

LinkedIn: [Kelvin Kimotho](#)

fixme1.py



Easy

General Skills

Beginner picoMini 2022

Python

AUTHOR: LT 'SYREAL' JONES

Description

Fix the syntax error in this Python script to print the flag.

[Download Python script](#)

Hints ?

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Indentation is very meaningful in Python

Solution

I began with downloading the python script using **wget** tool.

```
kali@kali: ~/Desktop
File Actions Edit View Help

(kali@kali)-[~/Desktop]
$ wget https://artifacts.picoctf.net/c/25/fixme1.py
--2025-02-04 22:23:57-- https://artifacts.picoctf.net/c/25/fixme1.py
Resolving artifacts.picoctf.net (artifacts.picoctf.net)... 52.84.102.85, 2600:9000:2054:4e00:16:5ec5:2840:93a1
Connecting to artifacts.picoctf.net (artifacts.picoctf.net)|52.84.102.85|:443 ... connected.
HTTP request sent, awaiting response... 200 OK
Length: 837 [application/octet-stream]
Saving to: 'fixme1.py'

fixme1.py 100%[=====] 837 --.-KB/s in 0s

2025-02-04 22:23:58 (12.9 MB/s) - 'fixme1.py' saved [837/837]

(kali@kali)-[~/Desktop]
$ ls
fixme1.py

(kali@kali)-[~/Desktop]
$
```

I then opened it using **nano** editor to inspect the code to understand how it works.

```
File Actions Edit View Help
GNU nano 8.1 fixme1.py
import random

def str_xor(secret, key):
    #extend key to secret length
    new_key = key
    i = 0
    while len(new_key) < len(secret):
        new_key = new_key + key[i]
        i = (i + 1) % len(key)
    return "".join([chr(ord(secret_c) ^ ord(new_key_c)) for (secret_c,new_key_c) in zip(secret,new_key)])

flag_enc = chr(0x15) + chr(0x07) + chr(0x08) + chr(0x06) + chr(0x27) + chr(0x21) + chr(0x23) + chr(0x15) + chr(0x5a) + chr(0x07) + chr(0x00) + chr(0x46) + chr(0x0b)
flag = str_xor(flag_enc, 'enkidu')
print('That is correct! Here\'s your flag: ' + flag)
```

The `str_xor()` function takes an encrypted strings together with a key and returns decrypted text. For this case, the flag components are hexadecimal encrypted which will be decrypted after running the program. The key is already set as `enkidu`.

I ran the program but there was some indentation error.

```
(kali@kali)-[~/Desktop]
$ python fixme1.py
File "/home/kali/Desktop/fixme1.py", line 20
    print('That is correct! Here\'s your flag: ' + flag)
IndentationError: unexpected indent

(kali@kali)-[~/Desktop]
$
```

I fixed the indentation error issue which was on the last line with the print function.

```
File Actions Edit View Help
GNU nano 8.1 fixme1.py *
import random

def str_xor(secret, key):
    #extend key to secret length
    new_key = key
    i = 0
    while len(new_key) < len(secret):
        new_key = new_key + key[i]
        i = (i + 1) % len(key)
    return "".join([chr(ord(secret_c) ^ ord(new_key_c)) for (secret_c,new_key_c) in zip(secret,new_key)])

flag_enc = chr(0x15) + chr(0x07) + chr(0x08) + chr(0x06) + chr(0x27) + chr(0x21) + chr(0x23) + chr(0x15) + chr(0x5a) + chr(0x07) + chr(0x00) + chr(0x46) + chr(0x0b)
flag = str_xor(flag_enc, 'enkidu')
print('That is correct! Here\'s your flag: ' + flag)
```

I then ran the program and the flag was printed out as `picoCTF{1nd3nt1ty_cr1515_6a476c8f}`.

