**ReadData:-**

import java.text.DecimalFormat;

import java.io.BufferedWriter;

import javax.swing.JOptionPane;

import java.io.\*;

/\*\*

\*

\* @author Kamalasekar

\*This class is to read the data from the file

\*and project it as a pop up display

\*/

public class ReadData {

public ReadData() {

//to display the double toa formated decimal value

DecimalFormat twoDecimal = new DecimalFormat("$0.00");

try {

//declaration of the required variable and try and catch implementation to avoid unsure value

String[] firstLine = new String[100], secondLine = new String[100], thirdLine = new String[100];

Double[] fourthLine = new Double[100];

double hours[] = new double[100], wages[] = new double[100];

//This loop is to help us in assigning the default value for the array

int index;

for (index = 0; index < 100; index++) {

firstLine[index] = "";

secondLine[index] = "";

thirdLine[index] = "";

fourthLine[index] = 0.00;

hours[index] = 0.0;

wages[index] = 0.0;

}

//File reader to access the file pay roll

FileReader file = new FileReader("payroll.txt");

BufferedReader buffer = new BufferedReader(file);

index = 0;

String line;

// This file is created to save the overtime data

File check = new File("overtime.txt");

FileWriter file\_write;

//check to perform if the file is present or not

if (check.exists()) {

// allows appending of data to file

file\_write = new FileWriter("overtime.txt", true);

} else {

file\_write = new FileWriter("overtime.txt");

}

// buffer writer obbject to write the overtime data in the overtime file

BufferedWriter buffer\_write = new BufferedWriter(file\_write);

//This loop is to check for the value till tthe last line of the program

while ((line = buffer.readLine()) != null) {

firstLine[index] = line;

secondLine[index] = buffer.readLine();

thirdLine[index] = buffer.readLine();

hours[index] = Double.parseDouble(secondLine[index]);

wages[index] = Double.parseDouble(thirdLine[index]);

// if statement to figure out the overtime data

//if the working hours is more the pay increases 1.5 times for each and every more than one hour

if (hours[index] > 40) {

double newwages;

double newhours;

newwages = 1.5 \* (wages[index]);

newhours = hours[index] - 40;

fourthLine[index] = newwages \* newhours + 40 \* wages[index];

} else {

fourthLine[index] = hours[index] \* wages[index];

}// end of if

// this j\_option is to display the calculated and read data from the file payroll.txt

JOptionPane.showMessageDialog(

null,

"Name : " + firstLine[index] + "\n" + "Hours : " + hours[index] + "\n" + "Wages : "

+ twoDecimal.format(wages[index]) + "\n" + "Gross Pay :"

+ twoDecimal.format(fourthLine[index]), "Result", JOptionPane.PLAIN\_MESSAGE);

String fourthLinevalue = Double.toString(fourthLine[index]);

double overtimetemp = fourthLine[index] - (hours[index] \* wages[index]);

String overtime = Double.toString(overtimetemp);

buffer\_write.write(firstLine[index]);

buffer\_write.newLine();

buffer\_write.write(secondLine[index]);

buffer\_write.newLine();

buffer\_write.write(thirdLine[index]);

buffer\_write.newLine();

buffer\_write.write(fourthLinevalue);

buffer\_write.newLine();

buffer\_write.write(overtime);

buffer\_write.newLine();

index++;

}

buffer.close();// to close the payroll

buffer\_write.close();// to close the overtime file

System.exit(0);

