## PAYROLL GENERATING SYSTEM

A PROJECT REPORT SUBMITTED BY

TEAM -G2 N.G.R ABITHA (913121104004) N.AFFRIN FOWMIYA (913121104005) C.NANDHINI (913121104066) S.SWETHA (913121104111)

in partial fulfilment for the award of the degree of

# BACHELOR OF ENGINEERING IN COMPUTER SCIENCE AND ENGINEERING



# VELAMMAL COLLEGE OF ENGINEERING AND TECHNOLOGY

(AUTONOMOUS)

**MADURAI-625009** 

**DECEMBER-2022** 

# TABLE OF CONTENTS

CHAPTER NO	TITLE	PAGE NO	
	ABSTRACT		
		1	
1.	INTRODUCTION		
	1.1 BACKGROUND	2	
	1.2 MOTIVATION		
	1.3 OBJECTIVES		
2.	ABOUT THE SYSTEM	3	
	3.1 EXISTING SYSTEMS		
	3.2 NEED FOR NEW SYSTEM		
	3.3 PROPOSED SYSTEM		
3.	HARDWARE AND SOFTWARE	3	
	REQUIREMENTS		
4.	MODULE DESCRIPTION	4-9	
	5.1 COMPANY		
	<b>6.2 EMPLOYEE DETAILS</b>		
	6.3 SALARY GENERATION		
	6.4 PAYROLL DETAILS		
5.	SAMPLE CODING	10-17	
6.	APPENDICES	18-24	
7.	CONCLUSION	25	
8.	REFERENCE	26	

#### **ABSTRACT:**

This System is meant to supply the power to line up all the tasks of employee payment. At first, the user has got to undergo login system to urge access, then the user can add, list, update, and take away the employee's record, This system deals with the financial aspects of employee's Salary, Deductions, allowances, Net pay.

The user can view the account of each and every employee's payment is displayed which includes: Name with deduction, overtime, bonus and Net pay. This system makes easier to the user for managing payroll system as it is not time-consuming. This project is not difficult to operate and understood by the users

The "Payroll Management System" is designed to automate the existing manual system using computerized equipment and cutting-edge computer software, meeting client's needs so that their valuable data and information can be stored for a longer period with easy access and manipulation. The necessary software is readily available and simple to use. This software allows users to keep track of and see computerized records without having to make duplicate entries. The project explains how to handle user data for optimal efficiency and better customer service.

#### INTRODUCTION

#### **BACKGROUND:**

The proposed project "Employee Database and Payroll Management System" has been developed to overcome the problems faced in the practicing of manual system. This software is built to eliminate and in some cases reduce the hardships faced by the existing system. Moreover this system is designed for particular need of the company to carry out its operation in smooth and effective manner.

#### **MOTIVATION:**

After studying the data base connectivity in java and GUI makes us to generate report automatically by using salary database. In this report just we want to give information of employee ID and it will generate the salary of the employee.

#### **OBJECTIVE:**

The objective of this document is to describe the functionality and specifications of the design of a web application for Managing Employees and their payroll. The expected audiences of this document are the developers and the admin of the web application. Now with the help of this system the admin has the information on his finger tips and can easily prepare a good record based on their requirements. Finally, we can say that this system will not only automate the process but save the valuable time of the manager or the admin, which can be well utilized buy his institute. This will be an additional advantage and management of power based on their free time from his normal duty.

ABOUT THE SYSTEM

PROPOSED SYSTEM:

While generating salary for the employee instead of calculating the amount reduced or amount

incremented, this proposed system provides easy method to generate the report by just getting

the employee. This system use database for getting employee details and use GUI for attractive

application of GUI.

**NEED FOR NEW SYSTEM** 

This system deals with the financial aspects of employee's Salary, Deductions, allowances, Net

pay. The user can view the account of each and every employee's and update their payments, and

the user can also manage deductions, modify overtime and salary rate.

HARDWARE AND SOFTWARE REQUIREMENTS

HARDWARE REQUIREMENT

→ System: Pentium i3 Processor(minimum)

→ Hard Disk: 500 GB.

→ Monitor: 15" LED

→ Input Devices : Keyboard, Mouse System : Pentium i3 Processor(minimum)

→ Ram: 2 GB

SOFTWARE REQUIREMENT

→ Operating system : Windows 10.

