**Card Game Project Proposal**

My project will be a Go fish game. It will be for two players, one a human and one the computer. I am writing my own deck class. It uses a separate Card class, and, unlike the deck class that you provided, will not have a redraw limit built into it. I feel that this is a feature not used in most card games, and only serves to make the deck class more complex and difficult to read. This functionality should be built into the card game using the class.

The deck class will use a Stack of Card objects, and the Collections.shuffle() function to shuffle the deck. When a card is needed to be drawn, it is just popped off of the stack. The constructor for the deck class will use nested for loops, one for the suit, and one for the value, to fill the stack with cards.

The Card class will involve two fields, value, an integer between 1 and 13, and suit, a character, either a letter, such as S, H, C, or D, or a unicode suit character, ♠, ♥, ♦, or ♣. The card class will include functions to access the suit, value, and to convert the value to a string, i.e. “King” or “Ten”.

As for the actual game part of the program, there will be a Hand class. It will consist of a Vector of Card objects, and methods to find things such as the number of cards with a specific value, and to add and remove sets of cards from the vector.

The program will start by creating two Hand objects, one for the human and one for the computer, and dealing seven cards into each one of them. The program will then enter a while loop for the main part of the program. There will be two methods, ComputerTurn() and HumanTurn(). The human turn method will first allow the user to enter a card to ask for. Any cards in the computer’s hand will be removed, and added to the human’s hand. If not, the human will be given a card from the top of the deck. This will repeat until the human is unable to get the card that they want. Then, any groups of four cards of the same value will be discarded, and the humans score will be increased by the correct amount. The computer’s turn will be similar, but will chose the card to ask for based on the value that there are the most of in the computer’s hand. If there are multiple sets of the same value, the requested card will be randomly selected from the available options.