Ex. 3 EMPLOYEE PAYROLL MANAGEMENT

Date: 02-08-2024

AIM:

To create a payroll management system that models various types of employees, calculates their salary components based on their basic pay, and generates pay slips.

ALGORITHM:

1. Create a class with all the members and a constructor to initialise the values.
2. Create different classes for each designation derived from the parent class.
3. Create a main class for the program to run.
4. Receive the inputs from the user during the runtime.
5. Compute the Net Salary and Gross Salary.
6. Display the Payroll.

PROGRAM:

```
// Class for employee
package Java.Lab3;

public class employee {
    private String employeeName;
    private int employeeID;
    private String employeeAddress;
    private String employeeMailID;
    private long employeeNumber;
    private double basicPay;

     public employee(String employeeName, int employeeID, String
employeeAddress, String employeeMailID,
            long employeeNumber, double basicPay) {
        this.employeeName = employeeName;
        this.employeeID = employeeID;
        this.employeeAddress = employeeAddress;
        this.employeeMailID = employeeMailID;
        this.employeeNumber = employeeNumber;
        this.basicPay = basicPay;
    }

    private double DA() {
        return 0.97 * basicPay;
```

```
}

private double HRA() {
    return 0.1 * basicPay;
}

private double PF() {
    return 0.12 * basicPay;
}

private double staffClubFund() {
    return 0.001 * basicPay;
}

private double grossSalary() {
    return basicPay + DA() + HRA();
}

private double netSalary() {
    return basicPay + DA() + HRA() - PF() - staffClubFund();
}

public void displayPaySlip() {
    System.out.println("Name of the Employee : " + employeeName);
    System.out.println("Basic Pay : " + basicPay);
```

```
        System.out.println("Daily Allowance : " + DA());
        System.out.println("House Rent Allowance : " + HRA());
        System.out.println("Provident Fund : " + PF());
        System.out.println("Staff Club Fund : " + staffClubFund());
        System.out.println("Gross Salary : " + grossSalary());
        System.out.println("Net Salary : " + netSalary());
        System.out.println("----------------------------------------------");
    }

}
// Class for Programmer
package Java.Lab3;

public class programmer extends employee {
    public programmer(String employeeName, int employeeID, String
employeeAddress, String employeeMailID,
            long employeeNumber, double basicPay) {
                super(employeeName, employeeID, employeeAddress,
employeeMailID, employeeNumber, basicPay);
    }
}

// Class for Assistant Professor
package Java.Lab3;
```

```
public class assistantProfessor extends employee {
    public assistantProfessor(String employeeName, int employeeID,
String employeeAddress, String employeeMailID,
            long employeeNumber, double basicPay) {
                super(employeeName, employeeID, employeeAddress,
employeeMailID, employeeNumber, basicPay);
    }
}

// Class for Associate Professor
package Java.Lab3;

public class associateProfessor extends employee {
    public associateProfessor(String employeeName, int employeeID,
String employeeAddress, String employeeMailID,
            long employeeNumber, double basicPay) {
                super(employeeName, employeeID, employeeAddress,
employeeMailID, employeeNumber, basicPay);
    }
}

// Class for Professor
package Java.Lab3;

public class professor extends employee {
```

```
    public professor(String employeeName, int employeeID, String
employeeAddress, String employeeMailID,
            long employeeNumber, double basicPay) {
                super(employeeName, employeeID, employeeAddress,
employeeMailID, employeeNumber, basicPay);
    }
}

// Main Class
package Java.Lab3;

import java.util.*;

public class lab3 {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);
        System.out.println("Enter the Employee Name : ");
        String empName = input.next();
        System.out.println("Enter the Employee ID : ");
        int empID = input.nextInt();
        System.out.println("Enter the Employee Address : ");
        String empAddress = input.next();
        System.out.println("Enter the Employee Mobile Number : ");
        long empNum = input.nextLong();
        System.out.println("Enter the Employee Mail ID : ");
```

```
String empMailID = input.next();
        System.out.println("Enter the Serial Number for the Corresponding Designation : ");
System.out.println("1. Programmer");
System.out.println("2. Assistant Professor");
System.out.println("3. Associate Professor");
System.out.println("4. Professor");
int serial = input.nextInt();
System.out.println("Enter the Basic Pay : ");
double basicPay = input.nextDouble();
System.out.println("The Payroll :");
switch (serial) {
   case 1:
        programmer obj1 = new programmer(empName, empID, empAddress, empMailID, empNum, basicPay);
      obj1.displayPaySlip();
      break;

   case 2:
       assistantProfessor obj2 = new assistantProfessor(empName, empID, empAddress, empMailID, empNum,
            basicPay);
      obj2.displayPaySlip();
      break;
```

```
            case 3:
                associateProfessor obj3 = new associateProfessor(empName,
empID, empAddress, empMailID, empNum,
                        basicPay);
                obj3.displayPaySlip();
                break;

            case 4:
                        professor obj4 = new professor(empName, empID,
empAddress, empMailID, empNum, basicPay);
                obj4.displayPaySlip();
                break;

            default:
                System.out.println("Invalid Input.");
                break;
        }
    }
}
```

