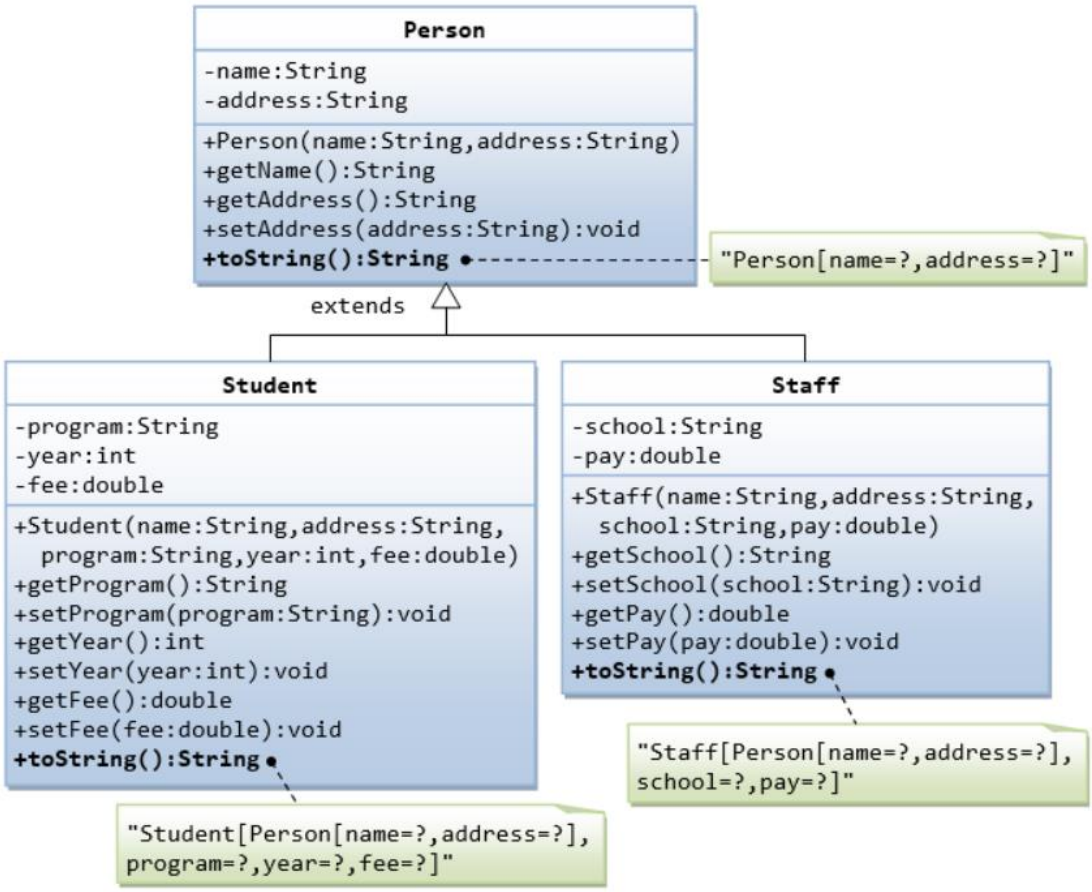
Ex No 3 Inheritance

Date :

Aim:(one aim for all 5 program)

To write a java program for concept of inheritance

3 a.



Algorithm:

Step1: Start

Step2: create class Person

Step3: create variables name,address and methods getName() ,getAddress() ,setName(name), setAddress(address), tostring() and constructor Person(name,address)

Step4: create class Student inheriting class Person

Step5: create variables program,year,fee and methods getProgram(), setProgram(program), getFee(),setFee(fee),getYear(),setYear(year) and constructor Student(name,address,program,year,fee)

Step6: create class Staff inheriting class Person

Step7: create variables salary,school and methods getSchool(), setSchool(school), getSalary(), setSalary(salary) with constructor Staff(name,address,school,salary)

Step8: In every method return respective values

Step9: For class Staff,Student create object and call the respective methods

Step10:Stop

Program:

```
package exp3;

public class Sample {
   public static void main(String[] args){
      Student obj=new Student("jash","chennai",2,80000,"cs");
      System.out.println(obj.getAddress());
      System.out.println(obj.getName());
      obj.setAddress("madurai");
      System.out.println(obj.getFee());
      System.out.println(obj.getProgram());
      System.out.println(obj.getyear());
      obj.setFee(60000);
      obj.setYear(3);
      obj.setProgram("phy");
      System.out.println(obj.tostring());
      Staff o2=new Staff("harsh","bangalore","kv",45000);
      System.out.println(o2.getAddress());
      System.out.println(o2.getName());
      System.out.println(o2.getPay());
      System.out.println(o2.getSchool());
      o2.setPay(50000);
      o2.setSchool("tc");
      System.out.println(o2.tostring());
   }
}
```

```
class Person{
   String name,address;

   Person(String a,String b){
      name=a;
      address=b;
   }

   String getName(){
      return name;
   }
   String getAddress(){
      return address;
   }
   void setAddress(String add){
      address=add;
   }
   String tostring(){
      return "name:"+name+" address:"+address;
   }
}

class Student extends Person{
   int year;
   double fee;
   String program;
   Student(String a,String b,int y,double f,String p){
      super(a,b);
      year=y;
      fee=f;
      program=p;
   }
   String getProgram(){
      return program;
   }
   void setProgram(String a){
      program=a;
   }
   int getyear(){
      return year;
   }
   void setYear(int y){
      year=y;
   }
   double getFee(){
```

```
        return fee;
    }
    void setFee(double f){
        fee=f;
    }
    String tostring(){
        return "name:"+name+" address:"+address+" program:"+program+" year:"+year+"
fee:"+fee;
    }
}

class Staff extends Person{
    String school;
    double pay;
    Staff(String a,String b,String c,double d){
        super(a,b);
        school=c;
        pay=d;
    }
    String getSchool(){
        return school;
    }
    void setSchool(String s){
        school=s;
    }
    double getPay(){
        return pay;
    }
    void setPay(double p){
        pay=p;
    }
    String tostring(){
        return "name:"+name+" address:"+address+" school:"+school+"pay:"+pay;
    }
}
```

Output:

chennai

jash

80000.0

cs

2

name:jash address:madurai program:phy year:3 fee:60000.0

bangalore

harsh

45000.0

kv

name:harsh address:bangalore school:tcpay:50000.0

Observation(20)	
Record(5)	
Total(25)	
Initial	

Result:

Thus, the java programs using inheritance concepts is written, executed and the output is verified