**Solution: -**

import java.util.\*;

class Student {

private int Id;

private String name;

private double cgpa;

public Student(int Id, String name, double cgpa) {

this.Id = Id;

this.name = name;

this.cgpa = cgpa;

}

public int getId() {

return Id;

}

public String getname() {

return name;

}

public double getcgpa() {

return cgpa;

}

}

public class EnterServed {

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

PriorityQueue<Student> priorityQueue = new PriorityQueue<Student>(1000, new Comparator<Student>() {

public int compare(Student s1, Student s2) {

if (s1.getcgpa() < s2.getcgpa())

return 1;

else if (s1.getcgpa() > s2.getcgpa())

return -1;

else {

// CGPA IS SAME

if (!s1.getname().equals(s2.getname()))

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

else {

// NAME IS SAME

return s1.getId() - s2.getId();

}

}

}

});

int Events = Integer.parseInt(in.nextLine());

while (Events > 0) {

String event = in.next();

if (event.equals("ENTER")) {

String name = in.next();

Double cgpa = in.nextDouble();

int id = in.nextInt();

in.nextLine();

Student student = new Student(id, name, cgpa);

priorityQueue.add(student);

} else if (event.equals("SERVED")) {

priorityQueue.poll();

}

Events--;

}

if (priorityQueue.isEmpty()) {

System.out.println("EMPTY");

} else {

while (!priorityQueue.isEmpty()) {

System.out.println(priorityQueue.poll().getname());

}

}

}

}