Exp.no:	**Java application to implement Payroll**
Date:	

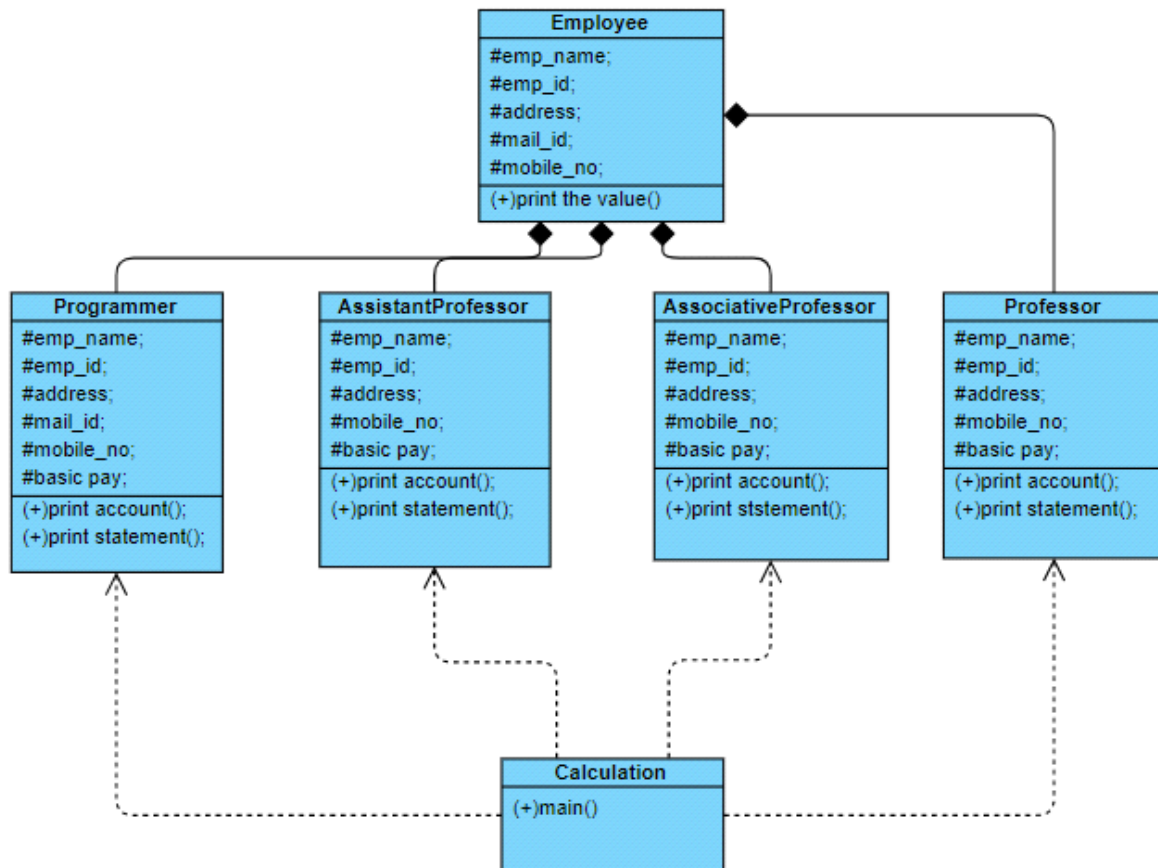**AIM:** To develop a java console application to find the gross and net salary using inheritage.

REQUIREMENT:

- Develop a java application to create a package payroll and to create the class as employee with emp_name,emp_id,address,mail_id,mobile_no as data members.

- Inherit the classes as programmer,assistantprofessor,associativeprofessor,professor.add the basic pay as data member for these classes. member for these classes.

- create the class calculation to print the DA,HRA,PF,Staff club fund,gross salary and net salary for the inheritage classes.

ALGORITHM:

Step1:Declare a package payroll.
Step2:Declare the class as employee.
Step3:Declare a constructor and add the data members.
Step4:Inherit the classes from the super class and add the data members as basic pay.
Step5:Calculate the gross salary and net salary on the inheritage.
Step6:Display the result.

