CSCI 212

Lab Assignment 5

You will write a program that simulates the card game "Go Fish". You can write the main driver function in C or assembly, that's up to you. The main driver will call the individual functions to shuffle the deck of cards, deal the cards, ask for a card, and lay down the cards. For this implementation, we will use the variation where players give just one card when asked, and lay down pairs. Basically the players take turns asking the other player for a card of a certain rank, which the other player must hand over if they have such a card. The players' goal is to collect matching pairs of cards (of the same rank), placing them on the table. Make sure to keep score of how many pairs each player has. Because the number of cards each player may hold at any moment in time can be anything (less than 47 of course), you will need to treat the players' hands carefully. Possible approaches are: 1. Allocate 47 element array for each player and keep track of the cards in hand; 2. Use the stack to store the players' hand; or 3. Dynamically resize the players' hands each time the number of cards changes. Obviously approach 1 is easiest and approach 3 is hardest.

The program will simulate the playing of the game, with two players (player 1 is the user, player 2 is the computer).

Output: For the output of the main program, you should print each play to a text log file and indicate the eventual winner.

You ask: Do you have a J?

Computer says: Go Fish

You draw a 4

Computer asks: Do you have a 4?

You say: Yes. I have a 4

Computer books the 4 and lays down one pair of 4

Etc…

I recommend writing each assembler function in a separate .s file. If you're running from the Pi command line, definitely write a makefile to perform the compilation. You should use some of the concepts from the game of blackjack we implemented in class to help with your implementation.