OBJECT ORIENTED PROGRAMMING LAB

AIM

To write a Java program to define an Employee class, and derive Programmer, Assistant Professor, Associate Professor and Professor classes from it. To calculate gross and net salary of each class.

ALGORITHM

1. Start
2. Define class Employee with data members Emp_Name, Emp_ID, Address, Mail_ID and Mobile_No.
3. Inherit classes Programmer, Assistant Professor, Associate Professor and Professor from Employee, with additional data members –
    a) basicPay
    b) DA = 97% of basicPay
    c) HRA = 10% of basicPay
    d) PF = 12% of basicPay
    e) SCF = 0.1% of basicPay
    f) netSalary = basicPay – DA – HRA – PF - SCF
4. Give users a choice to select a designation.
5. According to the user's choice, create an object for the specific class
6. Print out basicPay and netSalary of the object.
7. Stop

PROGRAM CODE

```
import java.util.Scanner;
```

```
class Employee {
    public String Emp_Name;
    public int Emp_ID;
    public String Address;
    public String Mail_ID;
    public int Mobile_No;
}

class Programmer extends Employee {
    public double basicPay = 30000;
    public double DA = 0.97 * basicPay;
    public double HRA = 0.1 * basicPay;
    public double PF = 0.12 * basicPay;
    public double SCF = 0.001 * basicPay;
    public double netSalary = basicPay - DA - HRA - PF - SCF;
}

class AssistantProfessor extends Employee {
    public double basicPay = 50000;
    public double DA = 0.97 * basicPay;
    public double HRA = 0.1 * basicPay;
    public double PF = 0.12 * basicPay;
    public double SCF = 0.001 * basicPay;
```

```
    public double netSalary = basicPay - DA - HRA - PF - SCF;
}

class AssociateProfessor extends Employee {
    public double basicPay = 60000;
    public double DA = 0.97 * basicPay;
    public double HRA = 0.1 * basicPay;
    public double PF = 0.12 * basicPay;
    public double SCF = 0.001 * basicPay;
    public double netSalary = basicPay - DA - HRA - PF - SCF;
}

class Professor extends Employee {
    public double basicPay = 80000;
    public double DA = 0.97 * basicPay;
    public double HRA = 0.1 * basicPay;
    public double PF = 0.12 * basicPay;
    public double SCF = 0.001 * basicPay;
    public double netSalary = basicPay - DA - HRA - PF - SCF;
}

public class Jan21 {
    public static void main(String args[]) {
        System.out.println("Enter your Designation");
```

```
        System.out.println("1. Programmer");
        System.out.println("2. Assistant Professor");
        System.out.println("3. Associate Professor");
        System.out.println("4. Professor");
        Scanner s = new Scanner(System.in);
        int ch = s.nextInt();
        if(ch == 1) {
            Programmer obj1 = new Programmer();
            System.out.println("Gross Salary of Programmer is " + obj1.basicPay);
            System.out.println("Net Salary of Programmer is " + obj1.netSalary);
        }
        else if(ch == 2) {
            AssistantProfessor obj2 = new AssistantProfessor();
            System.out.println("Gross Salary of Assistant Professor is " +
obj2.basicPay);
            System.out.println("Net Salary of Assistant Professor is " + obj2.netSalary);
        }
        else if(ch == 3) {
            AssociateProfessor obj3 = new AssociateProfessor();
            System.out.println("Gross Salary of Associate Professor is " +
obj3.basicPay);
            System.out.println("Net Salary of Associate Professor is " + obj3.netSalary);
        }
        else if(ch == 4) {
            Professor obj4 = new Professor();
```

```
            System.out.println("Gross Salary of Professor is " + obj4.basicPay);
            System.out.println("Net Salary of Professor is " + obj4.netSalary);
        }
        else {
            System.out.println("Invalid Input!!!");
        }
        s.close();
    }
}
```

SAMPLE INPUT/OUTPUT

```
Enter your Designation
1. Programmer
2. Assistant Professor
3. Associate Professor
4. Professor
1
Gross Salary of Programmer is 30000.0
Net Salary of Programmer is -5730.0

Enter your Designation
1. Programmer
2. Assistant Professor
3. Associate Professor
```

4. Professor

2

Gross Salary of Assistant Professor is 50000.0

Net Salary of Assistant Professor is -9550.0

Enter your Designation

1. Programmer

2. Assistant Professor

3. Associate Professor

4. Professor

3

Gross Salary of Associate Professor is 60000.0

Net Salary of Associate Professor is -11460.0

Enter your Designation

1. Programmer

2. Assistant Professor

3. Associate Professor

4. Professor

4

Gross Salary of Professor is 80000.0

Net Salary of Professor is -15280.0