




It's Blackjack Time!! We'll be expanding our understanding of methods by coding a text-based blackjack game. BUUUUTTTTT, coding all the rules is a bit complicated. You can do that if you want, but here are some alternate rules.

- Use the random number generator draw cards from 1 to 11 inclusively. We aren't going to simulate how aces are 11 or 1. We aren't simulating how there are more face cards than anything else. And, we are not keeping track of the cards.
- Because of the different values, what happens if you're dealt two 11's to start the hand? This is not possible, you need to account for this possibility.

Create the complete game. Make 10's come up 3 times more than anything else. Allow for aces to switch between 11 and 1, and anything else we took out. Also, you could add a betting aspect to it.

- First off, deal the user 2 cards and the computer 1. Be sure to always what total the computer has.
- Then ask the user to hit (another card) or stay (no more cards). Continue to ask this until the user chooses stay or they bust (more than 21)
- Then simulate the rest of the computer's turn. The computer will always hit until they reach 17, or beat the player. Stop if the computer busts.
- The winner is the closest to 21 without going over. Ties go to the house (computer).

- 1) Do you see where I put `playerHand` and `playerHandTotal`? Any variable you want to access anywhere needs to be declared here. **DECLARE ONLY!!!** Initialize them in the `main()` method right where I initialized mine. Add as many variables as you need.
- 2) Finish the `welcomeMessage()` method. Just print something that has a title and starts the game. See the example-run below for what I did.
- 3) Create a `playGame()` method. It doesn't need to return anything. Leave it blank for now. This will simply run methods



Exercises

- 4) Create a `getString()` method. It's just like the Scanner methods you created in previous labs.
- 5) Create a `drawCard()` method. This should simply return a number from 1 to 11.
- 6) Create a `playerTurn()` method. It should return nothing, and it is the first thing called in the `playGame()` method.

This method has everything concerning the player's turn including, getting initial cards for the player and 1 for the computer, printing the hands, asking if the user wants to hit or stay, checking for busts and anything else for the player's turn.

- 7) Create a `computerTurn()` method. It should return nothing, and it is the second thing called in the `playGame()` method.

This has everything for the computer's turn including: dealing a 2nd card, hitting until the computer beats the player, busts or is over 17 points. Note, ties go to the dealer.

- 8) Create a `printWinner()` method. It should return nothing, and it is the third thing called in the `playGame()` method.

This simply needs to compare the player and computer totals and say who won, busted, tied or whatever.

- 9) Create a `resetGame()` method. It should return nothing, and it is the fourth and final thing called in the `playGame()` method.

This needs to reset any variables you used so it's ready to play again.

Example Run On Next Page

Continue...



Example Run:

```
BLACK - JACK!  
Come try your luck and  
mayby take home a buck!
```

Your Turn!!

```
Your Hand:  4 11 = 15  
Comp Hand:  1 = 1  
Hit or Stay? h
```

```
Your Hand:  4 11 10 = 25  
Comp Hand:  1 = 1
```

Computer's Turn

```
Your Hand:  4 11 10 = 25  
Comp Hand:  1 7 = 8
```

You busted...Computer Wins...

Play again? (Y or N): y

Your Turn!!

```
Your Hand:  9 6 = 15  
Comp Hand:  5 = 5  
Hit or Stay? s
```

Computer's Turn

```
Your Hand:  9 6 = 15  
Comp Hand:  5 10 = 15
```

Play again? (Y or N): y

Your Turn!!

```
Your Hand:  1 6 = 7  
Comp Hand:  6 = 6  
Hit or Stay? h
```

```
Your Hand:  1 6 2 = 9  
Comp Hand:  6 = 6  
Hit or Stay? hit
```

Welcome Printout

Player's Turn

Computer's Turn

Print Winner &
Reset Game

Your Hand: 1 6 2 2 = 11
Comp Hand: 6 = 6
Hit or Stay? hit

Your Hand: 1 6 2 2 8 = 19
Comp Hand: 6 = 6
Hit or Stay? stay

Computer's Turn

Your Hand: 1 6 2 2 8 = 19
Comp Hand: 6 10 10 = 26

Computer Busted...You Win!!

Play again? (Y or N): huh?

I didn't recognize that answer.

Play again? (Y or N): nope

It's been fun!
Come back soon!