**Employee Salary Management System**

1. **Rationale:**

Employee Payroll System is a simple application using graphical components in the Swing toolkit in Java. The feature of this simple application includes CRUD and calculating total salary an employee. In order to add a record, the user has to provide id, name, department, per day rate and salary of an employee. This whole system is not built with the help of NetBeans IDE.

# Aims/Benefits of the Micro-project:

# To prepare a report on Employee Salary Management System.

# Course Outcomes Achieved

* + 1. Develop program using GUI framework (AWT and Swing).
    2. Handle event of AWT and Swing Component.
    3. Develop program to handle events in Java Programming.
    4. Develop Program using Database.

# 4.0 Literature Review:

The project consists of several classes working together -- most of them are provided for we -- only one class (the one named project) will be written by we. The final product makes calculation of different values which are the inputted by the user.There are several classes we will use for this project is provided in one of the available Java awt and swing packages. Awt and swing classes are used for designing an application or handling an event. An event having a package called "java.awt. Event". That means that any class that wants to use different objects must begin with the following statement at the top of the file.

import java.awt. \*; import javax. swing. \*;

If we wanted to create, we are having our own Control object we could use a statement like the one below: Button b=new Button(“Button1”); // b refers to the button1There are other ways to generate just about any control we could imagine, but the simple syntax shown above works for the following built-in control that are needed for the calculator: Button, text field, frame. In real life some calculations are very complicated then by using calculator application we can do it easily.

**5.0 Actual Methodology Followed:**

**Algorithm: -**

Step 1: Start.

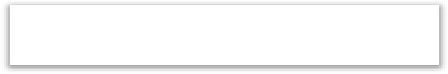
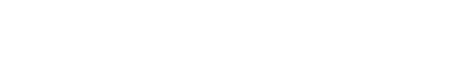
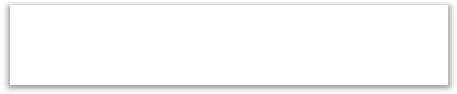
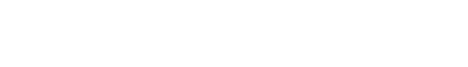
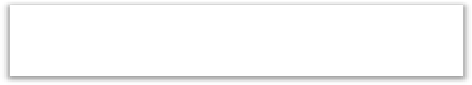
Step 2: Developing GUI including JButtton, JText and JFrame.

Step 3: Implementing buttons as like (one, two, three, four, five, six, seven, eight, nine, addition, subtraction, multiplication, division, equal to, etc.)

Step 4: Implementing an Action event for each button

Step 5: Coding for employee Salary management system.

**Flowchart: -**

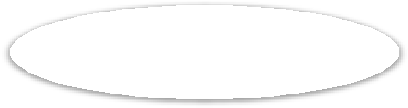
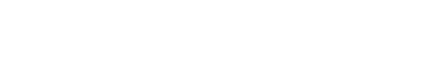
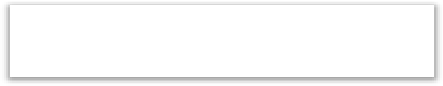


START

**Give input second operator**

**Choose the operation or give the operator**

**Give input one operand**



**STOP**

**Answer will be display**

**Program Code: -**

import javax.swing.\*;

import javax.swing.event.\*;

import java.awt.\*;

import java.awt.event.\*;

import java.sql.\*;

import java.io.\*;

class Frame1 extends JFrame implements ActionListener {

// initializa the lbl with caption name is employee information.

JLabel lbl=new JLabel("Simple Payroll System Version 2.0");

Font f=new Font("Times",Font.BOLD,30);

Font f1=new Font("Times",Font.BOLD,16);

Font f2=new Font("Times",Font.BOLD,12);

JLabel lblid,lblname,lbldepartment,lbldays,lblrate,lblsubmit;

JLabel lblsalary;

JTextField txtid,txtname,txtdepartment,txtdays;

JTextField txtrate,txtsalary;

JRadioButton rbmale,rbfemale;

JButton btnadd,btnsave,btnupdate,btndelete,btnexit;

JButton btnnext,btnprev,btnlast,btnfirst;

JButton btncompute;

String gen;

ResultSet rs=null;

Connection con=null;

Statement stmt=null;

float days,rate,salary;

Frame1()

{

// this is display in a Frame titlebar.

super("Employees Information ");

addWindowListener(new WindowAdapter(){

public void windowClosing(WindowEvent we)

{

System.exit(0);

}

});

// set layout to null

setLayout(null);

lblsubmit=new JLabel("Developed By : Mr. Jake Rodriguez Pomperada, MAED-IT");

add(lblsubmit);

lblsubmit.setHorizontalAlignment(lblsubmit.CENTER );

lblsubmit.setBounds(220,510,450,20);

lblsubmit.setFont(f1);

