INTRODUCTION

AIM

The aim of this pay slip generator program using Swing in Java is to provide a GUI to the users. It is easy to use and provides accurate pay slips according to the number of days worked and pay rate of each employee.

WORKING

1. Welcome window appears.

2. User is asked for his credentials.(Name, Id and password)

3. If the details are entered, he is prompted to the next window where he is asked for number of days worked, pay per day, and Additional days worked.

4. After the details are entered, a salary slip is generated.

5. If any of the details are not entered, an error window appears

PROGRAM

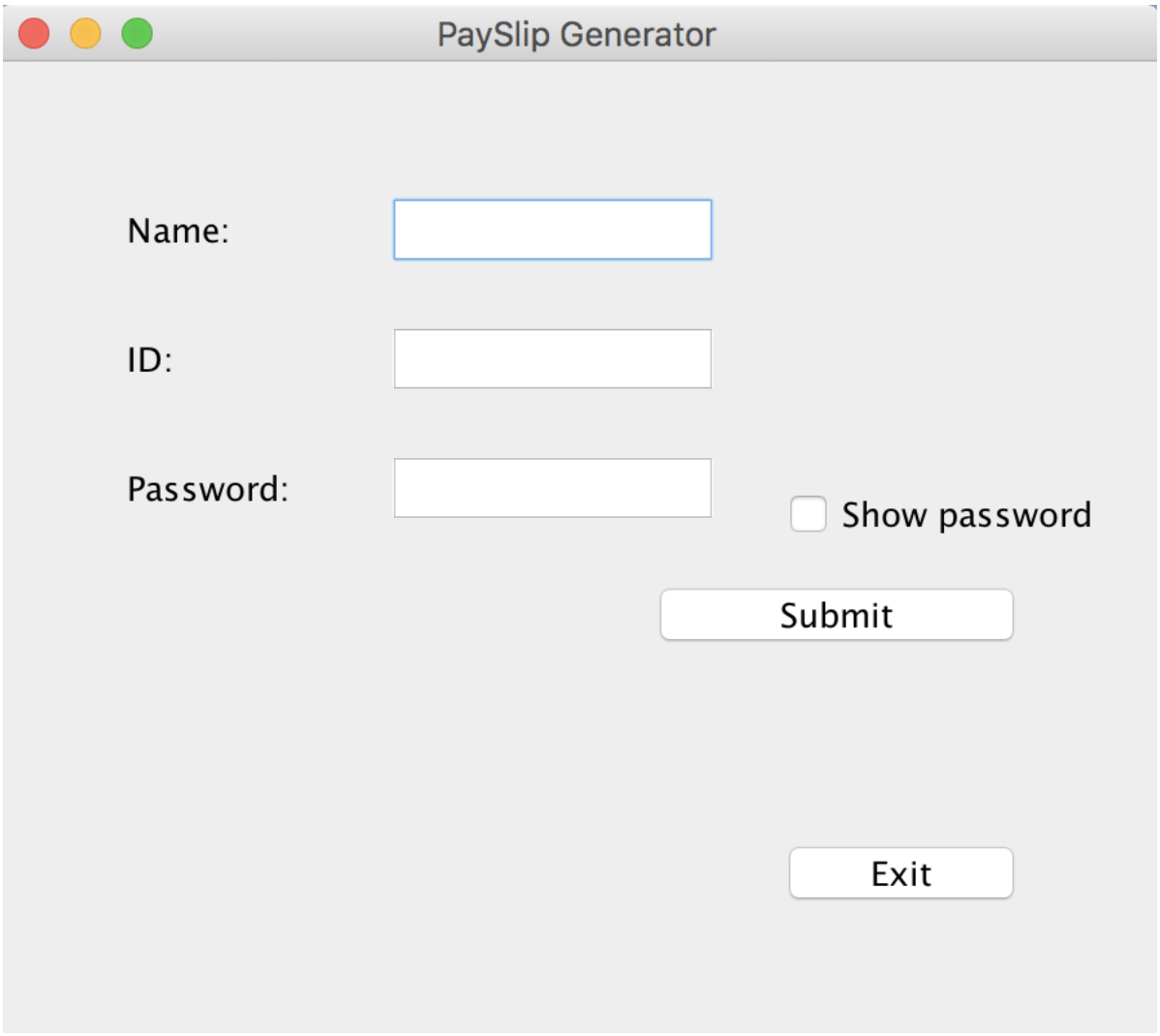
```
import java.awt.event.*;
import javax.swing.*;
class Frame {
  JFrame f;

  Frame(String name) {
    this.f = new JFrame(name);
    JButton b = this.addButton("Exit", 300, 300, 100, 30);
    b.addActionListener(
      e -> {
        f.dispose();
      });
    f.setSize(450, 400);
    f.setLayout(null);
    f.setVisible(true);
  }

  public JButton addButton(String bname, int x, int y, int w, int h) {
    JButton b = new JButton(bname);
    b.setBounds(x, y, w, h);
    f.add(b);
    return b;
  }

  public JTextField addTextField(int x, int y, int w, int h) {
    JTextField t = new JTextField(20);
    t.setBounds(x, y, w, h);
    f.add(t);
    return t;
  }

  public void addLabel(String lname, int x, int y, int w, int h) {
    JLabel l = new JLabel(lname);
    l.setBounds(x, y, w, h);
    f.add(l);
  }

  public JPasswordField addPasswordField(int x, int y, int w, int h) {
```

