Encrypt & Decrypt

C program to encrypt and decrypt using the string

Encrypt : In cryptography, encryption is the process of encoding information. This process converts the original representation of the information, known as plaintext, into an alternative form known as ciphertext. Ideally, only authorized parties can decipher a ciphertext back to plaintext and access the original information. Encryption does not itself prevent interference but denies the intelligible content to a would-be interceptor.

For technical reasons, an encryption scheme usually uses a pseudo-random encryption key generated by an algorithm. It is possible to decrypt the message without possessing the key but, for a well-designed encryption scheme, considerable computational resources and skills are required. An authorized recipient can easily decrypt the message with the key provided by the originator to recipients but not to unauthorized users.

Historically, various forms of encryption have been used to aid in cryptography. Early encryption techniques were often utilized in military messaging. Since then, new techniques have emerged and become commonplace in all areas of modern computing.[1] Modern encryption schemes utilize the concepts of public-key and symmetric-key.[1] Modern encryption techniques ensure security because modern computers are inefficient at cracking the encryption.

Decrypt : to change electronic information or signals that were stored, written, or sent in the form of a secret code (= a system of letters, numbers, or symbols) back into a form that you can understand and use normally:

A frame-theory pair is consistent if the theory only contains pairs of encrypted messages that the environment cannot decrypt.

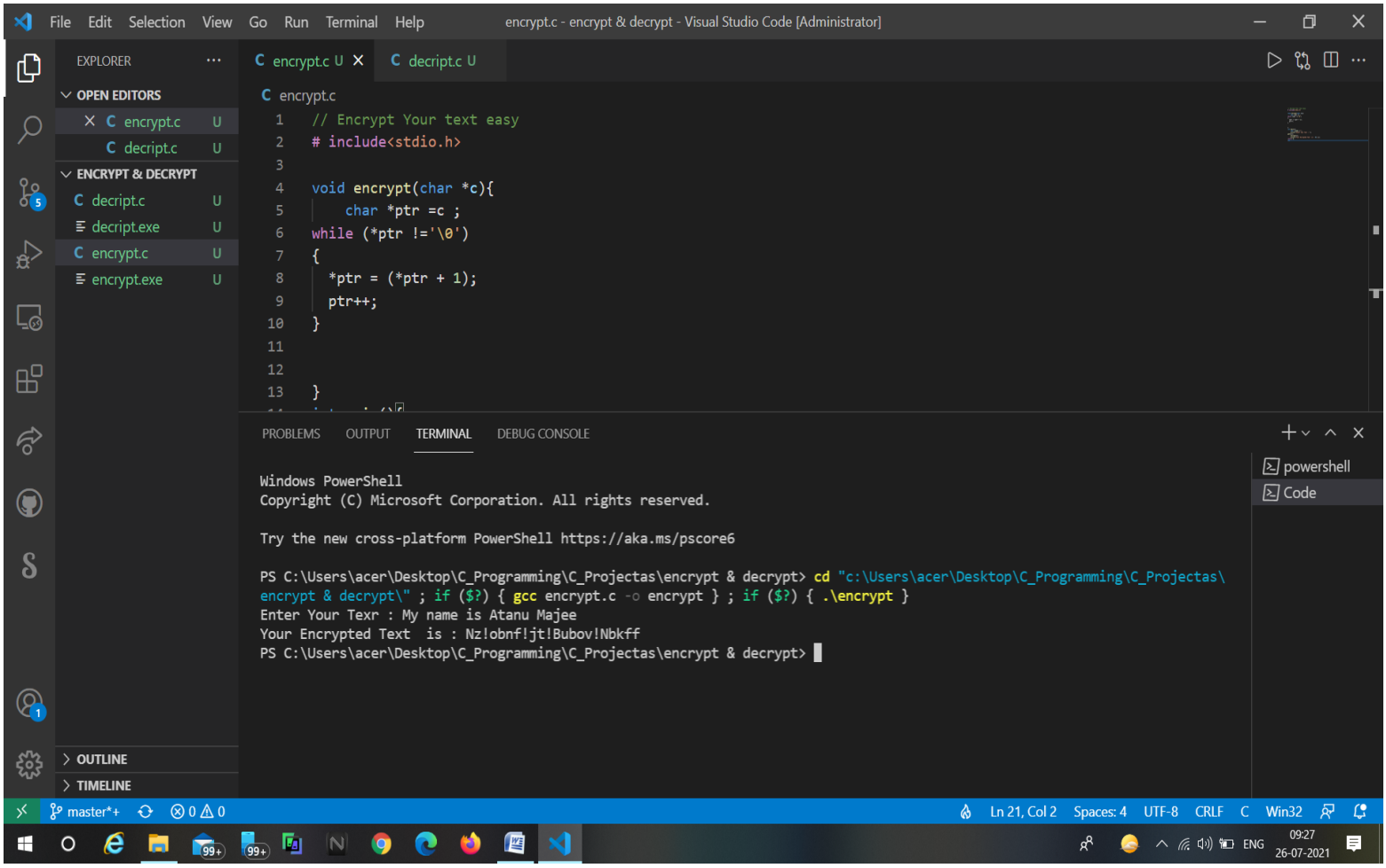
One of the reasons for implementing an encryption-decryption system is privacy. As information travels over the Internet, it is necessary to scrutinise the access from unauthorized organisations or individuals. Due to this, the data is encrypted to reduce data loss and theft. Few common items that are encrypted include text files, images, e-mail messages, user data and directories. The recipient of decryption receives a prompt or window in which a password can be entered to access the encrypted data. For decryption, the system extracts and converts the garbled data and transforms it into words and images that are easily understandable not only by a reader but also by a system. Decryption can be done manually or automatically. It may also be performed with a set of keys or passwords.