}

catch (IOException e) {

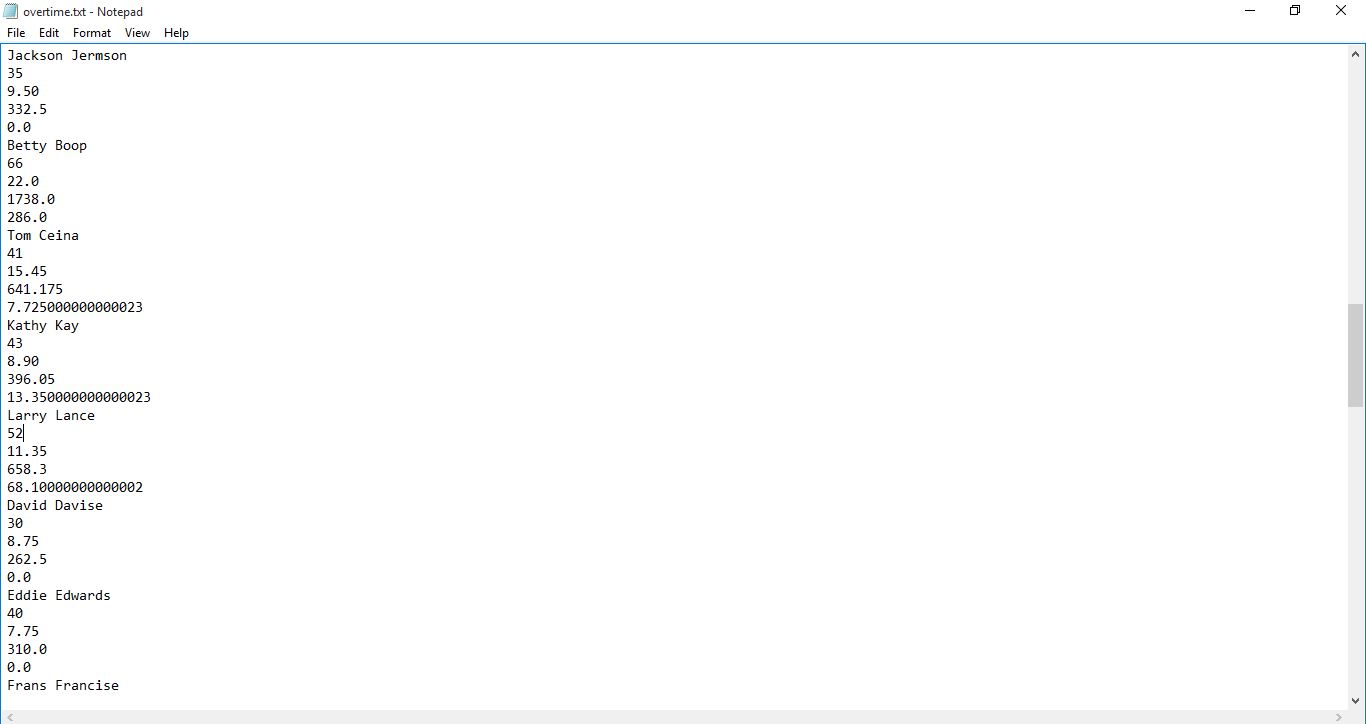
System.out.println(e);

}

}

}





**Report Writing:-**

import java.io.\*;

import java.text.DecimalFormat;

import javax.swing.JOptionPane;

/\*\*

\*

\* @author Kamalasekar This class is to report data on a persons payroll

\*/

public class Report {

public Report() {

String input;

// code here the logic to create a report for the user

DecimalFormat twoDecimal = new DecimalFormat("$0.00");

try {

// Initlization and declaration of variable

String[] firstLine\_Over = new String[100], secondLine\_over = new String[100], thirdLine\_over = new String[100], fourthLine\_over = new String[100], fifthLine\_over = new String[100];

double hours\_over[] = new double[100], wages\_over[] = new double[100];

double gross[] = new double[100];

double extra[] = new double[100];

boolean check\_name = true;

int count = 0;

// This is to assign the value to the parameters

int index;

for (index = 0; index < 100; index++) {

firstLine\_Over[index] = "";

secondLine\_over[index] = "";

thirdLine\_over[index] = "";

fourthLine\_over[index] = "";

fifthLine\_over[index] = "";

hours\_over[index] = 0.0;

wages\_over[index] = 0.0;

gross[index] = 0.0;

extra[index] = 0.0;

}

// string decelaration to get the input

String firstName;

String secondName;

// j\_option to get the first name

do {

firstName = ((String) JOptionPane.showInputDialog("Enter the First name"));

} while (firstName.length() <= 0 || firstName == null || firstName == " " || !firstName.matches("[A-Za-z]+"));

// j\_option to get the second name

do {

secondName = ((String) JOptionPane.showInputDialog("Enter the Last name"));

} while (secondName.length() <= 0 || secondName == null || secondName == " " || !secondName.matches("[A-Za-z]+"));

// extracting the first character from first name and appending it

// to the second nae

char Filename\_1 = firstName.charAt(0);

String FileName = Filename\_1 + secondName + ".txt";

// input serves to compare with the read data

input = firstName + " " + secondName;

// this is to create a file method foe the Filename

FileReader file\_over = new FileReader("overtime.txt");

BufferedReader buffer\_over = new BufferedReader(file\_over);

index = 0;

String line;

// While loop to read the value of the file

while ((line = buffer\_over.readLine()) != null) {

firstLine\_Over[index] = line;

secondLine\_over[index] = buffer\_over.readLine();

thirdLine\_over[index] = buffer\_over.readLine();

fourthLine\_over[index] = buffer\_over.readLine();

fifthLine\_over[index] = buffer\_over.readLine();

hours\_over[index] = Double.parseDouble(secondLine\_over[index]);

wages\_over[index] = Double.parseDouble(thirdLine\_over[index]);

gross[index] = Double.parseDouble(fourthLine\_over[index]);

extra[index] = Double.parseDouble(fifthLine\_over[index]);

