**GOVERNMENT POLYTECHNIC PUNE**

(An Autonomous Institute of Govt. of Maharashtra)

**A MINI PROJECT**

**ON**

**Student Management System**

**SUBMITTED BY**

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**UNDER THE GUIDANCE OF**

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**DEPARTMENT OF COMPUTER**

**ENGINEERING**

**GOVERNMENT POLYTECHNIC PUNE**

(An Autonomous institute of Govt. of Maharashtra)

**Practical No.: 21**

**Mini Project Report**

**Course: CM389 (Java Programming-1)**

**Student Management System**

1. **Problem Statement:**

Students form a main part of any institution that concerns with. But the institutions find it difficult to keep details of so many students of the organization just in one stretch. It will involve a lot of pen paper work. Sometimes there will be some huge heap of files bundled up and kept together in some corner of the office. If you want any information regarding the particular student then it can be obtained by just entering the roll number or the name of the student to be searched. This student management system will make the work of storing the data in an organized way.

1. **Title: Student Management System**
2. **Solution Description:**

The student management system application will help in managing the student’s information will become easier with one such system. It will also help in saving time and effort. The user interface must be user friendly and easy to understand. The information of the particular student will be obtained in just one mouse click.

1. **Solution Implementation Source Code:**

* **Login.java**

import java.awt.\*;

import java.awt.event.\*;

import javax.swing.\*;

class InvalidPasswordException extends Exception

{

}

public class Login extends Frame implements ActionListener

{

Label name, pass,header;

TextField nameText;

TextField passText;

Button login, end;

static int attempt=0;

public Login()

{

setLayout(null);

name = new Label(" Name:");

pass = new Label("Password:");

header= new Label("ADMIN LOGIN");

nameText = new TextField();

passText = new TextField();

passText.setEchoChar('\*');

login = new Button("Login");

end = new Button("Cancel");

header.setFont(new Font("Serif",Font.BOLD,28));

header.setBounds(600,90,200,50);

name.setFont(new Font("Serif",Font.BOLD,25));

name.setBounds(540,220,120,50);

nameText.setBounds(680,220,190,40);

pass.setFont(new Font("Serif",Font.BOLD,25));

pass.setBounds(540,270,130,50);

passText.setBounds(680,270,190,40);

login.setBounds(550,380,100,50);

end.setBounds(700,380,100,50);

login.setFont(new Font("Serif",Font.BOLD,28));

login.setBackground(new Color (59,89,182));

login.setForeground(Color.WHITE);

end.setForeground(Color.WHITE);

end.setBackground(new Color (59,89,182));

end.setFont(new Font("Serif",Font.BOLD,28));

login.addActionListener(this);

end.addActionListener(this);

add(name);

add(header);

add(nameText);

add(pass);

add(passText);

add(login);

add(end);

setTitle("Login Check");

setSize(2000,2000);

setVisible(true);

}

public void paint(Graphics g)

{

super.paint(g);

g.setColor(Color.GREEN);

g.drawRect(450,180,500,300);

g.setColor(Color.GREEN);

g.drawRect(430,160,540,340);

}

public void actionPerformed(ActionEvent ae)

{

Button btn = (Button)ae.getSource();

if(btn == end)

{

System.exit(0);

}

if(btn == login)

{

try

{

String user = nameText.getText();

String pass = new String(passText.getText());

int u=user.length();

int p=pass.length();

if(u==0)

{

JOptionPane.showMessageDialog(null,"Check Login","Login",JOptionPane.INFORMATION\_MESSAGE);

}

else if(p==0)

{

JOptionPane.showMessageDialog(null,"Check Login","Login",JOptionPane.INFORMATION\_MESSAGE);

}

else if(user.compareTo(pass)==0)

{

JOptionPane.showMessageDialog(null,"Login Successful","Login",JOptionPane.INFORMATION\_MESSAGE);

new Display();

}

else

{

throw new InvalidPasswordException();

}

}

catch(Exception e)

{

attempt++;

JOptionPane.showMessageDialog(null,"Login Failed","Login",JOptionPane.ERROR\_MESSAGE);

nameText.setText("");

passText.setText("");

nameText.requestFocus();

if(attempt == 3)

{

JOptionPane.showMessageDialog(null,"3 Attempts Over","Login",JOptionPane.ERROR\_MESSAGE);

System.exit(0);

}

}

}

}

public static void main(String args[])

{

new Login();

}

}

* **Display.java**

import java.awt.\*;

import java.awt.event.\*;

class Display extends Frame implements ActionListener

{

Label header;

