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### CS Foundations Project Proposal Group 1:

**Motivation & Scope:** We wanted to create a program that was fun and made use of the concepts talked about in this course and so we decided to make a program that plays blackjack (or 21) with the user. Blackjack is a very simple card game that can be played between a player and a dealer and is a staple of most casinos. This program will allow a player to play a game of blackjack and have the following features:

- Instructions on how to play the game and use the program
- A fake “money” counter to tally the wins and losses of a player
- A difficulty setting that will influence how favorable the random number generator is to the player. This can be altered between rounds
- The ability to play the game turn by turn in the console, and then (if the player has enough fake money) allow them to keep playing after the conclusion of a round.
- The ability to quit the game mid-round

**Outline & Schedule:** The group plans to approach this project in the following steps:

1. Write succinct instructions to be displayed on the console about how to play and operate the program
2. Write a function to shuffle and deal the “cards”
3. Write a function to apply the round by round structure of the game
4. Modify functions to implement the difficulty parameter to influence the way the cards are dealt and the starting money of the user
5. Create a function that displays a console menu that allows the user to start a game, view instructions, or exit
6. **By November 23rd:** Play-testing the program
7. Prepare the program and reports for general audience
8. Final presentation

Each of these steps should take 1-3 days to complete and will be evenly divided among the group. The group will work through a github repository and will meet once a week with additional meetings possible if needed. The group will stay in communication as they work on this project.