Comparators are used to compare two objects. In this challenge, you'll create a comparator and use it to sort an array. The Player class is provided in the editor below. It has two fields:

- 1. *name*: a string.
- 2. score: an integer.

Given an array of n Player objects, write a comparator that sorts them in order of decreasing score. If 2 or more players have the same score, sort those players alphabetically ascending by name. To do this, you must create a Checker class that implements the Comparator interface, then write an int compare(Player a, Player b) method implementing the Comparator.compare(T o1, T o2) method. In short, when sorting in ascending order, a comparator function returns -1 if a < b, 0 if a = b, and 1 if a > b.

Declare a Checker class that implements the comparator method as described. It should sort first descending by score, then ascending by name. The code stub reads the input, creates a list of Player objects, uses your method to sort the data, and prints it out properly.

Example

 $n = 3 \ data = [[Smith, 20], [Jones, 15], [Jones, 20]]$

Sort the list as $data_{sorted} = [[Jones, 20], [Smith, 20], [Jones, 15]]$. Sort first descending by score, then ascending by name.

Input Format

The first line contains an integer, n, the number of players.

Each of the next *n* lines contains a player's *name* and *score*, a string and an integer.

Constraints

- $0 \le score \le 1000$
- Two or more players can have the same name.
- Player names consist of lowercase English alphabetic letters.

Output Format

You are not responsible for printing any output to stdout. Locked stub code in Solution will instantiate a Checker object, use it to sort the Player array, and print each sorted element.

Sample Input

5 amy 100 david 100 heraldo 50 aakansha 75 aleksa 150

Sample Output

aleksa 150 amy 100 david 100 aakansha 75 heraldo 50

Explanation

The players are first sorted descending by score, then ascending by name.