Escuela Colombiana de Ingeniería Julio Garavito

IT Security and Privacy

Report N° 02.

Introduction to OSINT

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Table of Contests

Bandit Level 0

I entered the console of my computer and followed the link bandit@bandit.labs.overthewire.org - p 2220. Using port 22 which is a tunneling protocol used to create secure network connections.

I left the session and entered the next level bandit0@bandit.labs.overthewire.org - p 2220.

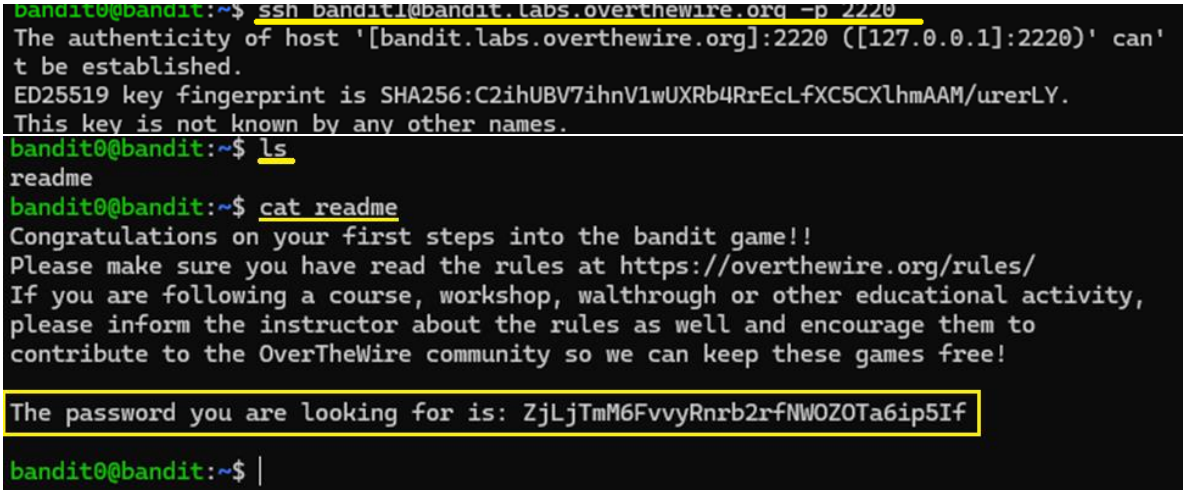
Bandit Level 0 → Level 1

First, I made with the command *ls* the list of files, where we found that there is a readme file and I made the reading with the command *cat*, here we obtained the password to pass to the next level.

Session: ssh bandit0@bandit.labs.overthewire.org -p 2220

Password: ZjLjTmM6FvvyRnrb2rfNWOZOTa6ip5If

Commands	*Function*
ls	Lists the files and directories within the current directory in the file system.
cat	Concatenates and displays the contents of files.



I left the session and entered the next level bandit1@bandit.labs.overthewire.org - p 2220.

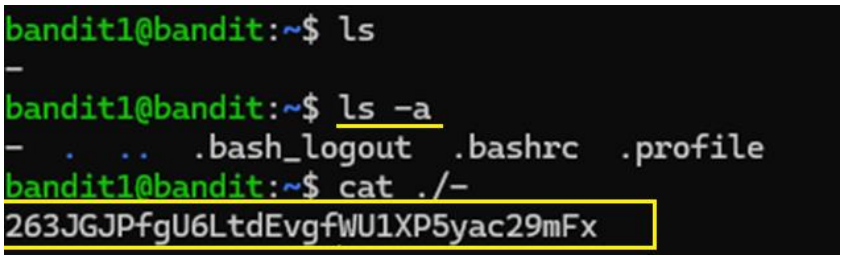
Bandit Level 1 → Level 2

First, I listed all the files in the folder, including the hidden ones with the command *ls -a,* then I read the file - found in the same directory with the command *cat ./,* finally I got the password for the next level.

Session: ssh bandit1@bandit.labs.overthewire.org -p 2220

Password: 263JGJPfgU6LtdEvgfWU1XP5yac29mFx

Commands	*Function*
ls -a	Lists all files and directories in the current directory, including hidden files.
cat ./	Display the contents of a file located in the current directory.