// If loop to chek for the given character of the file

if (firstLine\_Over[index].equals(input)) {

FileWriter file\_write\_over;

file\_write\_over = new FileWriter(FileName);

BufferedWriter buffer\_write\_over = new BufferedWriter(file\_write\_over);

count = count + 1;

if (count > 1) {

break;

}

buffer\_write\_over.newLine();

buffer\_write\_over.write("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

buffer\_write\_over.newLine();

buffer\_write\_over.write("------------------Payroll Report----------------------");

buffer\_write\_over.newLine();

buffer\_write\_over.write("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

buffer\_write\_over.newLine();

buffer\_write\_over.write(" Name :" + firstLine\_Over[index]);

buffer\_write\_over.newLine();

// /writes the number of hours in the file

buffer\_write\_over.write(" Hours :" + secondLine\_over[index]);

buffer\_write\_over.newLine();

// Writes the cost per hour

buffer\_write\_over.write(" Wages :" + twoDecimal.format(wages\_over[index]));

buffer\_write\_over.newLine();

buffer\_write\_over.write(" Gross Pay :" + twoDecimal.format(gross[index]));

buffer\_write\_over.newLine();

// Writes the cost per hour

buffer\_write\_over.write(" Overtime pay:" + twoDecimal.format(extra[index]));

buffer\_write\_over.newLine();

buffer\_write\_over.write("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

check\_name = true;

buffer\_write\_over.close();// to close the file created

break;

}

else {

check\_name = false;

}

}

buffer\_over.close();// to close the file overtime

if (check\_name == false) {

JOptionPane.showMessageDialog(null, "The entered name is not in the list", "Error!!",

JOptionPane.PLAIN\_MESSAGE);

}

} catch (IOException e) {

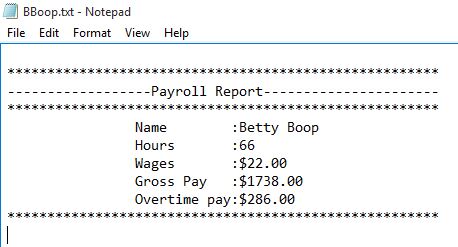
System.out.println(e);

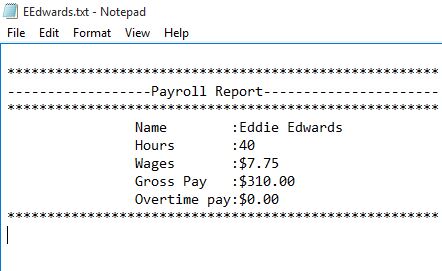
}

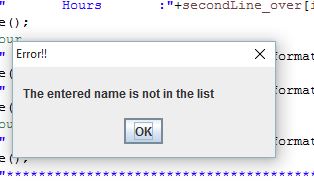
}

}

}







**Menu:-**

**import** javax.swing.JOptionPane;

/\*\*

\*

\* **@author** Kamalasekar

\*This program is to provide the menu input for the user

\*other parts of the program like create, read, report and exit can be assessed from this file

\*/

**public** **class** Menu {

**public** Menu() {

//This is the message that will appear on the screen on the J-Option pop\_up

String message = "welcome" + "\n", response;

message += "\n" + "enter...";

message += "\n" + " 1 to enter payroll data";

message += "\n" + " 2 to view payroll data";

message += "\n" + " 3 to generate report by employee";

message += "\n" + " 4 Summary of overtime";

message += "\n" + " 5 to exit" + "\n" + " ";

**char** answer = 'Y';

**do** {

//try to handle the exception

**try** {

response = JOptionPane.*showInputDialog*(message);

**int** choice = Integer.*parseInt*(response);

**switch** (choice) {

// this case is to fire the Create data class

**case** 1:

CreateData cd = **new** CreateData();

cd.*Write*();

answer = 'N';

System.*exit*(1);

**break**;

// this case is to fire the read data class

**case** 2:

ReadData rd = **new** ReadData();

answer = 'N';

System.*exit*(1);

**break**;

//this case is to fire the report class

**case** 3:

Report rpt = **new** Report();

answer = 'N';

System.*exit*(1);

**break**;

//this case to fire teh summary class

**case** 4:

Summary su = **new** Summary();

answer = 'N';

System.*exit*(1);

// this case is to exit the class

**case** 5:

answer = 'N';

System.*exit*(1);