Button b1,b3;

Display()

{

setLayout(null);

header= new Label("ADMIN SECTION");

b1 = new Button("Add Student");

b3 = new Button("Logout");

header.setFont(new Font("Serif",Font.BOLD,28));

header.setBounds(580,90,230,80);

b1.setBounds(640,240,130,80);

b3.setBounds(640,400,130,80);

b1.setFont(new Font("Serif",Font.BOLD,20));

b1.setBackground(new Color (59,89,182));

b1.setForeground(Color.WHITE);

b3.setForeground(Color.WHITE);

b3.setBackground(new Color (59,89,182));

b3.setFont(new Font("Serif",Font.BOLD,20));

b1.addActionListener(this);

b3.addActionListener(this);

add(header);add(b1);add(b3);

setTitle("Admin Section");

setSize(2000,2000);

setVisible(true);

}

@Override

public void paint(Graphics g)

{

super.paint(g);

g.setColor(Color.BLUE);

g.drawRect(590,200,220,300);

g.setColor(Color.BLUE);

g.drawRect(570,180,260,340);

}

@Override

public void actionPerformed(ActionEvent ae)

{

if(ae.getSource()==b1)

{

new Dis();

}

if(ae.getSource()==b3)

{

System.exit(0);

}

}

public static void main(String args[])

{

new Display();

}

}

* **Dis.java**

import java.awt.\*;

import java.awt.event.\*;

import java.io.\*;

import javax.swing.\*;

import java.util.regex.\*;

class Dis extends Frame implements ActionListener

{

Label l1,l2,l3,l4,l5,l6,l7,l8;

TextField txt1,txt2,txt3,txt4,txt5,txt6,txt7;

Button b1,b2,b3;

String a,d,g;

FileOutputStream fos;

Dis()

{

setLayout(null);

try{

fos=new FileOutputStream ("StudInfo.txt");

}

catch(Exception ae){System.out.println(ae.getMessage());}

l1=new Label("ADD STUDENT");

l2=new Label("Name : ");

l3=new Label("EmailId : ");

l4=new Label("DOB : ");

l5=new Label("Department : ");

l6=new Label("Address : ");

l7=new Label("Contact No. : ");

l8=new Label("Roll No. : ");

txt1=new TextField();

txt2=new TextField();

txt3=new TextField();

txt4=new TextField();

txt5=new TextField();

txt6=new TextField();

txt7=new TextField();

b1=new Button("Add Student");

b1.addActionListener(this);

b2=new Button("Display");

b2.addActionListener(this);

b3=new Button("Reset");

b3.addActionListener(this);

l1.setFont(new Font("Serif",Font.BOLD,28));

l1.setBounds(650,70,200,80);

l2.setFont(new Font("Serif",Font.BOLD,25));

l2.setBounds(540,180,140,50);

txt1.setBounds(700,180,300,40);txt1.addActionListener(this);

l3.setFont(new Font("Serif",Font.BOLD,25));

l3.setBounds(540,240,140,50);

txt2.setBounds(700,240,300,40);txt2.addActionListener(this);

l4.setFont(new Font("Serif",Font.BOLD,25));

l4.setBounds(540,300,140,50);

txt3.setBounds(700,300,300,40);txt3.addActionListener(this);

l5.setFont(new Font("Serif",Font.BOLD,25));

l5.setBounds(540,360,145,50);

txt4.setBounds(700,360,300,40);txt4.addActionListener(this);

l6.setFont(new Font("Serif",Font.BOLD,25));

l6.setBounds(540,420,140,50);

txt5.setBounds(700,420,300,40);txt5.addActionListener(this);

l7.setFont(new Font("Serif",Font.BOLD,25));

l7.setBounds(540,480,145,50);

txt6.setBounds(700,480,300,40);txt6.addActionListener(this);

l8.setFont(new Font("Serif",Font.BOLD,25));

l8.setBounds(540,530,140,50);

txt7.setBounds(700,530,300,40);txt7.addActionListener(this);

b1.setBounds(480,590,120,50);

b2.setBounds(680,590,120,50);

b3.setBounds(890,590,120,50);

b1.setFont(new Font("Serif",Font.BOLD,15));

b1.setBackground(new Color (59,89,182));

b1.setForeground(Color.WHITE);

b2.setForeground(Color.WHITE);

b2.setBackground(new Color (59,89,182));

b2.setFont(new Font("Serif",Font.BOLD,20));

b3.setForeground(Color.WHITE);

b3.setBackground(new Color (59,89,182));

b3.setFont(new Font("Serif",Font.BOLD,20));

add(l1);add(l2);add(l3);add(l4);add(l5);add(l6);add(l7);add(l8);

add(txt1);add(txt2);add(txt3);add(txt4);add(txt5);add(txt6);add(txt7);add(b2);add(b1);add(b3);

setTitle("Add Student");

setVisible(true);

setSize(2000,2000);

