import java.io.\*;

import java.util.\*;

class Student {

int rollno;

String name;

float fees;

String branch;

int year;

int sem;

int age;

static String clg;

public Student(int rollno,String name,float fees,String branch,int year,int sem,int age) {

this.rollno = rollno;

this.name = name;

this.fees = fees;

this.branch = branch;

this.year = year;

this.sem = sem;

this.age = age;

clg="PU";

}

@Override

public String toString() {

return rollno + " "+ name + " " + fees + " " + branch + " " + year + sem + " " + age + " " + clg + "\n";

}

}

class AgeComparator implements Comparator {

public int compare(Object o1, Object o2) {

Student s1=(Student)o1;

Student s2=(Student)o2;

if(s1.age==s2.age)

return 0;

else if(s1.age>s2.age)

return 1;

else

return -1;

}

}

class NameComparator implements Comparator{

public int compare(Object o1, Object o2) {

Student s1=(Student)o1;

Student s2=(Student)o2;

return s1.name.compareTo(s2.name);

}

}

class FeesComparator implements Comparator {

public int compare(Object o1,Object o2) {

Student s1=(Student)o1;

Student s2=(Student)o2;

if(s1.fees==s2.fees)

return 0;

else if(s1.fees>s2.fees)

return 1;

else

return -1;

}

}

public class Temp1 {

public static void main(String[] args) {

// TODO Auto-generated method stub

ArrayList sl=new ArrayList();

sl.add(new Student(1,"Shiva",10000.00f,"cse",1,1,18));

sl.add(new Student(2,"Venky",15000.00f,"ise",1,2,20));

sl.add(new Student(3,"Jesus",17000.00f,"ece",1,1,19));

sl.add(new Student(3,"Alla",12000.00f,"eee",1,1,19));

sl.add(new Student(3,"Budha",11000.00f,"mech",1,1,21));

System.out.println("Sorting by Name");

System.out.println("\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_");

Collections.sort(sl,new NameComparator());

Iterator itr=sl.iterator();

while(itr.hasNext()){

Student st=(Student)itr.next();

System.out.println(st.rollno+" "+st.name+" "+ st.fees+ " " + st.branch+ " " + st.year + " " + st.sem + " " + st.age + " " + Student.clg);

}

System.out.println("Sorting by age");

System.out.println("\_\_\_\_\_\_\_\_\_\_\_\_\_\_");

Collections.sort(sl,new AgeComparator());

Iterator itr2=sl.iterator();

while(itr2.hasNext()){

Student st=(Student)itr2.next();

System.out.println(st.rollno+" "+st.name+" "+ st.fees+ " " + st.branch+ " " + st.year + " " + st.sem + " " + st.age + " " + Student.clg);

}

System.out.println("Sorting by fees");

System.out.println("\_\_\_\_\_\_\_\_\_\_\_\_\_\_");

Collections.sort(sl,new FeesComparator());

Iterator itr1=sl.iterator();

while(itr1.hasNext()){

Student st=(Student)itr1.next();

System.out.println(st.rollno+" "+st.name+" "+ st.fees+ " " + st.branch+ " " + st.year + " " + st.sem + " " + st.age + " " + Student.clg);

}

}

}

Sorting by Name

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3 Alla 12000.0 eee 1 1 19 PU

3 Budha 11000.0 mech 1 1 21 PU

3 Jesus 17000.0 ece 1 1 19 PU

1 Shiva 10000.0 cse 1 1 18 PU

2 Venky 15000.0 ise 1 2 20 PU

Sorting by age

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1 Shiva 10000.0 cse 1 1 18 PU

3 Alla 12000.0 eee 1 1 19 PU

3 Jesus 17000.0 ece 1 1 19 PU

2 Venky 15000.0 ise 1 2 20 PU

3 Budha 11000.0 mech 1 1 21 PU

Sorting by fees

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1 Shiva 10000.0 cse 1 1 18 PU

3 Budha 11000.0 mech 1 1 21 PU

3 Alla 12000.0 eee 1 1 19 PU

2 Venky 15000.0 ise 1 2 20 PU

3 Jesus 17000.0 ece 1 1 19 PU