mthack.me Hint, Blackbox/Redteam

CSCI-476 Final Test

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Executive Summary

1.1 Executive Summary

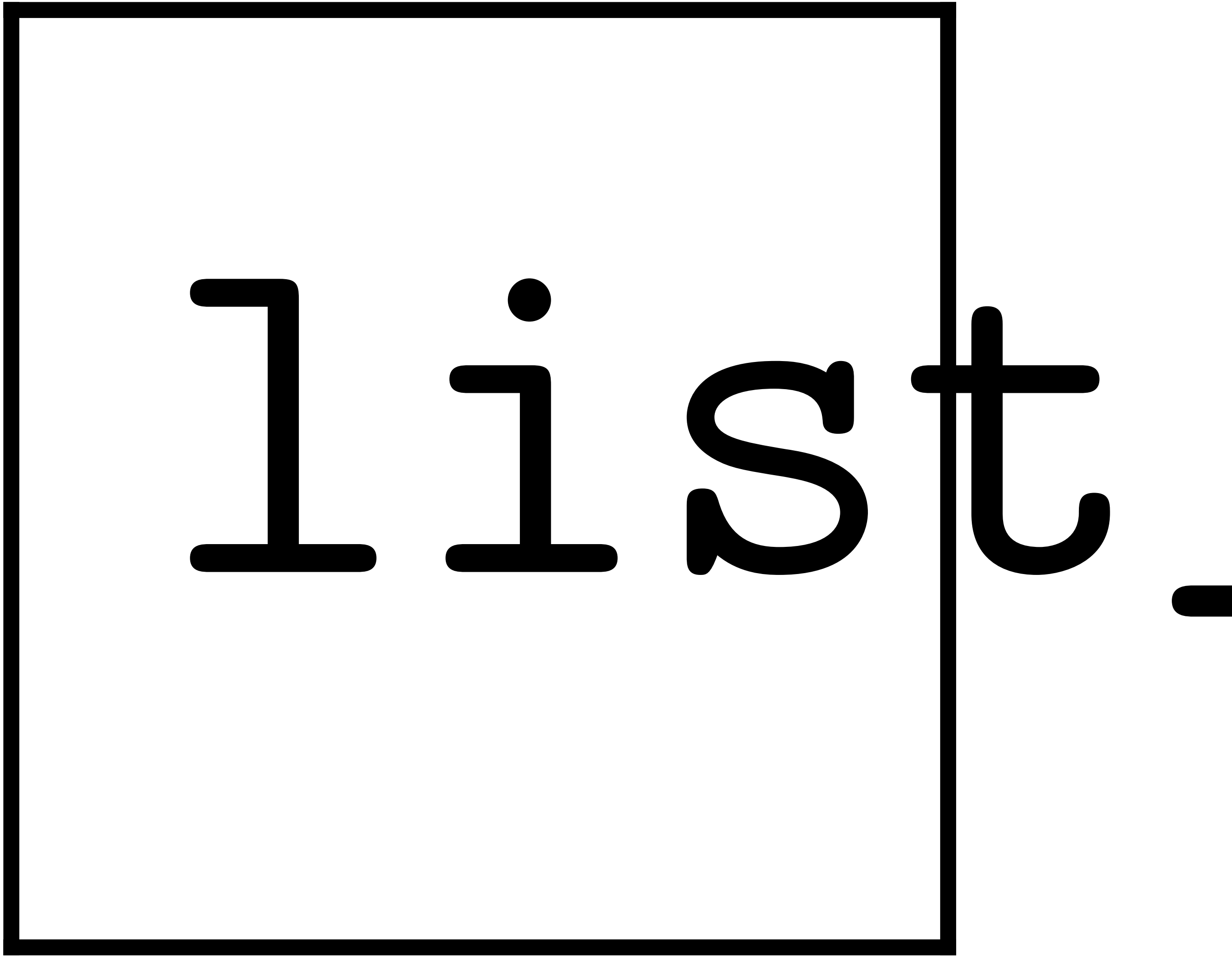
Attack Narrative

2.1 Round 1

I started with an nmap of the ip address:

```
# nmap 192.168.2.12
```

Which gave me a list of available ports:



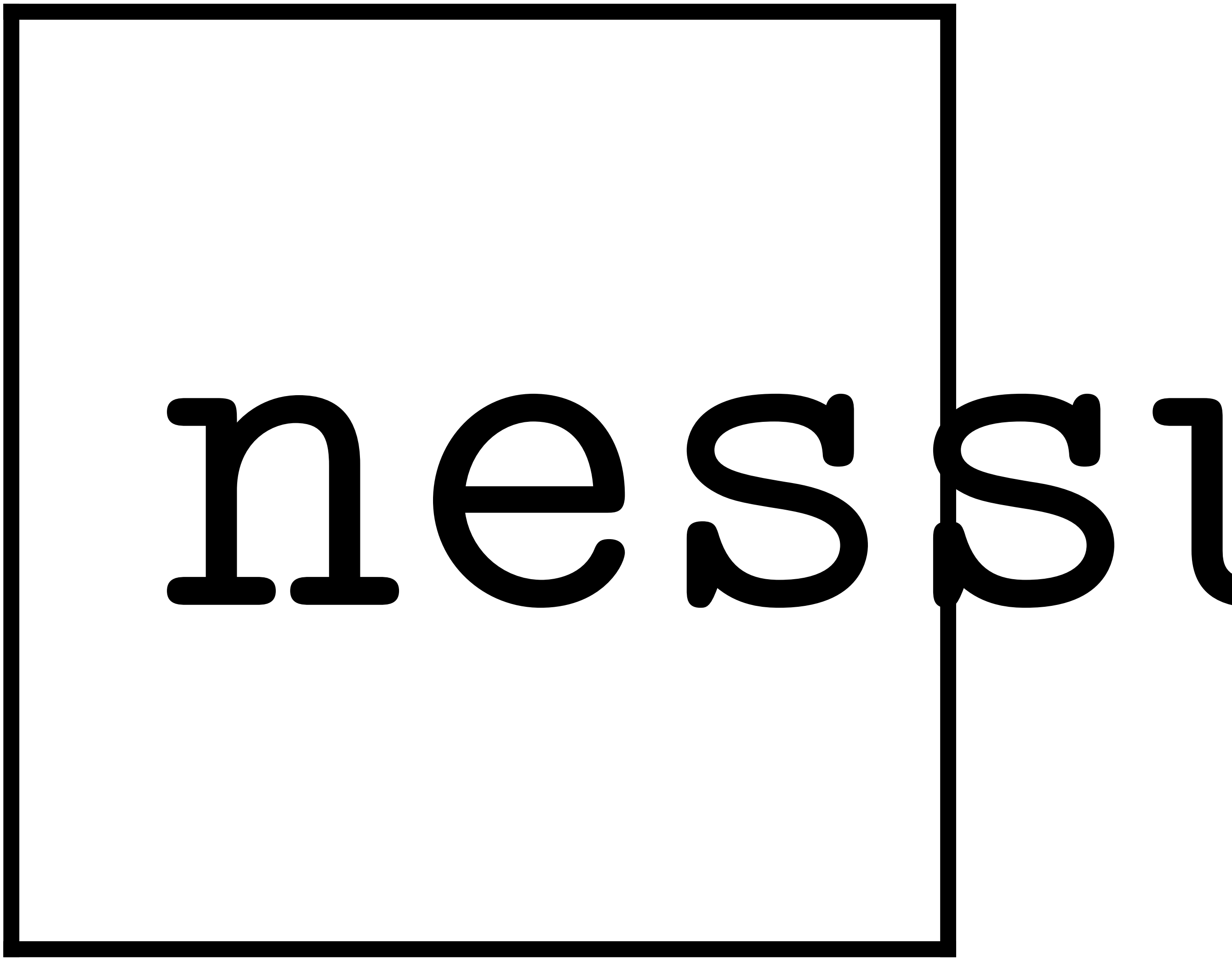
I decided that I would try to investigate the MySQL port and see if that could give me any sort of access to the system. I decided to run an NetCat on the port:

```
# ncat 192.168.2.12 3306
```

This gave me some very weird output that I could not understand. It was at this point I decided to wait until Nessus finished installing. Then I could run a basic network scan of the system and see if there were any MySQL vulnerabilities on the system.