}

public void paint(Graphics g)

{

super.paint(g);

g.setColor(Color.RED);

g.drawRect(430,170,680,500);

g.setColor(Color.RED);

g.drawRect(410,150,720,540);

}

public void actionPerformed(ActionEvent ae)

{

byte a1[],d1[],g1[];

a="\nName:"+txt1.getText();

d="\tDepartment:"+txt4.getText();

g="\tRoll No.:"+txt7.getText();

a1=a.getBytes();

d1=d.getBytes();

g1=g.getBytes();

Button btn = (Button)ae.getSource();

String num=txt6.getText();

boolean valid=num.matches("[0-9]{10}");

Pattern pattern;

Matcher matcher;

String EMAIL\_PATTERN =

"^[\_A-Za-z0-9-\\+]+(\\.[\_A-Za-z0-9-]+)\*@"

+ "[A-Za-z0-9-]+(\\.[A-Za-z0-9]+)\*(\\.[A-Za-z]{2,})$";

pattern = Pattern.compile(EMAIL\_PATTERN);

matcher = pattern.matcher(txt2.getText());

if(btn==b1)

{

if(matcher.matches()==false)

{

JOptionPane.showMessageDialog(null,"Please check EmailId","Email",JOptionPane.INFORMATION\_MESSAGE);

}

else if(valid==false)

{

JOptionPane.showMessageDialog(null,"Please check contact no.","Contact",JOptionPane.INFORMATION\_MESSAGE);

}

else

{

try

{

fos.write(a1);

fos.write(d1);

fos.write(g1);

JOptionPane.showMessageDialog(null,"Student Added Successfully","Add Student",JOptionPane.INFORMATION\_MESSAGE);

}

catch(Exception e){}

}

}

if(btn==b2)

{

new StudDis(txt1.getText(),txt2.getText(),txt3.getText(),txt4.getText(),txt5.getText(),txt6.getText(),txt7.getText());

}

if(btn==b3)

{

txt1.setText("");

txt3.setText("");

txt2.setText("");

txt4.setText("");

txt5.setText("");

txt6.setText("");

txt7.setText("");

}

}

public static void main(String args[])

{

Dis f=new Dis();

}

}

* **StudDis.java**

import java.awt.\*;

import java.awt.event.\*;

class StudDis extends Frame implements ActionListener

{

Label l1,l2,l3,l4,l5,l6,l7,l8;

Label lt1,lt2,lt3,lt4,lt5,lt6,lt7;

Button back,cancel;

StudDis(String a,String b,String c,String d,String e,String f,String g)

{

setLayout(null);

l1=new Label("STUDENT INFORMTION");

l2=new Label("Name : ");

l3=new Label("EmailId : ");

l4=new Label("DOB : ");

l5=new Label("Department : ");

l6=new Label("Address : ");

l7=new Label("Contact No. : ");

l8=new Label("Roll No. : ");

lt1=new Label(a);

lt2=new Label(b);

lt3=new Label(c);

lt4=new Label(d);

lt5=new Label(e);

lt6=new Label(f);

lt7=new Label(g);

cancel=new Button("CLOSE"); cancel.addActionListener(this);

back=new Button("BACK"); back.addActionListener(this);

l1.setFont(new Font("Serif",Font.BOLD,28));

l1.setBounds(650,70,400,80);

l2.setFont(new Font("Serif",Font.BOLD,25));

l2.setBounds(540,180,140,50);

lt1.setFont(new Font("Serif",Font.BOLD,20));

lt1.setBounds(700,180,300,40);

l3.setFont(new Font("Serif",Font.BOLD,25));

l3.setBounds(540,240,140,50);

lt2.setFont(new Font("Serif",Font.BOLD,20));

lt2.setBounds(700,240,300,40);

l4.setFont(new Font("Serif",Font.BOLD,25));

l4.setBounds(540,300,140,50);

lt3.setFont(new Font("Serif",Font.BOLD,20));

lt3.setBounds(700,300,300,40);

l5.setFont(new Font("Serif",Font.BOLD,25));

l5.setBounds(540,360,145,50);

lt4.setFont(new Font("Serif",Font.BOLD,20));