There are many methods of conventional cryptography, one of the most important and popular method is Hill cipher Encryption and Decryption, which generates the random Matrix and is essentially the power of security. Decryption requires inverse of the matrix in Hill cipher. Hence while decryption one problem arises that the Inverse of the matrix does not always exist. If the matrix is not invertible then the encrypted content cannot be decrypted. This drawback is completely eliminated in the modified Hill cipher algorithm. Also this method requires the cracker to find the inverse of many square matrices which

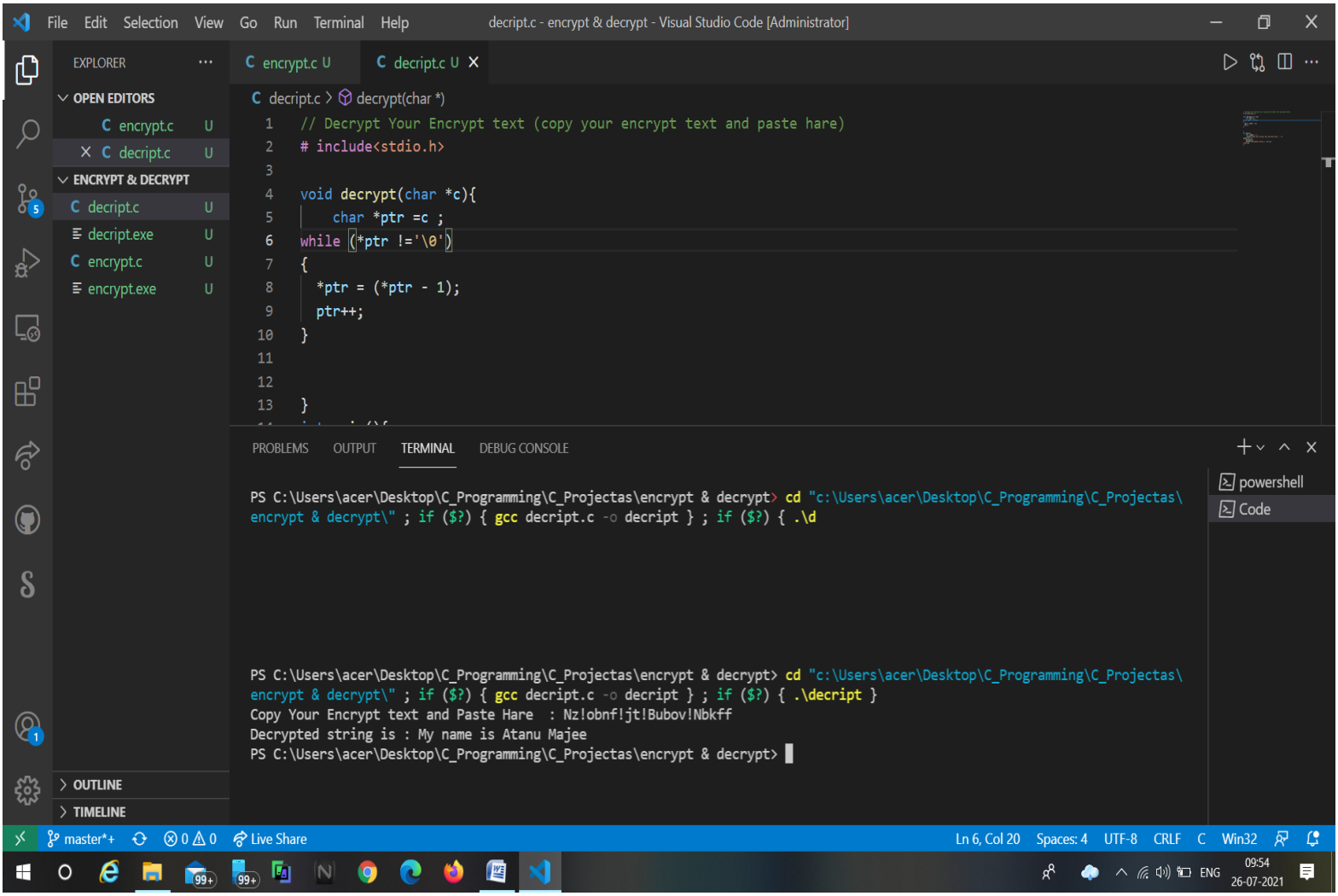
is not computationally easy. So the modified Hill-Cipher method is both easy to implement and difficult to crack.

Example :

Go to Encrypted your text “ My name is Atanu Majee ”



Go to Decrypt your Encrypt text “Nz!obnf!jt!Bubov!Nbkff”


File Edit Selection View Go Run Terminal Help
decript.c - encrypt & decrypt - Visual Studio Code [Administrator]
EXPLORER
OPEN EDITORS
encrypt.c U
decript.c U
ENCRYPT & DECRYPT