ncat_

2.2 Round 2

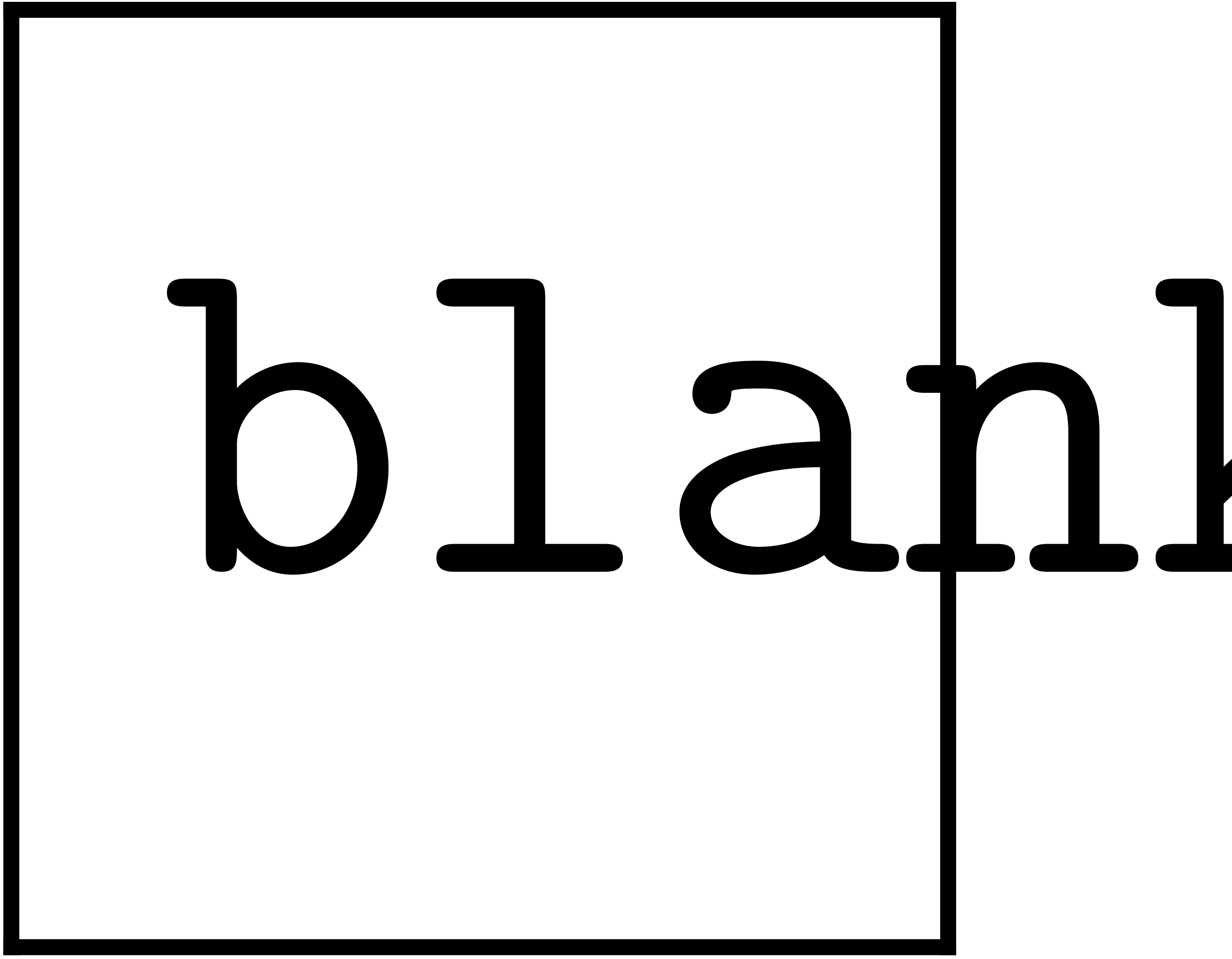


The Nessus scan of the virtual machine returned many errors, but since I was interested in attacking the MySQL service I started to check if there were any errors associated with it. I was able to find a vulnerability associated with MySQL of “MySQL Unpassworded Account Check”.

After finding this vulnerability I decided that it was time to load up msfconsole and start to try to exploit it. After searching for MySQL I was able to find a tool called “mysql_login”. I decided to try it out as I figured I would try to login to the MySQL service using a blank password like Nessus suggested there was.

```
> use auxiliary/scanner/mysql/mysql_login
> info
> set RHOSTS 192.168.2.12
> set BLANK_PASSWORDS true
> exploit
```

After running the tool with the options set as above, I received the output:



I was confused at first as I had thought that Nessus had said the password was blank. Then I remembered that I had forgotten to set a username, so I set the username to root and ran it again:

```
> set USERNAME root
> exploit
```

```
succe
```

