**Video Poker Simulation**

Acme Software, Inc, has been contracted to write a Video Poker Simulation game in the C programming language that follows the following rules:

**Basic Setting:**

The player places an initial bet between one (1) and fifty (50) coins, where each coin is worth $1.00. The player is then dealt five (5) cards and allowed to choose which cards, if any, they wish to keep. The cards that they do not wish to keep are discarded, and replacement cards are dealt so that they again have a total of five (5) cards. The computer then determines what amount they have won, if any.

**Card Ranks and Suits:**

Cards are ranked, from highest to lowest:

* Ace
* King
* Queen
* Jack
* Ten
* Nine
* Eight
* Seven
* Six
* Five
* Four
* Three
* Two
* Ace

(Ace can count as either low or high. See how a "Royal Flush is scored below.)

The card suits are: Hearts, Clubs, Diamonds, and Spades

**Hand Ranks**:

When you are dealt replacement cards for your discards, your new hand is evaluated. Based on what kind of hand you're holding, you'll receive a certain number of coins.

Hands are listed below, from best (highest scoring), to worst (no score):

* Royal Flush - 400 coins

A Royal Flush is a Straight Flush, with the Ace high.

In other words, a Ten, Jack, Queen, King and Ace, all of the same suit.

* Straight Flush - 50 coins

A straight flush.

In other words, all five cards are consecutive and are the same suit.

For example: Three of Clubs, Four of Clubs, Five of Clubs, Six of Clubs and Seven of Clubs.

* Four of a Kind - 25 coins

Four cards of the same value. (Obviously, each of different suits.)

* Full House - 8 coins

A three of a kind and a pair at the same time.

* Flush -  5 coins

All cards in your hand are the same suit.

* Straight - 4 coins

All five cards are consecutive.

For example: Three of Clubs, Four of Spades, Five of Clubs, Six of Diamonds, and Seven of Hearts.

* Three of a Kind - 3 coins

Three cards of the same value.

* Two Pair - 2 coins

Two pairs of cards.

In other words, two cards in your hand are the same value, and two other cards in your hand are also the same value.

* Pair - 1 coins

Two cards in your hand are the same value. In this version, they must be Jacks or better!

* None of the Above - 0 coins

Each turn "costs" at least one coin to play, so if you get a pair, no additional coins are actually added to your total score. If you don't get anything, you actually lose the number of coins that you bet! If you bet more than one coin, then the returns above are multiplied by the number of coins entered to give the actual yield. This is just how handheld and Vegas video poker games actually work!

**Project Requirements:**

Your project must meet the following specifications:

1. Text-based display of what is in the player’s hand.
2. Read all cards to be discarded at once
3. Read from the command line as a program parameter the name of a file that contains the state of a previous game so that a player can resume a game at any point. Thus, your program must read and write to a file as well as verify that a file exists.
4. Provided adequate “help” for the player on how to play the game.
5. Score all hands correctly.
6. Know the player’s name and be “friendly”

**Extra Credit:**

1. (50 points) "Deuces Wild" Same as above, but with each of the "Deuces" (a two) being a "Wild Card." Your program then must calculate the highest return that each two will yield the player.
2. (50 points) Incorporate the ability to handle multiple decks in the "Deuces Wild" program above.
3. (50 points) In the base program, and in the :"Deuces Wild" programs above, the ability for the program to identify what the player currently has and a "suggestion" on what would be the "best" cards to delete.