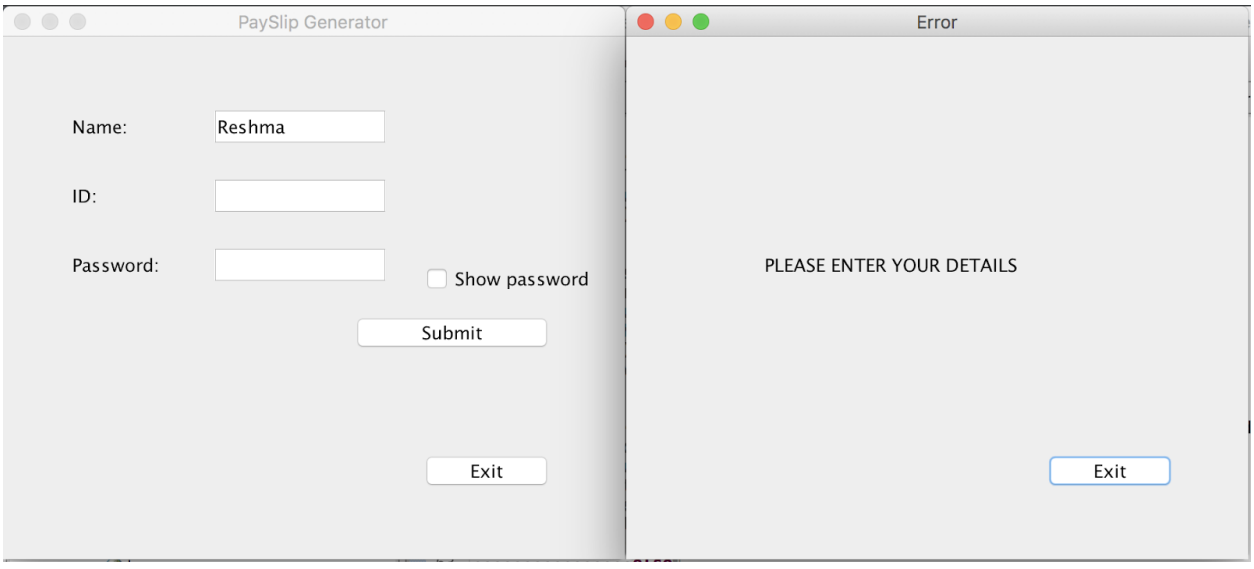
```
    JPasswordField v = new JPasswordField();
    v.setBounds(x, y, w, h);
    v.setEchoChar('*');
    f.add(v);
    return v;
  }

  public void addCheckBox(String name, int x, int y, int w, int h, JPasswordField v) {
    JCheckBox c = new JCheckBox(name);
    c.setBounds(x, y, w, h);
    c.addActionListener(
      new ActionListener() {

        public void actionPerformed(ActionEvent ae) {
          if (c.isSelected()) v.setEchoChar((char) 0);
          else
            v.setEchoChar('*');
        }
      });
    f.add(c);
  }

  public JButton showImageIcon() {
    ImageIcon logo = new ImageIcon("logo.png");
    JButton lbutton = new JButton(logo);
    lbutton.setBounds(100, 50, 200, 200);
    f.add(lbutton);
    return lbutton;
  }
}

public class PSGenerated {
  public static void main(String[] args) {
    Frame o = new Frame("PaySlip Generator");
    JButton b1 = o.showImageIcon();

    b1.addActionListener(
      new ActionListener() {

        public void actionPerformed(ActionEvent ae) {
          Frame o = new Frame("PaySlip Generator");
          o.addLabel("Name:", 50, 50, 130, 30);
          JTextField nameTextField = o.addTextField(150, 50, 130, 30);
```