→ Coding Language : JAVA(SERVLET)

→ Tool: Netbeans 8.2

→ Database : JAVA DERBY

→ Jar folder: itextpdf

#### MODULE DESCRIPTION

#### MODULES USED IN THE PROJECT ARE:

- **→** COMPANY
- **→** EMPLOYEE\_DETAILS
- **→** SALARY GENERATION
- **→** PAYROLL\_DETAILS

#### **COMPANY MODULE:**

- \*This module shows the portal for SAAN company's Employee details for Payroll.
- \*This module allows the user to view the details of SAAN company employees
- \*It contains a show button
- \*Whenever the user click the Show button it opens the new window to display the details of SAAN company employees.

SAAN COMPANY

EMPLOYEE DETAILS FOR PAYROLL

SHOW

**→** 

#### **EMPLOYEE\_DETAILS:**

- ->In this particular module, the click button enables the user to view the complete details of SAAN company employees.
- ->The table contains 5 columns named as :
- \*Emp ID
- \*Emp\_name
- \*Leave\_days
- \*Parttime\_days
- \*Salary
- ->This module gets the details of the employees from the connected database.
- ->This module also contains a button for payment of salaries
- ->Whenever the user clicks the pay button it opens the window for pay button.



#### **SALARY\_GENERATION:**

- ->This module gets the employee ID from the user
- ->After receiving the Employee ID from the user,it checks the employee ID column of thedatabase.
- ->It displays the name of the employee whose ID is given by the user.
- ->This module also gives two information about the salary generation of employee

\*salary for one day: 500

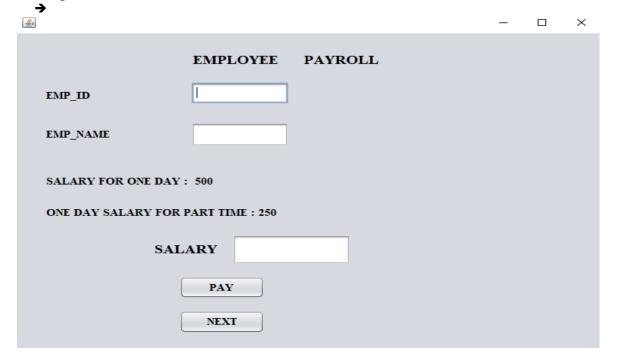
\*salary for

parttime:250

**SALARY** 

#### **CALCULATION:**

- ->Reduction amount=No.of leave days\*500
- ->Increment amount=No.of parttime days\*250
- ->Now the salary is calculated by subtracting the reduction amount from the salary and adding the increment amount.
- ->By clicking the pay button, it enables the user to view the salary and name of the employeewhose ID is given by the user.
- ->It also contains the next button which shows the details of the salary generation.



# **PAYROLL\_DETAILS:**

- ->This module gets the employee ID from the user to display the details of the generatedsalary
- ->Whenever the user clicks the show details button it displays
- \*emp\_ID
- \*emp\_name
- \*No.of leave\_days
- \*Amount reduced for leave\_days
- \*No.of parttime\_days
- \*Incremented amount for partime\_days
- \*salary

<b>→</b>			_	×
(	SHOW	DETAILS		
EMP_ID				
EMP_NAME				
NO.OF LEAVE _DAY	YS			
Rs.REDUCED FOR I	LEAVE_DAYS			
NO.OF PART TIME_	_DAYS			
Rs.ADDED FOR PAI	RT TIME_DAYS			
SALARY				

