COMS-170: INTRODUCTION TO PROGRAMMING

FINAL PROJECT (STRING ENCRYPTION)

OVERVIEW

To keep our content secure, we are going to encrypt it. We will be using a simple encryption where a character maps to a different character. This would not be considered effective against hackers but will create some fun for us.

ENCRYPTION

The encryption used will be as follows.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	.	1	2	3	4	5	6	7	8	9	0
G	2	M	T	C	.	O	R	Z	J	6	X	Q	8	L	A	E	W	3	V	9	4	D	K	7	0	F	5	B	S	I	1	N	U	H	Y	P

NOTE: Z = Zero, G = Letter O

An example of this would be:

I LOVE COMPUTERS

Z XL4C MLQA9VCW3

GOAL

Your application will encrypt input entered by the user and display it to screen. Your application will also decrypt input from the user. Characters not listed in the encryption table above will be left untouched. Your application must work with both upper- and lower-case input.

PROGRAMMING REQUIREMENTS

Your program must include the following concepts:

- Functions – you must begin your program with main()
- Lists – consider the encryption table as a parallel list
- Variables – data input/output to the user will most likely be stored in variables
- Loops – you will loop through each character to encrypt/decrypt
- Conditions – you will use if/else statements for comparison of characters
- Menu – your application needs to have a menu of choices (encrypt message, decrypt message, exit) with professional formatting
- Exception Handling – input errors should be handled