Poker Hand Showdown

Implement a library (in C#) which evaluates who are the winner(s) among several 5 card poker hands. Note for this project that you only need to implement a subset of the regular poker hands:

- Flush
- Three of a Kind
- One Pair
- High Card

How your program should handle input and output

Input: Collection of players in the showdown.

- Player Name
- 5 Cards (each specifying the card rank and suit of the card)

Output: Collection of winning players (more than one in case of a tie)

Note: Focus on building an interface for your library, no IO is necessary, console IO is optional, do not build a GUI for this task.

Rules and Tie Breakers for those Subsets

Flush

A flush is any hand with five cards of the same suit. If two or more players hold a flush, the flush with the highest card wins. If more than one player has the same strength high card, then the strength of the second highest card held wins. This continues through the five highest cards in the player's hands.

Three of a Kind

If more than one player holds three of a kind, then the higher value of the cards used to make the three of kind determines the winner. If two or more players have the same three of a kind, then a fourth card (and a fifth if necessary) can be used as kickers to determine the winner.

One Pair

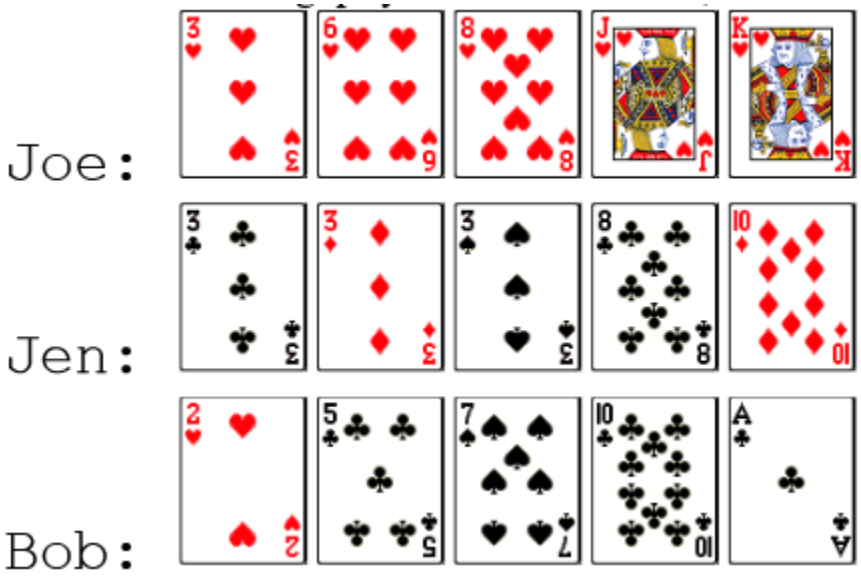
If two or more players hold a single pair, then highest pair wins. If the pairs are of the same value, the highest kicker card determines the winner. A second and even third kicker can be used if necessary.

High Card

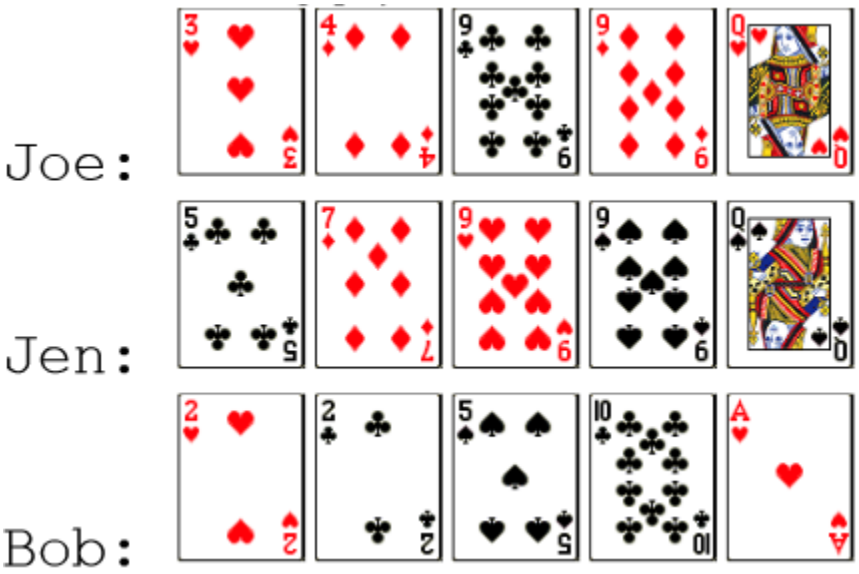
When no player has even a pair, then the highest card wins. When both players have identical high cards, the next highest card wins, and so on until five cards have been used. In the unusual circumstance that two players hold the identical five cards, the pot would be split. For additional details please refer to Wikipedia.

Examples with Winners

Example 1: Joe wins



Example 2: Jen wins.



What else should I know?

Test, test, test and more tests.

Denote any assumptions you have made.

Zip up your program and provide it to us via email or an online file sharing service.