CTF-CRYPTO-2020新基建初赛-ezCrypto

原创

大熊何在 于 2021-01-12 09:07:05 发布 407 收藏

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试着坚持，欢迎鞭策

ezCrypto

题目分析

1.大小写字母rot不同

2.base64换表

开始

1.题目

```
!=4IJkynJlTaX8g7KvlaK :mokzwof svh tc vqfo bo fsrbi ubwg fsjcz o rfosv T fsjwf ubwaawfp svh mp bkcr rbL .hosvk h
gsjfov tc grzswt sfsk hbsasjod svh bcdi grkcfq svh ,hssfhD zchgwfM bkcr ubwyzoH .ubwbsjs sbc hic rsyzok T gL
```

2.逆序

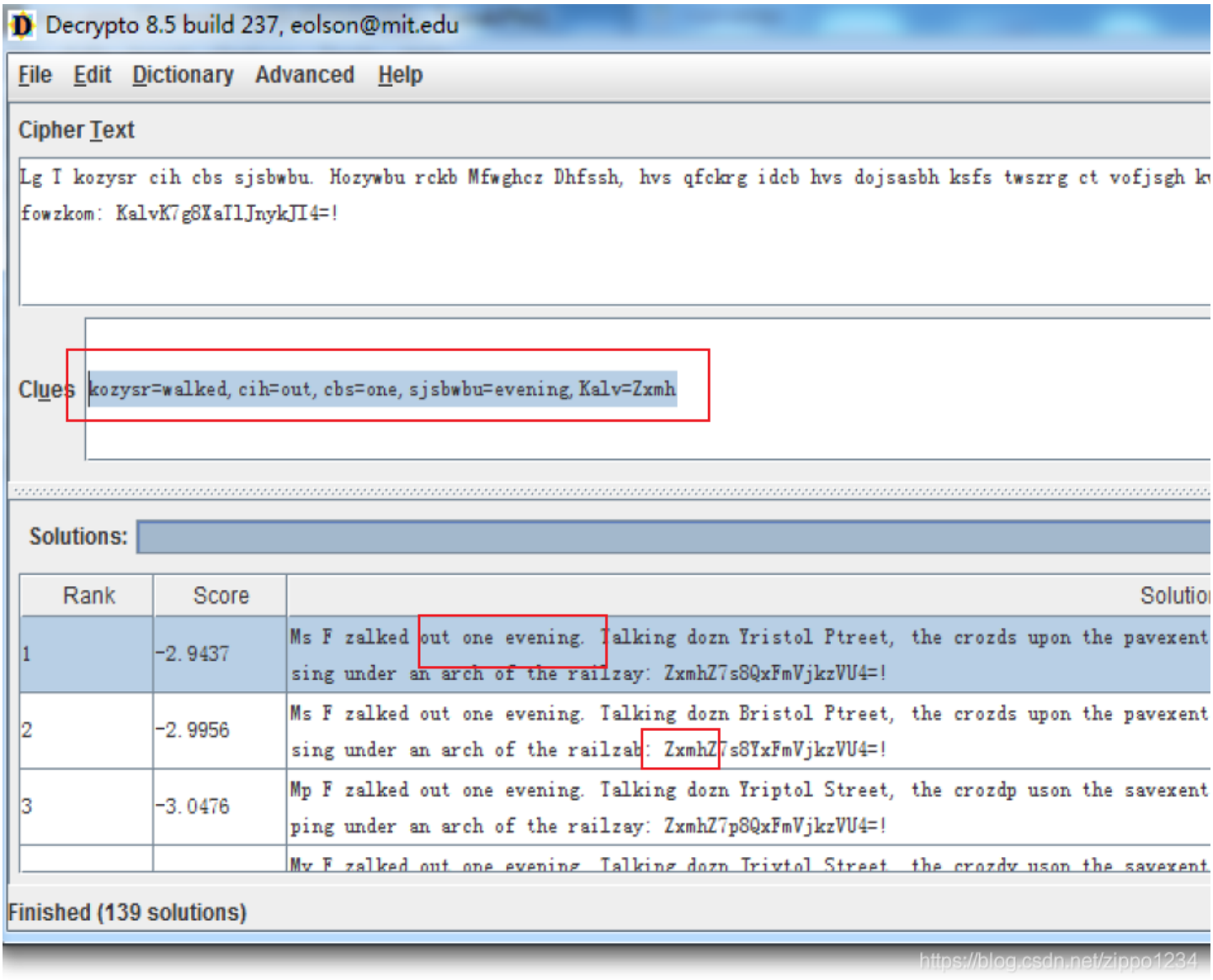
```
!=4IJkynJlTaX8g7KvlaK
```

从这段明显可以看出是逆的。所以应该先逆序。得到

```
Lg T kozysr cih cbs sjsbwbu. Hozywbu rckb Mfwghcz Dhfssh, hvs qfckrg idcb hvs dojsasbh ksfs twszrg ct vofjsgh kv
soh. Lbr rckb pm hvs pfwaawbu fwjsf T vsofr o zcjsf gwbu ibrsf ob ofqv ct hvs fowzkom: KalvK7g8XaTlJnykJI4=!
```

