## **Encryption Decryption Script**

Part 1: encryption

- 1.Start by making for loop run for 127 times and store the modulo 2 of the randomly generated numbers in an array, output this into a file called key.txt.
- 2. Store the first 127 output in a separate array and generate the rest of the key using A[i] = A[i-1] ^ A[i-127].
- 3.Input the data which you want to encrypt using fopen(), type cast it into integer and convert it into binary.
- 4. Now print out Y = Data[i] ^ Key[i+127] into a file called crypt.txt

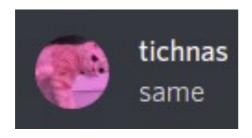
## Part 2: decryption

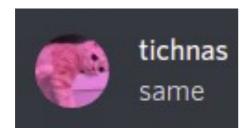
- 1. Start by inputting the key and crypted file.
- 2. Using the first 127 output in a separate array and generate the rest of the key using

 $A[i] = A[i-1] ^ A[i-127].$ 

- 3. Now take the exor of the key with the data from the crypted file, then convert 8 bits at a time to integer values.
- 4. Type case the int values into char and output the values into decrypt.txt

## Sample input & output:





## Conclusion:

Any piece of information in any form can be easily coded and decoded for a safe transfer, since the possibilities for the key required ranges up to 2^127 so this makes it impossible to "guess" the key, therefore uncrackable.