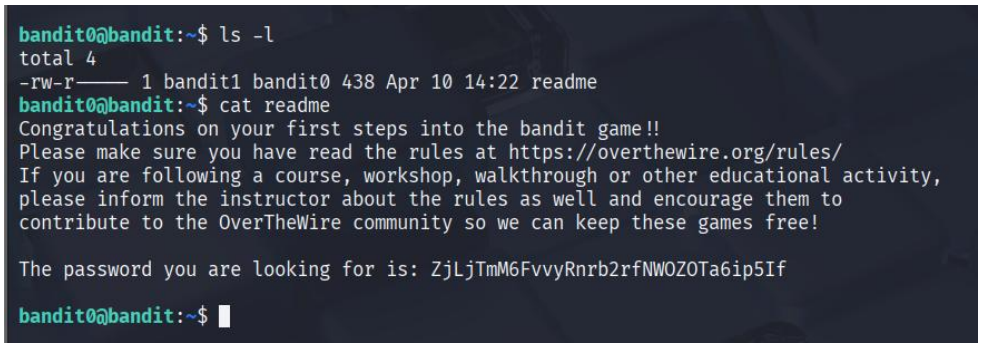
OVER THE WIRE BANDIT WARGAME

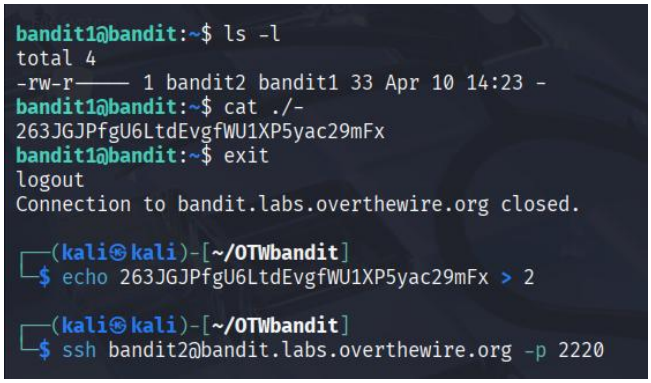
Level 0)

Establishing the connection to the OTW site with my kali VM

After logging into the bandit0 as the game said theres the password in the readme file so we first ls -l and then cat the readme file to get the PW, heading onto the next level

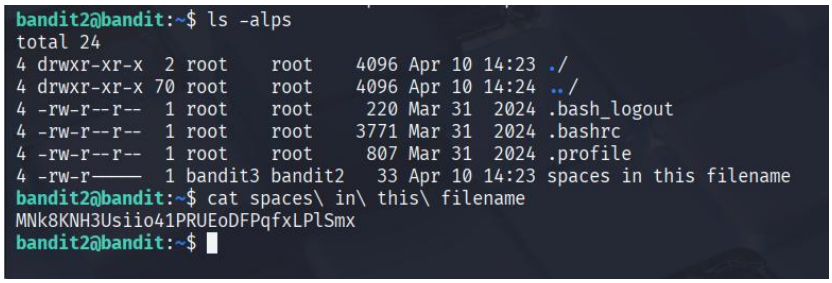


Level 1)



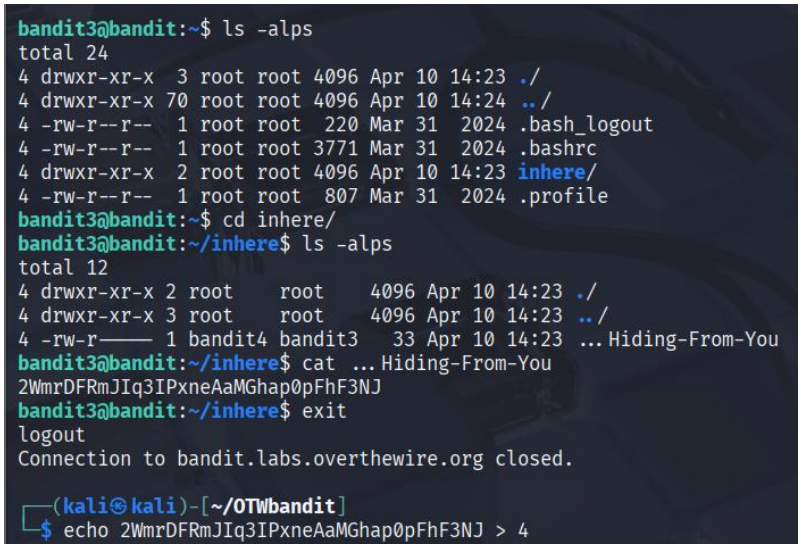
Here, after logging into the bandit1, it said the password for level 2 is in the – file, so we first use ls -l to list all the files in the directory, then we see the file with special character and to cat a special character file we use ./ before the file name to tell cat that it's a file in the pwd and not an option (cat treats "-" as options), therefore we use "cat ./-" to get the password

Level 2)



Here, the level said the password is in a file called “spaces in this filename” so to cat this file we use “/” to escape each space so that when I used the cat command it would interpret each string as a filename and then it reveals the password.

