
Problem #5: Scheduling Nightmare on Elm Street

Program Name: dvr.java

Input File: dvr.dat

You've been having some nasty nightmares lately and plan to stay up as late as possible tonight watching television. You know the quality of late-night programming is sub-par, so you're hoping your DVR (digital video recorder) will record some television shows ahead of time. Unfortunately, your DVR is having problems with its scheduling algorithm, so you have to write a new one for it. You recall the way your DVR's scheduling algorithm works is to record shows in a priority list at the earliest possible time. If two or more shows have conflicting recording times, the show with the highest priority is recorded. Each show is recorded at most once.

Input

There will be only one data set for this problem.

The first line of the data set will be in the format " X Y ", where $1 \leq X \leq 10$ and $1 \leq Y \leq 20$. X is the number of shows in your priority list. Y is the number of entries in the TV guide for the shows on your priority list.

The next X lines will be the priority list for the shows you wish to watch. Each show will be on its own line, ordered by priority (the first show has the highest priority).

The next Y lines represent the unsorted TV guide listings for shows on your priority list and will be in the format "<showtime> <show title>". Showtimes will be in military format ("0000"- "2330") and will always end in "00" or "30". All shows will be thirty minutes long.

Output

Output will be the recorded shows, in the order that they are recorded. Each recorded show will be on a separate line.

Example Input File

```
7 12
Friends
Rugrats
Wheel of Fortune
Channel 9 News
The Simpsons
George of the Jungle
Everybody Loves Raymond
2000 Friends
0800 Rugrats
1600 The Simpsons
1630 The Simpsons
1700 The Simpsons
1730 The Simpsons
1600 Wheel of Fortune
1500 Channel 9 News
2000 George of the Jungle
2000 Everybody Loves Raymond
2100 Everybody Loves Raymond
1630 George of the Jungle
```

Example Output To Screen

```
Rugrats
Channel 9 News
Wheel of Fortune
The Simpsons
Friends
Everybody Loves Raymond
```