

Homework 1

Problem Description:

You really want to have fun with C, and the best way to do that is to write a program that plays war using a deck of cards. All cards can be represented using an array named deck, filled with initial values 0 to 51. Card numbers 0 to 12, 13 to 25, 26 to 38, and 39 to 51 represent Spades, Hearts, Diamonds and Clubs respectively. Card number / 13 determines the suit of the card and card number % 13 determines the rank of the card. I have provided a Java program that creates the deck, shuffles, and picks the first four cards. Use it/don't use it that is up to you.

Your tasks are the following:

- When the program starts ask for the name of player 1 and player 2
- Create the deck
- Ask player 1, by name, how many times to shuffle the deck
- Shuffle the deck that number of times
- Play war for the entire deck
 - Display player 1's name and the card
 - Display player 2's name and the card
 - Display the winner / loser / tie
- Keep statistics on the wins/losses/ties for each player
- After all cards are played, display the win loss total for each player
- Ask if the users would like to go again, must ensure you have yes/no case insensitive

Problem Specifics:

- You must use static arrays for this homework
 - 100 for char arrays
 - Name may contain spaces
 - 52 for the deck array
 - 3 for the stats array for each player
- You must use a 3 file format
 - war.c contains main
 - the executable will be named hw1
 - the .h and the .c for the functions are up to you
- A makefile to compile your code
- You must use enum for the suits and the values
- You must print out the suit name and card value when displaying information on the deck.

To Turn In:

A zip file containing:

- All source files and makefile
- Name your zip your last name first letter of your first name hw1.zip (Example: steinershw1.zip)