I left the session and entered the next level bandit2@bandit.labs.overthewire.org - p 2220.

Bandit Level 2 → Level 3

First, I listed all the files in the folder with the command *ls* , then I read the file spaces in this file with the command *cat* + Tab, finally I got the password for the next level.

Session: ssh bandit2@bandit.labs.overthewire.org -p 2220

Password: MNk8KNH3Usiio41PRUEoDFPqfxLPlSmx

Commands	***Function***
ls	Lists the files and directories within the current directory in the file system.
cat + Tab	Concatenates and displays the contents of files.

I left the session and entered the next level bandit3@bandit.labs.overthewire.org - p 2220.

Bandit Level 3 → Level 4

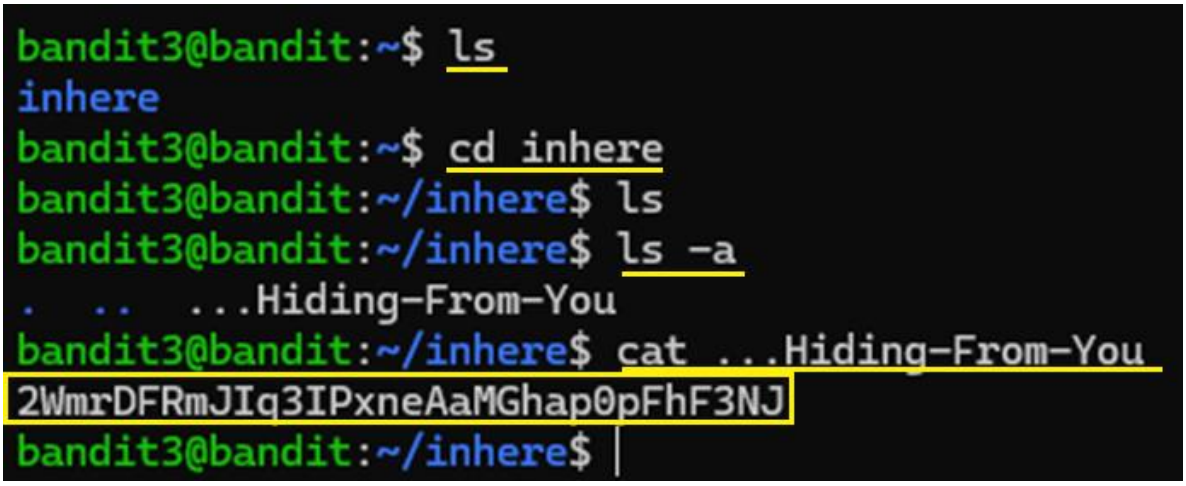
First I list to see what is in the address where I use *ls*, find a folder *inhere* and enter the folder with the *cd* command, all the files are listed including the hidden ones with *ls -a*, here I read the file Hiding from You with *cat* command finding the password.

Session: ssh bandit3@bandit.labs.overthewire.org -p 2220

Password: 2WmrDFRmJIq3IPxneAaMGhap0pFhF3NJ

Commands	***Function***

ls	Lists the files and directories within the current directory in the file system.
cd	Changes the current working directory to the specified directory.
ls -a	Lists all files and directories in the current directory, including hidden files.
cat	Concatenates and displays the contents of files.



I left the session and entered the next level bandit4@bandit.labs.overthewire.org - p 2220.

