Analysis of the problem

1. The program, a poker game, needs nothing from the user except to input a character to determine whether to keep running or not. What the program does is randomly assigns a number between 0 and 51 into a 52-element array, pulls five of those numbers out of the array at a time, and then compares those numbers to two arrays containing information about card suits and card values i.e. a 2 or a jack. It then will place those five numbers into sequential order and compare the values to each other. When done it outputs to the screen if the numbers have certain characteristics to each other.
2. The data available is that there are 4 different suits in a deck of cards, and each suit has 13 cards with sequential worth. There are various methods for having a winning hand, whether two cards are equal, three cards, four cards, two sets of two cards being equal, two cards that are equal while the other three cards are equal, cards of the same suit, and cards in sequential order.
3. The output would be what the 5 cards are, and whether the hand has any worth.

The algorithm

There are many things being passed around at any given time. Number of hands being dealt, whether the same number has appeared more than once when assigning random order, the various checks for the hand. The algorithm to ensure the same number is not assigned twice is rather simple. Each number is given an element in an array, and each element is set to zero. When a number is chosen, it finds the corresponding element in the array and sets it to zero. Each time a number is drawn it is checked against its corresponding element in the array and if the element is 1, it chooses again until it places into a slot that is not 1.

temp = rand() % 52;

while (notTwice[temp] == 1)

{

temp = rand() % 52;

}

The same card is never dealt twice.

User Documentation.

To run the submitted project, you will first need to extract the contents of the submitted archive by right-clicking on the file, select extract all, and then select the extract button. Then you will need to open your copy of visual studio, go to file, open, and then select project/solution. Locate the folder that you just extracted, open the mod3\_1 folder and open mod3\_1.sln file. Once open go to the solution explorer, click on the triangle to the left of source files, and select mod3\_1.c. Once you see the code on the screen, hold the ctrl button down on the keyboard and press F5. This will launch the application. Follow the on screen prompts.