BUUCTF_pyre

原创

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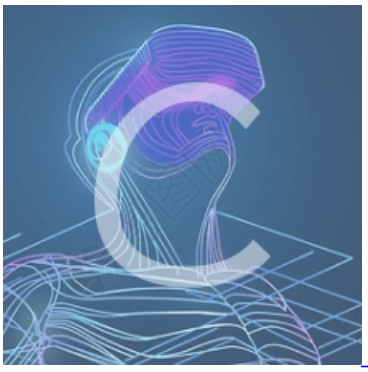

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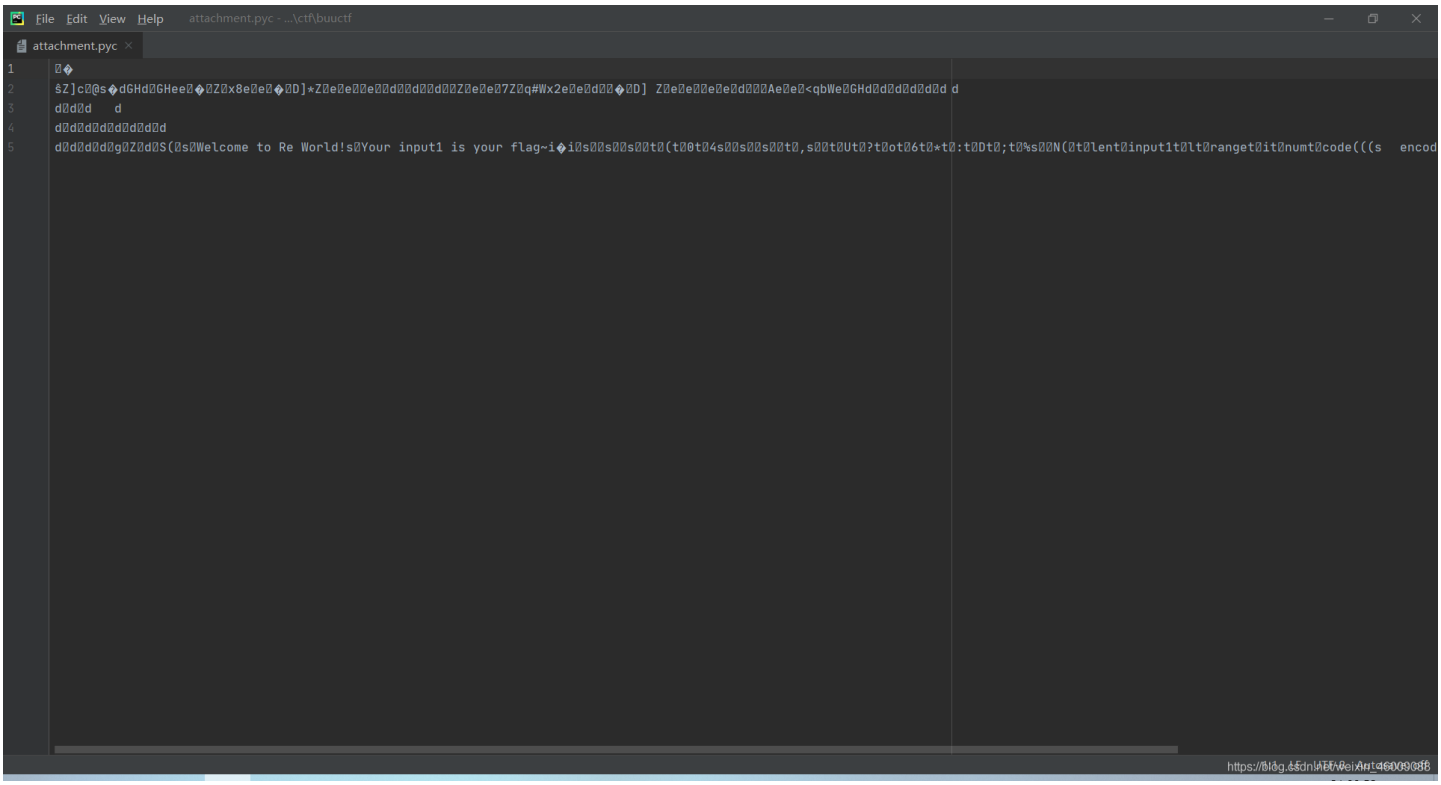
BUUCTF_pyre