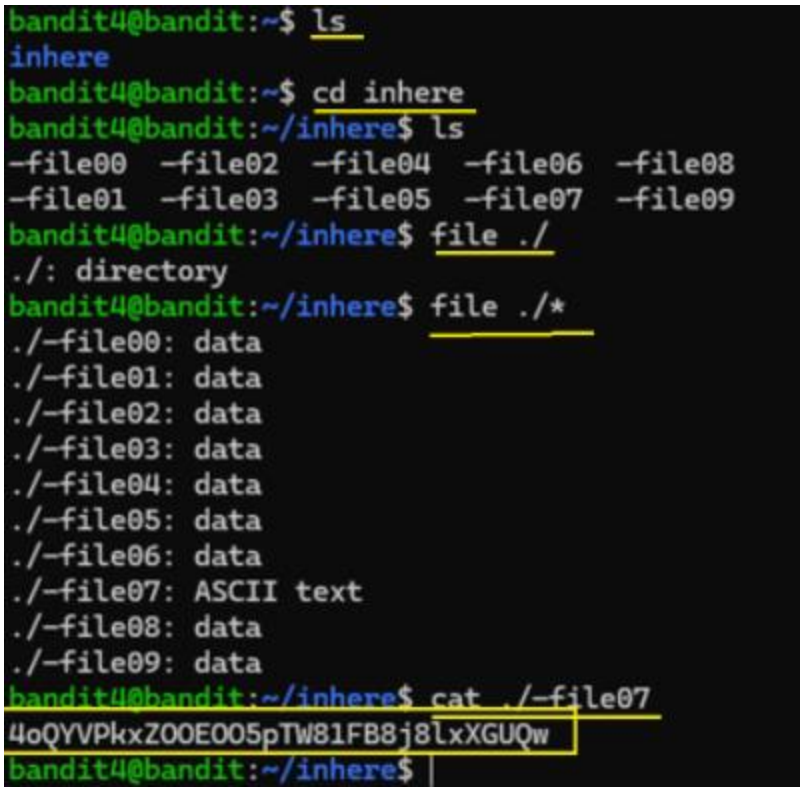
Bandit Level 4 → Level 5

First, I list the whole directory (ls) and find the folder inhere, I enter this folder with cd. Next, I return to list (ls), I find a series of files, where I look at the typology of all the files with the command file ./*, here it is analyzed that the only file that has characters ASCII text and it is intuited that there must be the password, which is read the file ./-file07.

Session: ssh bandit4@bandit.labs.overthewire.org -p 2220

Password: 4oQYVPkxZOOEOO5pTW81FB8j8lxXGUQw

Commands	***Function***
ls	Lists the files and directories within the current directory in the file system.
cd	Changes the current working directory to the specified directory.
file	Determines and displays the type of each file in the current directory.
./*	Refers to all files in the current directory.
cat	Concatenates and displays the contents of files.



I left the session and entered the next level bandit5@bandit.labs.overthewire.org - p 2220.

Bandit Level 5 → Level 6

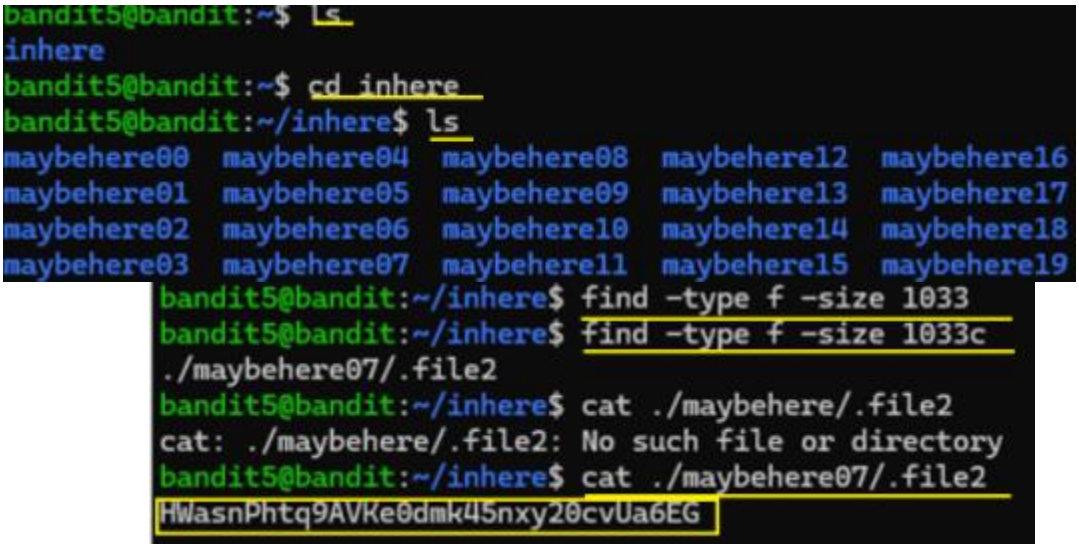
First, I list the whole directory (ls) and find the folder inhere, I enter this folder with cd. Next, it is listed again (ls), a series of files were found, where they are repeated and it is not known in which file the password is found. In the exercise the following parameters are indicated human-readable ,1033 bytes in size and not executable for this the command find -type f -size is used, to find the indicated file. After this the cat command is used with the found file and the password.

