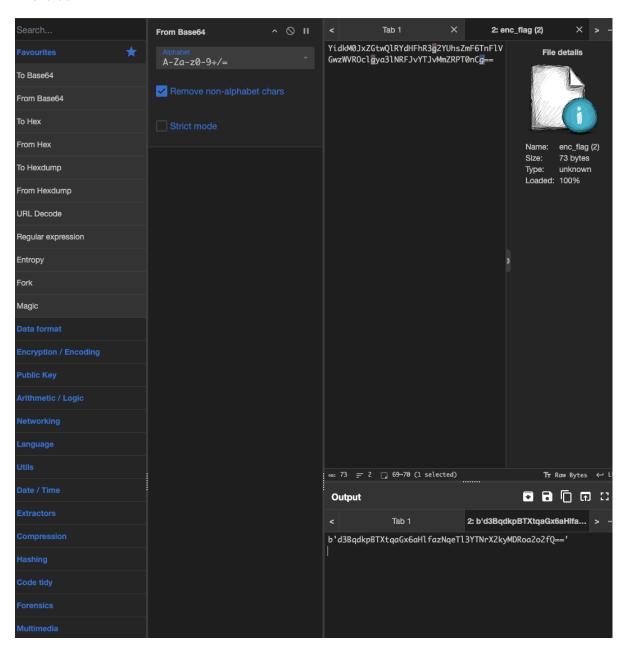
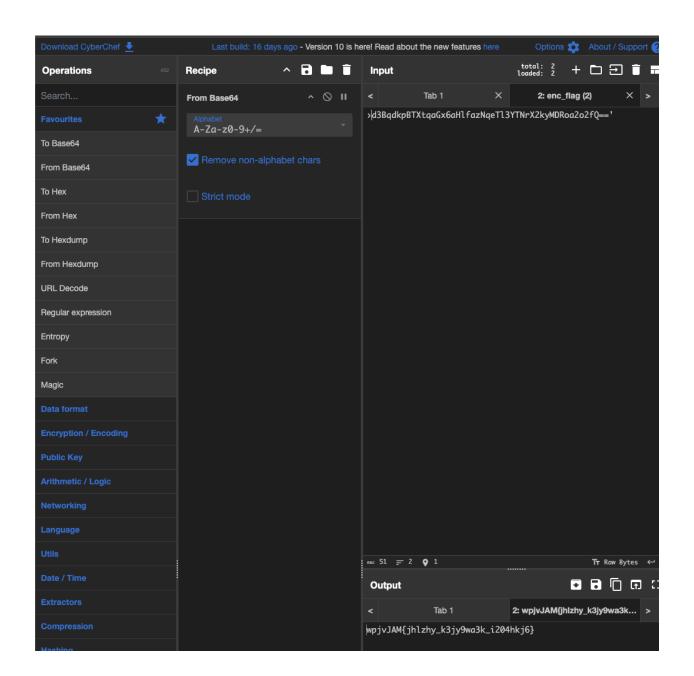