// add lbl label on form.

add(lbl);

// set the particular position on a screen

lbl.setBounds(200,50,500,100);

lbl.setHorizontalAlignment(lbl.CENTER );

// set the font of lbl label

lbl.setFont(f);

// initializa all the label which are declared in the example above with its caption name

lblid=new JLabel("ID");

lblname=new JLabel("NAME");

lbldepartment=new JLabel("DEPARTMENT");

lbldays=new JLabel("N0. OF DAYS ");

lblrate=new JLabel("RATE PER DAY");

lblsalary=new JLabel("SALARY");

lblid.setBounds(300,140,100,20);

lblname.setBounds(300,180,100,20);

lbldepartment.setBounds(300,220,100,20);

lbldays.setBounds(300,250,100,20);

lblrate.setBounds(300,280,100,20);

lblsalary.setBounds(300,310,100,20);

// add all the label on the frame

add(lblid);

add(lblname);

add(lbldepartment);

add(lbldays);

add(lblrate);

add(lblsalary);

// set font

lblid.setFont(f2);

lblname.setFont(f2);

lbldepartment.setFont(f2);

lbldays.setFont(f2);

lblrate.setFont(f2);

lblsalary.setFont(f2);

// initialize the textfield with size

txtid=new JTextField(15);

txtname=new JTextField(15);

txtdepartment=new JTextField(15);

txtdays=new JTextField(15);

txtrate=new JTextField(15);

txtsalary=new JTextField(15);

// set a particlar position on a screen with setbounds constructor

txtid.setBounds(400,140,100,20);

txtname.setBounds(400,180,100,20);

txtdepartment.setBounds(400,220,100,20);

txtdays.setBounds(400,250,100,20);

txtrate.setBounds(400,280,100,20);

txtsalary.setBounds(400,310,100,20);

// add textfield on a Frame

add(txtid);

add(txtname);

add(txtdepartment);

add(txtdays);

add(txtrate);

add(txtsalary);

// initializa button with its caption

btnadd=new JButton("Add");

btnsave=new JButton("Save");

btnupdate=new JButton("Update");

btndelete=new JButton("Delete");

// To add tooltip in the buttons

btnadd.setToolTipText("Click this button to Add record in the Database.");

btnsave.setToolTipText("Click this button to Save record in the Database.");

btnupdate.setToolTipText("Click this button to Update record in the Database.");

btndelete.setToolTipText("Click this button to Delete record in the Database.");

// set a particular position on a Frame

btnadd.setBounds(200,400,100,30);

btnsave.setBounds(310,400,100,30);

btnupdate.setBounds(420,400,100,30);

btndelete.setBounds(530,400,100,30);

// add button on a frame

add(btnadd);

add(btnsave);

add(btndelete);

add(btnupdate);

// register all the button

btnadd.addActionListener(this);

btnsave.addActionListener(this);

btnupdate.addActionListener(this);

btndelete.addActionListener(this);

// initializa nevigation button with its caption

btnfirst=new JButton("First");

btnnext=new JButton("Next");

btnprev=new JButton("Previous");

btnlast=new JButton("Last");

// To add tooltip in the buttons

btnfirst.setToolTipText("Click this button to move to the First Record.");

btnnext.setToolTipText("Click this button to move to the Next Record.");

btnprev.setToolTipText("Click this button to move to the Previous Record.");

btnlast.setToolTipText("Click this button to move to the Last Record.");

// set a particular position on a screen with setbounds constructor

btnfirst.setBounds(200,440,100,30);

btnnext.setBounds(310,440,100,30);

btnprev.setBounds(420,440,100,30);

btnlast.setBounds(530,440,100,30);

// add all the button on frame

add(btnfirst);

add(btnnext);

add(btnprev);

add(btnlast);

// register all the button

btnfirst.addActionListener(this);

btnnext.addActionListener(this);

btnprev.addActionListener(this);

btnlast.addActionListener(this);

btnexit=new JButton("Exit");

btnexit.setToolTipText("Click this button to Quit Program.");

btnexit.setBounds(360,480,100,30);

add(btnexit);

btnexit.addActionListener(this);

btncompute=new JButton("Compute");

btncompute.setToolTipText("Click this button to compute the salary of the employee.");

btncompute.setBounds(360,350,100,30);

add(btncompute);

btncompute.addActionListener(this);

// open database connection

// here we call a dbopen() method

dbOpen();

}

public void actionPerformed(ActionEvent ae)

{

try

{

if(ae.getActionCommand()=="Add")

{

txtid.setText("");

txtname.setText("");

txtdepartment.setText("");

txtdays.setText("");

txtrate.setText("");

txtsalary.setText("");

}

if(ae.getActionCommand()=="Update")