Session: ssh bandit5@bandit.labs.overthewire.org -p 2220

Password: HWasnPhtq9AVKe0dmk45nxy20cvUa6EG

Commands	***Function***
ls	Lists the files and directories within the current directory in the file system.
cd	Changes the current working directory to the specified directory.
find -type f -size	Searches for files and directories in a directory hierarchy based on various

	criteria. (-type f) restricts the search to files only. (-size) finds files that match a specified size.
cat	Concatenates and displays the contents of files.



I left the session and entered the next level bandit6@bandit.labs.overthewire.org - p 2220.

Bandit Level 6 → Level 7

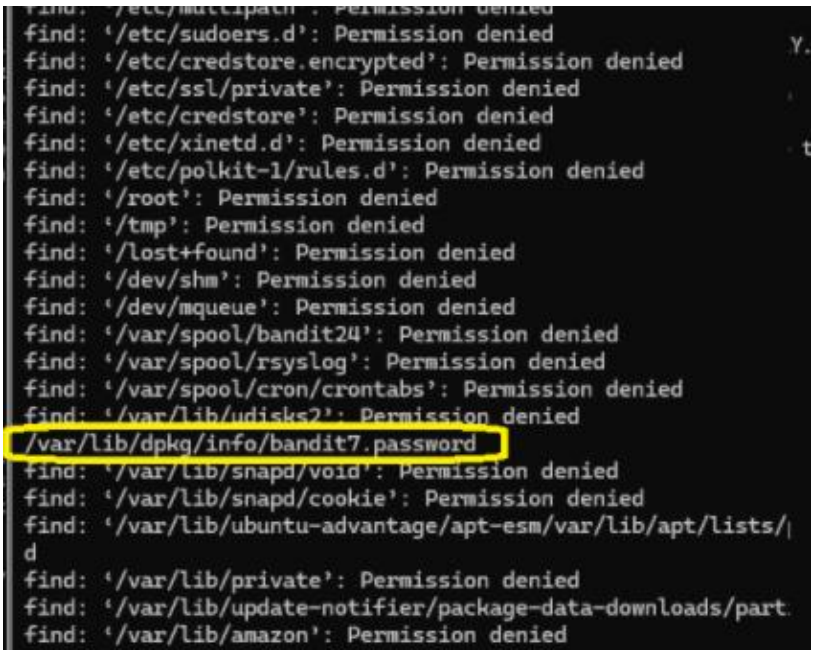
First, list the entire directory using ls. Then, use the command find / -user bandit7 -group bandit6 -size 33c to locate the file owned by user bandit7, group bandit6, and 33 bytes in size. This command will show where the password file is located. Finally, use cat to read the file.

Session: ssh bandit6@bandit.labs.overthewire.org -p 2220.

Password: morbNTDkSW6jIlUc0ymOdMaLnOlFVAaj

Commands	***Function***
ls	Lists the files and directories within the current directory in the file system.
find / -user -group -size	Searches the entire filesystem (/) for files owned by the user , belonging to the group , and matching a specific size.
cat	Concatenates and displays the contents of files.

```
bandit6@bandit:~$ ls
bandit6@bandit:~$ find / -user bandit7 -group bandit6 -size 33c
```




```
bandit6@bandit:~$ cat /var/lib/d
dbus/   dhcpcd/ dpkg/
bandit6@bandit:~$ cat /var/lib/dpkg/info/bandit7.password
morbNTDkSW6jIlUc0ymOdMaLnOlFVAaj
bandit6@bandit:~$
```

I left the session and entered the next level bandit7@bandit.labs.overthewire.org - p 2220.

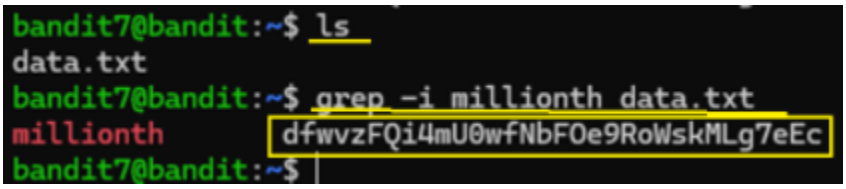
Bandit Level 7→ Level 8

First, list the entire directory using ls. Then, use the command grep -i milliont data.txt based on the provided data, which will result in the password for the next level.