lt4.setBounds(700,360,300,40);

l6.setFont(new Font("Serif",Font.BOLD,25));

l6.setBounds(540,420,140,50);

lt5.setFont(new Font("Serif",Font.BOLD,20));

lt5.setBounds(700,420,300,40);

l7.setFont(new Font("Serif",Font.BOLD,25));

l7.setBounds(540,480,145,50);

lt6.setFont(new Font("Serif",Font.BOLD,20));

lt6.setBounds(700,480,300,40);

l8.setFont(new Font("Serif",Font.BOLD,25));

l8.setBounds(540,530,140,50);

lt7.setFont(new Font("Serif",Font.BOLD,20));

lt7.setBounds(700,530,300,40);

cancel.setBounds(650,610,120,50);

cancel.setFont(new Font("Serif",Font.BOLD,28));

cancel.setBackground(new Color (59,89,182));

cancel.setForeground(Color.WHITE);

back.setBounds(800,610,120,50);

back.setFont(new Font("Serif",Font.BOLD,28));

back.setBackground(new Color (59,89,182));

back.setForeground(Color.WHITE);

add(l1);add(l2);add(l3);add(l4);add(l5);add(l6);add(l7);add(l8);

add(lt1);add(lt2);add(lt3);add(lt4);add(lt5);add(lt6);add(lt7);add(cancel);add(back);

setTitle("Student Info");

setVisible(true);

setSize(2000,2000);

}

public void paint(Graphics g)

{

super.paint(g);

g.setColor(Color.BLACK);

g.drawRect(420,170,680,510);

g.setColor(Color.BLACK);

g.drawRect(400,150,720,550);

}

public void actionPerformed(ActionEvent ae)

{

if(ae.getSource()==cancel)

{

System.exit(0);

}

if(ae.getSource()==back)