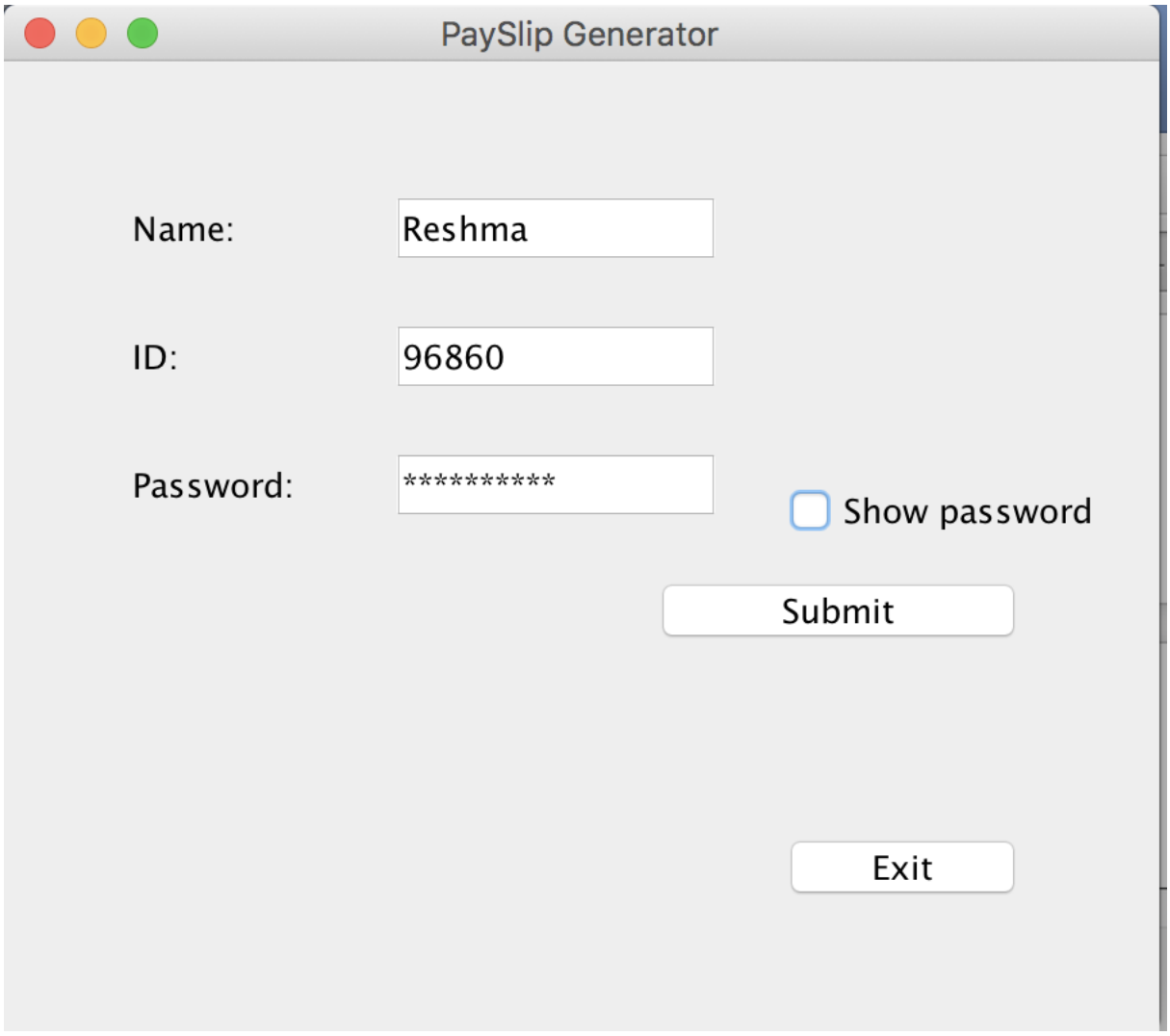
```
o.addLabel("ID:", 50, 100, 130, 30);
JTextField idTextField = o.addTextField(150, 100, 130, 30);
o.addLabel("Password:", 50, 150, 130, 30);
JPasswordField pwdField = o.addPasswordField(150, 150, 130, 30);
o.addCheckBox("Show password", 300, 150, 130, 50, pwdField);
JTextField pwdTextField = pwdField;
JButton b2 = o.addButton("Submit", 250, 200, 150, 30);
b2.addActionListener(
  new ActionListener() {

    public void actionPerformed(ActionEvent ae) {
       String name = nameTextField.getText();
       String id = idTextField.getText();
       String pwd = pwdTextField.getText();
       if (!name.equals("") && !id.equals("") && !pwd.equals("")) {
         Frame o = new Frame("PaySlip Generator");
         o.addLabel("No. of days worked:", 50, 50, 130, 30);
         JTextField dayTextField = o.addTextField(200, 50, 130, 30);
         o.addLabel("Pay per day:", 50, 100, 130, 30);
         JTextField paypdTextField = o.addTextField(200, 100, 130, 30);
         o.addLabel("Add. working days:", 50, 150, 150, 30);
         JTextField adworkdayTextField = o.addTextField(200, 150, 130, 30);
         JButton b3 = o.addButton("Generate payslip", 250, 200, 150, 30);
         b3.addActionListener(
           new ActionListener() {

             public void actionPerformed(ActionEvent ae) {
               if (!dayTextField.getText().equals("")
               && !paypdTextField.getText().equals("")
               && !adworkdayTextField.getText().equals("")) {
                 Frame o = new Frame("Salary Slip");
                 o.addLabel("NAME:       ", 50, 50, 130, 30);
                 o.addLabel(name, 220, 50, 130, 30);

                o.addLabel("ID:         ", 50, 100, 130, 30);
                 o.addLabel(id, 220, 100, 130, 30);

                float day = Float.parseFloat(dayTextField.getText());
                 float pay = Float.parseFloat(paypdTextField.getText());
                 float wday = Float.parseFloat(adworkdayTextField.getText());
                 float sal = (day + wday) * pay;
                 o.addLabel("NO OF DAYS: ", 50, 150, 130, 30);
                 o.addLabel((day + wday) + "", 220, 150, 130, 30);
```

