Lab 7 handout

Objectives

Accept card descriptions. Sort cards by rank. If ranks match, sort cards by suit. Have fun!

High-level problem description

For this problem, you are to read in a series of cardholders and their corresponding cards, and then display the cardholders in the order of highest card value to lowest.

Input

You will be given a series of hands from standard input in the follow format:

N
Name1 Rank1 Suit1
...
NameN RankN SuitN

- N indicates the number of cardholders.
- Name is the name of the cardholder.
- Rank is the rank of the card: 2, 3, 4, 5, 6, 7, 8, 9, 10, J, Q, K, A.
- Suit is the suit of the card: C, D, H, S (ie. clubs, diamonds, hearts, spades).

The input will be terminated by a non-positive N value.

Output

You are to order the cardholders of each input set and display them such that the person with the highest card value comes first, while the person with the lowest card value comes last. Separate cardholders with ",:"

NameHighest, ..., NameLowest

You must use the ordering above as the rules of precedence for both Rank and Suit. (Note: you should use the Suit in the case of a tied Rank.)

Example

Given the following input:

4
Peter 10 D
Caleb 9 H
Abigail J H
Madeline J S
-1

Your program should output the following:

Madeline, Abigail, Peter, Caleb
Hints

- You may wish to use the `std::sort` algorithm with the container of your choice.
- You may wish to create a custom comparison function or method.

Resources

Create a file called `cards.cpp` which will house your solution. Grab the following files and place them into your folder with the commands provided:

```bash
```

Rubric

<table>
<thead>
<tr>
<th>Point</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>+80</td>
<td>Program implemented as intended</td>
</tr>
<tr>
<td>+50</td>
<td>Program passes all output tests</td>
</tr>
<tr>
<td>+20</td>
<td>Gameplay works. No segfaults.</td>
</tr>
<tr>
<td>+5</td>
<td>On accepting -1, the program does not expect more input.</td>
</tr>
<tr>
<td>+5</td>
<td>Good program structure and code style</td>
</tr>
<tr>
<td>+5</td>
<td>Program passes memory test</td>
</tr>
<tr>
<td>+5</td>
<td>Program passes timing test</td>
</tr>
<tr>
<td>+10</td>
<td>Standard lab report - Describe how you represented your cards and compared them.</td>
</tr>
</tbody>
</table>