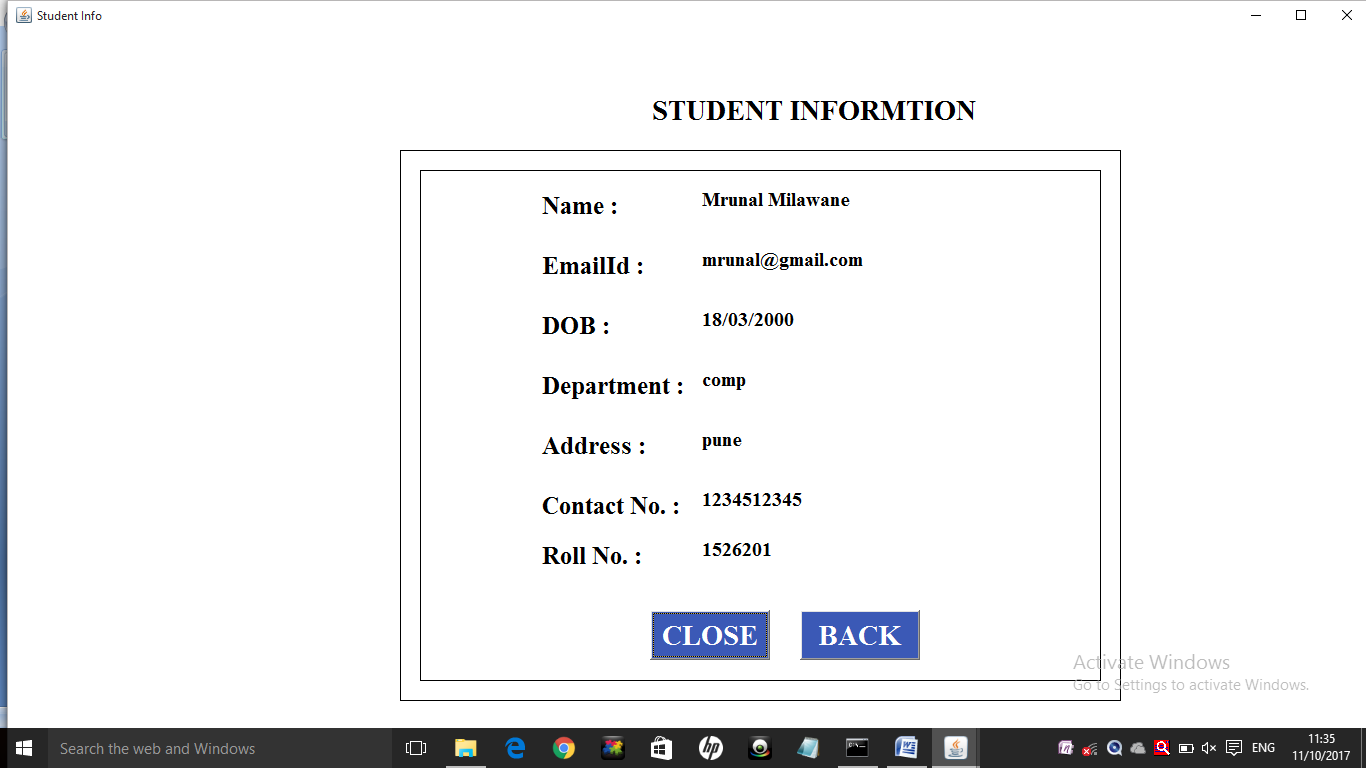
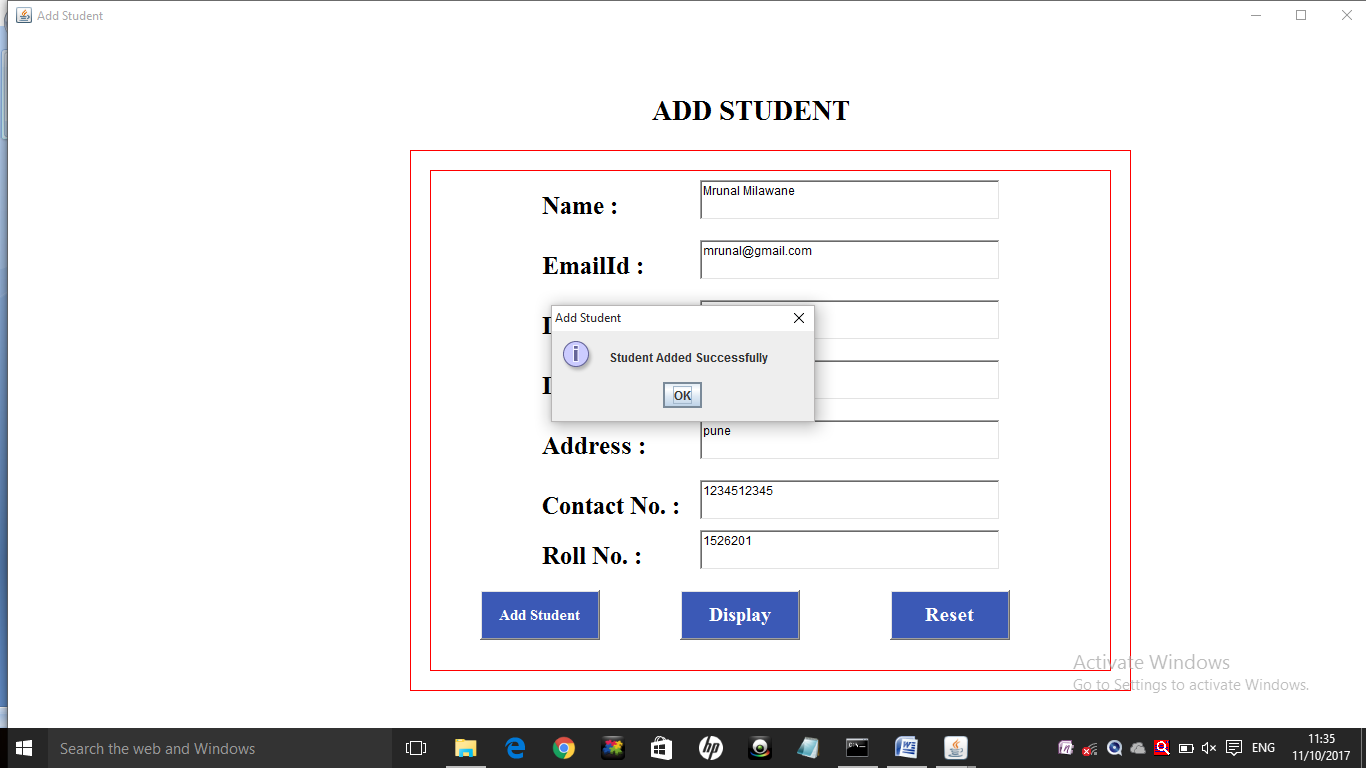
