MAT 7003 : Mathematical Foundations

(for Software Engineering)

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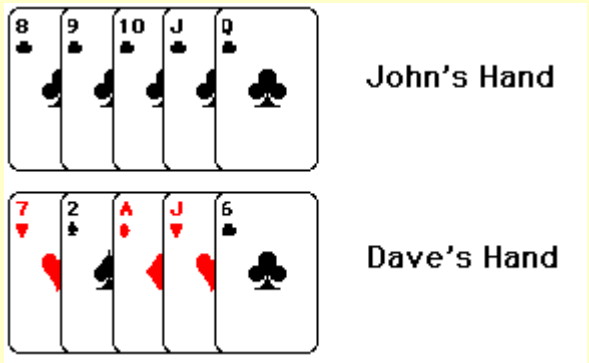
http://www-public.it-sudparis.eu/~gibson/Teaching/MAT7003/

Project: Poker Hands

http://www-public.it-sudparis.eu/~gibson/Teaching/MAT7003/Project.pdf


ROYAL FLUSH
STRAIGHT FLUSH
FOUR OF A KIND
FULL HOUSE
FLUSH
STRAIGHT
THREE OF A KIND
TWO PAIRS
ONE PAIR
HIGH HAND


John's Hand
Dave's Hand

Who wins?

Poker Hands Project: Deadline Friday 21st December

This project must be done in teams (no individual submissions)
If you wish, the whole class can submit a single team project. You must email me your team(s) by Friday 9th Nov

Your joint project submission must include:

- Event-B context specification(s)
- Implementation in the language of your choice
- A simple installation process (make, eg) for executing tests on your code
- A test suite of tests executed
- Full documentation linking code to specifications

Each team member must also clearly identify – in a separate report for each member - which parts of the project that they have contributed to, and summarise the extent of their contribution.

Project Marking Scheme

•Event-B context specification(s)	40%
•Implementation in the language of your choice	20%
•A simple installation process	5%
•A test suite of tests executed	15%
•Full documentation linking code (including tests) to specifications	20%

There is a bonus mark (up to 20%) for specifying and verifying (using RODIN) the transitivity of ordering between hands:

A beats B and B beats C => A beats C

The project is 60% of your final mark

Distribution of Marks:

Each team has 100 marks

Each member is given some contribution mark (by the team)

All contributions must add to 100 for each team

No contribution can be more than 50% higher than any other

Individual marks (out of 60) are calculated as follows –

Team result (0..100) * #of team members * contribution * 6/10

Example:

Team of 3 –
A contributes 40, B contributes 30, C contributes 30
Team result = 65 %
Marks awarded to individuals (/60) A = 46,8, B = 35,1, C = 35,1

If contributions are not distributed equally then this must be justifed and all team members must agree on the distribution

(The lecturer reserves the right to assign contribution values different than those given by the team)

You are to specify and implement a function that compares two poker hands of 5 cards each, dealt from the same pack of cards, and identifies the strongest hand.

The rules can be found on-line at:

http://www.poker.com/poker-hands/winning-poker-hands.pdf

http://www.pagat.com/vying/pokerrank.html

This information is also on the MAT7003 web site

ANY FURTHER QUESTIONS