Exercise Preparation:

1. Start a terminal application and follow the next steps by typing the appropriate commands:
   a. Create the hw5 directory inside your cs170 directory:
      `mkdir ~/cs170/hw5`
   b. Copy the files you will need:
      `cp ~/cs170000/share/hw5/* ~/cs170/hw5`
   c. Move into the hw5 directory (i.e. make it the working directory):
      `cd ~/cs170/hw5`
   d. List the contents of the current directory:
      `ls`
   e. You should see BlackjackHw5.java

2. Open the BlackjackHw5.java file using gedit:
   a. `gedit BlackjackHw5.java &`
      (Don’t forget the ampersand)

Exercise Description:

The goal of the card game Blackjack is to get a hand that is as close as possible to 21, without going over – while also beating the dealer. In this version of Blackjack, you will allow the user to make a "hit" (request another card) or “stand” (not request another card and let the dealer play). If the player makes a hit and the hand is over 21, then the player loses. If the player stands, you should proceed to automatically give the dealer another card until the dealer’s total is 17 or over 21 (a bust).

I will provide a java method that simulates the dealing of a card that returns a value from 2-14. You should use this method to deal your cards and the dealer’s cards. You should define a method to return the integer value of the card depending on whether it is a face card, non-face card, or Ace. A value of 11 is 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 from 2-10 have their same numeric value.

You should also define a method that converts the card to a String. So if you were dealt an 11, 12, 13, or 14 then you should return “A”, “J”, “Q”, or “K”, respectively. If you were dealt a value from 2-10 then you should return a the String representation of that value using `String.valueOf(...)`. 
Deal the first two cards for the Player and the Dealer and print out both hands. Print out the dealer’s hand and player’s hand every time a new card is drawn from the deck. Include the String value of the cards and the point total. Use appropriate formatting and spacing.

**Sample Play:**
Dealer: 2 K  [12]
Player: 6 4  [10]
Do you want to hit or stand (h/s)? h

Dealer: 2 K  [12]
Player: 6 4 5  [15]
Do you want to hit or stand (h/s)? h

Dealer: 2 K  [12]
Player: 6 4 5 2  [17]
Do you want to hit or stand (h/s)? s

Dealer hits:
Dealer: 2 K 2  [14]
Player: 6 4 5 2  [17]

Dealer hits:
Dealer: 2 K 2 8  [22]
Player: 6 4 5 2  [17]
You won! Dealer busted with a total of 22

Your balance is 120. Do you want to continue playing (y/n)?

Indicate who won the game and print out the balance after each round. Give the player an option to continue or end the game if the Player’s balance is 0 or less.

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

**Submission:**
When you are done, turn-in the BlackJackHw5.java file for hw5 using this command:

```
/home/cs170000/turnin-hw BlackJackHw5.java hw5
```