CS170 Section 000
HW4 – Fall 2013
Due: Friday, Oct 18th by Midnight

Exercise Preparation:
1. Start a terminal application and follow the next steps by typing the appropriate commands:
   a. Create the hw3 directory inside your cs170 directory:
      mkdir ~/cs170/hw4
   b. Copy the files you will need:
      cp ~/cs170000/share/hw4/* ~/cs170/hw4
   c. Move into the hw4 directory (i.e. make it the working directory):
      cd ~/cs170/hw4
   d. List the contents of the current directory:
      ls
   e. You should see one file: Blackjack.java
      Note: If you are not able to copy the file for whatever reason, then you can go download or copy the contents of the file listed on the homework page.
2. Open the Blackjack.java file using gedit:
   a. gedit Blackjack.java &
      (Don't forget the ampersand)

Exercise Description:
Your assignment is to implement the card game “Blackjack”. The object of the game is to "beat the dealer" which can be done by getting 21 points on your first two cards (called a Blackjack), or by beating the dealer in points. In this version of Blackjack, you will only play with a two cards (one hand), so you will not be responsible for implementing a “hit”. You should also start the player out with $100 and allow the player to keep playing the game until he or she chooses to quit or if the player loses all their money. The player can win or lose $20 each bet. If the dealer and player get the same point total, then the player does not win or lose any money.

I will provide a java method that simulates the dealer’s hand for you. You should use random number generator to simulate your hand using the following example:
   int card1 = random.nextInt(13)+1;
   int card2 = random.nextInt(13)+1;
A value of 1 or 11 should be the “Ace” card, 12 is Jack, 13 is Queen, and 14 is King. Jacks, Queens, and Kings are each worth 10 points. An Ace can either be 1 or 11 points. All other cards have the same number of points as their value.

You should print out the value of each card, so if card1 was "4" and card2 was 13, then you should print out “your hand was a 4 and a Queen” (or something to that effect). You should also print out the dealer’s total hand and indicate who won each game. Print out the balance after each round so the player knows how much their balance is.

If the card is an “Ace” (1 or 11), then you will need to use some conditional logic to determine if you should convert that card value to a 1 or 11. For example, if card1 is an “Ace” and card2 is an “Ace”, then you should not make both their values 11 because then your point total will be above 21 and you will lose. So you will have to convert one of the card values to “1”.

Finally, print out the balance of the user’s money at the end of the game.

Submission:
When you are done, turn-in the BlackJack.java file for hw4 using this command:

```
/home/cs170000/turnin-hw BlackJack.java hw4
```

You will see a message telling you that your file was successfully submitted along with a date and time. Remember that it is your responsibility to make sure your work is submitted correctly. We DO NOT accept work submitted via email.