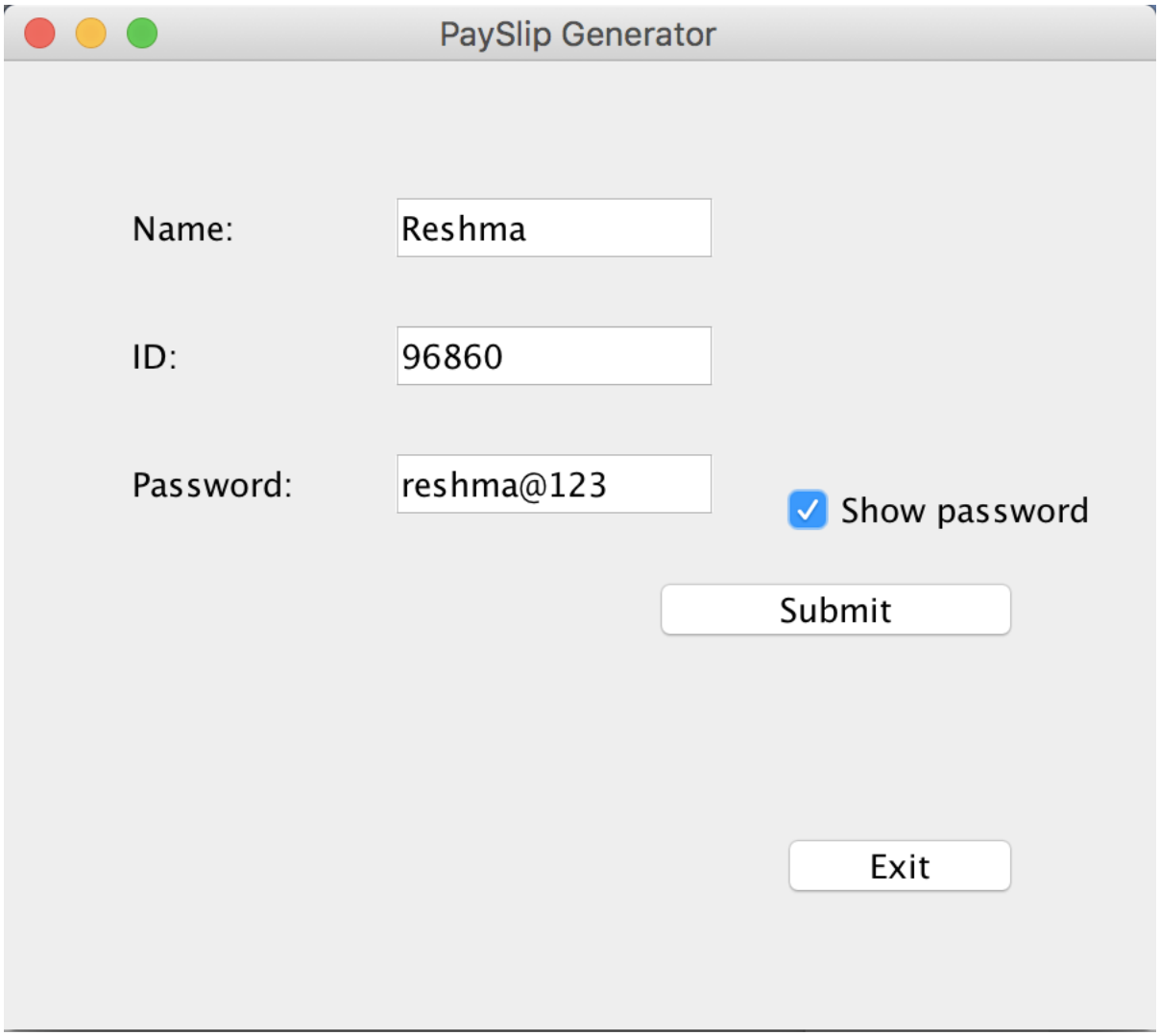
```
                        o.addLabel("SALARY:     ", 50, 200, 130, 30);
                        o.addLabel(sal + "", 220, 200, 130, 30);

                      } else {
                        Frame o = new Frame("Error");
                        o.addLabel("PLEASE ENTER YOUR DETAILS", 100, 150, 230, 30);
                      }

                    }
                  });
              } else {
                Frame o = new Frame("Error");
                o.addLabel("PLEASE ENTER YOUR DETAILS", 100, 150, 230, 30);
              }
            }
          });
      }
    });
  }
}
```