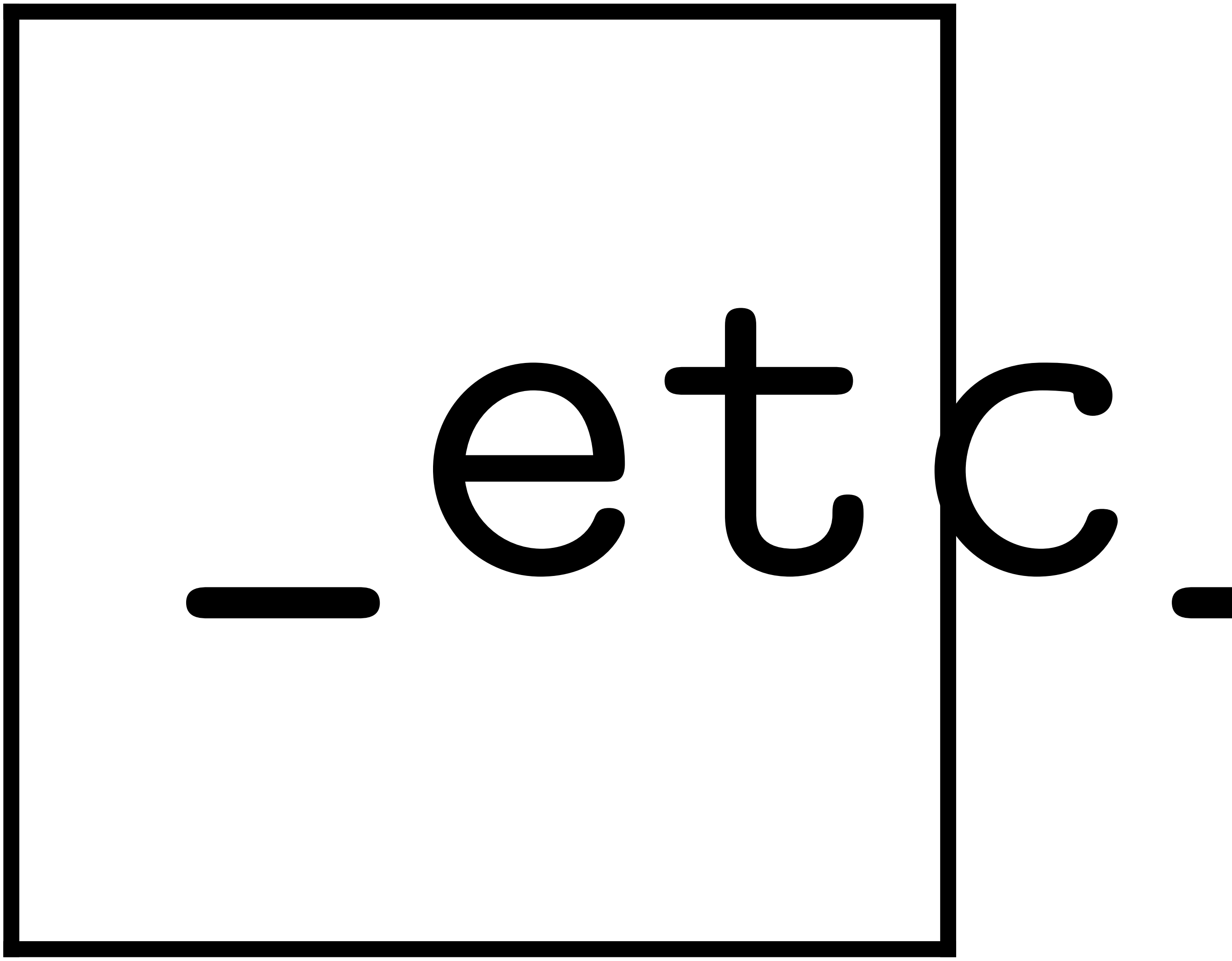
2.3 Round 3

I now have the username and password to the MySQL service. I decided to attempt to log into the service remotely through my machine to see what I could do from there:

```
# mysql -h 192.168.2.12 -u root -p
```

