

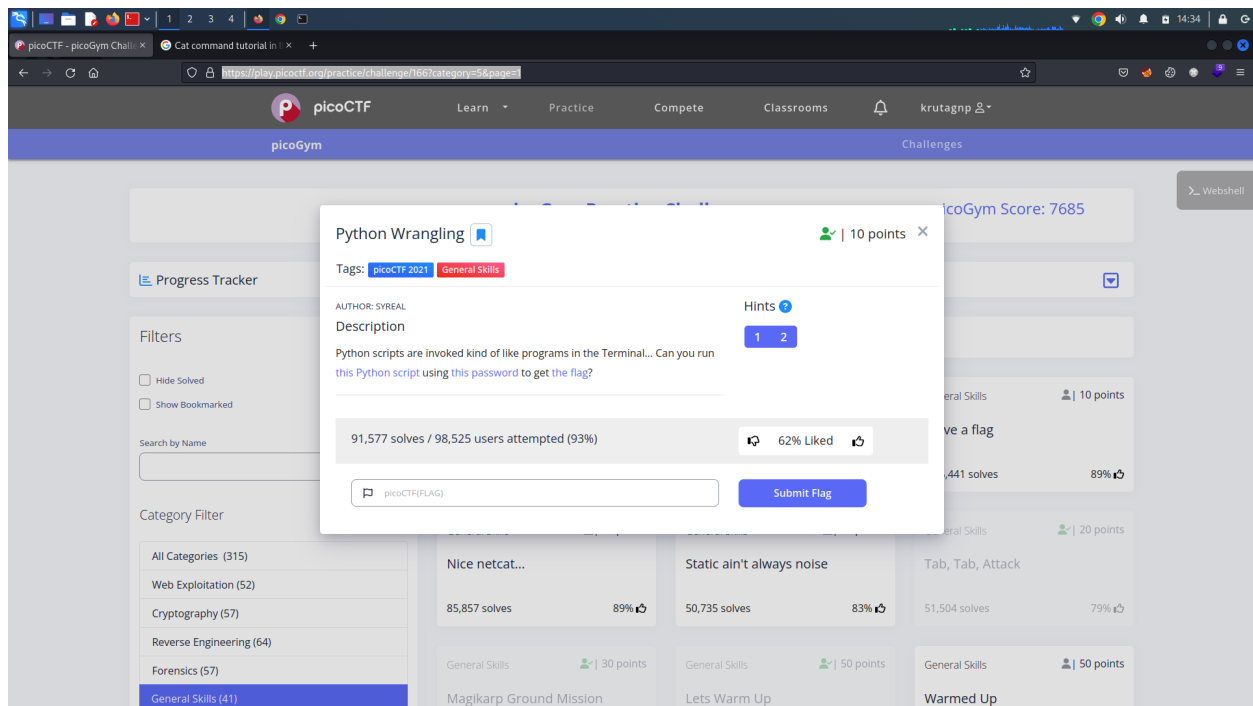
# Python Wrangling

Link To Solve the Labs:- <https://play.picoctf.org/practice/challenge/166?category=5&page=1>

Hello Everyone,

So Today we are Solving the Lab in the 'Cryptography' Category

All the things we are doing are in Kali Linux.



As you can see the Screenshot of the Description

## Description

Python scripts are invoked kind of like programs in the Terminal... Can you run [this Python script](#) using [this password](#) to get [the flag](#)?

## Above Description Explanation

There are Three Files that we have to Download to Solve this Lab

List of files

1. Ende.py

2. pw.txt
3. flag.txt.en

Above are the Three Files we have to Download

## Hints

1. Get the Python script accessible in your shell by entering the following command in the Terminal prompt: `$ wget https://mercury.picoctf.net/static/325a52d249be0bd3811421eacd2c877a/ende.py`
2. `man python`

## Above Hint's Explanation

1. We were able to learn how to download the files using the wget command from the first hint.
2. The command for Descriptive Help menu

## Steps

1. Make a New Directory
2. Download all three files in the same directory
3. Display password using cat command(cat pw.txt)
4. Run Python script with the file we want to Decrypt
5. Enter Password