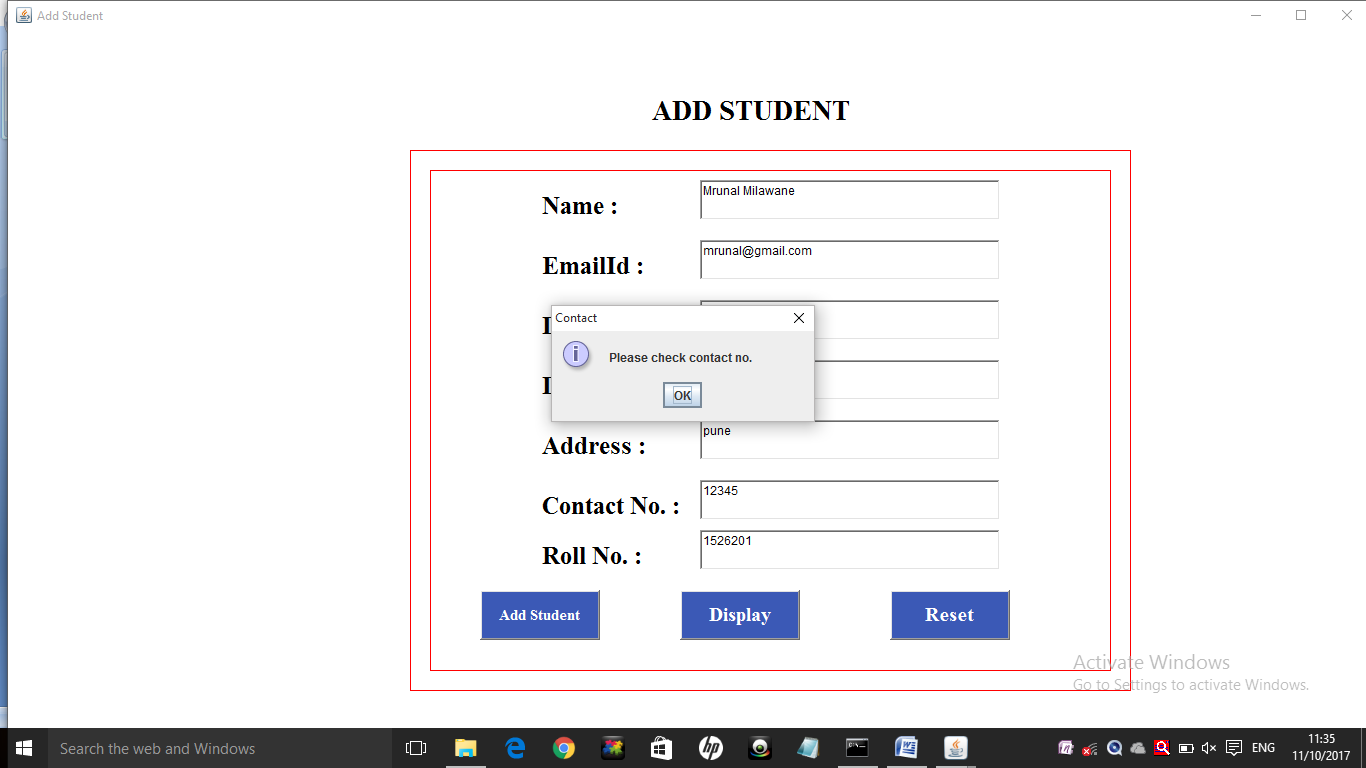