解压得到一个py文件，用pycharm打开，如图：



一堆乱码？？？打开反编译网站把它丢进去.1

```
print 'Welcome to Re World!'
print 'Your input1 is your flag~'
l = len(input1)
for i in range(l):
    num = ((input1[i] + i) % 128 + 128) % 128
    code += num

for i in range(l - 1):
    code[i] = code[i] ^ code[i + 1]

print code
code = [
    '\x1f',
    '\x12',
    '\x1d',
    '(',
    '0',
    '4',
    '\x01',
    '\x06',
    '\x14',
    '4',
    ',',
    '\x1b',
    'U',
    '?',
    'o',
    '6',
    '*',
    ':',
    '\x01',
    'D',
    ';',
    '%',
    '\x13']
```

我们将其算法进行逆向，写出python脚本：

```
code = [
    '\x1f',
    '\x12',
    '\x1d',
    '(',
    '0',
    '4',
    '\x01',
    '\x06',
    '\x14',
    '4',
    ',',
    '\x1b',
    'U',
    '?',
    'o',
    '6',
    '*',
    ':',
    '\x01',
    'D',
    ';',
    '%',
    '\x13']
l = len(code)
for i in range(l - 2,-1,-1):
    code[i] = chr(ord(code[i]) ^ ord(code[i + 1]))

for i in range(len(code)):
  print(chr((ord(code[i]) - i) % 128),end='')
```

总结：

1.