#### **CODE:**

#### **COMPANY:**

```
public class main extends javax.swing.JFrame {
public main() {
initComponents();
¡Button1.setFont(new java.awt.Font("Times New Roman", 1, 18)); //
NOI18N
¡Button1.setText("SHOW");
jButton1.addActionListener(new java.awt.event.ActionListener() {
public void actionPerformed(java.awt.event.ActionEvent evt) {
¡Button1ActionPerformed(evt);
}
});
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
// TODO add your handling code here:
main1 ob=new main1();
ob.show();
public static void main(String args[]) {
java.awt.EventQueue.invokeLater(new Runnable() {
public void run() {
new main().setVisible(true);
});
EMPLOYEE DETAILS:
public class main1 extends javax.swing.JFrame {
public main1() {
initComponents();
@SuppressWarnings("unchecked")
// <editor-fold defaultstate=&quot;collapsed&quot; desc=&quot;Generated
Code">
private void initComponents() {
iPanel1 = new javax.swing.JPanel();
jButton1 = new javax.swing.JButton();
¡Button2 = new javax.swing.JButton();
jScrollPane2 = new javax.swing.JScrollPane();
EMP = new javax.swing.JTable();
setDefaultCloseOperation(javax.swing.WindowConstants.EXIT ON CLOSE);
iButton1.setFont(new java.awt.Font("Times New Roman", 1, 14)); //
NOI18N
¡Button1.setText("CLICK");
iButton1.addActionListener(new java.awt.event.ActionListener() {
```

```
public void actionPerformed(java.awt.event.ActionEvent evt) {
¡Button1ActionPerformed(evt);
});
jButton2.setFont(new java.awt.Font("Times New Roman", 1, 14)); //
¡Button2.setText("PAY EMPLOYEE");
jButton2.addActionListener(new java.awt.event.ActionListener() {
public void actionPerformed(java.awt.event.ActionEvent evt) {
iButton2ActionPerformed(evt);
});
EMP.setModel(new javax.swing.table.DefaultTableModel(
new Object [][] {
{null, null, null, null, null},
{null, null, null, null, null}
},
new String [] {
"EMP_ID", "EMP_NAME", "LEAVE_DAYS",
"PARTTIME_DAYS", "SALARY"
));
private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
// TODO add your handling code here:
FINAL o=new FINAL();
o.show();
}
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
// TODO add your handling code here:
Connection c;
try{
DefaultTableModel model=(DefaultTableModel) EMP.getModel();
model.setRowCount(0);
c=DriverManager.getConnection("jdbc:derby://localhost:1527/salary");
Statement st=c.createStatement();
ResultSet rs=st.executeQuery("select * from payroll");
while(rs.next())
String id=String.valueOf(rs.getInt("empid"));
String n=rs.getString("empname");
String l=String.valueOf(rs.getInt("leave_days"));
String p=String.valueOf(rs.getInt("parttime days"));
String s=String.valueOf(rs.getInt("salary"));
String data[]=\{id,n,l,p,s\};
model.addRow(data);
```

```
}catch(SQLException e){
System.out.println(e);
public static void main(String args[]) {
java.awt.EventQueue.invokeLater(new Runnable() {
public void run() {
new main1().setVisible(true);
});
SALARY_GENERATION:
public class FINAL extends javax.swing.JFrame {
public FINAL() {
initComponents();
@SuppressWarnings("unchecked")
// <editor-fold defaultstate=&quot;collapsed&quot; desc=&quot;Generated
Code">
private void initComponents() {
¡Panel1 = new javax.swing.JPanel();
¡Label1 = new javax.swing.JLabel();
jLabel2 = new javax.swing.JLabel();
¡TextField1 = new javax.swing.JTextField();
jLabel3 = new javax.swing.JLabel();
iTextField2 = new javax.swing.JTextField();