succe

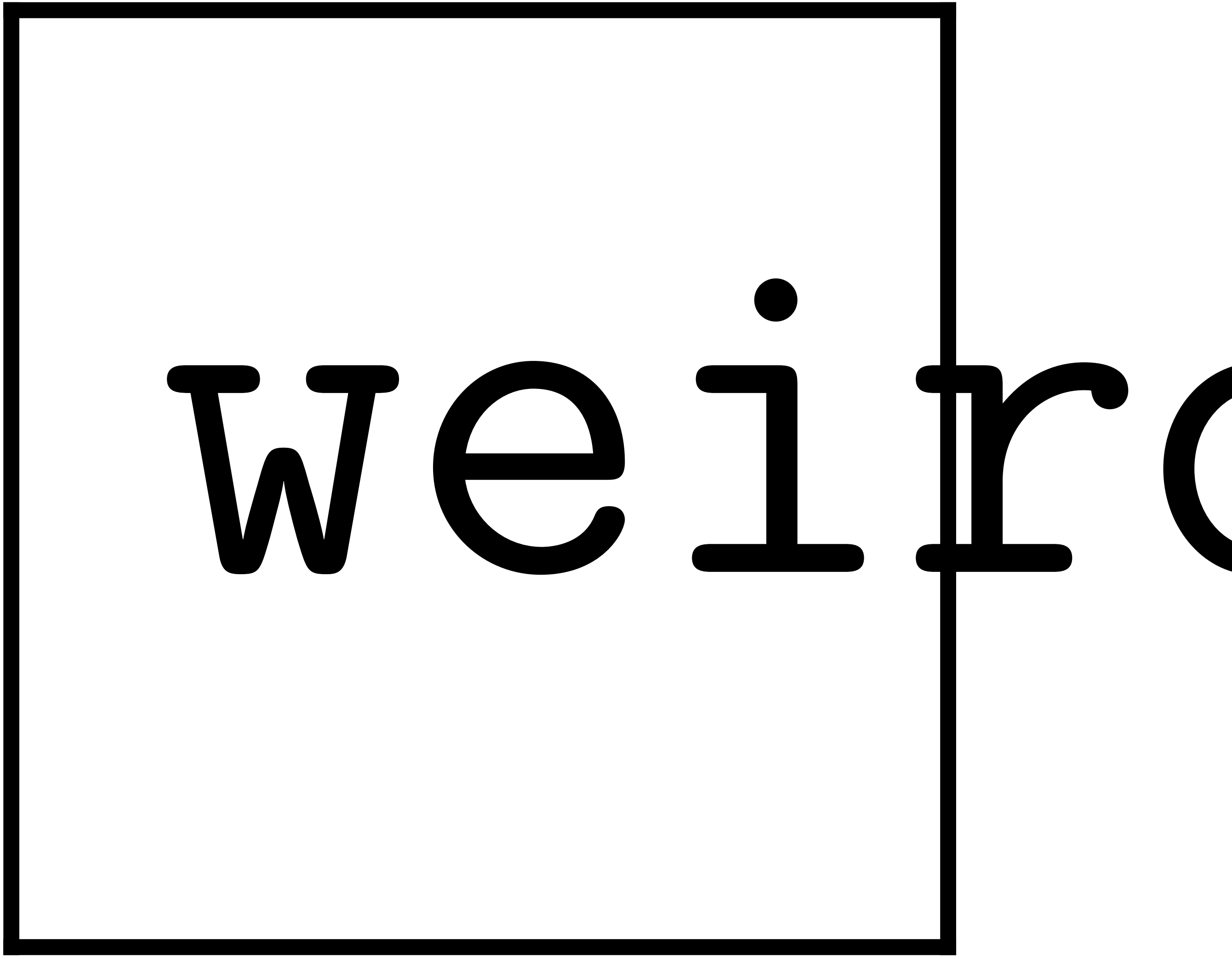
I ran a "show grants;" to find out how much power the user I now controlled has. Turns out I had access to everything in MySQL! What if I tried to open the "/etc/passwd" file?



I was able to get the file, so now I have a list of users and what group they belong to on the system. I attempted to get the "/etc/shadow" file, but was rejected. So this still leaves me with no ability to get into a shell. Now I decided that I would try to investigate the datbases contained within the system to see if there was any information contained within in them that could help me out.

```
> show databases;
> use mysql;
> Select *;
> show tables;
> select * from user;
> select User from user;
> select User, Password from user;
```

When I selected everything from the user table, I got a very messy printout of the table (see screenshot below). I was able to determine that the table contained a username and password, so I selected both of those from the table. Unfortunately the passwords were not in the table.