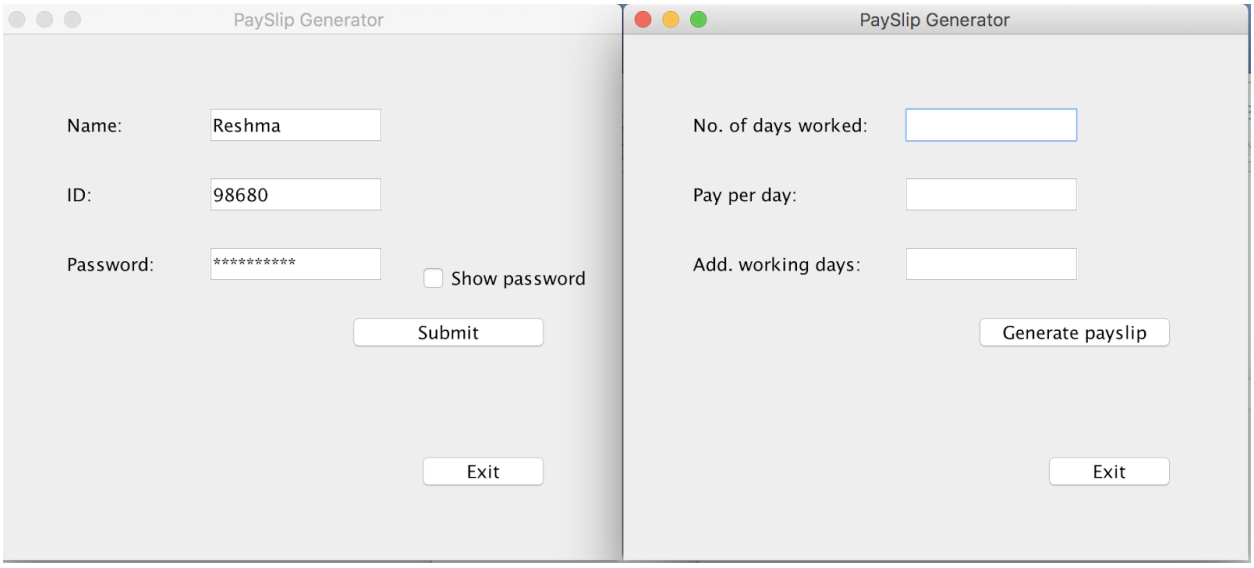
OUTPUT

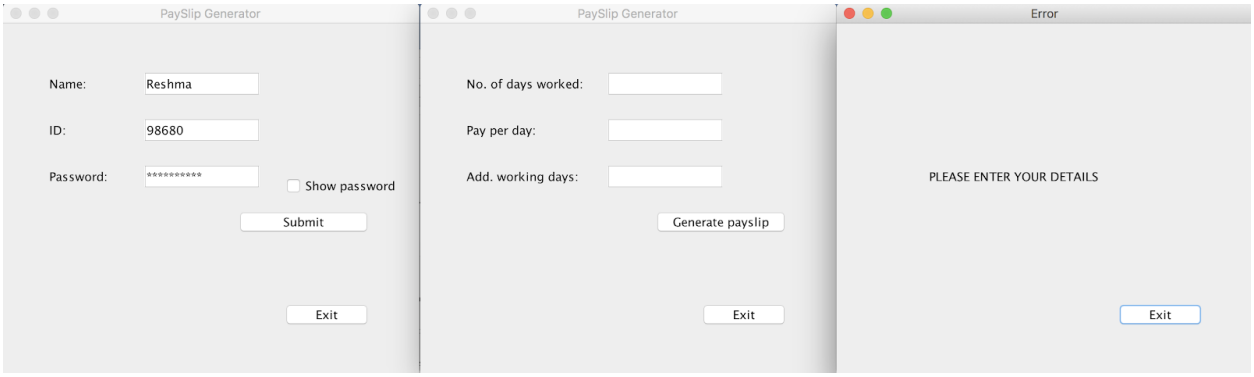

PaySlip Generator
Name:
ID:
Password:
Show password
Submit
Exit