decript.c U
decript.exe U
encrypt.c U
encrypt.exe U
OUTLINE
TIMELINE
encrypt.c U
decript.c U
decript.c > decrypt(char *)
1 // Decrypt Your Encrypt text (copy your encrypt text and paste hare)
2 # include<stdio.h>
3
4 void decrypt(char *c){
5 char *ptr =c ;
6 while (*ptr !='\0')
7 {
8 *ptr = (*ptr - 1);
9 ptr++;
10 }
11
12
13 }
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
powershell
Code
PS C:\Users\acer\Desktop\C_Programming\C_Projectas\encrypt & decrypt> cd "c:\Users\acer\Desktop\C_Programming\C_Projectas\encrypt & decrypt\" ; if ($?) { gcc decript.c -o decript } ; if ($?) { .\d
PS C:\Users\acer\Desktop\C_Programming\C_Projectas\encrypt & decrypt> cd "c:\Users\acer\Desktop\C_Programming\C_Projectas\encrypt & decrypt\" ; if ($?) { gcc decript.c -o decript } ; if ($?) { .\decript }
Copy Your Encrypt text and Paste Hare : Nz!obnf!jt!Bubov!Nbkff
Decrypted string is : My name is Atanu Majee
PS C:\Users\acer\Desktop\C_Programming\C_Projectas\encrypt & decrypt>
master*+
0 0
Live Share
Ln 6, Col 20
Spaces: 4
UTF-8
CRLF
C
Win32
ENG
09:54
26-07-2021