Class Diagram:

Employee
```
#emp_name;
#emp_id;
#address;
#mail_id;
#mobile_no;
```
(+)print the value()

Programmer
```
#emp_name;
#emp_id;
#address;
#mail_id;
#mobile_no;
#basic pay;
```
(+)print account();
(+)print statement();

AssistantProfessor
```
#emp_name;
#emp_id;
#address;
#mobile_no;
#basic pay;
```
(+)print account();
(+)print statement();

AssociativeProfessor
```
#emp_name;
#emp_id;
#address;
#mobile_no;
#basic pay;
```
(+)print account();
(+)print ststement();

Professor
```
#emp_name;
#emp_id;
#address;
#mobile_no;
#basic pay;
```
(+)print account();
(+)print statement();

Calculation
(+)main()

Program:

/****

 *created G.Nikhil

 * EEE A

 */

package payroll;

public class Employee {

     protected String emp_name;

     protected double emp_id;

     protected String address;

```java
protected String mail_id;

protected double mobile_no;


public Employee ()

{

emp_name="noname";

emp_id=100001;

address="not given";

mail_id="not given";

mobile_no=80000001;

}


public Employee(String n, String ad,double id,double mo, String mail)

{

emp_name=n;

emp_id=id;

address=ad;

mail_id=mail;

mobile_no=mo;

}


public void printAccount()

{

System.out.println("Name:"+emp_name);

System.out.println("EMP ID:"+emp_id);

System.out.println("Address:"+address);

System.out.println("EMail:"+mail_id);

System.out.println("Mobile:"+mobile_no);
```

```java
        }
}
/***created by G.nikhil
 * eee-a
 *
 *
 */
package payroll;
public class AssistantProfessor extends Employee {
        private double basicpay;
        public AssistantProfessor()
        {
            basicpay=0;
        }
        public AssistantProfessor (String n, String ad,double id,double mo, String mail, double
bp)
        {
            super (n,ad,id,mo,mail);
             basicpay=bp;
        }
        public void printEmployee()
        {       super.printAccount ();
                System.out.println("Basic pay:"+basicpay);
        }
        public void printStatement()
        {
        double DA;
        double HRA;
        double PF;
        double stafffund;
        double gross;
```

```java
        double net;
        printAccount();

        DA=basicpay*0.97;
        HRA=basicpay*0.1;
        PF=basicpay*0.12;
        stafffund=basicpay*0.001;
        gross=DA+HRA+PF+stafffund;
        net=gross-PF-stafffund;

        System.out.printf("da:%2f\n",+DA);
        System.out.printf("hra:%2f\n",+HRA);
        System.out.printf("PF:%2f\n",+PF);
        System.out.printf("Staff club fund:%2f\n",+stafffund);
        System.out.printf("salary:%2f\n",+gross);
        System.out.printf("net salary :%2f\n",+net);
}
}
/***created by G.nikhil
 * eee-a
 *
 *
 */
package payroll;
public class AssociateProfessor extends Employee {
        private double basicpay;
        public AssociateProfessor()
        {
            basicpay=0;
        }
```

```java
        public AssociateProfessor (String n, String ad,double id,double mo, String mail,
double bp)
        {
            super (n,ad,id,mo,mail);
             basicpay=bp;
        }
        public void printEmployee()
        {       super.printAccount ();
                System.out.println("Basic pay:"+basicpay);
        }
        public void printStatement()
        {
        double DA;
        double HRA;
        double PF;
        double stafffund;
        double gross;
        double net;

        printAccount();
        DA=basicpay*0.97;
        HRA=basicpay*0.1;
        PF=basicpay*0.12;
        stafffund=basicpay*0.001;
        gross=DA+HRA+PF+stafffund;
        net=gross-PF-stafffund;

        System.out.printf("da:%2f\n",+DA);
        System.out.printf("hra:%2f\n",+HRA);
```

```java
        System.out.printf("PF:%2f\n",+PF);

        System.out.printf("Staff club fund:%2f\n",+stafffund);

        System.out.printf("salary :%2f\n",+gross);

        System.out.printf("net salary :%2f\n",+net);

    }

}
/***created by G.nikhil
 * eee-a
 *
 *
 */
package payroll;
public class Professor extends Employee {

    private double basicpay;

    public Professor()

    {

        basicpay=0;

    }

    public Professor(String n, String ad,double id,double mo, String mail, double bp)

    {

        super(n,ad,id,mo,mail);

        basicpay=bp;

    }

    public void printEmployee()

    {

        super.printAccount();

        System.out.println("basicpay:"+basicpay);


    }
```

```java
        public void printStatement()
        {
                double DA;
                double HRA;
                double PF;
                double stafffund;
                  double gross;
                  double net;
                  printAccount();

                  DA=basicpay*0.97;
                  HRA=basicpay*0.1;
                  PF=basicpay*0.12;
                  stafffund=basicpay*0.001;
                  gross=DA+HRA+PF+stafffund;
                  net=gross-PF-stafffund;
                  System.out.printf("da:%2f\n",+DA);
                  System.out.printf("hra:%2f\n",+HRA);
                  System.out.printf("PF:%2f\n",+PF);
                  System.out.printf("Staff club fund:%2f\n",+stafffund);
                  System.out.printf("salary :%2f\n",+gross);
                  System.out.printf("net salary :%2f\n",+net);
        }
}
/***created by G.nikhil
 * eee-a
 *
 *
 */
```

```java
package payroll;
public class Programmer extends Employee {
        private double basicpay;
        public Programmer()
        {
                basicpay=0;
        }
        public Programmer (String n, String ad,double id,double mo, String mail, double
bp)
        {
                super (n,ad,id,mo,mail);
                basicpay=bp;
        }
        public void printAccount()
        {       super.printAccount ();
                System.out.println("Basic pay:"+basicpay);
        }
        public void printStatement()
        {
        double DA;
        double HRA;
        double PF;
        double stafffund;
        double gross;
        double net;
        printAccount();

        DA=basicpay*0.97;
```

```java
            HRA=basicpay*0.1;

            PF=basicpay*0.12;

            stafffund=basicpay*0.001;

            gross=DA+HRA+PF+stafffund;

            net=gross-PF-stafffund;

            System.out.printf("Duty Allowance (DA):%2f\n",DA);

            System.out.printf("HRA:%2f\n",HRA);

            System.out.printf("PF:%2f\n",PF);

            System.out.printf("Staff club fund:%2f\n",stafffund);

            System.out.printf("salary :%2f\n",gross);

            System.out.printf("net salary :%2f\n",net);

        }

}
```

