import java.util.List;

import java.util.Scanner;

import java.util.stream.Stream;

class Main{

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

ManagementUtility mu = new ManagementUtility();

System.out.println("Enter the number of donors");

int n = Integer.parseInt(sc.nextLine());

System.out.println("Enter the donor details");

String[] Strings = new String[n];

for(int i=0;i<n;i++){

String donor = sc.nextLine();

Strings[i] = donor;

}

List<Donor> res = mu.getDonorDetails(Strings);

Stream<Donor> result = mu.getStreamOfDonor(res);

System.out.println("Enter the blood group to search");

String bloodGroup = sc.nextLine();

List<String> finalResult = mu.shortlistedDonor(result,bloodGroup);

if(finalResult.size() != 0) {

System.out.println("List of shortlisted donors");

finalResult.forEach(s -> {

System.out.println(s);

});

}else{

System.out.println("No donor found");

}

}

}

import java.util.ArrayList;

import java.util.Collections;

import java.util.stream.Stream;

import java.util.List;

public class ManagementUtility {

public List<Donor> getDonorDetails(String[] details) {

// Fill the code here

List<Donor> temp = new ArrayList<Donor>();

for(int i=0;i<details.length;i++){

String newTemp = details[i];

String[] splitString = newTemp.split(":");

long mb = Long.parseLong(splitString[3]);

temp.add(new Donor(splitString[0],splitString[1],splitString[2],mb));

}

return temp;

}

public Stream<Donor> getStreamOfDonor(List<Donor> donorDetails) {

// Fill the code here

return donorDetails.stream();

}

public List<String> shortlistedDonor(Stream<Donor> donorStream, String bloodGroup) {

List<String> result = new ArrayList<String>();

// Fill the code here

donorStream.filter(s-> s.getBloodGroup().equals(bloodGroup)).forEach(s -> {result.add(s.getDonorName());});

Collections.sort(result);

return result;

}

}

public class Donor {

String donorId;

String donorName;

String bloodGroup;

long mobileNumber;

public Donor(String id,String name,String group,long mn){

this.donorId = id;

this.donorName = name;

this.bloodGroup = group;

this.mobileNumber = mn;

}

public long getMobileNumber() {

return mobileNumber;

}

public String getBloodGroup() {

return bloodGroup;

}

public String getDonorId() {

return donorId;

}

public String getDonorName() {

return donorName;

}

public void setBloodGroup(String bloodGroup) {

this.bloodGroup = bloodGroup;

}

public void setDonorId(String donorId) {

this.donorId = donorId;

}

public void setDonorName(String donorName) {

this.donorName = donorName;

}

public void setMobileNumber(long mobileNumber) {

this.mobileNumber = mobileNumber;

}

}