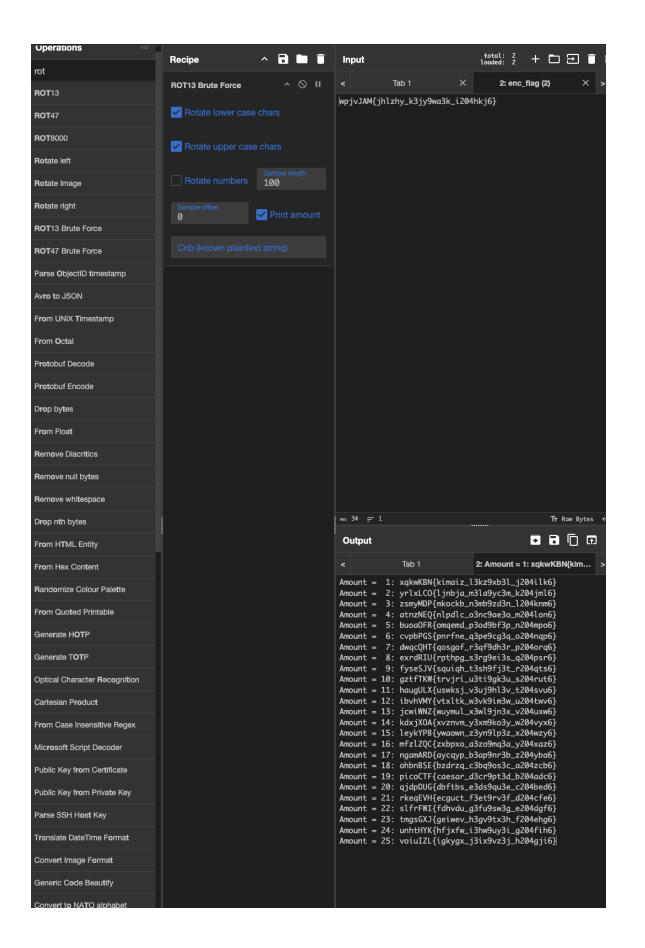
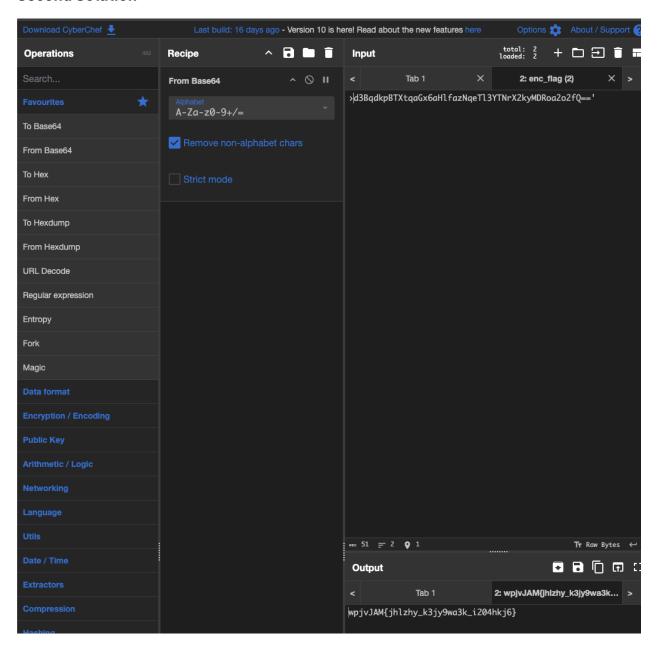
Exercise 1

