Paul Trichon
prt28@pitt.edu
cs445 - Assig1 - BlackJack
Lecture: Tue/Thur 1pm
Recitation: Tue/ 10am
Program due date: 2/2/18
Handed in date: 2/2/18

Source code:

Game2.java - game class that runs game logic
BlackJack.java - creates deck and starts game
RandIndexQueue.java - queue for everything
MyQ.java
Indexable.java
Shufflable.java
Assig1.java
Card.java

Does your program compile without error? Yes!
Does your program run without error? Yes!

Bonus:
WARNING You will get a NULL pointer exception if you do not pass these parameters

java BlackJack (number of rounds) (number of decks) (starting bank) (bet size)

-Number of Rounds and Number of decks are the same as the instructions.
-Starting Bank - this is how much you want to sit down at the table with. If you lose more than what you started with, you will go to the ATM and draw the same amount
-Bet Size - this is how much you want your normal bet size to be.

My logic:

The logic of blackjack is not for an individual player to get the best score possible in hopes of beating the dealer but to 'bust' the dealer. You will notice that the first card of the round shown is only the dealer's 'upcard'. The strategy may sound crazy but if the dealers 'upcard' is less than 6 (and not an Ace - in a casino, if the ace is shown first by the dealer, the players are offered insurance on the dealers hand i.e. if the dealer has blackjack the player wont lose as much but I am not handling this case - if the dealer has blackjack, he doesn't offer insurance and wins automatically) and the players hand is greater than 11, the player will stay. YES, when the player has only 12 and the dealer is showing only a 4, the player will stand.

My goal was to replicate as much as possible the real scenario of blackjack. I did not have time to include handling splits or multiple players however the player is counting cards. The logic of counting cards is anything from 2-6 is considered +1, anything 10 or Ace is -1, and 7,8,9 are ignored. The ideal time to increase your bet is when the count is +16 (per deck). To account for multiple decks, the count is divided by the total number of decks and is also referred to as the 'true count' as it will go up and down throughout the game.

Betting is based around the logic of busting the dealer and the count. When the count is ideal (+16) the player will make a bet 20 times the bet size passed in command line at the beginning. Starting with $500 and making $10 bets seems to give realistic results.