

# Blackjack Game Proposal

For my term project I decided to program that game Blackjack. Blackjack is a card game played by a minimum for two people where you start with two cards and can either hit to get another card or stay with the cards you already have. The point of the game is for the sum of your cards to be as close to 21 as possible without being greater than 21.

For my application I need to completely program the game of Blackjack. This means that I need to create a deck of cards and give every card a value. I will also need to make a algorithm for an AI who the user will play against. Both the user and the AI will be given two starting cards and then be prompted to make a choice whether they want to hit or stay. I will need to keep track of what cards the user and the AI currently have and what cards are still left in the deck that can potentially be given out to either the user or the AI. Additionally, I will prompt the user and AI whether they want to hit or stay and based on their choices I will either give another card or save the current sum value of their cards. After both players are done hitting, the program will need to check the sum of the cards for the user and the sum of the cards for the AI and check whether they are less than, equal to or greater than 21. Based on how the sums relate to 21, the program will say who wins that round.

I will also be tracking every single time that the user beats out the AI in a row. After the user finally loses after a streak, they will be prompted to enter their name which will be connected to their score. Following this a username will be displayed showing the top 10 scores of all time. If someone who has already played the game plays again and gets a higher score than before, their old score will be replaced with their new score.

I am also thinking about potentially making a user interface for the user and the AI but I am not sure if I will implement that into my project