

ASSIGNMENT NO : 3

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Subject:oop

//Q.3 Design and develop inheritance for a given case study, identify objects and relationships and implement inheritance wherever applicable. Employee class has Emp_name, Emp_id, Address, Mail_id, and Mobile_no as members. Inherit the classes: Programmer, Team Lead, Assistant Project Manager and Project Manager from employee class. Add Basic Pay (BP) as the member of all the inherited classes with 97% of BP as DA, 10 % of BP as HRA, 12% of BP as PF, 0.1% of BP for staff club fund. Generate pay slips for the employees with their gross and net salary.

*******PROGRAM*******

```
import java.util.*;

class Employee {
    String Emp_Name;
    int Emp_Id;
    String Address;
    String Mail_Id;
    long Mob_no;

    double BP, DA, HRA, PF, SCF, GS, NS;

    Scanner sc = new Scanner(System.in);

    void set_data(){
        System.out.println("Enter Id:");
        Emp_Id = sc.nextInt();
        System.out.println("Enter Name:");
        Emp_Name = sc.next();
        System.out.println("Enter Address:");
        Address = sc.next();
        System.out.println("Enter Mail id:");
        Mail_Id = sc.next();
        System.out.println("Enter Mob_no:");
```

```

        Mob_no = sc.nextLong();
    }

    void Show_data(){
        System.out.println("Employee Name: " + Emp_Name);
        System.out.println("Employee Id: " + Emp_Id);
        System.out.println("Employee Address: " + Address);
        System.out.println("Employee Mail Id: " + Mail_Id);
        System.out.println("Employee Mobile No: " + Mob_no);
        System.out.println("===== PAY SLIP  
=====");

        DA = BP * 0.97;
        HRA = BP * 0.10;
        PF = BP * 0.12;
        SCF = BP * 0.001; // SCF is now calculated as 0.001 * BP

        GS = BP + DA + HRA + PF + SCF;
        NS = BP + DA + HRA - PF - SCF;

        System.out.println("Basic Pay = " + BP);
        System.out.println("DA = " + DA);
        System.out.println("HRA = " + HRA);
        System.out.println("PF = " + PF);
        System.out.println("SCF = " + SCF);
        System.out.println("GROSS SALARY = " + GS);
        System.out.println("NET SALARY = " + NS);
    }
}

class Programmer extends Employee{
    Scanner s1 = new Scanner(System.in);

```

```
Programmer(){  
    System.out.println("Enter Basic Pay:");  
    BP = s1.nextDouble();  
    super.set_data();  
}  
}
```

```
class Team_lead extends Employee{  
    Scanner s2 = new Scanner(System.in);  
  
    Team_lead(){  
        System.out.println("Enter Basic Pay:");  
        BP = s2.nextDouble();  
        super.set_data();  
    }  
}
```

```
class Assistant_Project_Manager extends Employee{  
    Scanner s3 = new Scanner(System.in);  
    Assistant_Project_Manager(){  
        System.out.println("Enter Basic Pay:");  
        BP = s3.nextDouble();  
        super.set_data();  
    }  
}
```

```
class ProjectManager extends Employee{  
    Scanner s4 = new Scanner(System.in);  
    ProjectManager(){  
        System.out.println("Enter Basic Pay:");  
        BP = s4.nextDouble();  
        super.set_data();  
    }  
}
```

```

    }
}

public class demo {

    public static void main(String args[]){

        int choice;


        Scanner sf = new Scanner(System.in);

        System.out.println("Enter Choice\n1: Programmer\n2: Team lead\n3: Asst Project Manager\n4: Project Manager");

        choice = sf.nextInt();


        switch(choice){

            case 1:

                Programmer p = new Programmer();

                p.Show_data();

                break;

            case 2:

                Team_lead t = new Team_lead();

                t.Show_data();

                break;

            case 3:

                Assistant_Project_Manager ap = new Assistant_Project_Manager();

                ap.Show_data();

                break;

            case 4:

                ProjectManager pm = new ProjectManager();

                pm.Show_data();

                break;

            default:

                System.out.println("Invalid choice!");

        }

    }

}

```

}

*****OUTPUT*****

Enter Choice

1: Programmer

2: Team lead

3: Asst Project Manager

4: Project Manager

1

Enter Basic Pay:

80000

Enter Id:

7878

Enter Name:

Sahil salke

Enter Address:pune

Enter Mail id:

sahilsalke@gmail.com

Enter Mob_no:

8976543678

Employee Name: Sahil

Employee Id: 7878

Employee Address: salke

Employee Mail Id: sahilsalke@gmail.com

Employee Mobile No: 8976543678

===== PAY SLIP =====

Basic Pay = 80000.0

DA = 77600.0

HRA = 8000.0

PF = 9600.0

SCF = 80.0

GROSS SALARY = 175280.0

NET SALARY = 155920.0

Enter Choice

1: Programmer

2: Team lead

3: Asst Project Manager

4: Project Manager

2

Enter Basic Pay:

100000

Enter Id:

8888

Enter Name:

Sanket salke

Enter Address:pune

Enter Mail id:

sanketsalke@gmail.com

Enter Mob_no:

7385634931

Employee Name: Sanket

Employee Id: 8888

Employee Address: salke

Employee Mail Id: sanketsalke@gmail.com

Employee Mobile No: 7385634931

===== PAY SLIP =====

Basic Pay = 100000.0

DA = 97000.0

HRA = 10000.0

PF = 12000.0

SCF = 100.0

GROSS SALARY = 219100.0

NET SALARY = 194900.0

Enter Choice

1: Programmer

2: Team lead

3: Asst Project Manager

4: Project Manager

3

Enter Basic Pay:

150000

Enter Id:

4554

Enter Name:

Tushar dandavate

Enter Address:

Enter Mail id:

tushardandavte2004@gmail.com

Enter Mob_no:

7620106620

Employee Name: Tushar dandavate

Employee Id: 4554

Employee Address: pune

Employee Mail Id: tushardandavte2004@gmail.com

Employee Mobile No: 7620106620

===== PAY SLIP =====

Basic Pay = 150000.0

DA = 145500.0

HRA = 15000.0

PF = 18000.0

SCF = 150.0

GROSS SALARY = 328650.0

NET SALARY = 292350.0

Enter Choice

- 1: Programmer
- 2: Team lead
- 3: Asst Project Manager
- 4: Project Manager

4

Enter Basic Pay:

160000

Enter Id:

5656

Enter Name:

Rushikesh

Enter Address:

pune

Enter Mail id:

rushikesh@gmail.com

Enter Mob_no:

7387809378

Employee Name: Rushikesh

Employee Id: 5656

Employee Address: pune

Employee Mail Id: rushikesh@gmail.com

Employee Mobile No: 7387809378

===== PAY SLIP =====

Basic Pay = 160000.0

DA = 155200.0

HRA = 16000.0

PF = 19200.0

SCF = 160.0

GROSS SALARY = 350560.0

NET SALARY = 311840.0