Session: ssh bandit7@bandit.labs.overthewire.org -p 2220.

Password: dfwvzFQi4mU0wfNbFOe9RoWskMLg7eEc

Commands	***Function***
ls	Lists the files and directories within the current directory in the file system.
grep -i	This command searches the file for any lines containing the pattern, ignoring case differences.



I left the session and entered the next level bandit8@bandit.labs.overthewire.org - p 2220.

Bandit Level 8 → Level 9

The exercise states that the password is stored in the file data.txt and is the only line of text that occurs only once. To find it, the command cat data.txt | sort | uniq -u is used. This command reads the file, sorts its contents, and then filters out lines that are unique. This way, the password is identified.

Session: ssh bandit8@bandit.labs.overthewire.org -p 2220.

Password: 4CKMh1JI91bUIZZPXDqGanal4xvAg0JM

Commands	***Function***
cat	Concatenates and displays the contents of files.
sort	Sorts lines of text in alphabetical or numerical order.
uniq -u	Filters and shows only unique lines that appear exactly once.

I left the session and entered the next level bandit9@bandit.labs.overthewire.org - p 2220.

Bandit Level 9 → Level 10

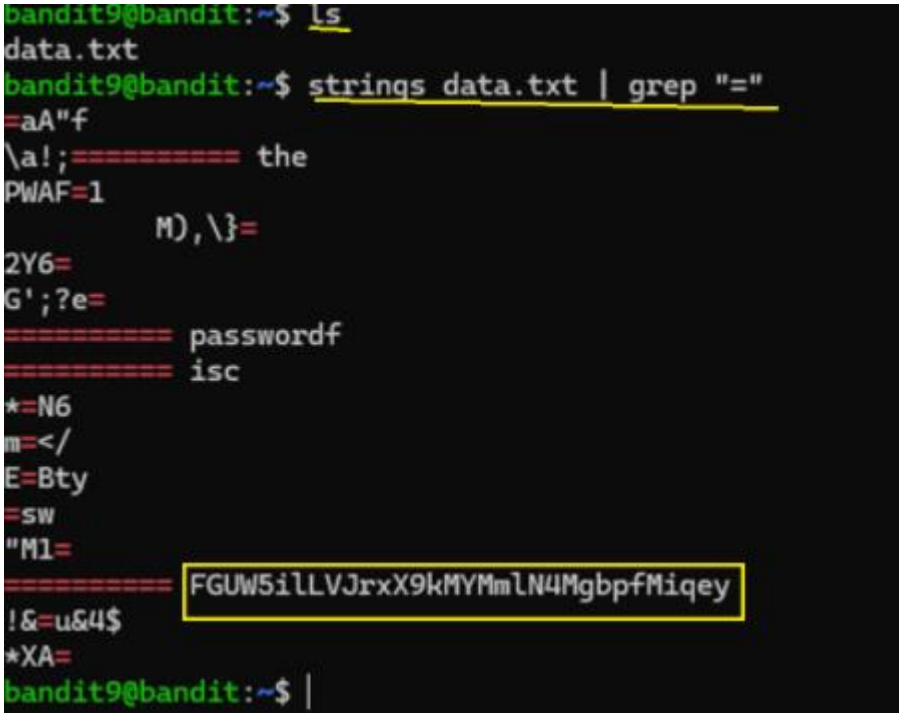
First, list the directory where data.txt is located. Then, use the strings command to extract and view the printable text from the binary data of the file. After that, use the grep command to search for occurrences of the '=' character.

Session: ssh bandit9@bandit.labs.overthewire.org -p 2220.

Password: FGUW5ilLVJrxX9kMYMmlN4MgbpfMiqey

Commands	***Function***
ls	Lists files and directories in the current directory.
strings	Extracts and displays printable strings from binary files.

grep	Searches for lines in files that match a specified pattern.



I left the session and entered the next level bandit10@bandit.labs.overthewire.org - p 2220.