jLabel4 = new javax.swing.JLabel();
iLabel5 = new javax.swing.JLabel();
jLabel6 = new javax.swing.JLabel();
iTextField3 = new javax.swing.JTextField();
¡Button1 = new javax.swing.JButton();
¡Button2 = new javax.swing.JButton();
setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
¡Label1.setFont(new java.awt.Font("Times New Roman", 1, 18)); //
¡Label1.setText(" EMPLOYEE PAYROLL");
¡Label2.setFont(new java.awt.Font("Times New Roman", 1, 14)); //
NOI18N
iLabel2.setText("EMP ID");
¡Label3.setFont(new java.awt.Font("Times New Roman", 1, 14)); //
NOI18N
¡Label3.setText("EMP_NAME");
iTextField2.addActionListener(new java.awt.event.ActionListener() {
public void actionPerformed(java.awt.event.ActionEvent evt) {
jTextField2ActionPerformed(evt);
```

```
});
¡Label4.setFont(new java.awt.Font("Times New Roman", 1, 14)); //
¡Label4.setText("SALARY FOR ONE DAY : 500");
¡Label5.setFont(new java.awt.Font("Times New Roman", 1, 14)); //
NOI18N
¡Label5.setText("ONE DAY SALARY FOR PART TIME : 250");
¡Label6.setFont(new java.awt.Font("Times New Roman", 1, 18)); //
NOI18N
iLabel6.setText("SALARY");
¡Button1.setFont(new java.awt.Font("Times New Roman", 1, 14)); //
NOI18N
iButton1.setText("PAY");
iButton1.addActionListener(new java.awt.event.ActionListener() {
public void actionPerformed(java.awt.event.ActionEvent evt) {
iButton1ActionPerformed(evt);
}
});
¡Button2.setFont(new java.awt.Font("Times New Roman", 1, 14)); //
NOI18N
¡Button2.setText("NEXT");
jButton2.addActionListener(new java.awt.event.ActionListener() {
public void actionPerformed(java.awt.event.ActionEvent evt) {
¡Button2ActionPerformed(evt);
}
});
pack();
}// &lt:/editor-fold>
private void jTextField2ActionPerformed(java.awt.event.ActionEvent evt) {
// TODO add your handling code here:
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
// TODO add your handling code here:
String s1=iTextField1.getText();
int a=Integer.parseInt(s1);
int l = 0,p=0,s=0,leave,parttime,i=0,n;
String q;
try{
Connection c
=DriverManager.getConnection("jdbc:derby://localhost:1527/salary");
Statement st=c.createStatement();
ResultSet rs=st.executeQuery("select
empid,leave_days,parttime_days,salary,empname from payroll");
while(rs.next()){
i=rs.getInt(1);
l=rs.getInt(2);
p=rs.getInt(3);
```

```
s=rs.getInt(4);
q=rs.getString(5);
if(i==a)
{
leave=l*500;
parttime=p*250;
s=s+parttime;
s=s-leave;
String r=String.valueOf(s);
¡TextField3.setText(r);
jTextField2.setText(q);
System.out.println("the detail of employee paid is ");
System.out.println("NAME : "+q);
System.out.println("EMPLOYEE_ID: "+i);
System.out.println("SALARY : "+r);
//System.out.println(r);
catch(Exception ex){
System.out.println(ex);
PAYROLL_DETAILS:
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;
public class user1 extends javax.swing.JFrame {
public user1() {
initComponents();
@SuppressWarnings("unchecked")
// <editor-fold defaultstate=&quot;collapsed&quot; desc=&quot;Generated
Code">
private void initComponents() {
¡Panel1 = new javax.swing.JPanel();
jLabel1 = new javax.swing.JLabel();
jLabel2 = new javax.swing.JLabel();
jLabel3 = new javax.swing.JLabel();
jLabel4 = new javax.swing.JLabel();
jLabel5 = new javax.swing.JLabel();
¡TextField1 = new javax.swing.JTextField();
jTextField2 = new javax.swing.JTextField();
jTextField4 = new javax.swing.JTextField();
jTextField5 = new javax.swing.JTextField();
```