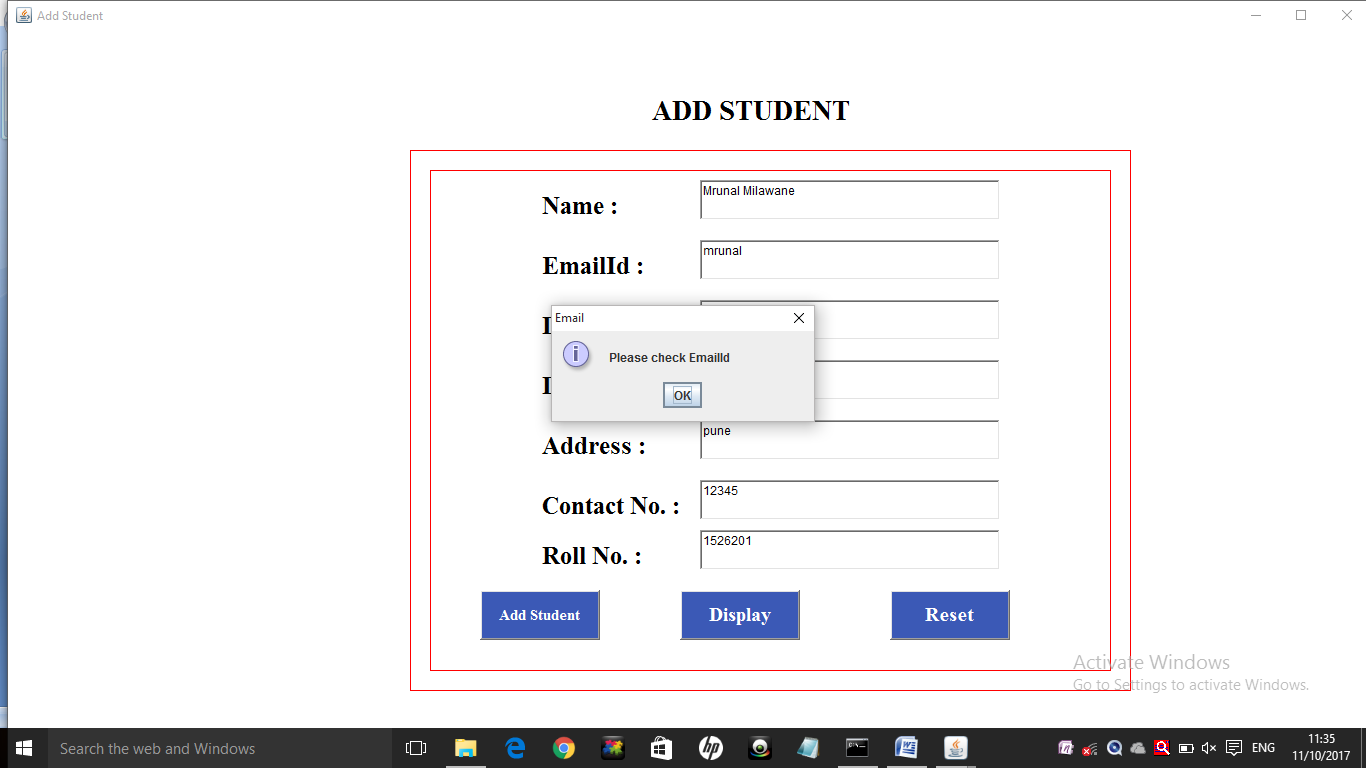
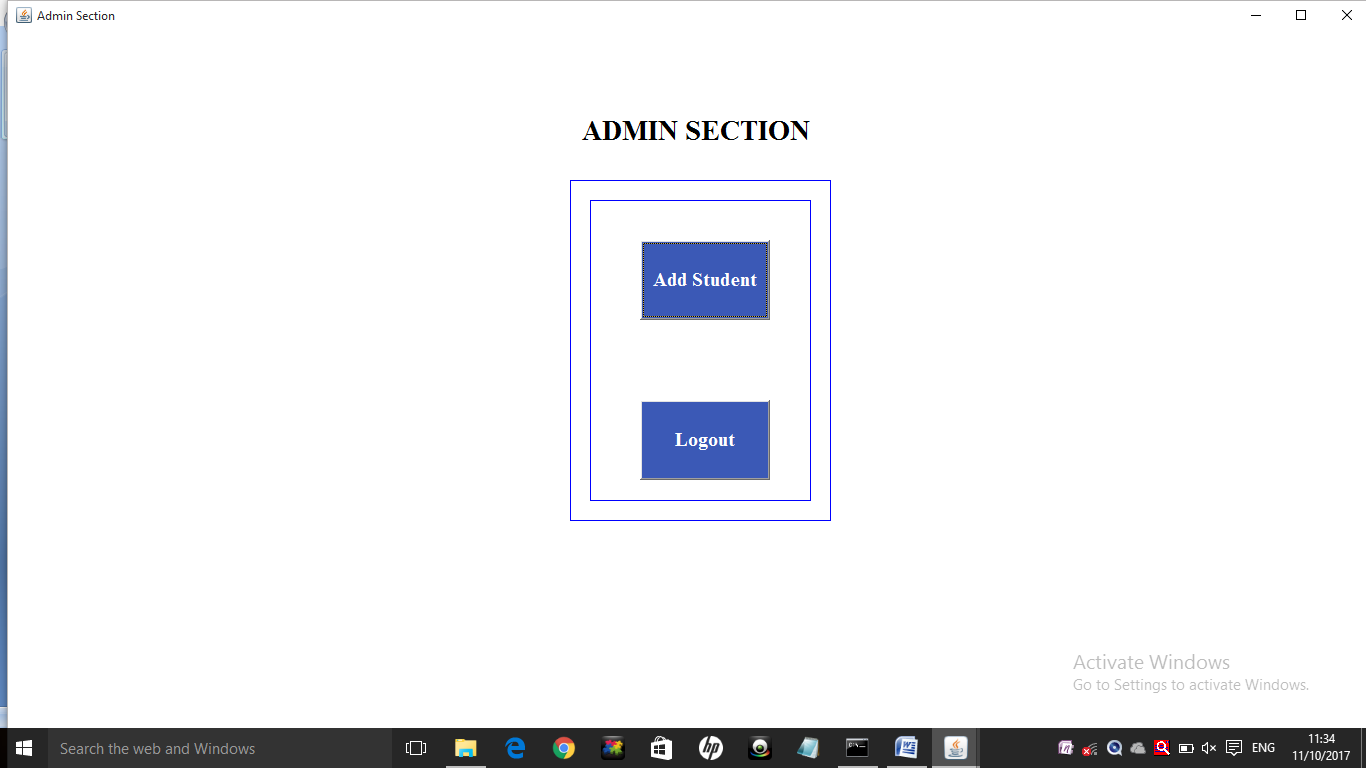