Level 3)



Here, as the level said the password is in the “inhere” directory, so we use cd to change directory to inhere directory and there we use ls -alps again to list all the files, we see a “…Hiding-From-You” file, cat it so it reveals the password to our level 4

Level 4)

```
bandit4@bandit:~$ ls -alps
total 24
4 drwxr-xr-x  3 root root 4096 Apr 10 14:23 ./
4 drwxr-xr-x 70 root root 4096 Apr 10 14:24 ../
4 -rw-r--r--  1 root root  220 Mar 31  2024 .bash_logout
4 -rw-r--r--  1 root root 3771 Mar 31  2024 .bashrc
4 drwxr-xr-x  2 root root 4096 Apr 10 14:23 inhere/
4 -rw-r--r--  1 root root  807 Mar 31  2024 .profile
bandit4@bandit:~$ cd inhere/
bandit4@bandit:~/inhere$ ls -alps
total 48
4 drwxr-xr-x 2 root    root    4096 Apr 10 14:23 ./
4 drwxr-xr-x 3 root    root    4096 Apr 10 14:23 ../
4 -rw-r----- 1 bandit5 bandit4   33 Apr 10 14:23 -file00
4 -rw-r----- 1 bandit5 bandit4   33 Apr 10 14:23 -file01
4 -rw-r----- 1 bandit5 bandit4   33 Apr 10 14:23 -file02
4 -rw-r----- 1 bandit5 bandit4   33 Apr 10 14:23 -file03
4 -rw-r----- 1 bandit5 bandit4   33 Apr 10 14:23 -file04
4 -rw-r----- 1 bandit5 bandit4   33 Apr 10 14:23 -file05
4 -rw-r----- 1 bandit5 bandit4   33 Apr 10 14:23 -file06
4 -rw-r----- 1 bandit5 bandit4   33 Apr 10 14:23 -file07
4 -rw-r----- 1 bandit5 bandit4   33 Apr 10 14:23 -file08
4 -rw-r----- 1 bandit5 bandit4   33 Apr 10 14:23 -file09
bandit4@bandit:~/inhere$ find . -type f | xargs file
./-file05: data
./-file03: data
./-file06: data
./-file02: data
./-file01: data
./-file09: data
./-file00: PGP Secret Sub-key -
./-file04: data
./-file08: data
./-file07: ASCII text
bandit4@bandit:~/inhere$ cat ./-file00
```

```
bandit4@bandit:~/inhere$ cat ./-file00
◆'nOT◆◆◆S ◆plS]-EH◆t◆:-◆Z◆
                           bandit4@bandit:~/inhere$
bandit4@bandit:~/inhere$ cat ./-file07
4oQYVPkxZOOEOO5pTW81FB8j8lxXGUQw
bandit4@bandit:~/inhere$ EXIT
EXIT: command not found
bandit4@bandit:~/inhere$ exit
logout
Connection to bandit.labs.overthewire.org closed.
```

Here, level 4 said the password was in a human readable format file, so we cded our way to inhere/ then “ls -alps” to check all the files, it showed files from 00 through 09, now to check what type of a file each is, we use “find . -type f | xargs file” what this does is it finds all the regular files in the current directory and sub directories (if any) and then it also tells you which file is what type which helped us in differentiating the files containing password.

Level 5)

```
bandit5@bandit:~$ cd inhere/
bandit5@bandit:~/inhere$ ls -alps
total 88
4 drwxr-x--- 22 root bandit5 4096 Apr 10 14:23 ./
4 drwxr-xr-x  3 root root    4096 Apr 10 14:23 ../
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere00/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere01/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere02/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere03/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere04/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere05/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere06/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere07/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere08/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere09/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere10/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere11/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere12/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere13/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere14/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere15/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere16/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere17/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere18/
4 drwxr-x---  2 root bandit5 4096 Apr 10 14:23 maybehere19/
bandit5@bandit:~/inhere$ find . -type f -size 1033c ! -executable
./maybehere07/.file2
bandit5@bandit:~/inhere$ cat ./maybehere07/.file2
HWasnPhtq9AVKe0dmk45nxy20cvUa6EG
```

Here, in level 5 we were asked to do the same thing so we cded to inhere and found 20 maybehere files, again used the command “find . type f -size 1033c ! executable” meaning finding the particular file which is human readable, is of 1033 bytes of size (1033c) and is not executable (! Executable) hence giving us the password.

