Compile the xor-crypt.c What is an [xor operation](https://en.wikipedia.org/wiki/Bitwise_operations_in_C#Bitwise_XOR_^)? Observe the xor table of 3 columns and imagine the middle column is the key. file using either the [MinGW](http://www.mingw.org/) gcc command:

gcc xor-crypt.c –o xor-crypt

The above command will create an executable file: xor-crypt.exe

Create your own bin folder and add that folder to your PATH environment variable so that Windows can locate the exe when you type xor-crypt on the command line. If you are using AVG antivirus software.

Of course if you use the Visual Studio to compile the code, then you can use the debugger to step through your code. [The command line arguments can be set via the Visual Studio easily](https://www.google.com/search?q=visual+studio+2017+how-to+set+command+line+arguments+for+a+c+program&rlz=1C1CHBD_enUS827US827&oq=visual+studio+2017+how-to+set+command+line+arguments+for+a+c+program&aqs=chrome..69i57.36673j1j7&sourceid=chrome&ie=UTF-8). You will be able to see the pointer being incremented for the key and being refreshed by grabbing the pointer to the first character when it has exhausted all the characters for the key. It does this very efficiently and succinctly by just getting the first character of the command line argument for the first char pointer, argv[1] in the array of char pointers, argv.

You’ll notice that the code uses C’s ternary operator ? to the equivalent of an “if then else” in one line of code. This shows how succinct and compact C code can be. It also leverages that the result of an assignment can be tested. In this case the value assigned to in can be compared to the [NULL](https://www.google.com/search?rlz=1C1CHBD_enUS827US827&sxsrf=ACYBGNTnXMib5-Vs8LnZbRFFOHrOg4D4gw:1582075092985&q=How+NULL+is+defined+in+C%3F&sa=X&ved=2ahUKEwiNnLP_uNznAhXOvJ4KHbQHC4YQzmd6BAgOEA0&biw=832&bih=545) macro which is supplied by C’s stdio.h file.[

After compiling and installing xor-crypt with the PATH environment variable, restore the vbs and bat files by opening a DOS Command Prompt Window.

Use the cd command to navigate to the directory containing the files that were in the wr folder zip file.

From the command line enter:

cmd < restore.txt

cmd is the primary processing module for the DOS shell, which recognizes the standard I/O redirection symbols. The file contains the commands needed to restore the encrypted text files back into the bat DOS scripts and restore a VBScript.