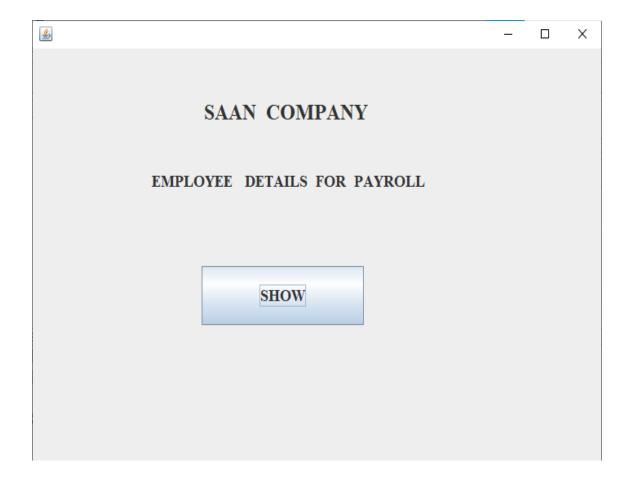
```
¡Button1 = new javax.swing.JButton();
iTextField6 = new javax.swing.JTextField();
jLabel6 = new javax.swing.JLabel();
jTextField3 = new javax.swing.JTextField();
iLabel7 = new javax.swing.JLabel();
jTextField7 = new javax.swing.JTextField();
setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
¡Label1.setFont(new java.awt.Font("Times New Roman", 1, 14)); //
NOI18N
iLabel1.setText("EMP ID");
¡Label2.setFont(new java.awt.Font("Times New Roman", 1, 14)); //
NOI18N
iLabel2.setText("EMP NAME");
¡Label3.setFont(new java.awt.Font("Times New Roman", 1, 14)); //
¡Label3.setText("NO.OF LEAVE _DAYS");
¡Label4.setFont(new java.awt.Font("Times New Roman", 1, 14)); //
NOI18N
¡Label4.setText("NO.OF PART TIME_DAYS");
¡Label5.setFont(new java.awt.Font("Times New Roman", 1, 14)); //
NOI18N
jLabel5.setText("SALARY");
iTextField1.addActionListener(new java.awt.event.ActionListener() {
public void actionPerformed(java.awt.event.ActionEvent evt) {
jTextField1ActionPerformed(evt);
});
jButton1.setFont(new java.awt.Font("Times New Roman", 1, 14)); //
NOI18N
¡Button1.setText("SHOW DETAILS");
¡Button1.addActionListener(new java.awt.event.ActionListener() {
public void actionPerformed(java.awt.event.ActionEvent evt) {
¡Button1ActionPerformed(evt);
jLabel6.setFont(new java.awt.Font("Times New Roman", 1, 14)); //
NOI18N
¡Label6.setText("Rs.REDUCED FOR LEAVE_DAYS");
jLabel7.setFont(new java.awt.Font("Times New Roman", 1, 14)); //
NOI18N
¡Label7.setText("Rs.ADDED FOR PART TIME DAYS");
javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
.addComponent(jTextField6)
.addComponent(jTextField4)
.addComponent(jTextField2)
.addComponent(jTextField1)
.addComponent(jTextField3)
```

```
.addComponent(jTextField7))
pack();
}// &lt:/editor-fold>
private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {
// TODO add your handling code here:
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
// TODO add your handling code here:
String s1=jTextField1.getText();
int a=Integer.parseInt(s1);
int l = 0,p=0,s=0,leave,parttime,i=0,n;
String u;
try{
Connection c
=DriverManager.getConnection("jdbc:derby://localhost:1527/salary");
Statement st=c.createStatement();
ResultSet rs=st.executeQuery("select
empname,leave_days,parttime_days,salary,empid from payroll");
while(rs.next()){
i=rs.getInt(5);
l=rs.getInt(2);
p=rs.getInt(3);
s=rs.getInt(4);
u=rs.getString(1);
if(i==a)
leave=1*500;
parttime=p*250;
s=s+parttime;
s=s-leave;
String r=String.valueOf(s);
jTextField5.setText(r);
String q=String.valueOf(l);
¡TextField6.setText(q);
String t=String.valueOf(p);
jTextField4.setText(t);
¡TextField2.setText(u);
String j=String.valueOf(leave);
¡TextField3.setText(j);
String k=String.valueOf(parttime);
jTextField7.setText(k);
catch(Exception ex){
System.out.println(ex);
```

