

5993 Student Life

When semester starts, students immediately feel the pressure of assignments and deadlines. Students have to keep track of appointments and submission deadlines. In this problem, you are required to write a program that will read in sets of student appointments in a semester. The program will then list and arrange these appointments in a chronological order. In the event, two or more things to do are to be done on the same day and time; it is further arranged alphabetically based on the activity description and append the text '(Conflict)' at the end of the activity.

Input

The input contains several test cases, each representing a set of appointments of a student in a semester. The data for each case begins with two integers, an integer ($5000 \leq id \leq 8000$) representing the student ID and an integer m ($1 \leq m \leq 50$) that specifies the number of appointments in the semester. This is followed by m lines of appointments. Each appointment starts with a date in the format of 'mm/dd/yyyy', followed by a 12-hour time suffixed with 'AM'/'PM' (in upper case) and finally the activity description. The date, time, and activity description are all delimited by a single blank space.

There are no leading zeros for day or month whose value is less than 10. This is the same for the hour value in the time. However, all minutes in the time are expressed with leading zeroes. Each activity description is limited to a maximum of 30 characters.

The last test case is followed by a single integer zero.

Output

For each test case, output the arranged appointments accordingly.

Sample Input

```
5001 5
7/5/2011 8:00AM Meet with supervisor
1/3/2011 9:00AM Submit assignment
7/5/2011 1:00PM Review assignment
7/5/2011 9:00AM Meet with group
6/5/2011 8:00AM Meet with supervisor
```

```
5242 5
9/3/2011 8:00AM Meet with supervisor
9/3/2011 5:00PM Submit assignment
9/3/2011 1:00PM Review assignment
9/3/2011 9:00AM Meet with tutor
9/3/2011 8:00AM Meet with group
```

```
0
```

Sample Output

```
Student ID: 5001
1/3/2011 9:00AM Submit assignment
6/5/2011 8:00AM Meet with supervisor
```

7/5/2011 8:00AM Meet with supervisor
7/5/2011 9:00AM Meet with group
7/5/2011 1:00PM Review assignment

Student ID: 5242

9/3/2011 8:00AM Meet with group
9/3/2011 8:00AM Meet with supervisor (Conflict)
9/3/2011 9:00AM Meet with tutor
9/3/2011 1:00PM Review assignment
9/3/2011 5:00PM Submit assignment