**Lab Description:** Write the game logic for multi-player BlackJack. At this point, Card, , BlackJackCard, Deck, Player, and Dealer have been tested thoroughly. Now, put all of the pieces together for a complete BlackJack game with multiple players. All players including the dealer will be accessed through the players ArrayList. The dealer will be spot 0 and all other players will be in spots 1 through x.

```
public class BlackJack
{
   private ArrayList<Player> players; //you cannot have any other instance variables
   public BlackJack()
   {
       // instantiate all of your instance variables
   }
   public void playGame() {
            //all game code goes in here
   }
   public static void main( String args[]) {
        BlackJack game = new BlackJack();
        game.playGame();
   }
}
```

## Game logic for multiplayer Black Jack

```
do{
   1^{\rm st} - dealer shuffles the deck of cards
   2^{nd} - loop through all of the players including the dealer
           deal each player two cards one at a time
           deal to the dealer last
   3^{rd} - loop through the players - hit the dealer last
           print out player's hand value and cards
           while (the player wants to hit and hand value < 21)
                 deal the player the next card
                 print out player's hand value and cards
   4^{\text{th}} - loop through all of the players including the dealer
           print out each player's cards and hand value
   5^{
m th} - loop through all of the players including the dealer
           determine which player won
   6^{\text{th}} - update the win total for the winners
}while another game is to be played
```