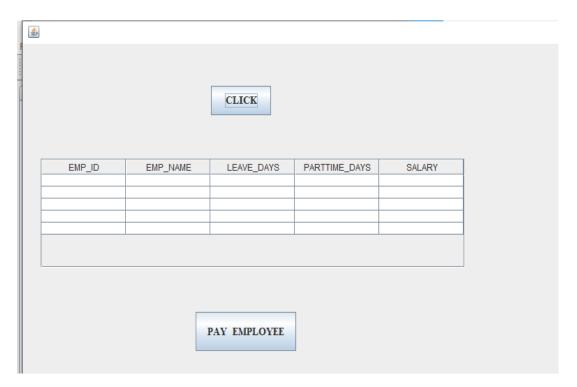
```
public static void main(String args[]) {
try {
for (javax.swing.UIManager.LookAndFeelInfo info:
javax.swing.UIManager.getInstalledLookAndFeels()) {
if ("Nimbus".equals(info.getName())) {
javax.swing.UIManager.setLookAndFeel(info.getClassName());
break;
} catch (ClassNotFoundException ex) {
java.util.logging.Logger.getLogger(user1.class.getName()).log(java.util.logging.Level
.SEVERE, null,
ex);
} catch (InstantiationException ex) {
java.util.logging.Logger.getLogger(user1.class.getName()).log(java.util.logging.Level
.SEVERE, null,
ex);
} catch (IllegalAccessException ex) {
java.util.logging.Logger.getLogger(user1.class.getName()).log(java.util.logging.Level
.SEVERE, null,
ex);
} catch (javax.swing.UnsupportedLookAndFeelException ex) {
java.util.logging.Logger.getLogger(user1.class.getName()).log(java.util.logging.Level
.SEVERE, null,
ex);
//</editor-fold&gt;
/* Create and display the form */
java.awt.EventQueue.invokeLater(new Runnable() {
public void run() {
new user1().setVisible(true);
});
```