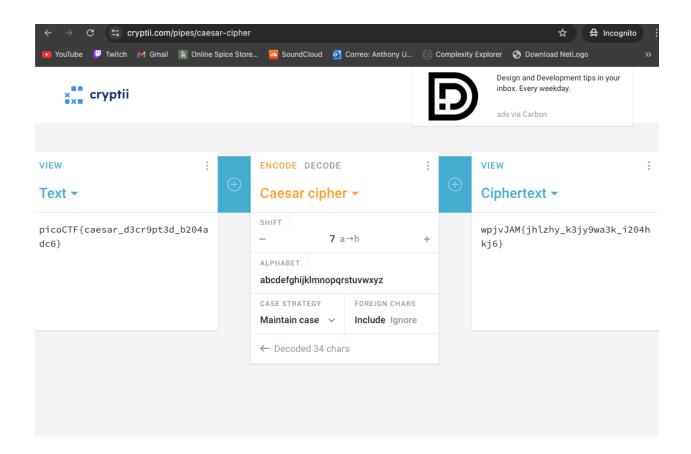




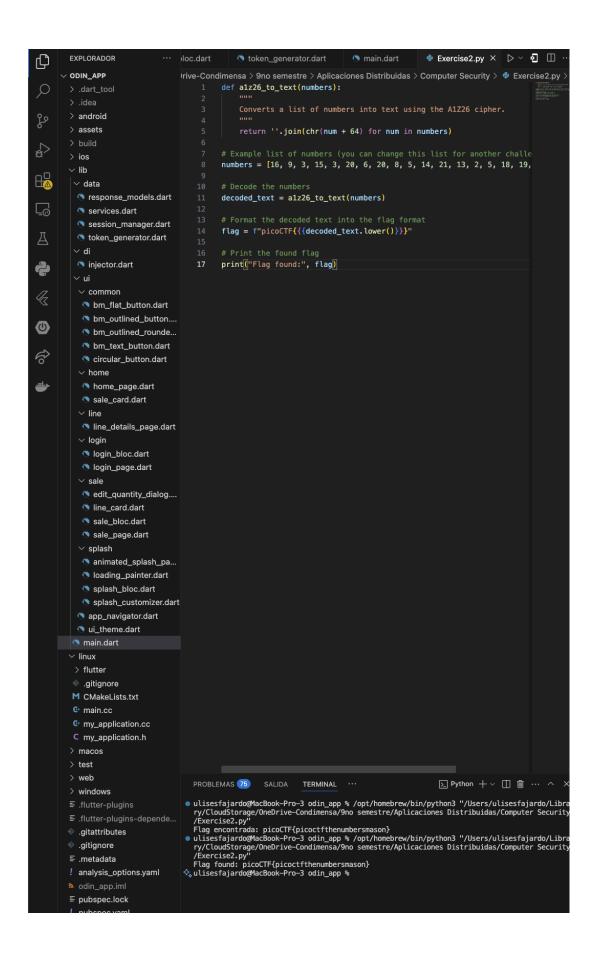


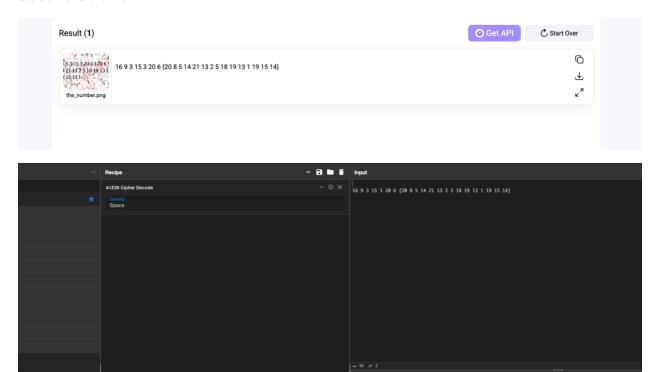
picoCTF{caesar_d3cr9pt3d_b204adc6}





Exercise 2





Exercise 3

```
main.dart
                                                   Exercise2.py
                                                                      convert.py × ▷ ∨
      ··· ken_generator.dart
             Users > ulisesfajardo > Downloads > 🏓 convert.py > ...
                    import sys
                    chars = ""
                    from fileinput import input
                    for line in input():
                    chars += line
                    lookup1 = "\n \"#()*+/1:=[]abcdefghijklmnopqrstuvwxyz"
                    lookup2 = "ABCDEFGHIJKLMNOPQRSTabcdefghijklmnopqrst"
                    out = ""
odels.dart
                    prev = 0
                    for char in chars:
nager.dart
                      cur = lookup1.index(char)
rator.dart
                      out += lookup2[(cur - prev) % 40]
                      prev = cur
                    sys.stdout.write(out)
utton.dart
ed_button....
ed_rounde...
utton.dart
itton.dart
e.dart
dart
```

```
\succ odin_app
                                                        ₩ ∨
                                                                            ng ■ □
                                                          nain.dart
                       Exercise2.py
                                         convert.py
       Users > ulisesfajardo > Downloads > ♥ convert2.py > ...
             import sys
             chars = ""
             from fileinput import input
             for line in input():
             chars += line
             lookup1 = "\n \"#()*+/1:=[]abcdefghijklmnopqrstuvwxyz"
             lookup2 = "ABCDEFGHIJKLMNOPQRSTabcdefghijklmnopqrst"
             out = ""
dart
             prev = 0
             for char in chars:
lart
               cur = lookup1.index(char)
art
               out += lookup2[(cur - prev) % 40]
               prev = cur
             sys.stdout.write(out)
art
on....
nde...
lart
art
        31
```

```
Proyecto Informe
AndroidStudioProjects
                                        Public
Applications
                                        0t
Applications (Parallels)
                                        OtDesignStudio
Cisco Packet Tracer 8.2.2
                                        Sites
                                        Virtual Machines.localized
Desktop
Development
                                        VirtualBox VMs
Documents
                                        bdpuzzle.txt
Downloads
                                        build-untitled-Qt_6_3_1_for_macOS-Debug
GNS3
                                        client
IdeaProjects
                                        convert.py
                                        discoclient.properties
Library
LocaChangeResource
Movies
                                         java_error_in_idea_9498.log
Music
                                        node_modules
NetBeansJDKs
                                        package-lock.json
NetBeansProjects
                                        package.json
OneDrive - Condimensa
                                        server
Parallels
                                        tomcat-native-2.0.8-src
Pictures
ulisesfajardo@MacBook-Pro-3 ~ % cd Downloads
ulisesfajardo@MacBook-Pro-3 Downloads % cp convert.py convert2.py
ulisesfajardo@MacBook-Pro-3 Downloads %
```

```
ulisesfajardo@MacBook-Pro-3 Downloads % python3 convert.py < ciphertext
Texto descifrado:
#asciiorder
#fortychars
#selfinput
#pythontwo

chars = ""
from fileinput import input
for line in input():
    chars += line
b = 1 / 1

for i in range(len(chars)):
    if i == b * b * b:
        print chars[i] #prints
        b += 1 / 1</pre>
```

