

Sorting: Comparator



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 $a > b$.

For example, given $n = 3$ *Player* objects with *Player.name*, *Player.score* values of $data = [[Smith, 20], [Jones, 15], [Jones, 20]]$, we want to sort the list as $data_{sorted} = [[Jones, 20], [Smith, 20], [Jones, 15]]$.

Function Description

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.

Input Format

Locked stub code in the *Solution* class handles the following input from stdin:

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

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

Constraints

- $0 \leq score \leq 1000$
- 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 create 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

As you can see, the players are first sorted by decreasing score and then sorted alphabetically by name.