# **CSCD 210 Lab 10**

I have provided a main that allows the user to encrypt or decrypt a string. A menu is repetitively displayed that allows the user to: change the string, encrypt a string, decrypt an encrypted string, or quit. To encrypt a string you will shift any <u>alphabetical character</u> a specified number of spaces to the left or right as though the alphabet were circular (this is shown below and will be further explained in class). All other characters should be written 'as is.'

NORMAL ALPHABET:	Α	В	С	D	E	F	G	Н
SHIFT RIGHT BY 2:	Y	Z	Α	В	С	D	E	F
SHIFT LEFT BY 3:	D	E	F	G	Н	I	J	K

#### **ENCRYPTING**

Once you have the original string, the amount to shift and the direction, you will encrypt the string by shifting the appropriate direction, the appropriate amount. The encrypted string will contain the amount of the shift, the direction of the shift, and the encrypted string.

For example, the original string is stu. The user wants to shift left by one. The encrypted string would then be: righttuv

#### **DECRYPTING**

To decrypt a string, you must pull the decypt direct from the string, then the number shifted and then the encrypted string

The decrypted string will appear the same as the original string.

For the example using the encrypted string right1tuv from above, what is stu right 1

## **NOTES**

- You can't use Arrays or Array Lists or anything other than Strings, ints, Scanner, and PrintStream.
- Please read the provided API for details
- I have provided my FileUtils, which you must use, in the jar file cscd210Utils.jar.
- Test with your friends.

### TO TURN IN:

A zip file containing your Lab10 folder

- All the contents of the Lab10 folder all the code needed to compile and run your program
- All input and output files
- At least 3 encrypts and 3 decrypts named cscd210Lab10out.txt

Name the zip file your last name first letter of your first name lab10.zip (Example: steinerslab10.zip)