# COSC 121 – Assignment #2

Ken’s office hours are getting really full, and a long line is forming outside his office each time. The students decide that they are too smart to simply line up, and decide on implementing a system. The system is a queue, but with some weird exceptions. When a student joins the back of the line, if they are younger or if their grade is lower than the person in front of them they can move up 1 spot, but only 1 spot.

# Input

If a student is joining the line, the input format is the student’s first name then a space then their age, then a space, then their grade. When Ken helps the next student in line, removing them from the queue, the input is *next*. When the input is done, the input is *end*.

# Output

The output will be the order of the students currently in line.  If the queue is empty, output the word empty.

## Example

Taylor 23 98

Christian 17 100

Brett 65 87

Bryce 21 86

next

Shane 32 99

Tasha 22 95

end

Example Output

Brett 65 87

Bryce 21 86

Taylor 23 98

Tasha 22 95

Shane 32 99