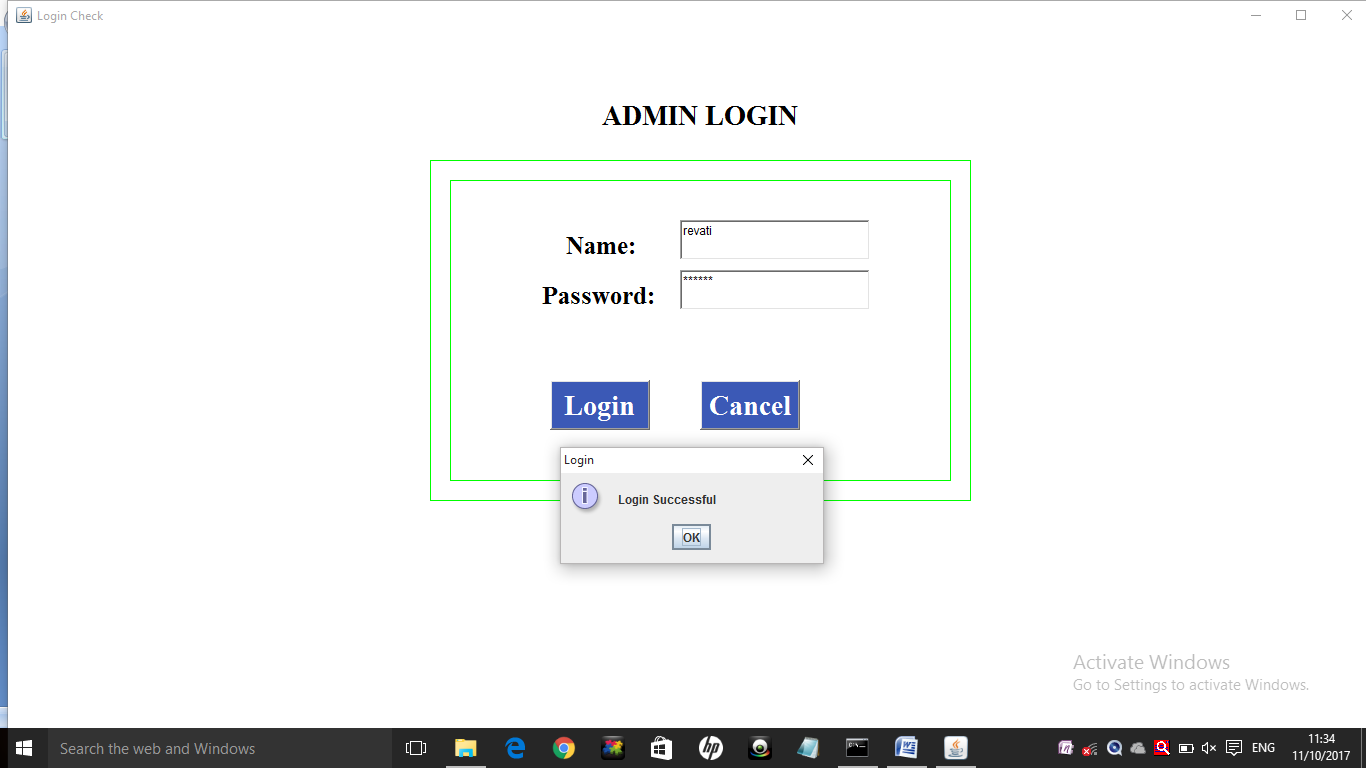
{

new Dis();

}

}

}

* **Outputs:**