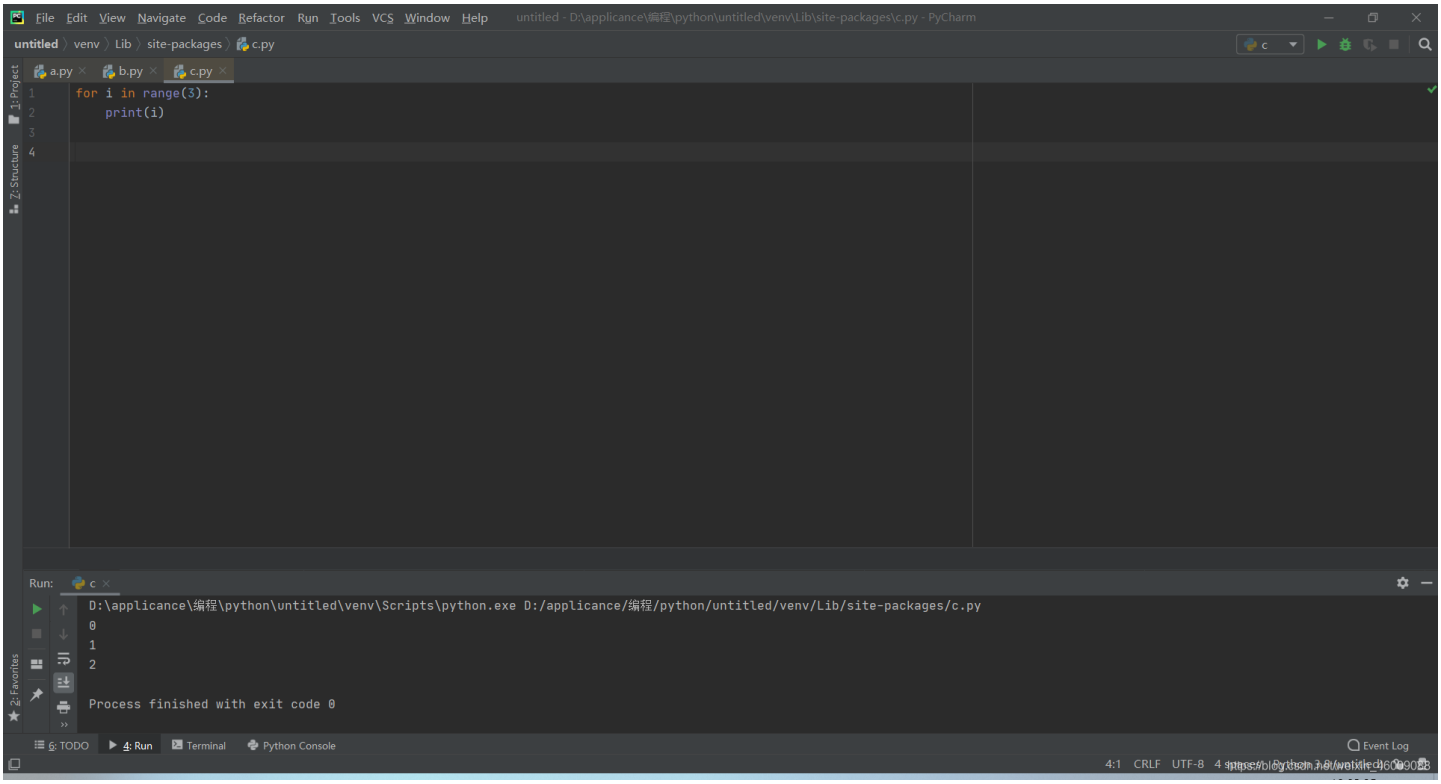
(a+b)%c == (a%c+b%c)%c

((input1[i] + i) % 128 + 128) % 128 = ((input1[i] + i) % 128%128 + 128%128) % 128=(input1[i] + i) %128

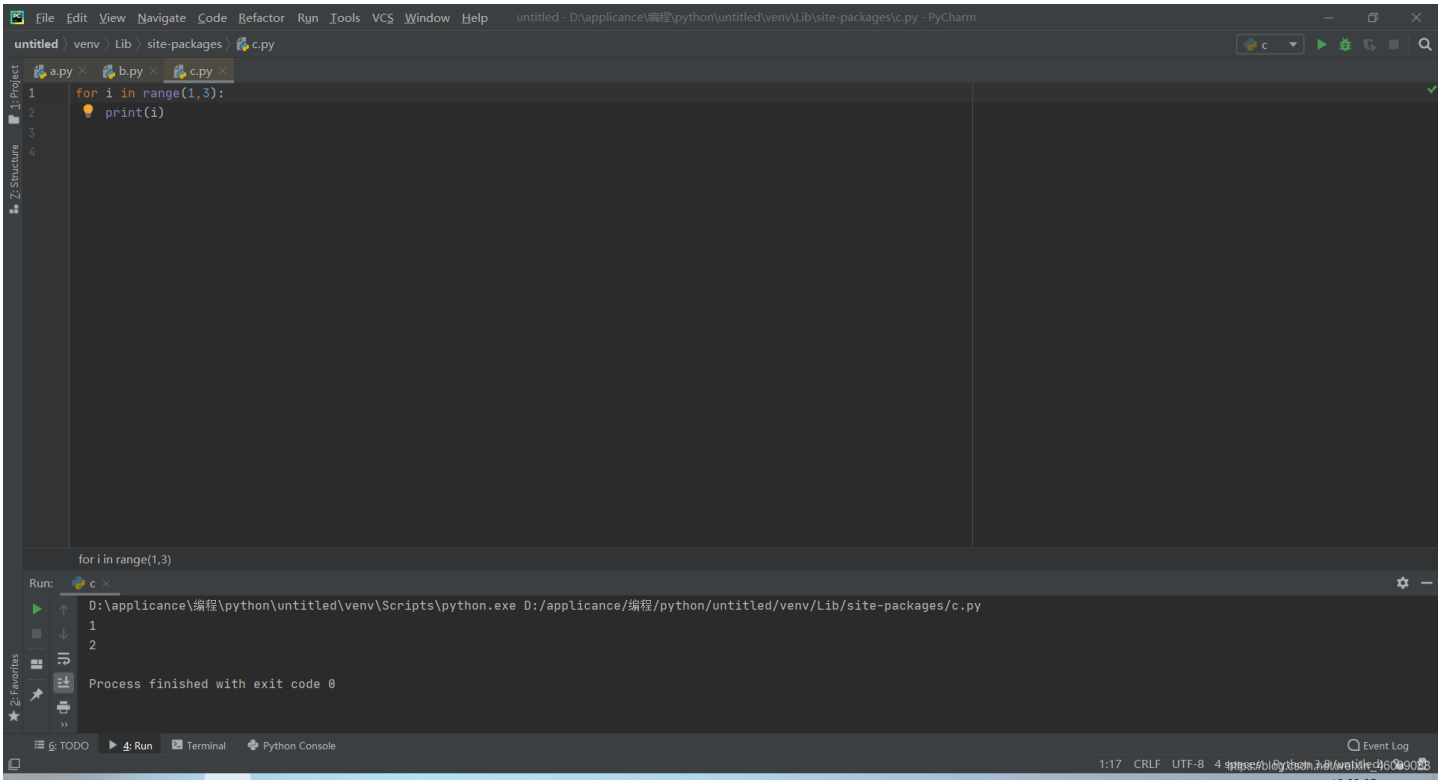
2.