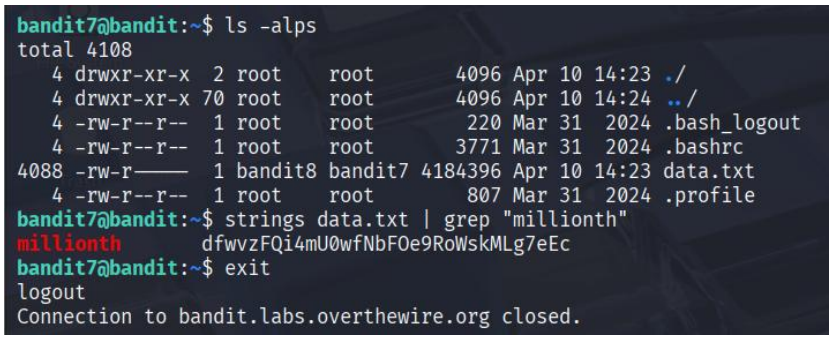
Level 6)

```
bandit6@bandit:~$ find / -type f -user bandit7 -group bandit6 -size 33c
find: ‘/root’: Permission denied
find: ‘/proc/tty/driver’: Permission denied
find: ‘/proc/885568/task/885568/fdinfo/6’: No such file or directory
```

```
find: ‘/var/lib/polkit-1’: Permission denied
/var/lib/dpkg/info/bandit7.password
find: ‘/var/lib/apt/lists/partial’: Permission denied
find: ‘/var/lib/chrony’: Permission denied
find: ‘/var/lib/amazon’: Permission denied
find: ‘/var/lib/ubuntu-advantage/apt-esm/var/lib/apt/lists/partial’: Permission denied
find: ‘/var/lib/snapd/cookie’: Permission denied
find: ‘/var/lib/snapd/void’: Permission denied
find: ‘/var/lib/private’: Permission denied
find: ‘/drifter/drifter14_src/axTLS’: Permission denied
find: ‘/tmp’: Permission denied
bandit6@bandit:~$ cat /var/lib/dpkg/info/bandit7.password
morbNTDkSW6jIlUc0ymOdMaLnOlFVAaj
bandit6@bandit:~$
```

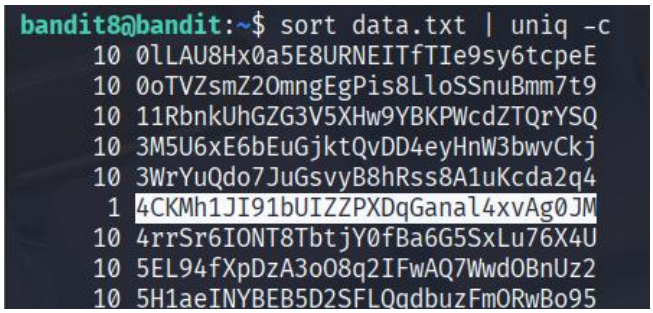
Here, the level told us that the PW is stored somewhere on the server and is owned by user bandit7 owned by group bandit6 33 bytes in size, so we used -user bandit7 for file to be of bandit7, used -group bandit 6 for the file to be of bandit6 group and 33c for the file to be of 33 bytes, hence getting the password (highlighted part)

Level 7)



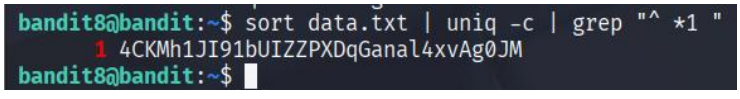
Here, the level told us that the password was next to the word “millionth”, so we use “strings data.txt | grep “millionth” this extracts all the readable text strings from the data.txt file which then piped as an input to grep “millionth”, grep efficiently searches throughout the file for the millionth word and when it finds it, prints the whole containing the password next to it aswell, if it isn’t matched then grep just discards it.

Level 8)

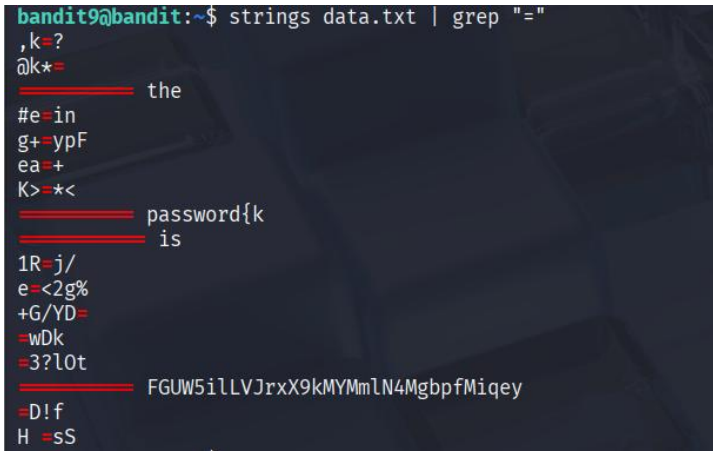


Here, the level said that the password is a line which only occurs once so we use “sort data.txt | uniq -c” this sorts the data.txt file and then pipes that as input to the “uniq -c” which mean count thus prefixing the lines by the no. of their occurrences, hence giving the answer

Another way of doing this is using grep which then shortens the output to showing just that one line occurs once, the “^” matches the beginning of the line.



Level 9)



Here, the level told us that the password was preceded with many “=” so we used “strings data.txt | grep “=””, the former part before the pipe extracts all the readable strings from the data.txt and sends as input to the latter part which is “grep “=””, what this does is it searches for all the signs containing = and then prints the whole line hence printing the password too