1 Before Getting Started on the Exercises

Remember to do the Shift+Ctrl+F to format the program and to put the standard comments at the top. You will be submitting the java code files through MyClasses, as always. **Note that since we are working with classes there will be multiple java files to upload, make sure you upload all the java files from the project.**

I also want either a Microsoft Word doc file (or LibreOffice Writer odt) or a text file (which you can create with NotePad++) of the output of at least three runs of the program. This doc (or odt) or text file is to be uploaded to MyClasses as well. You can copy and paste output from the Eclipse console area to the word or text program. Programs must include header comments with at least your name, date, and short description of the program.

2 Exercise

This exercise is just Hi/Low again but this time we will use actual (well virtual) decks of cards. Here is the was our game will go. Each of two players has a shuffled deck of playing cards, a standard poker deck. They each turn over their first card, the highest face value wins (with Ace being low). The winner of the round gets one point. If the face values are the same then no one wins that round. This goes on for the 52 cards and the person with the highest score wins the game.

Create a program that will simulate this game using the Card and Deck classes we created in lecture or the ones from the notes. In either case you may need to add a method or two or manipulate the given methods to suit your needs. You will not need any user input for this. Clearly there is no strategy to this game and the winner is completely determined by the shuffle of the cards. Hence it is a nice game for children but not for older persons. Have the program print out the shuffled decks (which may help with debugging) and then each round of the game with a running score. At the end have the program print the winner of the game or if the scores are equal have it print that the game was a draw. Note that in this game the 10, J, Q, and K have different worths whereas they have the same worth in a game like blackjack. The card worth will simply be its face value, so the KD and KC are the same values.

A program run is below.

```
Decks
    7S   7D   3S   JH   3C   5S   AH   8D   7H   KD  10D   KH   AD  10H   2D   5C   2H   4H   QS
    JS   9H   6C   QC   6D   8S   2C   9S   KC   5D   6S   KS  10S   4C   2S   6H   3D   4S   QH
    8H   7C   5H   3H   9C   AC   AS   JD   QD   8C   JC   4D  10C   9D

    2H   6H   QH  10H   QS   JC   3C   6D   5C   6C  10S   KD   8C   3S   QC   AS   2C   JD   4S
    JS   2D   AD   5S   7S  10C   4C   KH   KS   9S   AC   4D   4H   7H   3H   2S   JH   7D   5D
    3D   QD   6S   AH   KC   9C   8D   9H  10D   7C   8H   9D   8S   5H

Game
   7S    2H    Score:   1    0
   7D    6H    Score:   2    0
   3S    QH    Score:   2    1
   JH   10H    Score:   3    1
   3C    QS    Score:   3    2
   5S    JC    Score:   3    3
   AH    3C    Score:   3    4
   8D    6D    Score:   4    4
```

```
 7H    5C    Score:  5    4
 KD    6C    Score:  6    4
10D   10S    Score:  6    4
 KH    KD    Score:  6    4
 AD    8C    Score:  6    5
10H    3S    Score:  7    5
 2D    QC    Score:  7    6
 5C    AS    Score:  8    6
 2H    2C    Score:  8    6
 4H    JD    Score:  8    7
 QS    4S    Score:  9    7
 JS    JS    Score:  9    7
 9H    2D    Score: 10    7
 6C    AD    Score: 11    7
 QC    5S    Score: 12    7
 6D    7S    Score: 12    8
 8S   10C    Score: 12    9
 2C    4C    Score: 12   10
 9S    KH    Score: 12   11
 KC    KS    Score: 12   11
 5D    9S    Score: 12   12
 6S    AC    Score: 13   12
 KS    4D    Score: 14   12
10S    4H    Score: 15   12
 4C    7H    Score: 15   13
 2S    3H    Score: 15   14
 6H    2S    Score: 16   14
 3D    JH    Score: 16   15
 4S    7D    Score: 16   16
 QH    5D    Score: 17   16
 8H    3D    Score: 18   16
 7C    QD    Score: 18   17
 5H    6S    Score: 18   18
 3H    AH    Score: 19   18
 9C    KC    Score: 19   19
 AC    9C    Score: 19   20
 AS    8D    Score: 19   21
 JD    9H    Score: 20   21
 QD   10D    Score: 21   21
 8C    7C    Score: 22   21
 JC    8H    Score: 23   21
 4D    9D    Score: 23   22
10C    8S    Score: 24   22
 9D    5H    Score: 25   22
```

Player 1 won the game.