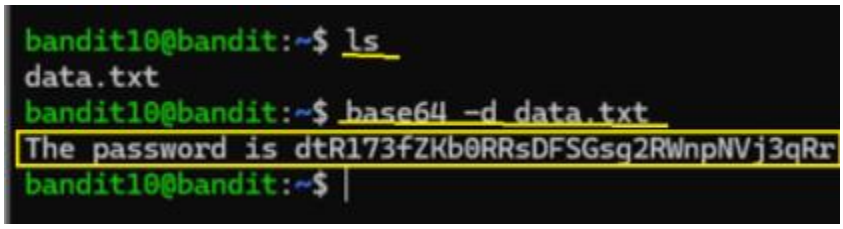
Bandit Level 10 → Level 11

First, list the directory to locate the data.txt file. The exercise indicates that it contains Base64-encoded data. Therefore, use the command base64 -d to decode the data and find the password.

Session: ssh bandit10@bandit.labs.overthewire.org -p 2220.

Password: dtR173fZKb0RRsDFSGsg2RWnpNVj3qRr

Commands	***Function***
ls	Lists files and directories in the current directory.
base64 -d	Converts Base64-encoded text back into binary data..



I left the session and entered the next level bandit11@bandit.labs.overthewire.org - p 2220.

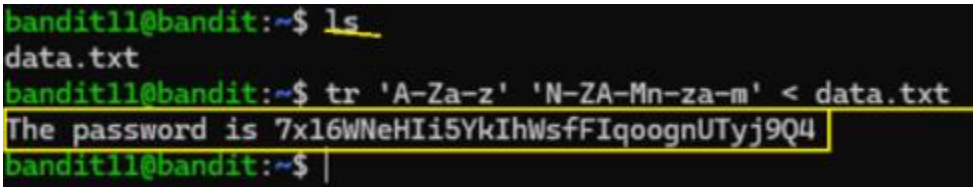
Bandit Level 11 → Level 12

First, list the directory to locate the data.txt file. The exercise indicates that it contains Base64-encoded data. Therefore, use the command base64 -d to decode the data and find the password.

Session: ssh bandit11@bandit.labs.overthewire.org -p 2220.

Password: 7x16WNeHIi5YkIhWsfFIqoognUTyj9Q4

Commands	***Function***
ls	Lists files and directories in the current directory.
tr	Translates or replaces characters in the input.
"A-Za-z"	Specifies a range of characters from A to Z (uppercase) and a to z (lowercase).
"N-ZA-Mn-za-m"	This is used to specify a translation set.



I left the session and entered the next level bandit12@bandit.labs.overthewire.org - p 2220.

