# SI@UCF Program: Blackjack

**Objectives:**

* Utilize control statements:
  + if statement
  + while loop
* Utilize random class

**Project:**

You have been asked by a casino to help them produce an electronic version of blackjack. The owner of the casino, John, hates using deck of cards because he feels it is unfair to use a limited amount of cards. He heard that Arup taught you how to generate random numbers and thought it would be perfect to use in the casino.

The goal of Blackjack is to get the value of your hand closest to 21 without going over. The game starts out by giving each player two cards. Player 1 decides if he wants to hit (draw another card) or stay (player 2 turn). The player can “hit” as many times as he would like, however if he goes over 21, your program should print out “You have BUSTED!”

|  |  |  |
| --- | --- | --- |
| Computer Value | Card | Blackjack Value |
| 1 | Ace | 11 |
| 2-10 | Number Card | 2-10 |
| 11 | Jack | 10 |
| 12 | Queen | 10 |
| 13 | King | 10 |

Your program will need to generate 13 different cards. Make sure you sum up each card’s value correctly.

**Sample Run #1**

Welcome to Blackjack!

Player 1 Hand: 13  
Do you want to hit (1) or stay (2)? 1  
Player 1 Drew a Jack.  
Player 1 Hand: 23   
You have BUSTED!

Player 2 Hand: 5  
Do you want to hit (1) or stay (2)? 1  
Player 2 Drew a 3  
Player 2 Hand: 8  
Do you want to hit (1) or stay (2)? 1  
Player 2 Drew a Queen  
Player 2 Hand: 18  
Do you want to hit (1) or stay (2)? 2  
  
Player 2 Wins!

**Sample Run #2**

Welcome to Blackjack!

Player 1 Hand: 10  
Do you want to hit (1) or stay (2)? 1  
Player 1 Drew a Ace.  
Player 1 Hand: 21   
Do you want to hit (1) or stay (2)? 2

Player 2 Hand: 21  
Do you want to hit (1) or stay (2)? 2  
  
The game ended in a tie!

**Sample Run #3**

Welcome to Blackjack!

Player 1 Hand: 7  
Do you want to hit (1) or stay (2)? 1  
Player 1 Drew a 10.  
Player 1 Hand: 17   
Do you want to hit (1) or stay (2)? 2

Player 2 Hand: 15  
Do you want to hit (1) or stay (2)? 2  
  
Player 1 wins!

**Program Enhancements:**

1. Ask the players if they would like to play again. If they do, repeat the game.
2. Keep a score on which player wins the most games.
3. Ask the players if they would like to place a bet and keep track of the total money that the players have. Each player starts with $100. If a player wins, he wins the amount of his bet, otherwise he loses the amount of his bet.