

**Lab Goal :** This lab was designed to teach you more object oriented programming and how to write a larger game.

**Lab Description :** Write the game logic for multi-player BlackJack. At this point, Card, , BlackJackCard, Deck, AbstractPlayer, 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<Playerable> 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{
    1st - dealer shuffles the deck of cards

    2nd - loop through all of the players including the dealer
        deal each player two cards one at a time
        deal to the dealer last

    3rd - 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

    4th - loop through all of the players including the dealer
        print out each player's cards and hand value

    5th - loop through all of the players including the dealer
        determine which player won

    6th - update the win total for the winners
}while another game is to be played
```