因为异或出现了i+1所以需要反着遍历,for in 循环参数实验如下:

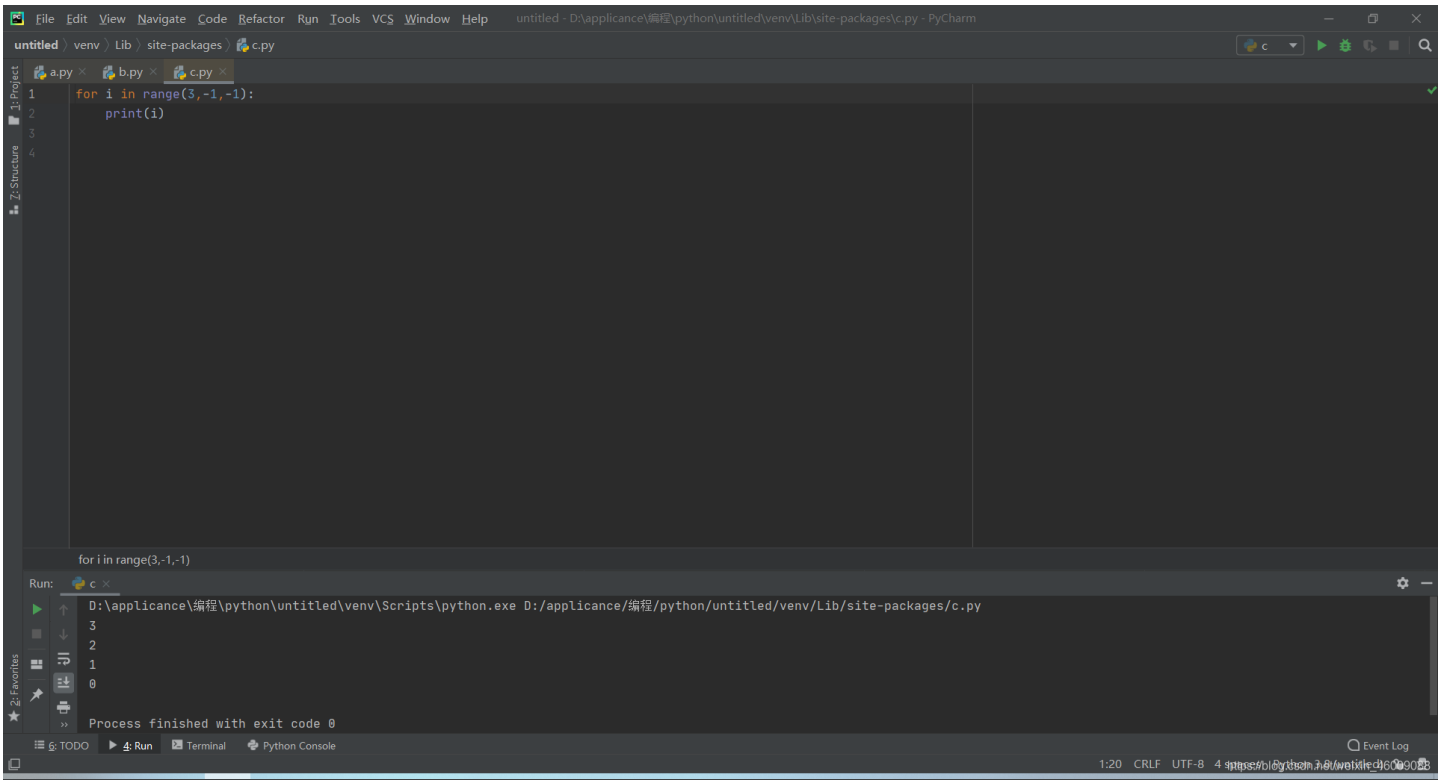
①一个参数

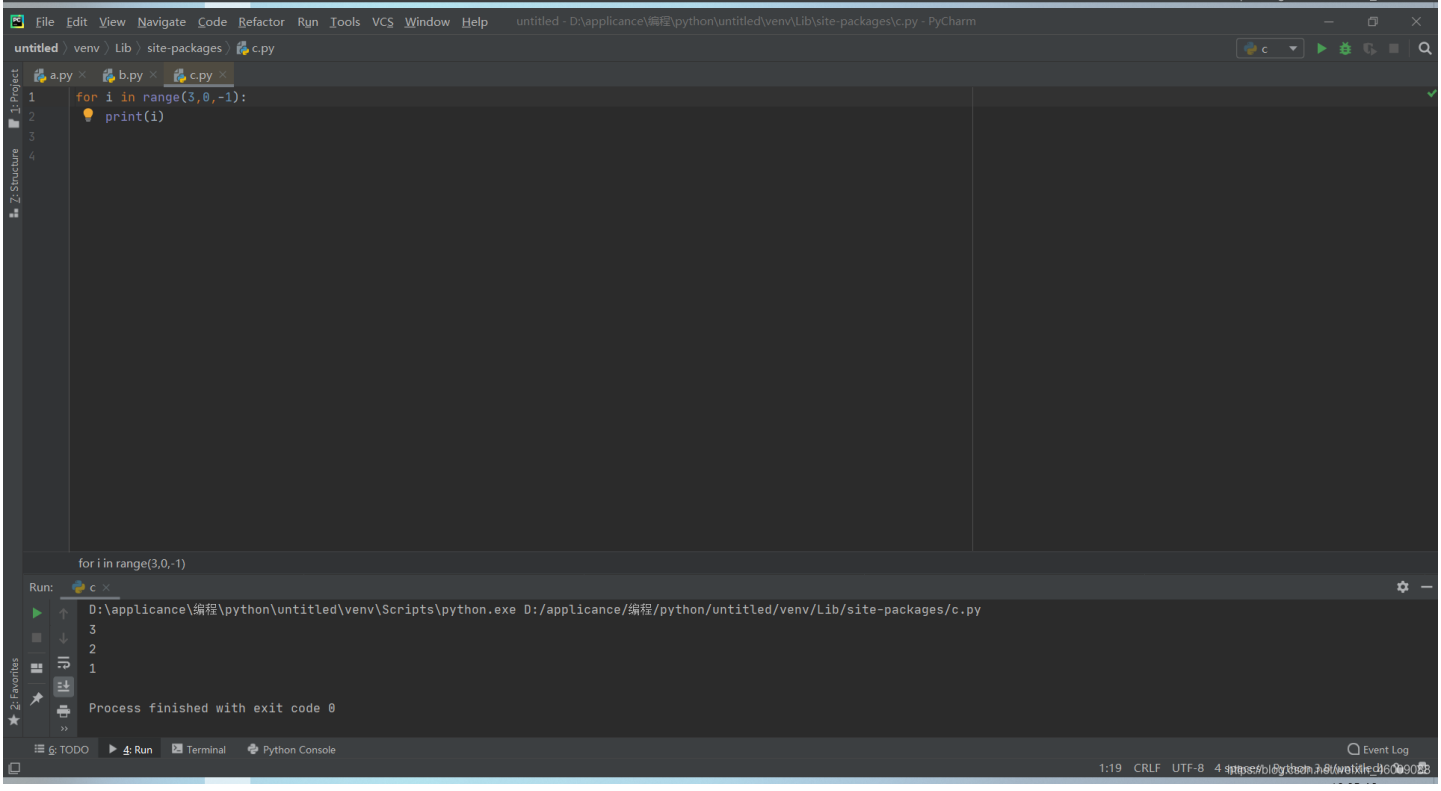


②两个参数



③三个参数（第一个为初始值，第二个为结束值，第三个为迭代值）





3.

print 打印完了结束会加给换行符，end = ' ' 是将结尾的换行换成空字符串，然后接下来的字符将接下去就不换变成下面这样：

```
GWHT{Just_Re_1s_Ha66y!}
```

反编译的网站：https://tool.lu/pyc/ ↩