## Commands to run in each Steps

mkdir Python Wrangling

wget <https://mercury.picoctf.net/static/325a52d249be0bd3811421eacd2c877a/ende.py>

wget <https://mercury.picoctf.net/static/325a52d249be0bd3811421eacd2c877a/pw.txt>

wget <https://mercury.picoctf.net/static/325a52d249be0bd3811421eacd2c877a/flag.txt.en>

python ende.py -d flag.txt.en

## Screenshot of the Above Steps

```
root@kali-linux: /home/krutagn/CTF/Python Wrangling
# mkdir 'Python Wrangling'
# cd 'Python Wrangling'
# wget https://mercury.picoctf.net/static/325a52d249be0bd3811421eacd2c877a/ende.py
--2023-05-04 14:53:20-- https://mercury.picoctf.net/static/325a52d249be0bd3811421eacd2c877a/ende.py
Resolving mercury.picoctf.net (mercury.picoctf.net) ... 18.189.209.142
Connecting to mercury.picoctf.net (mercury.picoctf.net)|18.189.209.142|:443 ... connected.
HTTP request sent, awaiting response ... 200 OK
Length: 1328 (1.3K) [application/octet-stream]
Saving to: 'ende.py'

ende.py 100%[=====] 1.30K --.-KB/s in 0s

2023-05-04 14:53:25 (16.4 MB/s) - 'ende.py' saved [1328/1328]

# wget https://mercury.picoctf.net/static/325a52d249be0bd3811421eacd2c877a/pw.txt
--2023-05-04 14:53:36-- https://mercury.picoctf.net/static/325a52d249be0bd3811421eacd2c877a/pw.txt
Resolving mercury.picoctf.net (mercury.picoctf.net) ... 18.189.209.142
Connecting to mercury.picoctf.net (mercury.picoctf.net)|18.189.209.142|:443 ... connected.
HTTP request sent, awaiting response ... 200 OK
Length: 33 [application/octet-stream]
Saving to: 'pw.txt'

pw.txt 100%[=====] 33 --.-KB/s in 0s

2023-05-04 14:53:38 (19.2 MB/s) - 'pw.txt' saved [33/33]

#
```

```
root@kali-linux: /home/krutagn/CTF/Python Wrangling
# wget https://mercury.picoctf.net/static/325a52d249be0bd3811421eacd2c877a/flag.txt.en
--2023-05-04 14:54:34-- https://mercury.picoctf.net/static/325a52d249be0bd3811421eacd2c877a/flag.txt.en
Resolving mercury.picoctf.net (mercury.picoctf.net) ... 18.189.209.142
Connecting to mercury.picoctf.net (mercury.picoctf.net)|18.189.209.142|:443 ... connected.
HTTP request sent, awaiting response ... 200 OK
Length: 140 [application/octet-stream]
Saving to: 'flag.txt.en'

flag.txt.en 100%[=====] 140 --.-KB/s in 0s

2023-05-04 14:54:36 (72.5 MB/s) - 'flag.txt.en' saved [140/140]

# cat pw.txt
ac9bd0ffac9bd0ffac9bd0ffac9bd0ff

# python ende.py -d flag.txt.en
Please enter the password:ac9bd0ffac9bd0ffac9bd0ffac9bd0ff*[[C
Traceback (most recent call last):
  File "/home/krutagn/CTF/Python Wrangling/ende.py", line 44, in <module>
    c = Fernet(ssb_b64)
    ^^^^^^^^^^^^^^^^^
  File "/usr/local/lib/python3.11/dist-packages/cryptography/fernet.py", line 39, in __init__
    raise ValueError(
ValueError: Fernet key must be 32 url-safe base64-encoded bytes.

# python ende.py -d flag.txt.en
Please enter the password:ac9bd0ffac9bd0ffac9bd0ffac9bd0ff
picoCTF{4p0110_1n_7h3_h0us3_ac9bd0ff}

#
```

So the Lab is Solved.

Flag :- picoCTF{4p0110\_1n\_7h3\_h0us3\_ac9bd0ff}