Assignment Purpose
This lab will give you practice using enum and structures. This is a group activity and will be graded. Grade for this activity will count as Quiz 3 grade.

Mandatory Instructions
Part A: As a group**,** develop Visual Studio C++ solution to this problem. If your group doesn't get done, you can finish on your own.
Part B: Individually, document and submit the solution via BGLinux. Upload grade sheet to Canvas.

Write program that randomly draws a 5 card hand from a deck of 52 cards containing 4 card suits. Utilize enum to define two data types CardSuit and FaceCards.

CardSuit data type should contain enumerators HEARTS, CLUBS, SPADES, and DIAMONDS.
FaceCards data type should contain JACK, QUEEN, and KING. Jack should have value of 11, Queen 12, and King 13.

Define structure Card containing information about value of the card (Ace=1, 2->13) and card suit.

In main() write a loop that will randomly select card value and suit. In order to use the random number generator include the following at the top of your program:

```
#include <time.h>
#include <stdlib.h>
```

Seed random number generator at the top of main() with the following code:
```
srand(time(NULL));
```

Here is an example of selecting a number in range 0 to 15:
```
int randomvalue = rand() % 16;
```

Utilize a constant to store HANDMAX which is 5.
Define an array of Cards to hold your card hand.
Utilize three functions in your solution prototypes of which are shown below:

```
string showSuit(CardSuit);              // given CardSuit value return string
                                        // so given HEARTS return "Hearts"


string showValue(int);                  // given card value return string
                                        // given 1->10 return string representation
                                        // given 11->13 return "Jack", "Queen", etc.
                                        // utilize FaceCard data type


bool isUsed(int, Card[], CardSuit, int); // return true if given value (first int)
                                         // of given CardSuit is found in the hand
                                         // array of Cards. Last parameter is number
                                         // of cards already in hand
Sample Output
```



```
Card(1): Jack of Spades
Card(2): Queen of Diamonds
Card(3): 8 of Spades
Card(4): 9 of Clubs
Card(5): Queen of Clubs
Press any key to continue . . .
```

What to turn in?

$ photo q3.log	Starts the photo utility and captures all screen output in the file *lab0.log*
$ ls -l	Use a lower-case L, <u>not</u> the number one to see a list of the files
	in your account in the "long" format (showing size, date modified, etc.)
$ cat q3.cpp	Displays your program on the screen
$ g++ q3.cpp	Compiles your program
$ ./a.out	You should see a display of accounts
$ [Ctrl]-d	Press the **Ctrl** and **d** keys at the same time to end the photo session