Lab on enums CPS 171 J. Remen

This lab is to give you practice using enums.

1 . Start Visual Studio and make a new C++ project, with the usual defaults
2. Add a new source file to the project
3. Cut-and-paste from this web page
http://www.hal9k.com/cps171/enumslab_cpp.htm into your source.cpp file:
3. Add a local Resource file to your project called **ReFormat.dat**
4. Cut-and-paste from this web page http://www.hal9k.com/cps171/reformat.htm into your **ReFormat.dat** file

The enumslab.cpp file contains a basic outline of a program, which you will modify. **It does NOT compile at the present time**. A hard copy of the file is provided below. Note the comment that says

```
"Program enumslab.cpp reads characters from file DataIn and
writes them to DataOut with the following changes:
all letters are converted to uppercase, digits are
unchanged, and all other characters except blanks and
newline markers are removed."

For example: if the file DataIn contained
ab3  PQ;
%Xf#

then, after the program is run, the file DataOut  should contain
AB3  PQ
XF
```

You must replace the ***** in the functions with an appropriate value from the enum and write the code for the switch statement in main. It is suggested that you work on the function kindOfChar first.

Hand in a listing of the program file and the output file.

```
// Modified from the book - A laboratory course in C++ by Nell Dale
// by Janet Remen  Oct 2000  as a lab for CPS 171.
// Program enumslab.cpp reads characters from file DataIn and
// writes them to DataOut with the following changes:
//          all letters are converted to uppercase, digits are
//          unchanged, and all other characters except blanks and
//     newline markers are removed.
#include <iostream>
#include <cctype>
#include <fstream>
using namespace std;

enum CharType {LO_CASE, UP_CASE, DIGIT, BLANK_NEWLINE, OTHER};
```

```
CharType  kindOfChar(char);         // function prototype
            // Gets the enumerator equivalent to its character input.

int main ()
{    ifstream  dataIn;
    ofstream  dataOut;
    char  character;
   CharType kind;

    dataIn.open("ReFormat.dat");
    dataOut.open("DataOut.txt");

    dataIn.get(character);    // priming read
    while (dataIn)
    { kind = kindOfChar(character);
      switch (kind)
      {     // FILL IN THE Code to output the correct character
            case  // etc.


      }
                               // get next character
      dataIn.get(character);
    }
    return 0;
}
/*****************************************************************/

*****  kindOfChar(char character)
// Post: character is converted to the corresponding
//       constant in the enumeration type CharType.
{
    if (isupper(character))
      return  *****;       // TO BE FILLED IN
    else if (islower(character))
            return *****;   // TO BE FILLED IN
    else if (isdigit(character) )
             return *****;  // TO BE FILLED IN
    else if (character == ' ' || character == '\n')
            return  *****;  // TO BE FILLED IN
    else
            return *****;   // TO BE FILLED IN
}
```