE | DESCRIPTION                     | STOCK |
+-----------------+-------+---------------------------------+-------+
| Dolo 650        |   1.9 | Mild Analgesics & Antipyretics |    15 |
| Paracetamol     |   1.5 | Pain killer                     |   149 |
| Cetirizine      |  1.46 | Allergy reliever                |   247 |
| Azythromycin    |    25 | Anti Biotic                     |   200 |
| Panjakakasthuri |   2.5 | Asthma Relief                   |   210 |
| Azythromycin    |   2.3 | Antibiotic                      |   200 |
| Dextromorph     |  12.2 | Cough relief                    |   120 |
| Aspirin         |   1.2 | relieves minor aches and fever  |    20 |
+-----------------+-------+---------------------------------+-------+
8 rows in set (0.00 sec)
```

- New row is added to the table as the new drug as shown in the above fig

4)Delete data

- Press back buttons and from the start page press the button Delete data
- Drug name is selected from combobox and the stock quantity to be deleted is specified
- On pressing submit button the following message box is displayed



- change in the database is shown, stock of Dolo 650 changed from 15 to 10 thus modifying the table is done successfully

```
mysql> SELECT * FROM MEDICINE;
+-----------------+-------+---------------------------------+-------+
| DRUGNAME        | PRICE | DESCRIPTION                     | STOCK |
+-----------------+-------+---------------------------------+-------+
| Dolo 650        |   1.9 | Mild Analgesics & Antipyretics |    15 |
| Paracetamol     |   1.5 | Pain killer                     |   149 |
| Cetirizine      |  1.46 | Allergy reliever                |   247 |
| Azythromycin    |    25 | Anti Biotic                     |   200 |
| Panjakakasthuri |   2.5 | Asthma Relief                   |   210 |
| Azythromycin    |   2.3 | Antibiotic                      |   200 |
| Dextromorph     |  12.2 | Cough relief                    |   120 |
| Aspirin         |   1.2 | relieves minor aches and fever |    20 |
+-----------------+-------+---------------------------------+-------+
8 rows in set (0.00 sec)

mysql> SELECT * FROM MEDICINE;
+-----------------+-------+---------------------------------+-------+
| DRUGNAME        | PRICE | DESCRIPTION                     | STOCK |
+-----------------+-------+---------------------------------+-------+
| Dolo 650        |   1.9 | Mild Analgesics & Antipyretics |    10 |
| Paracetamol     |   1.5 | Pain killer                     |   149 |
| Cetirizine      |  1.46 | Allergy reliever                |   247 |
| Azythromycin    |    25 | Anti Biotic                     |   200 |
| Panjakakasthuri |   2.5 | Asthma Relief                   |   210 |
| Azythromycin    |   2.3 | Antibiotic                      |   200 |
| Dextromorph     |  12.2 | Cough relief                    |   120 |
| Aspirin         |   1.2 | relieves minor aches and fever |    20 |
+-----------------+-------+---------------------------------+-------+
8 rows in set (0.00 sec)
```

THANK YOU