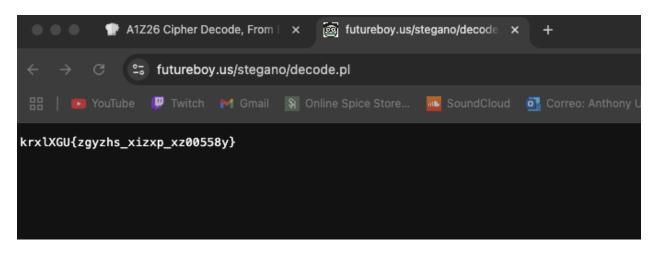
picoCTF{adlibs}

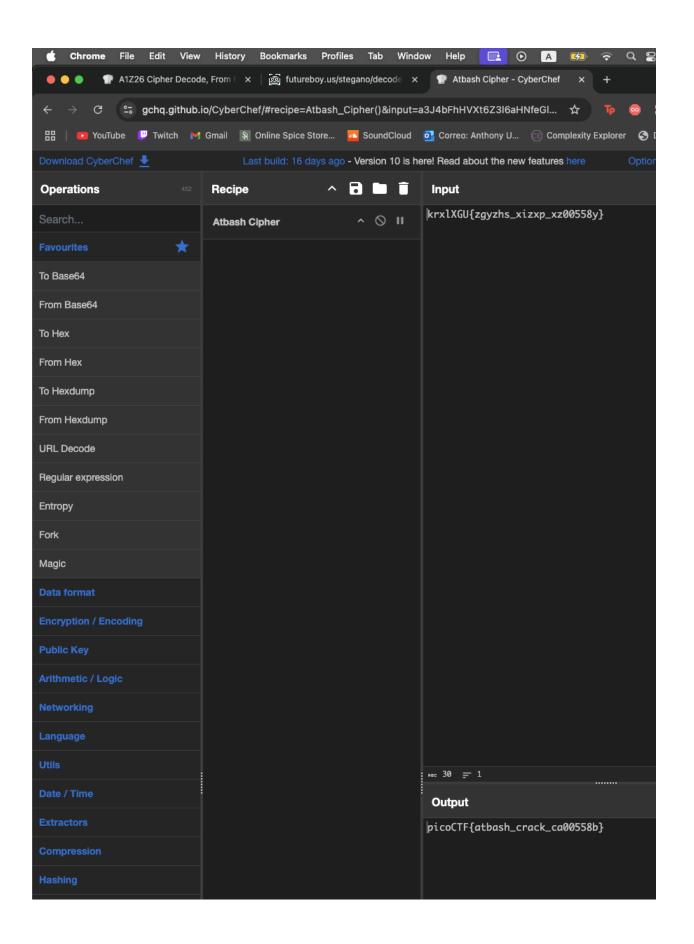
```
Storage > OneDrive-Condimensa > 9no semestre > Computer Security > Exercise 3 > 🏓 exercise3
         import sys
         # Tablas de conversión del cifrado
         lookup1 = "\n \"#()*+/1:=[]abcdefghijklmnopgrstuvwxyz"
         lookup2 = "ABCDEFGHIJKLMNOPQRSTabcdefghijklmnopqrst"
        # Leer el texto cifrado desde el archivo
        with open("ciphertext", "r") as file:
             chars = file.read()
         # Variable para almacenar el texto descifrado
   11
         out = ""
   12
         prev = 0
         # Proceso de descifrado (inverso al cifrado en convert.py)
        for char in chars:
             cur = lookup2.index(char) # Encuentra el índice en lookup2
             decoded_index = (cur + prev) % 40 # Inversa de la transformación
             out += lookup1[decoded_index] # Obtener el carácter original
             prev = decoded_index
         # Formatear la flag como picoCTF
         flag = f"picoCTF{{{out.strip()}}}"
         print("Flag encontrada:", flag)
   25
```

```
budStorage > OneDrive-Condimensa > 9no semestre > Computer Security > Exercise 3 > 💠 convert_
         # Conversión del código a Python 3
         from fileinput import input
        # Leer el contenido del archivo de entrada
         chars = "" # Inicializamos la variable
        for line in input():
            chars += line
         b = 1 # En Python 3, la división debe mantenerse como entero
         # Extraer caracteres en posiciones de cubos perfectos
         decoded_text = ""
         for i in range(len(chars)):
             if i == b ** 3: # Verificamos si el índice es un cubo perfecto
                 decoded_text += chars[i] # Agregamos el carácter a la salida
                b += 1 # Incrementamos b
         print("Flag encontrada:", f"picoCTF{{{decoded_text.strip()}}}")
   19
```

```
● ● ●  ▼#1
                                       -zsh
enc: Use -help for summary.
ulisesfajardo@MacBook-Pro-3 Downloads % openssl enc -aes-256-cbc -d -in secrect.
enc -k da099
Can't open secrect.enc for reading, No such file or directory
8595964416:error:02001002:system library:fopen:No such file or directory:crypto/
bio/bss_file.c:69:fopen('secrect.enc','rb')
8595964416:error:2006D080:BIO routines:BIO_new_file:no such file:crypto/bio/bss_
file.c:76:
ulisesfajardo@MacBook-Pro-3 Downloads % openssl enc -aes-256-cbc -d -in secret.e
nc -k da099
*** WARNING : deprecated key derivation used.
Using -iter or -pbkdf2 would be better.
picoCTF{su((3ss_(r@ck1ng_r3@_da099d93)}
ulisesfajardo@MacBook-Pro-3 Downloads % cd ...
ulisesfajardo@MacBook-Pro-3 ~ % cd OneDrive\ -\ Condimensa
ulisesfajardo@MacBook-Pro-3 OneDrive - Condimensa % cd 9no\ semestre
ulisesfajardo@MacBook-Pro-3 9no semestre % cd Computer\ Security
ulisesfajardo@MacBook-Pro-3 Computer Security % cd Exercise
cd: no such file or directory: Exercise
ulisesfajardo@MacBook-Pro-3 Computer Security % cd Exercise\ 3
ulisesfajardo@MacBook-Pro-3 Exercise 3 % python3 convert_python3.py < ciphertext
Flag encontrada: picoCTF{LgHDPt}
ulisesfajardo@MacBook-Pro-3 Exercise 3 %
```