**break**;

//this block is to check the correct input has been entered or not

**default**: {

answer = 'Y';

choice = 0;

JOptionPane.*showMessageDialog*(**null**, "enter a number: 1 - 4");

}

}// end switch

}// end try

// this catch is used to track the number format exception

//This exception will be handled first

**catch** (NumberFormatException e) {

JOptionPane.*showMessageDialog*(**null**, "The Value should only be numbers", "Error!!",

JOptionPane.***PLAIN\_MESSAGE***); } **catch** (Exception e) {

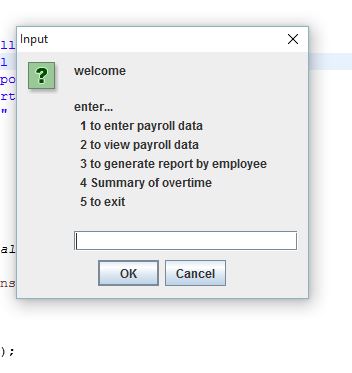
System.***out***.println(e);

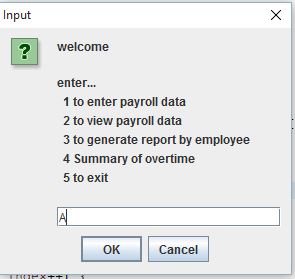
}

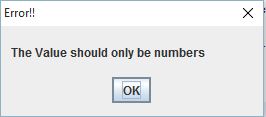
} **while** (answer == 'Y' || answer == 'y');//end of while

}// end of class

}// end class







**Login Entry Box:-**

**import** javax.swing.JOptionPane;

/\*\*

\* **@author** Kamalasekar

\*This program is to login into the application

\*/

**public** **class** Login {

**public** **static** **void** main(String[] args) {

String name = "null";

**boolean** access = **false**;

String message = "welcome" + "\n", response;

message += "enter your name";

message += "\n" + " ";

**int** count = 0;

**int** pass\_count = 0;

// This loop is to get the input from the user has the user name

**do** {

**do** {

name = JOptionPane.*showInputDialog*(message);

// block to terminate the program if the incorrect attemppt is more than 3 times

count = count + 1;

**if** (count >= 3) {

JOptionPane.*showMessageDialog*(**null**, "3 incorrect attempt hence terminating the program");

System.*exit*(1);

}

} **while** (name == **null** || name == " " || !(name.equals("admin")));// hard coded the user name

} **while** (name.length() <= 0);// avoid null input

// to convert the string to upper case and initialize the password variable

String password;

name = name.trim();

name = name.toUpperCase();

// if the user name name is "admin" then the program proceeds to get the password

**if** (name.equals("ADMIN")) {

JOptionPane.*showMessageDialog*(**null**, "hello " + name);

message = "enter your password";

message += "\n" + " ";

// conditional loop to get the password from the users

**do** {

**do** {

password = JOptionPane.*showInputDialog*(message);

//block to terminate the program if the password is entered incorrectly for more than 3 times

pass\_count = pass\_count + 1;

**if** (pass\_count >= 3) {

JOptionPane.*showMessageDialog*(**null**, "3 incorrect attempt hence terminating the program");

System.*exit*(1);

}

} **while** (password == **null** || password == " " || !(password.equals("password")));/// hard code the password value

} **while** (password.length() <= 0);// to avoid null value

password = password.trim();

password = password.toUpperCase();

**if** (password.equals("PASSWORD")) {

access = **true**;

} **else**

JOptionPane.*showMessageDialog*(**null**, "incorrect password");

} **else** {

JOptionPane.*showMessageDialog*(**null**, "incorrect login name");

}

//If the login attempt is success then the program access the main,java program

**if** (access == **true**) {

**try** {

JOptionPane.*showMessageDialog*(**null**, "Login\_sucessfull");

Menu m = **new** Menu();

System.*exit*(1);

} **catch** (Exception e) {

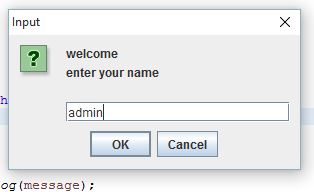
System.***out***.println(e);

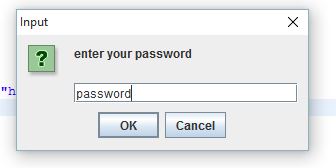
}

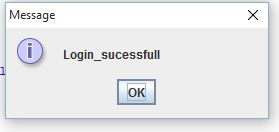
}// end of if

}// end main

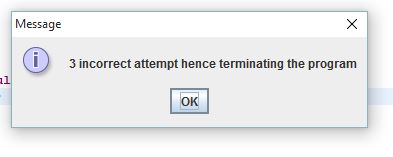
}// end class







If more than three incorrect attempt then it throws an error message and terminate the program



