Course Project: Encryptor

CS 463

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Student Note – I had a lot of fun doing this. I thank you for the opportunity to finally get hands on learning through my own skills. I will present this short documentation with pictures and quickly describing my process on how I built this simple encryptor. I will also provide all my files for you to test and see for yourself. (For the code, if you download the encryptor.py file, you should be able to right click, and it'll say edit in notepad which will preview my code.)
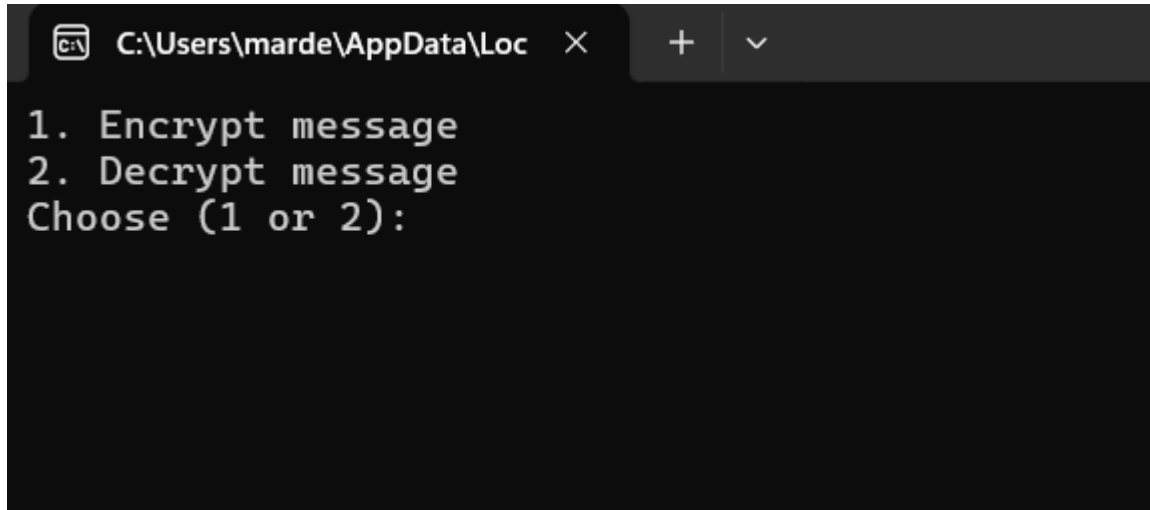
STEP 1 – First, I downloaded Python. Then I needed to download the application pycryptodome and did that through normal cmd prompt. After I had everything downloaded, I then got started on working on a simple script in notepad.

```
C:\Users\marde>pip install pycryptodome
Collecting pycryptodome
  Downloading pycryptodome-3.23.0-cp37-abi3-win_amd64.whl.metadata (3.5 kB)
Downloading pycryptodome-3.23.0-cp37-abi3-win_amd64.whl (1.8 MB)
                                     ━━━━ 1.8/1.8 MB 2.3 MB/s eta 0:00:00
Installing collected packages: pycryptodome
Successfully installed pycryptodome-3.23.0

[notice] A new release of pip is available: 25.1.1 -> 25.2
[notice] To update, run: python.exe -m pip install --upgrade pip

C:\Users\marde>
```
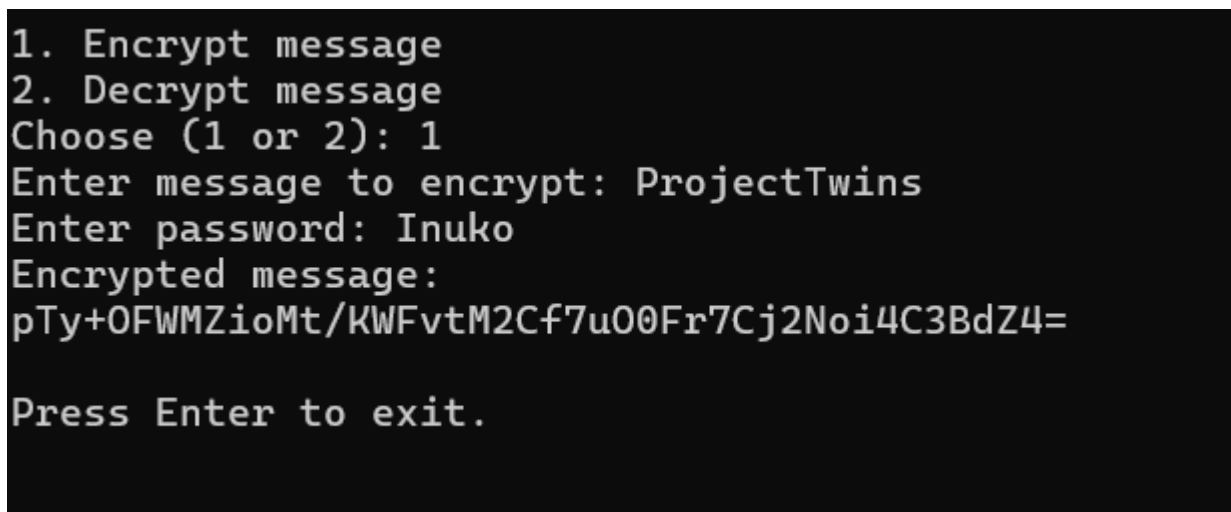
STEP 2 – A quick picture showing the simple format inside cmd prompt.


```
C:\Users\marde\AppData\Loc  ×     +   ∨
1. Encrypt message
2. Decrypt message
Choose (1 or 2):
```

STEP 3 – Then I went ahead an plugged the info to get the project working. Pressing 1 allows me to encrypt so after pressing that, I am given a prompt to enter a message which I typed ProjectTwins, which is the name of my gaming project. Then I set a password being Inuko, my company name. At first, It would immediately exit cmd prompt, so at the bottom of my code, I needed to make sure that when pressing the enter key, it would not exit me out. When I did that, the message then created a key, which helps with encryption. After I entered the encryption key and then reentering my password, the message then showed itself.


```
1. Encrypt message
2. Decrypt message
Choose (1 or 2): 1
Enter message to encrypt: ProjectTwins
Enter password: Inuko
Encrypted message:
pTy+OFWMZioMt/KWFvtM2Cf7u00Fr7Cj2Noi4C3BdZ4=

Press Enter to exit.
```

STEP 4 – After getting this simple encryptor down, I then decided to add more to my notepad code, As I also said that I would also allow files to be encrypted as well. So adding more steps and keeping the format the same, I follow the same procedures. I created a txt file on to my desktop and then encrypted it. Everything worked the same way.

```
1. Encrypt message
2. Decrypt message
3. Encrypt file
4. Decrypt file
Choose (1-4): 4
Enter filename to decrypt (e.g. message_encrypted.txt): ProjectMessage_encrypted.txt
Enter password: Inuko
Decrypted file saved as ProjectMessage_encrypted_decrypted.txt

Press Enter to exit.
```

STEP 5 – A failed attempt to show what would happen if the key was incorrect.

```
1. Encrypt message
2. Decrypt message
3. Encrypt file
4. Decrypt file
Choose (1-4): 4
Enter filename to decrypt (e.g. message_encrypted.txt): ProjectMessage.txt
Enter password: Inuko
Decryption failed. Wrong password or corrupted file.

Press Enter to exit.
```