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/*--------------------------------------------------------------------------
problem statement: Solving the given UML diagram and implementing it.

Termwork-1

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Theory:
-> Abstract class:  It is used to put architectural constraints on
design.
We cannot create instances for an abstract class,butwe can inherit from
the abstract class.

-> toString: It is a method present in object class. Every class is
initially
extended from the object class, hence we can override the toString
method.
it is used to convert any input to string.

-> 'This': It is used to refer to the current object in a method.
It will differentiate between parameters and variables of present class.

-> 'super': It is a reference variable which is used to refer immediate
parent class object.
--------------------------------------------------------------------------*/
import java.util.Scanner;
abstract class Person {
      private String name;
      private String address;

      public Person(String name, String address) {
            this.name = name;
            this.address = address;
      }

      public Person() {
    }

    public String getName() {
            return name;
      }

      public void setName(String name) {
          this.name = name;
      }

    public String getAddress() {
            return address;
      }

      public void setAddress(String address) {
            this.address = address;
      }

    public String toString(){
        return "\n  Name: " + this.name + "\n  Address: " + this.address;
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    }
}

class Student extends Person{
      private String program;
      private int year;
    private double fee;

      public Student(String name, String address,String program,int year,
double fee) {
            super(name,address);
        this.program = program;
        this.year = year;
        this.fee = fee;
      }

    public Student(){
        super();
    }

      public String getProgram() {
            return program;
      }

      public void setProgram(String program) {
            this.program = program;
      }

    public int getYear() {
            return year;
      }

      public void setYear(int year) {
            this.year = year;
      }

    public double getFee(){
        return fee;
    }

    public void setFee(Double fee){
        this.fee = fee;
    }

    public String toString(){
        return (super.toString()+"\n  Program: " + this.program + "\n
Year: " + this.year + "\n  Fee: " + this.fee);
    }
}

class Staff extends Person{
      private String school;
    private double pay;

      public Staff(String name, String address,String school,double pay)
{
            super(name, address);
        this.school = school;
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        this.pay = pay;
      }
    public Staff(){
        super();
    }

      public String getSchool() {
            return school;
      }

      public void setSchool(String school) {
            this.school = school;
      }

    public double getPay() {
            return pay;
      }

      public void setPay(double pay) {
            this.pay = pay;
      }

    public String toString(){
        return (super.toString()+"\n  School: " + this.school + "\n  Pay:
" + this.pay);
    }
}

public class termwork_1 {
    public static void main(String[] args){
        String name,address,program,school,name1,address1;
        int year;
        double pay,fee;
        Scanner in = new Scanner(System.in);
        System.out.println("  Enter the details of the students:\n");
        System.out.print("  Enter the name of the Student: ");
        name = in.nextLine();
        System.out.print("  Enter the Address of the Student: ");
        address = in.nextLine();
        System.out.print("  Enter the program of the Student: ");
        program = in.nextLine();
        System.out.print("  Enter the year in which the Student is
studying: ");
        year = in.nextInt();
        System.out.print("  Enter the Fees of the Student: ");
        fee = in.nextDouble();
        in.nextLine();
        System.out.println("\n  Enter the details of the staff:\n");
        System.out.print("  Enter the name of the Staff: ");
        name1 = in.nextLine();
        System.out.print("  Enter the Address of the Staff: ");
        address1 = in.nextLine();
        System.out.print("  Enter the School of the Staff: ");
        school = in.nextLine();
        System.out.print("  Enter the Pay of the Staff: ");
        pay = in.nextDouble();
        Student s = new Student(name,address,program,year,fee);
        Staff s1 = new Staff(name1,address1,school,pay);
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        System.out.println("\n  The Details are as follows: \n");
        System.out.println(s.toString());
        System.out.println();
        System.out.println(s1.toString());
    }
}

/* Sample Input:
  Enter the details of the students:

  Enter the name of the Student: Rahul
  Enter the Address of the Student: Hubli
  Enter the program of the Student: CSE
  Enter the year in which the Student is studying: 2
  Enter the Fees of the Student: 75000

  Enter the details of the staff:

  Enter the name of the Staff: Rahul
  Enter the Address of the Staff: Hubli
  Enter the School of the Staff: SDM
  Enter the Pay of the Staff: 25000

  Sample output:
  The Details are as follows:


  Name: Rahul
  Address: Hubli
  Program: CSE
  Year: 2
  Fee: 75000.0


  Name: Rahul
  Address: Hubli
  School: SDM
  Pay: 25000.0 */
```