**Control-Break-logic:-**

import java.io.BufferedReader;

import java.io.BufferedWriter;

import java.io.File;

import java.io.FileReader;

import java.io.FileWriter;

import java.io.IOException;

import java.text.DecimalFormat;

import javax.swing.JOptionPane;

import javax.swing.text.StyledEditorKit.BoldAction;

/\*\*

\* @author Kamalasekar

\*This program is to summarize the sub total of the overtime pay

\*/

public class Summary {

{

DecimalFormat twoDecimal = new DecimalFormat("$0.00");

try {

// declaring the variable

String[] firstLine\_Over = new String[100], secondLine\_over = new String[100], thirdLine\_over = new String[100], fourthLine\_over = new String[100], fifthLine\_over = new String[100];

double hours\_over[] = new double[100], wages\_over[] = new double[100];

double gross[] = new double[100];

double extra[] = new double[100];

double sum\_a\_f = 0.0;

double sum\_g\_l = 0.0;

//Initializing the variable with the for loop

int index;

for (index = 0; index < 100; index++) {

firstLine\_Over[index] = "";

secondLine\_over[index] = "";

thirdLine\_over[index] = "";

fourthLine\_over[index] = "";

fifthLine\_over[index] = "";

hours\_over[index] = 0.0;

wages\_over[index] = 0.0;

gross[index] = 0.0;

extra[index] = 0.0;

}

// file reader object to read the file overtime.txt

FileReader file\_over = new FileReader("overtime.txt");

BufferedReader buffer\_over = new BufferedReader(file\_over);

index = 0;

String line;

File check = new File("overtime.txt");

// check for he fiel exist or not

FileWriter file\_write;

if (check.exists()) {

// allows appending of data to file

file\_write = new FileWriter("overtime.txt", true);

} else {

file\_write = new FileWriter("overtime.txt");

}

int count = 0, count\_2 = 0, count\_3 = 0;

//while loop to read the data in the file till the last line

while ((line = buffer\_over.readLine()) != null) {

firstLine\_Over[index] = line;

String check\_name = firstLine\_Over[index];

char check\_char = check\_name.charAt(0);

secondLine\_over[index] = buffer\_over.readLine();

thirdLine\_over[index] = buffer\_over.readLine();

fourthLine\_over[index] = buffer\_over.readLine();

fifthLine\_over[index] = buffer\_over.readLine();

hours\_over[index] = Double.parseDouble(secondLine\_over[index]);

wages\_over[index] = Double.parseDouble(thirdLine\_over[index]);

gross[index] = Double.parseDouble(fourthLine\_over[index]);

extra[index] = Double.parseDouble(fifthLine\_over[index]);

// if loop to filter the value with first name starting with character A|B|C|D|E|F

if (check\_char == 'A' || check\_char == 'B' || check\_char == 'C' || check\_char == 'D'

|| check\_char == 'E' || check\_char == 'F') {

sum\_a\_f += extra[index];

}

// if loop to filter the value with first name starting with character G|H|I|J|K|L

else if (check\_char == 'G' || check\_char == 'H' || check\_char == 'I' || check\_char == 'J'

|| check\_char == 'K' || check\_char == 'L') {

sum\_g\_l += extra[index];

}// end of while

}//end of try

//J\_Option to display the value of sub total in the A through F

JOptionPane.showMessageDialog(null, "Subtotal:-" + twoDecimal.format(sum\_a\_f),

"The sum of overpay paid for peopel with firts name starting with A-F", JOptionPane.PLAIN\_MESSAGE);

//J\_Option to display the value of sub total in the G through L

JOptionPane.showMessageDialog(null, "Subtotal:-" + twoDecimal.format(sum\_g\_l),

"The sum of overpay paid for peopel with firts name starting with G-L", JOptionPane.PLAIN\_MESSAGE);

//J\_Option to display the value of sub total in the A through L

JOptionPane.showMessageDialog(null, "Subtotal for A through F :-" + twoDecimal.format(sum\_a\_f)

+ "\n" + "Subtotal for G through L :-" + twoDecimal.format(sum\_g\_l) + "\n"

+ "The total sum between A through L:-" + twoDecimal.format((sum\_g\_l + sum\_a\_f)), "Total sum",

JOptionPane.PLAIN\_MESSAGE);

//to close the file overtime.txt

buffer\_over.close();

} catch (IOException e) {

System.out.println(e);

}//end of catch

}// end of method

}//end of class