OUTPUT:

```
ashwin_vp@Ubuntu:~$ cd Desktop
ashwin_vp@Ubuntu:~/Desktop$ javac Java/Lab3/*.java
ashwin_vp@Ubuntu:~/Desktop$ java Java.Lab3.lab3
Enter the Employee Name :
ashwin
Enter the Employee ID :
1
Enter the Employee Address :
snu
Enter the Employee Mobile Number :
9025561411
Enter the Employee Mail ID :
ashwin@gmail.com
Enter the Serial Number for the Corresponding Designation :
1. Programmer
2. Assistant Professor
3. Associate Professor
4. Professor
1
Enter the Basic Pay :
1000
The Payroll :
Name of the Employee : ashwin
Basic Pay : 1000.0
Daily Allowance : 970.0
House Rent Allowance : 100.0
Provident Fund : 120.0
Staff Club Fund : 1.0
Gross Salary : 2070.0
Net Salary : 1949.0
------------------------------------------------
```

```
ashwin_vp@Ubuntu:~/Desktop$ java Java.Lab3.lab3
Enter the Employee Name :
john
Enter the Employee ID :
2
Enter the Employee Address :
snuc
Enter the Employee Mobile Number :
9025561412
Enter the Employee Mail ID :
john@gmail.com
Enter the Serial Number for the Corresponding Designation :
1. Programmer
2. Assistant Professor
3. Associate Professor
4. Professor
2
Enter the Basic Pay :
5000
The Payroll :
Name of the Employee : john
Basic Pay : 5000.0
Daily Allowance : 4850.0
House Rent Allowance : 500.0
Provident Fund : 600.0
Staff Club Fund : 5.0
Gross Salary : 10350.0
Net Salary : 9745.0
------------------------------------------------
```

```
ashwin_vp@Ubuntu:~/Desktop$ java Java.Lab3.lab3
Enter the Employee Name :
doe
Enter the Employee ID :
3
Enter the Employee Address :
snuchennai
Enter the Employee Mobile Number :
9025561413
Enter the Employee Mail ID :
doe@gmail.com
Enter the Serial Number for the Corresponding Designation :
1. Programmer
2. Assistant Professor
3. Associate Professor
4. Professor
3
Enter the Basic Pay :
7500
The Payroll :
Name of the Employee : doe
Basic Pay : 7500.0
Daily Allowance : 7275.0
House Rent Allowance : 750.0
Provident Fund : 900.0
Staff Club Fund : 7.5
Gross Salary : 15525.0
Net Salary : 14617.5
-----------------------------------------------
```

```
ashwin_vp@Ubuntu:~/Desktop$ java Java.Lab3.lab3
Enter the Employee Name :
bob
Enter the Employee ID :
4
Enter the Employee Address :
chennai
Enter the Employee Mobile Number :
9025561414
Enter the Employee Mail ID :
bob@gmail.com
Enter the Serial Number for the Corresponding Designation :
1. Programmer
2. Assistant Professor
3. Associate Professor
4. Professor
4
Enter the Basic Pay :
10000
The Payroll :
Name of the Employee : bob
Basic Pay : 10000.0
Daily Allowance : 9700.0
House Rent Allowance : 1000.0
Provident Fund : 1200.0
Staff Club Fund : 10.0
Gross Salary : 20700.0
Net Salary : 19490.0
-----------------------------------------------
ashwin_vp@Ubuntu:~/Desktop$
```

RESULT:

Thus, a Java application to calculate and display the Payroll of the employee using the Basic Pay is successfully created.