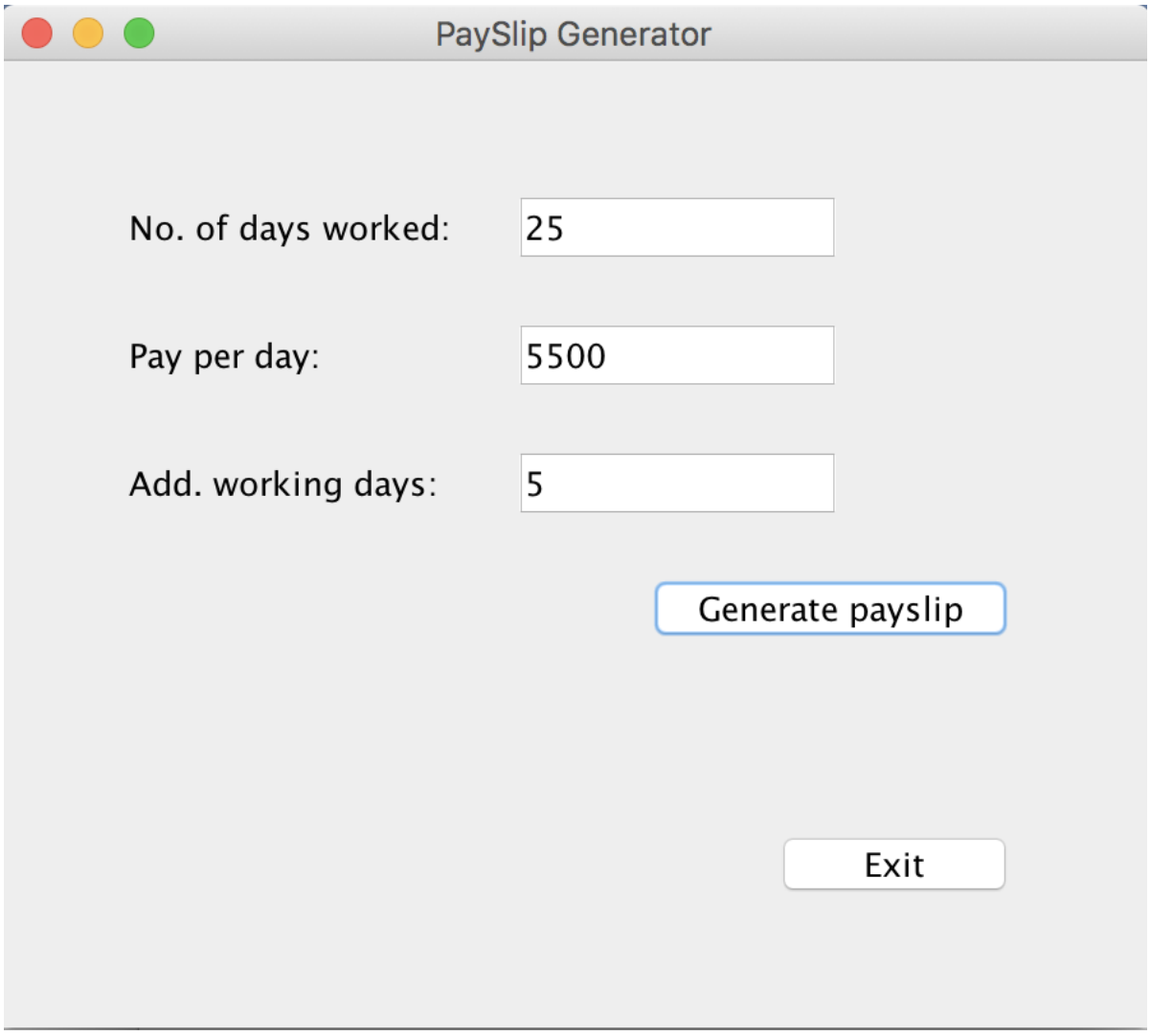

PaySlip Generator
Name:
Reshma
ID:
Password:
Show password
Submit
Exit
Error
PLEASE ENTER YOUR DETAILS
Exit

