LUNDS TEKNISKA HÖGSKOLA   Institutionen för datavetenskap

Lösningsförslag, kontrollskrivning 2 PTDC

2013–11–18

```java
1. public class DayBookings {
       private String room;
       private String day;
       private boolean[] booked;

       public DayBookings(String room, String day) {
           this.room = room;
           this.day = day;
           booked = new boolean[24];
       }

       public String getRoom() {
           return room;
       }

       public String getDay() {
           return day;
       }

       public boolean isBooked(int hour) {
           return booked[hour];
       }

       public boolean book(int start, int finish) {
           for (int i = start; i <= finish; i++) {
               if (booked[i]) {
                   return false;
               }
           }
           for (int i = start; i <= finish; i++) {
               booked[i] = true;
           }
           return true;
       }
   }

2. public void printStatistics() {
       int[] count = new int[nbrQuestions + 1];
       for (int i = 0; i < students.size(); i++) {
           Student s = students.get(i);
           int sum = 0;
           for (int j = 0; j < s.getNbrAnswers(); j++) {
               if (s.getAnswer(j).isCorrect()) {
                   sum++;
               }
           }
           count[sum]++;
       }
       System.out.println("Antal rätt  Antal studenter");
       for (int i = 0; i < count.length; i++) {
           System.out.println(i + " " + count[i]);
       }
   }
```

3.
```java
public class Student {
    private String name;
    private ArrayList<Answer> answers;
    private ArrayList<Integer> correct;

    public Student(String name) {
        this.name = name;
        answers = new ArrayList<Answer>();
        correct = new ArrayList<Integer>();
    }

    public String getName() {
        return name;
    }

    public boolean submitAnswer(Answer a) {
        if (correct.contains(a.getQNbr())) {
            return false;
        }
        if (a.isCorrect()) {
            correct.add(a.getQNbr());
        }
        answers.add(a);
        return true;
    }

    public int getNbrAnswers() {
        return answers.size();
    }

    public Answer getAnswer(int n) {
        return answers.get(n);
    }
}
```