# **APPENDICES:**

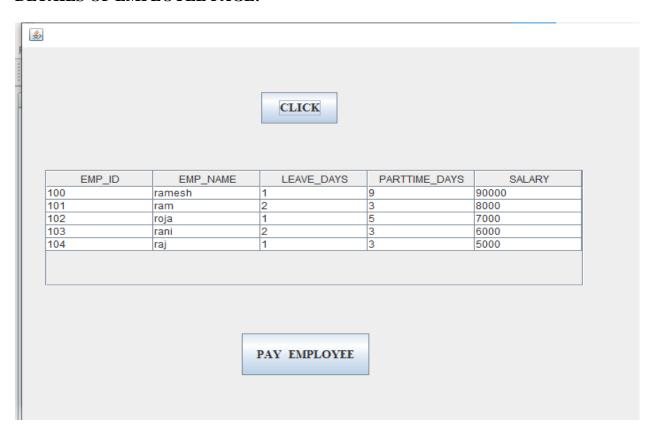
# **COMPANY PAGE:**



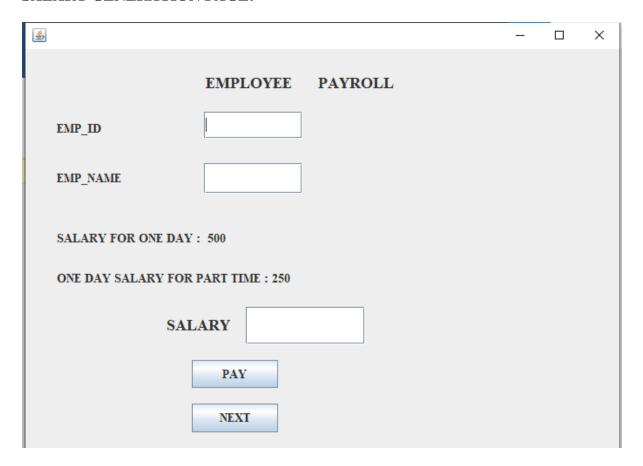
#### **EMPLOYEE DETAILS PAGE:**



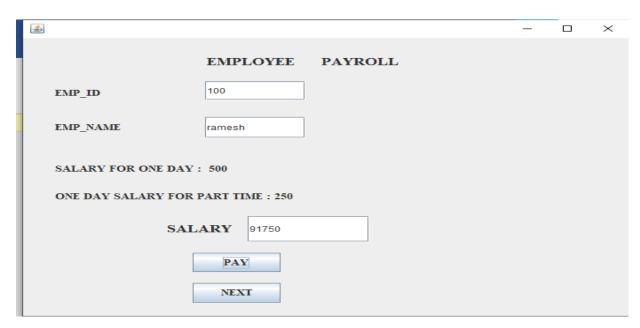
#### **DETAILS OF EMPLOYEE PAGE:**



#### **SALARY GENERATION PAGE:**



# SALARY GENERATION PAGE AFTER GENERATING SALARY OF THE EMPLOYEE:



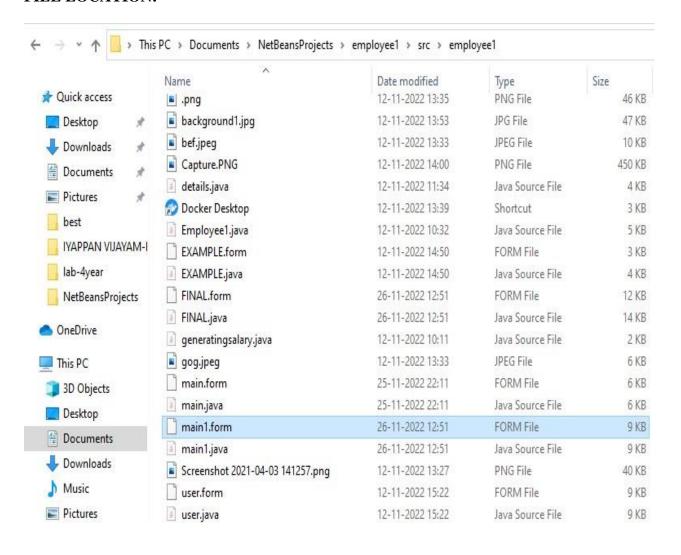
## **PAYROLL DETAILS:**

<u>\$</u>		_	×
SHC	OW DETAILS		
EMP_ID			
EMP_NAME			
NO.OF LEAVE _DAYS			
Rs.REDUCED FOR LEAVE_DAYS			
NO.OF PART TIME_DAYS			
Rs.ADDED FOR PART TIME_DAYS			
SALARY			

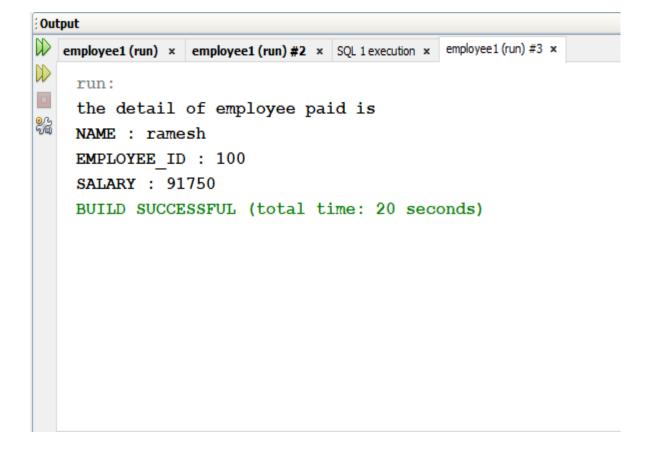
## PAYROLL DETAILS AFTER GENERATING DETAILS OF EMPLOYEE:

<u>\$</u>		_	×
SHOW	ETAILS		
<b>EMP_ID</b> 100			
EMP_NAME rame	sh		
NO.OF LEAVE _DAYS 1			
Rs.REDUCED FOR LEAVE_DAYS 500			
NO.OF PART TIME_DAYS			
Rs.ADDED FOR PART TIME_DAYS 2250			
SALARY 9175	)		

#### FILE LOCATION:



#### FINAL OUTPUT:



#### **CONCLUSION:**

This project is built keeping in mind that it is to be used by only one user that is the admin. It is built for use in small scale organization where the number of employees is limited. According to the requested requirement the admin can add, manipulate, update and delete all employee data in his organization. The admin can add new departments and delete them. The Admin can also add predefined pay grades for the employees. The required records can be easily viewed by the admin anytime time he wants in an instant. The payment of the employee is based on monthly basis. Numerous validations implemented would enable the admin to enter accurate data. The main objective of this framework is to save time, make the system cost effective and management records efficiently

#### **REFERENCE:**

- <a href="https://www.vogella.com/tutorials/JavaPDF/article.html">https://www.vogella.com/tutorials/JavaPDF/article.html</a>
- https://blog.aspose.com/2020/07/20/create-fill-edit-fillable-pdf-form-

# field-java/

- <a href="https://en.m.wikipedia.org/wiki/IText">https://en.m.wikipedia.org/wiki/IText</a>
- <a href="https://www.tutorialspoint.com/jdbc/jdbc-db-connections.htm">https://www.tutorialspoint.com/jdbc/jdbc-db-connections.htm</a>
- https://www.guru99.com/java-swing-gui.html
- <a href="https://netbeans.apache.org/kb/docs/java/gui-functionalitv.html">https://netbeans.apache.org/kb/docs/java/gui-functionalitv.html</a>