3.词频分析

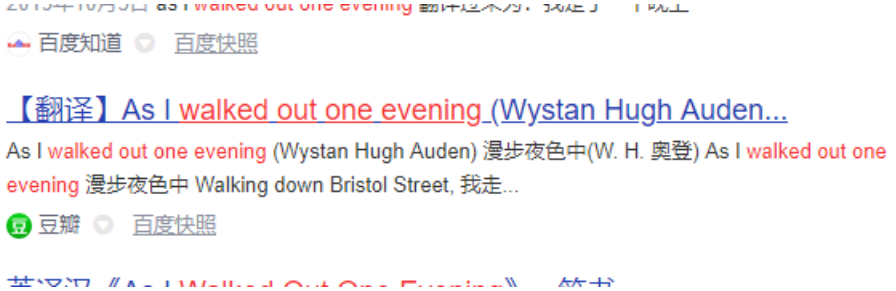
使用Decrypto进行词频分析。当然quip也是可以的。



这里是一步步的。比如flag经过base64后是Zxmh，然后逐步爆出几个已知的字母。
进而发现小写、大写字母的偏移不同。

4.爆破偏移

爆破的关键就是找到正确的单词。。。这里就体现百度的作用了。
walked out one evening。百度之。。



果然后。。。所以正确的单词应该是As I walked out one evening
那么脚本就来了，抄袭某大神。

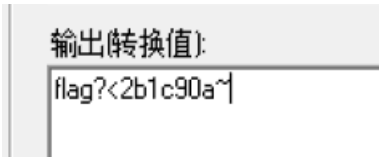
```
#!python2
# -*- coding: utf-8 -*-
# @Time : 2021/1/11 16:27
# @Author : A.James
# @FileName: test.py
string = "!=4IJkynJlTaX8g7KvlaK :mokzwof svh tc vqfo bo fsrbi ubwg fsjcz o rfosv T fsjwf ubwaawfp svh mp bkcr rb
L .hosvk hgsjfov tc grzswt sfsk hbsasjod svh bcdi grkcfq svh ,hssfhD zchgwfM bkcr ubwyzoH .ubwbsjs sbc hic rsyzo
k T gL"
string = string[::-1]
print (string)
def change(c, a, b):
    dic1 = "abcdefghijklmnopqrstuvwxyz"
    dic2 = "ABCDEFGHIJKLMNOPQRSTUVWXYZ"
    if c in dic1:
        return dic1[(dic1.index(c) + a)%26]
    elif c in dic2:
        return dic2[(dic2.index(c) + b)%26]
    else:
        return c

for i in range(26):
    for j in range(26):
        m = ""
        for k in string:
            m += change(k, i, j)
        if m.find("As I walked out one evening")>=0:
            print (i, j, m)
```

得到

```
12 15 As I walked out one evening. Walking down Bristol Street, the crowds upon the pavement were fields of harv
est wheat. And down by the brimming river I heard a lover sing under an arch of the railway: ZmxhZ7s8MmIxYzkwYX4
=!
```

5.base64换表

眼前一亮的情况下，直接把ZmxhZ7s8MmIxYzkwYX4=进行base64，发现数字和花括号不对。



就是base64换表无疑了。而且优先怀疑是数字和符号部分不对。
爆破吧，前后也就十几次。

```python
#!python3
# -*- coding: utf-8 -*-
# @Time : 2021/1/11 16:43
# @Author : A.James
# @FileName: tt1.py
import base64

str1 = "ZmxhZ7s8MmIxYzkwYX4="
sss = ['123456789+/0','23456789+/01','3456789+/012','456789+/0123','56789+/01234','6789+/012345','789+/0123456',
'9+/012345678','+/0123456789','/0123456789+']
string = 'ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz'
string2 = "ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789+/"
for i in range(len(sss)):
    string1 = string + sss[i]
    print (base64.b64decode(str1.translate(str.maketrans(string1,string2))))
```

得到结果

```
b'flag\xab;2b1c90a}'
b'flag\x9b:2b1c90a}'
b'flag\x8b92b1c90a}'
b'flag{82b1c90a}'
b'flagk72b1c90a\x7f'
b'flag[62b1c90a\x7f'
b'flagK52b1c90a\x7f'
b'flag\xeb?2b1c90a~'
b'flag\xdb>2b1c90a~'
b'flag\xcb=2b1c90a~'
```

5.get flag

```
flag{82b1c90a}
```

结语

什么鬼。。