Ag Leader coding assessment in C++, Sept 10, 2021:

**Problem**

Write an application that, when given an arbitrary sequence of alphanumeric characters as

input, will convert each character to some Cyrillic character and provide a decoding table as part

of the output. Each unique character should be converted to a different Cyrillic character. There

should be some way for an user to enter in the random sequence of characters for conversion.

As an example, if the user input the string “aabcdDef6” a potential output string could be

“ДДѮПРФВЛЂ” with the decoding table indicating a=Д, b=Ѯ, c=П, d=Р, D=Ф, e=В, f=Л, 6=Ђ.

Assumption: converted = translated = decoded

Use std C++ 11 as coding scope.

What Code Page to use for Cyrillic characters? 866? 1251?

(Example decode table contains random Cyrillic characters, not in any standard order.)

Input string is 8bit wide characters.

Display of converted output text on console will need to be the correct Windows display font. Since Cyrillic is mentioned specifically, change the local console display to Cyrillic locale.

Input characters must be tested for 8bit wide, present an error if not.

Input string will be from command line parameter or console input.

Test on Windows 10 OS

Test on Linux OS (VM)

Create character substitution array. Decoding table is fixed in source code. All displayable 8bit ASCII characters will be assigned a Cyrillic character to decode to.

Flag each character in input string as being translated to produce the correct translation table output.

Output is:

Input string

Translated output string

Decoding table, each character present in input string is shown with the decoded character only once.