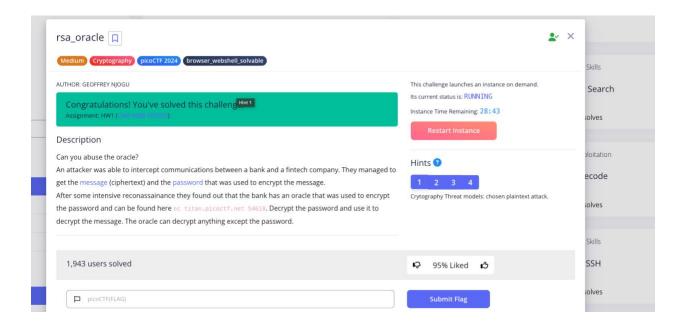
Exercise 4

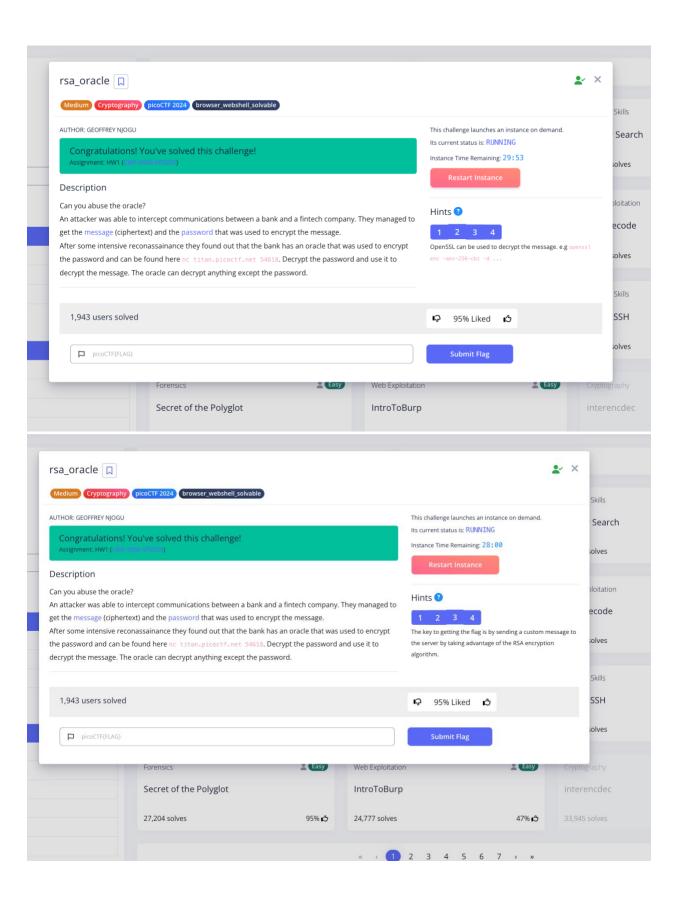


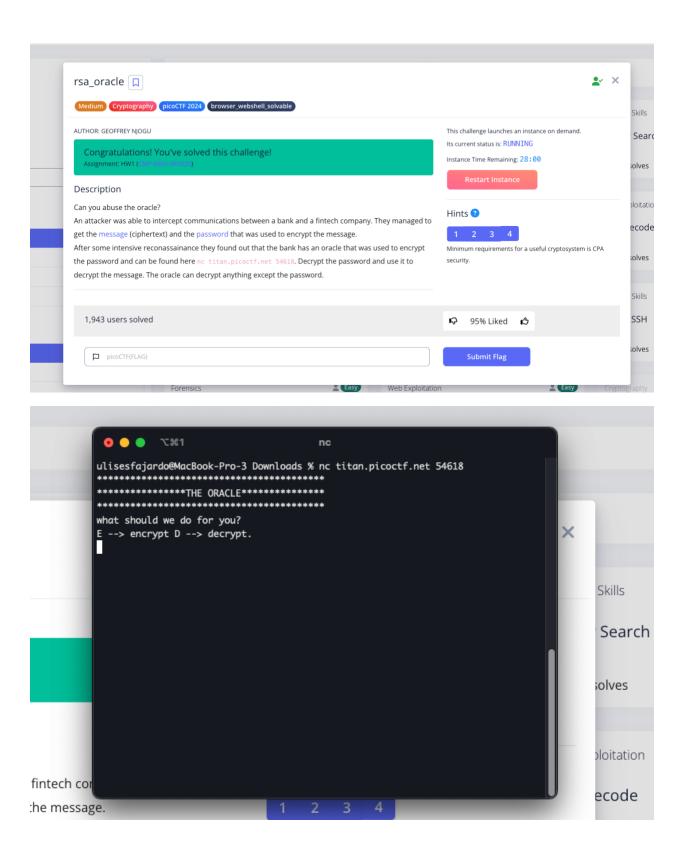




Exercise 5









```
convert2.py

₱ Exercise5.py × ▷

  Users > ulisesfajardo > Downloads > ♥ Exercise5.py > ...
             from pwn import *
            conn = remote('titan.picoctf.net', 54618)
            msg = conn.recvuntil('decrypt.')
            print(msg.decode())
           # Send the encryption option
conn.sendline(b'E')
            msg = conn.recvuntil('keysize):')
            print(msg.decode())
           # Send the number 2 for encryption
conn.sendline(b'\x02')
           msg = conn.recvuntil('ciphertext (m ^ e mod n)')
           msg = conn.recvline()
            # Get the value of 2^e and multiply it by m^e from the password.enc fi cipher_value = int(msg.decode()) * 42282734711525709938577552090406111
            msg = conn.recvuntil('decrypt.')
            print(msg.decode())
             conn.sendline(b'D')
           # Send the value of 2^e * m^e for decryption
msg = conn.recvuntil('decrypt:')
            print(msq.decode())
             conn.sendline(str(cipher_value))
            # Receive the decrypted response
msg = conn.recvuntil('hex (c ^ d mod n):')
             print(msg.decode())
             msg = conn.recvline()
             print(msg.decode())
            plaintext = int(msg, 16) // 2
             print(hex(plaintext))
            ascii_text = bytes.fromhex(hex(plaintext)[2:]).decode('ascii')
             print(ascii_text)
           conn.close()
   PROBLEMAS 75 SALIDA TERMINAL ...
                                                                         ∑ Python - Downloads + ∨ □ 🛍 ··· ^ ×