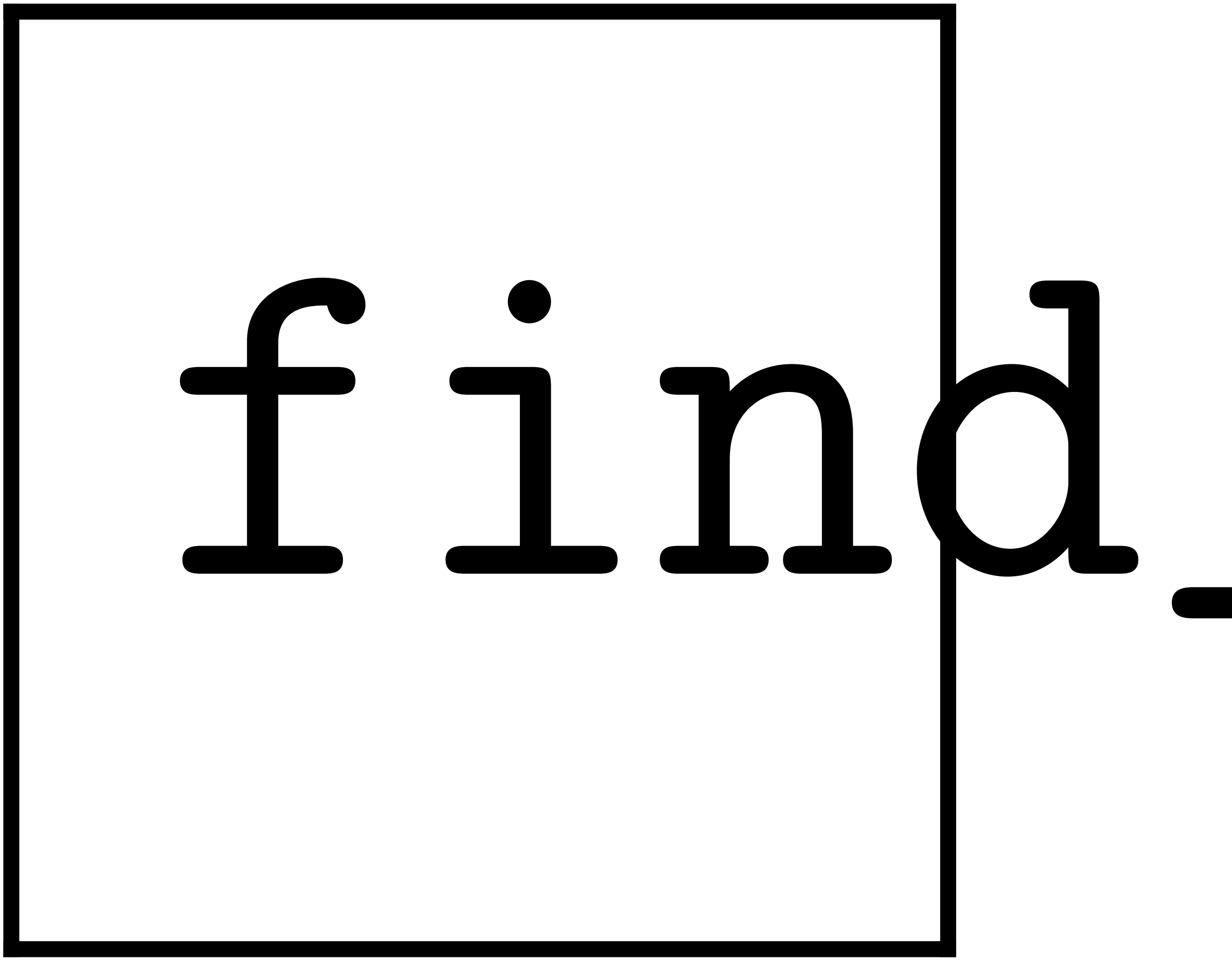


I then attempted to try to use the mysql_hashdump tool from msfconsole, unfortunately it was unable to provide me with anything. Next I decided to see if there were any known exploits for the current MySQL version that was running on the system. That search turned up nothing as well. I went into MySQL again and grabbed the print out of the “/etc/passwd” file from before to use it as a user list to try to brute force an SSH account.

2.4 Round 4

I determined that I was going to try to brute force an SSH account using the users from the “/etc/passwd” file I was able to print out from MySQL. AFter waiting for a long time as Hydra attempted to test multiple passwords for the large user list, I decided to just focus on one user. I picked the user “user” and decided to try to brute force it using the namelist.txt wordlist from “/usr/share/wordlists/metasploit/” built into Kali.

```
# hydra ssh://192.168.2.12 -l user -P /usr/share/wordlists/metasploit/namelist.txt
```



I was able to successfully find the password for “user” and thus login to an SSH account with shell access.

Summary

Biography