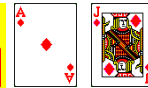# Bonus Assignment 2nd Qtr: Black Jack Hand using a List Version: 1.1ae45607ab.1

Last Updated: 12/20/2016 10:06 AM

Create a BlackJackHand class and update the Black Jack Skeleton

In creating a BlackJack template for my Java semester class, I set up a black jack game with a simplistic system to add up the player and dealer's hands.

As the project grew in the fall of 2016, I felt the pain of the simplistic variables used to add up the score of each player's hand.

First, Mr. Lombardi suggested that there could be more than 5 cards per hand, which led me to add up to 7 cards per hand. Then, we talked about the split rule: **If a player receives 2 of the same cards to start, then they can choose to split the hand into two separate hands and play each one out separately.**

Therefore, there could be up to 3 different hands of 7 cards each. The way I solved the score for the semester class students was by adding up individual variables.

Ouchie!!! This does not scale well!!!!

However, this project is crying out for a **super nifty class called BlackJackHand** that manages an ArrayList of values to figure out exactly what the hand's score is.

That way, you could do the logic in one place to figure out the score, and it could be handled by an ArrayList, which is a flexible class to manage an array.

Tasks:

- Download the skeleton from mr Hanley's web site

- Check out how the game works

- Write a class to handle a black jack hand

  - BlackJack is a card game where the dealer and player are dealt two initial cards, one face up and one face down.
  - The player must play out their hand first
  - Hit means give me another card, stay means I am stopping
  - If your cards add up to over 21, you bust and lose your bet
  - If your cards add up to under 21, you have to see what the dealer has
  - If the dealer has a higher number but less than or equal to 21, they win
  - If you have a higher number but less than or equal to 21, you win

  - Your hand should allow the client class to add cards and should figure out the score according to the cards;

    Here is the tricky stuff…
  - **An ace can count as a 1 or 11 depending upon which helps more**

  - The face down card counts in as well.

  - If the dealer and the player have the same number, then this is a **push**.
  - Apparently most actual casinos consider a push to be no one wins the hand.
  - I always played growing up that the **dealer wins pushes, so make your game cause the player to lose if they are tied.**
  - Better yet, if you know how, make a check box to determine whether or not the dealer wins pushes….

  - You need to update the GUI to handle the splits, I haven't finished that
                                                                        yet!!!!!!

Project 1 Name	**BlackJackSkeletonLISTPROJECT**
Class 1 Name	BlackJackApp
Class 2 Name	BlackJackFrame
Class 3 Name	BlackJackHand

*Recursion*Linear Search*Binary Search*Grid World Case Study*File Processing *nlogn*Hangman*