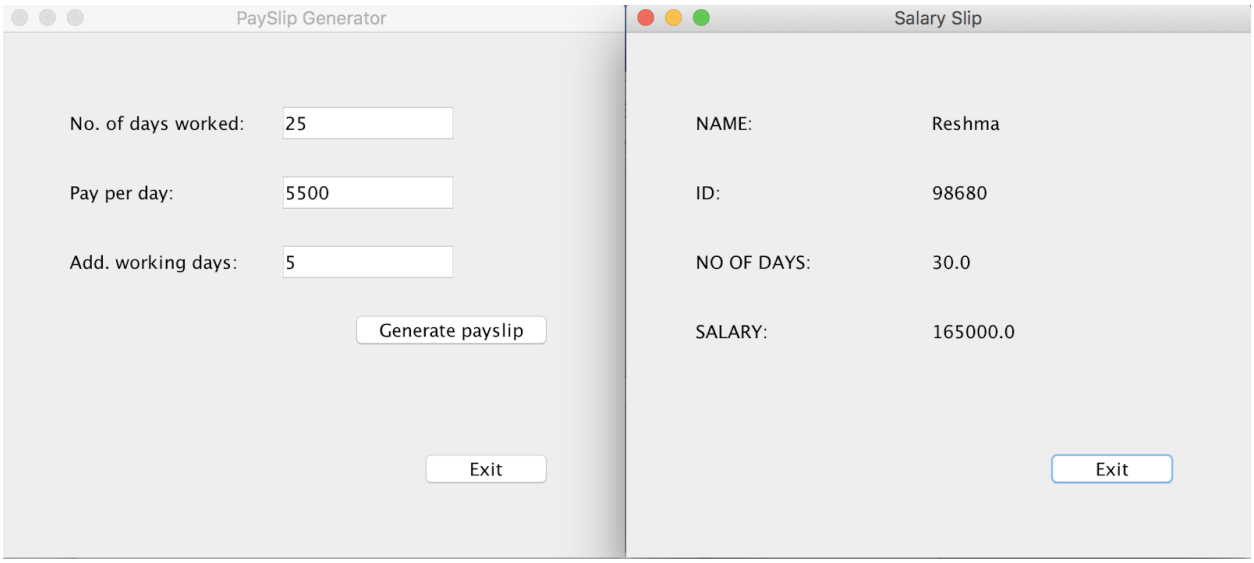

PaySlip Generator
Name:
Reshma
ID:
96860
Password:
****
Show password
Submit
Exit

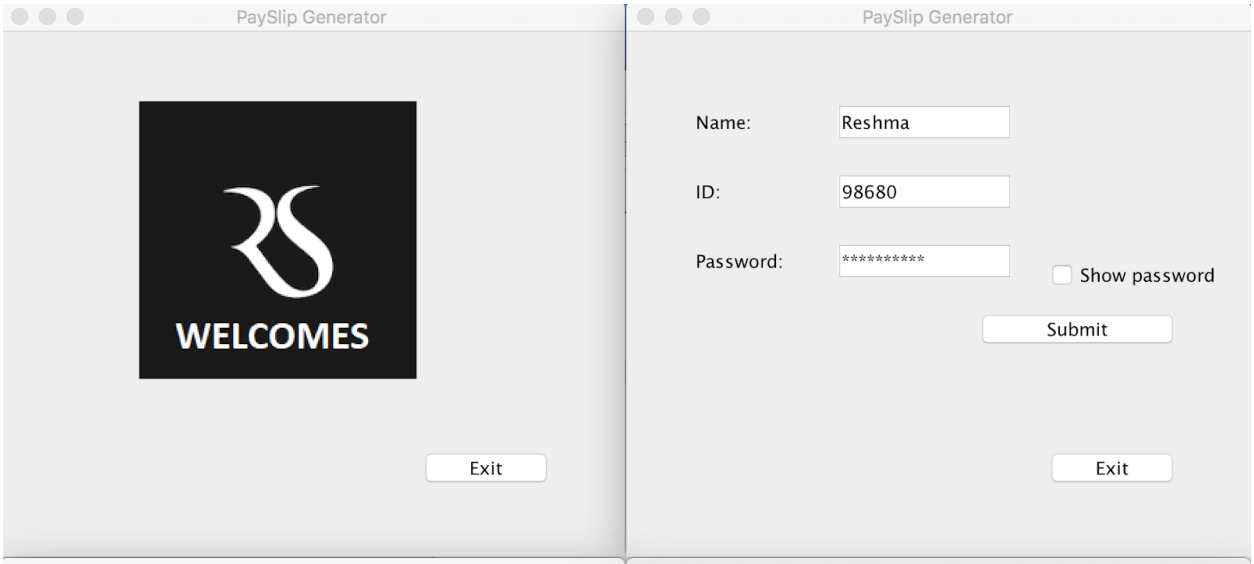

PaySlip Generator
Name:
Reshma
ID:
96860
Password:
reshma@123
Show password
Submit
Exit