   what should we do for you? E \longrightarrow encrypt D \longrightarrow decrypt. (Users/ulisesfajardo/Downloads/Exercise5.py:31: BytesWarning: Text is not bytes; assuming AS CII, no guarantees. See https://docs.pwntools.com/#bytes msg = conn.recvuntil('decrypt:')
  Enter text to decrypt:
//Users/ulisesfajardo/Downloads/Exercise5.py:33: BytesWarning: Text is not bytes; assuming AS
CII, no guarantees. See https://docs.pwntools.com/#bytes
conn.sendline(str(cipher_value))
//Users/ulisesfajardo/Downloads/Exercise5.py:36: BytesWarning: Text is not bytes; assuming AS
CII, no guarantees. See https://docs.pwntools.com/#bytes
msg = conn.recvuntil('hex (c ^ d mod n):')
decrypted ciphertext as hex (c ^ d mod n):
c8c2607272
0x6461303939
da099
[*] Closed connection to titan.picoctf.net port 54618
♦ ulisesfajardo@MacBook-Pro-3 Downloads % []
```

1第7 🌘 🔵 🛑

what should we do for you?

E --> encrypt D --> decrypt.

۸C

ulisesfajardo@MacBook-Pro-3 Downloads % openssl enc -aes-256-abc -d -in secrect. enc -k da099

enc: Unrecognized flag aes-256-abc

enc: Use -help for summary.

ulisesfajardo@MacBook-Pro-3 Downloads % openssl enc -aes-256-cbc -d in secrect.e nc -k da099

Extra arguments given.

enc: Use -help for summary.

ulisesfajardo@MacBook-Pro-3 Downloads % openssl enc -aes-256-cbc -d -in secrect. enc -k da099

Can't open secrect.enc for reading, No such file or directory

8595964416:error:02001002:system library:fopen:No such file or directory:crypto/bio/bss_file.c:69:fopen('secrect.enc','rb')

8595964416:error:2006D080:BIO routines:BIO_new_file:no such file:crypto/bio/bss_file.c:76:

ulisesfajardo@MacBook-Pro-3 Downloads % openssl enc -aes-256-cbc -d -in secret.e nc -k da099

*** WARNING : deprecated key derivation used.

Using -iter or -pbkdf2 would be better.

picoCTF{su((3ss_(r@ck1ng_r3@_da099d93)}

ulisesfajardo@MacBook-Pro-3 Downloads %