

## Lab 3

Distint Howie

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To compile, run the **make** command with the accompanying Makefile.

```
PS G:\Cal U\Fall 2022\cet440\Labs\Lab3> ./lab3
Enter text to encipher: hello hello
0!NN4h0!NN4
[ ,h] [!,~] [",g] [#,y] [$,q] [%,) [&,7] [' ,u]
[(,&) [),:] [* ,A] [+ ,2] [, ,K] [- ,6] [.,+ ] [/ ,M]
[0 ,j] [1 ,Q] [2 ,P] [3 ,3] [4 ,X] [5 ,9] [6 , -] [7 , _]
[8 ,F] [9 ,0] [ : ,:] [ ; ,S] [ < ,{] [ = ,Z] [ > ,o] [ ? ,E]
[ @ , ] [ A ,v] [ B , (] [ C , [ ] [ D ,d] [ E ,I] [ F ,e] [ G ,l]
[ H ,m] [ I ,B] [ J ,c] [ K ,z] [ L ,a] [ M ,. ] [ N ,D] [ O ,%]
[ P ,/ ] [ Q ,t] [ R ,r] [ S ,5] [ T ,=] [ U ,1] [ V ,k] [ W ,V]
[ X ,p] [ Y ,} ] [ Z ,w] [ [ ,> ] [ \ ,*] [ ] ,C] [ ^ ,s] [ _ ,T]
[ ` ,?] [ a ,#] [ b ," ] [ c ,x] [ d ,Y] [ e ,!] [ f ,' ] [ g ,) ]
[ h ,0] [ i ,n] [ j , ] [ k , ,] [ l ,N] [ m ,G] [ n ,J] [ o ,4]
[ p ,^] [ q ,R] [ r ,H] [ s ,w] [ t ,i] [ u ,@] [ v ,\ ] [ w ,U]
[ x , $] [ y , ` ] [ z ,L] [ { ,< ] [ | ,f] [ } ,b] [ ~ ,8]
```

### cipher.h

```
1 int * getCipher();
2 void encipher(char* input, int* cipher);
3 void printCipher(int* cipher);
```

### cipher.c

```
1 // Initializes and scrambles a Cipher
2 int * getCipher();
3
4 // Enciphers the input text inplace using the given cipher
5 void encipher(char* input, int* cipher);
6
7 // Prints the cipher key to console
8 void printCipher(int* cipher);
```

### lab3.c

```
1 void main();
2 // Utilizes getCipher() from cipher.c to acquire a randomized substitution cipher key
3 // Utilizes encipher() from cipher.c to encipher input text from the user
4 // Utilizes printCipher() to print the cipher key to the console
```

**Contributions**

Distint Howie	Input Logic, Cipher Logic, Testing
Robert Krenco	Cipher Logic, Testing, Accompanying Documentation
Anthony Stepich	Input Logic, Cipher Logic, Testing