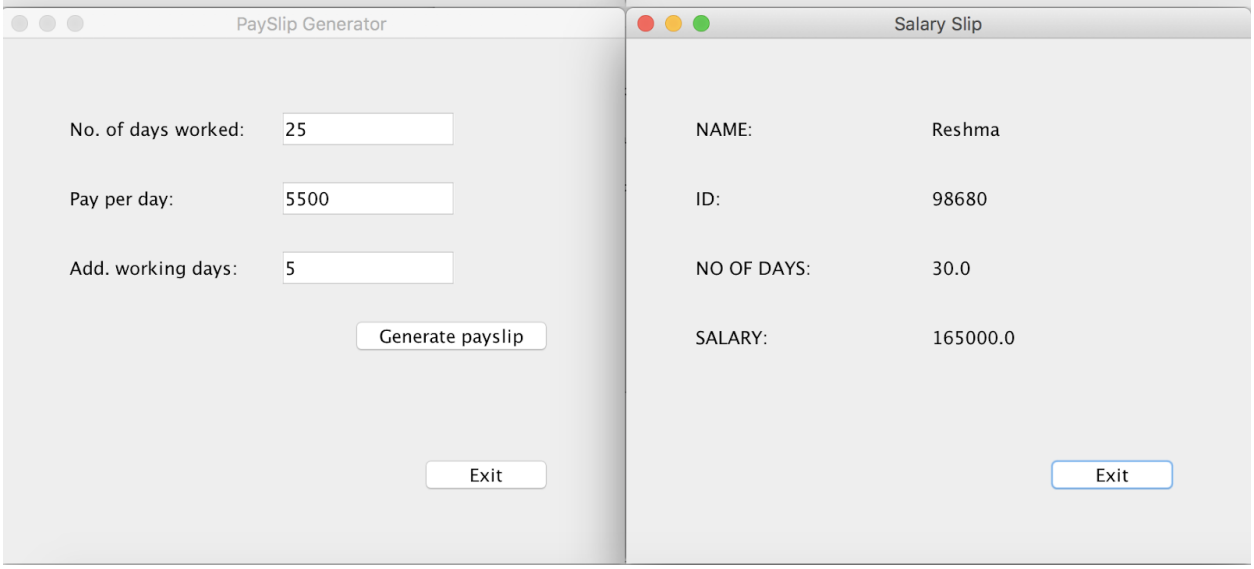

PaySlip Generator
Name:
Reshma
ID:
98680
Password:
****
Show password
Submit
Exit
PaySlip Generator
No. of days worked:
Pay per day:
Add. working days:
Generate payslip
Exit


PaySlip Generator
Name:
Reshma
ID:
98680
Password:
Show password
Submit
Exit
PaySlip Generator
No. of days worked:
Pay per day:
Add. working days:
Generate payslip
Exit
Error
PLEASE ENTER YOUR DETAILS
Exit


PaySlip Generator
No. of days worked:
25
Pay per day:
5500
Add. working days:
5
Generate payslip
Exit


PaySlip Generator
No. of days worked:
25
Pay per day:
5500
Add. working days:
5
Generate payslip
Exit
Salary Slip
NAME:
Reshma
ID:
98680
NO OF DAYS:
30.0
SALARY:
165000.0
Exit


PaySlip Generator
WELCOMES
Exit
PaySlip Generator
Name:
Reshma
ID:
98680
Password:
Show password
Submit
Exit


PaySlip Generator
No. of days worked:
25
Pay per day:
5500
Add. working days:
5
Generate payslip
Exit
Salary Slip
NAME:
Reshma
ID:
98680
NO OF DAYS:
30.0
SALARY:
165000.0
Exit

MODULES USED

1. addButton()

This method consists of the JButton class which is used to create a labeled button that has platform independent implementation. The application result in some action when the button is pushed. It inherits AbstractButton class.

Each time this method is invoked, a new button is created whose Label and bounds will be defined when it is invoked.

We have used it to create the following buttons:

1. Submit

2. Exit

3. Generate

2. addTextfield

This method consists of The JTextField is a part of javax.swing package. The class JTextField is a component that allows editing of a single line of text. JTextField inherits the JTextComponent class and uses the interface SwingConstants..

Whenever this method is invoked, a text filed is created whose bounds are set when the method is invoked. The created text field is used for the user to enter the inputs

3. addLabel()

This method consists the object of JLabel class is a component for placing text in a container. It is used to display a single line of read only text. The text can be changed by an application, but a user cannot edit it directly. It inherits JComponent class.

Whenver this method is invoked, a label is created whose bounds are set when the method is invoked. The created label is used to specify what input has to be entered by the user. It is just displayed on the frame.

Some of the labels we used are:

1. Name

2.Id

3.Password etc.…

4. addPassword()

This method consists the object of a JPasswordField class which is a text component specialized for password entry. It allows the editing of a single line of text. It inherits JTextField class.

Whenver this method is invoked, a text filed is created whose bounds are set when the method is invoked. This is used for the user to type the password which is hidden. The text which he enters is substituted by '*' character. If he desires to view the text entered, then he could do this by clicking on the checkbox "Show password".

5. addcheckBox ()

This method consists of The JCheckBox class is used to create a checkbox. It is used to turn an option on (true) or off (false). Clicking on a Check Box changes its state from "on" to "off" or from "off" to "on ". It inherits JToggleButton class.

Whenever this method is invoked; a checkbox is created. If the checkbox is clicked, then appropriate action is performed. We have used this for "Show Password"(Explained above)

6. showImageIcon()

This method consists of the class ImageIcon which is an implementation of the Icon interface that paints Icons from Images.

Whenever this method is invoked; it paints Icons from Images. Images that are created from a URL, filename or byte array are preloaded using Media Tracker to monitor the loaded state of the image. We used this method to display the logo that appears in the first frame.