Calculation:

```java
/***created by G.nikhil
 * eee-a
 *
 *
 */
package payroll;
public class PaySlips {
        public static void main(String[] args)
        {
                Employee emp;

                Programmer pro;

                AssistantProfessor AssistProf;

                AssociateProfessor AssocProf;

                Professor prof;
```

```
        emp=new Employee("a","chennai",100001,974643,"a@gmail.com");

        pro=new Programmer("b","chennai",100002,547955,"b@gmail.com",80000);

        AssistProf=new
AssistantProfessor("c","chenani",100003,879457,"c@gmail.com",50000);

        AssocProf=new
AssociateProfessor("d","chennai",100004,798464,"d@gmail.com",60000);

        prof=new Professor("e","chennai",10005,879544,"e@gmail.com",70000);


        emp.printAccount();

        prof.printStatement();

        pro.printStatement();

        AssistProf.printStatement();

        AssocProf.printStatement();

    }

}
```

Output:

```
Name:a
EMP ID:100001.0
Address:chennai
EMail:a@gmail.com
Mobile:974643.0
_____
Name:e
EMP ID:10005.0
Address:chennai
EMail:e@gmail.com
Mobile:879544.0
da:67900.000000
hra:7000.000000
PF:8400.000000
Staff club fund:70.000000
salary :83370.000000
net salary :74900.000000
_____
Name:b
EMP ID:100002.0
Address:chennai
EMail:b@gmail.com
Mobile:547955.0
Basic pay:80000.0
Duty Allowance (DA):77600.000000
HRA:8000.000000
PF:9600.000000
Staff club fund:80.000000
salary :95280.000000
```

```
net salary :85600.00000
```

```
Name:c
EMP ID:100003.0
Address:chenani
EMail:c@gmail.com
Mobile:879457.0
da:48500.000000
hra:5000.000000
PF:6000.000000
Staff club fund:50.000000
salary:59550.000000
net salary :53500.000000
```

```
Name:d
EMP ID:100004.0
Address:chennai
EMail:d@gmail.com
Mobile:798464.0
da:58200.000000
hra:6000.000000
PF:7200.000000
Staff club fund:60.000000
salary :71460.000000
net salary :64200.000000
```

Result:

Thus the java program for payroll is programmed and implemented successfully.