{

stmt.executeUpdate("UPDATE pay1 SET name='" + txtname.getText() + "',department='" + txtdepartment.getText() + "',days='" + txtdays.getText() + "',rate='" + txtrate.getText()+ "',salary='" + txtsalary.getText() + "' WHERE id=" + txtid.getText() + "");

dbClose();

dbOpen();

}

if(ae.getActionCommand()=="Delete")

{

stmt.executeUpdate("DELETE FROM pay1 WHERE id=" + txtid.getText() + "");

dbClose();

dbOpen();

}

if(ae.getActionCommand()=="Save")

{

stmt.executeUpdate("INSERT INTO pay1 VALUES('" +txtid.getText()+ "','"+ txtname.getText() + "','" + txtdepartment.getText() + "','" + txtdays.getText() + "','"+txtrate.getText() + "','" +txtsalary.getText() +"')");

dbClose();

dbOpen();

}

if(ae.getActionCommand()=="Next")

{

if(rs.next())

{

setText(); setText();

}

else

{

JOptionPane.showMessageDialog(null, "You are At Already Last Record", "Message", JOptionPane.ERROR\_MESSAGE);

}

}

if(ae.getActionCommand()=="Previous")

{

if(rs.previous())

{

setText();

}else

{

JOptionPane.showMessageDialog(null, "You Are At Already First Record", "Message", JOptionPane.ERROR\_MESSAGE);

}

}

if (ae.getActionCommand()=="First")

{

if(rs.first())

{

setText();

}

}

if (ae.getActionCommand()=="Last")

{

if(rs.last())

{

setText();

}

}

if(ae.getActionCommand()=="Compute")

{

days=Float.parseFloat(txtdays.getText());

rate=Float.parseFloat(txtrate.getText());

salary=(days\*rate);

float round = Round(salary,2);

txtsalary.setText(Float.toString(round));

txtsalary.setEditable(false);

}

if(ae.getActionCommand()=="Exit")

{

System.exit(0);

}

}

catch(Exception e)

{

e.printStackTrace();

}

}

// Method to round off decimal values

public static float Round(float Rval, int Rpl) {

float p = (float)Math.pow(10,Rpl);

Rval = Rval \* p;

float tmp = Math.round(Rval);

return (float)tmp/p;

}

public void dbOpen()

{

try

{

Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");

// here in this statement mydata is a DSN name which u have to create before run this program

// step to create dsn

// open control panel-> open administrativr tools-> open data source(ODBC)-> press add

//->select microsoft access driver(\*.mdb) then finish->give data source name-> select database and press ok

// again press ok.

con=DriverManager.getConnection("jdbc:odbc:mydata");

stmt=con.createStatement(ResultSet.TYPE\_SCROLL\_SENSITIVE,ResultSet.CONCUR\_UPDATABLE);

rs = stmt.executeQuery("Select \* from pay1");

if(rs.next())

setText();

}catch(Exception e){}

}

public void dbClose()

{

try{stmt.close();

rs.close();

con.close();

}catch(Exception e){}

}

public void setText(){

try{

txtid.setText(rs.getString(1));

txtname.setText(rs.getString(2));

txtdepartment.setText(rs.getString(3));

txtdays.setText(rs.getString(4));

txtrate.setText(rs.getString(5));

txtsalary.setText(rs.getString(6));

}catch(Exception ex){}

}

}

public class pay

{

public static void main(String ar[])throws Exception

{

// create a object of Frame1 class in main method

Frame1 f1=new Frame1();

// set frame size

f1.setSize(800,600);

// set frame visible true

f1.setVisible(true);

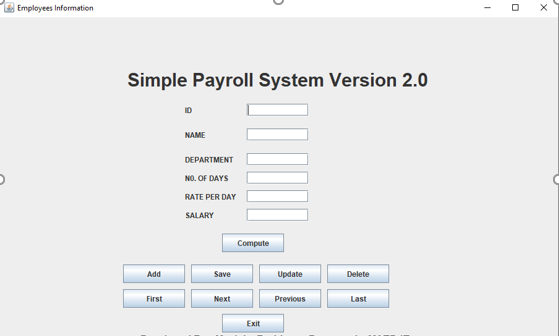
//set look and feel for frame

UIManager.setLookAndFeel("javax.swing.plaf.metal.MetalLookAndFeel");

}

}

**6.0 Output:**



**7.0 Skill Developed/Learning outcome of this Micro-Project:**

1. Apply event handling on AWT and swing components.

2. Learn to access database through java programs, Using java Data Base Connectivity (JDBC).

3. Create dynamic web pages, using servlets and JSP.

4. Make a reusable software component using java bean.

# 8.0 Applications of this Micro-Project:

1)Employee Salary Management System is a desktop application which is developed in java platform.

2)I have learned to access database through java programs, using java Data Base Connectivity (JDBC).

3)Make a reusable software component using java bean.