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| **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;

        }

    }

}

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Description automatically generated**OUTPUT:**

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**RESULT:**

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