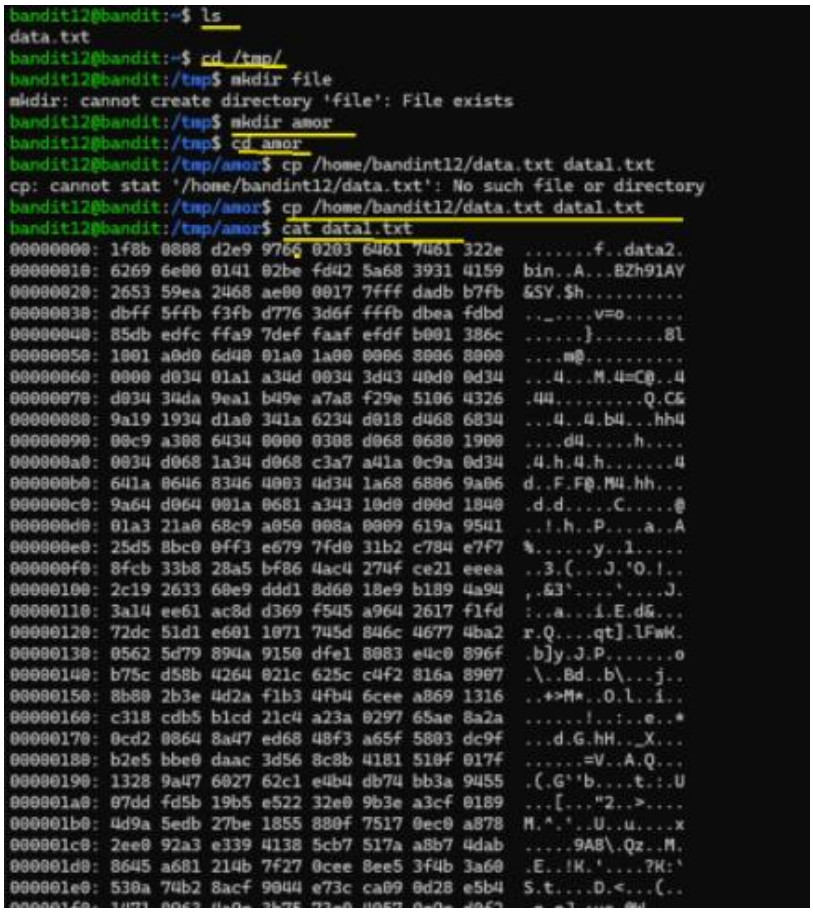
Bandit Level 12 → Level 13

First, list the directory (ls) to locate the data.txt file. Then, change to a temporary directory (cd), create a new directory named amor (mkdir), and navigate into it. Copy the previously listed file into this new directory (cp), and read the file (cat) to find the compressed document. Next, decompress the repeatedly compressed files using gzip and bzip2, and extract any tar archives (tar). Rename files as needed during this process (mv), and check file types (file). Finally, after processing all files, obtain the password from the final file.

Session: ssh bandit12@bandit.labs.overthewire.org -p 2220.

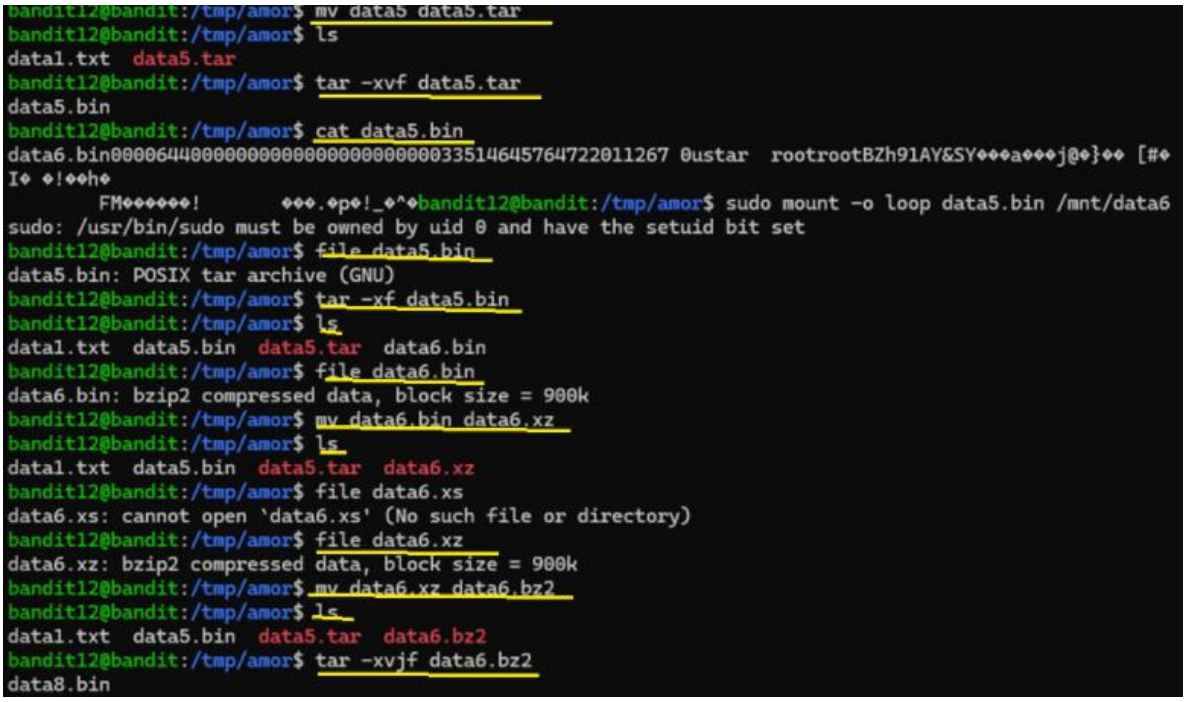
Password: FO5dwFsc0cbaIiH0h8J2eUks2vdTDwAn

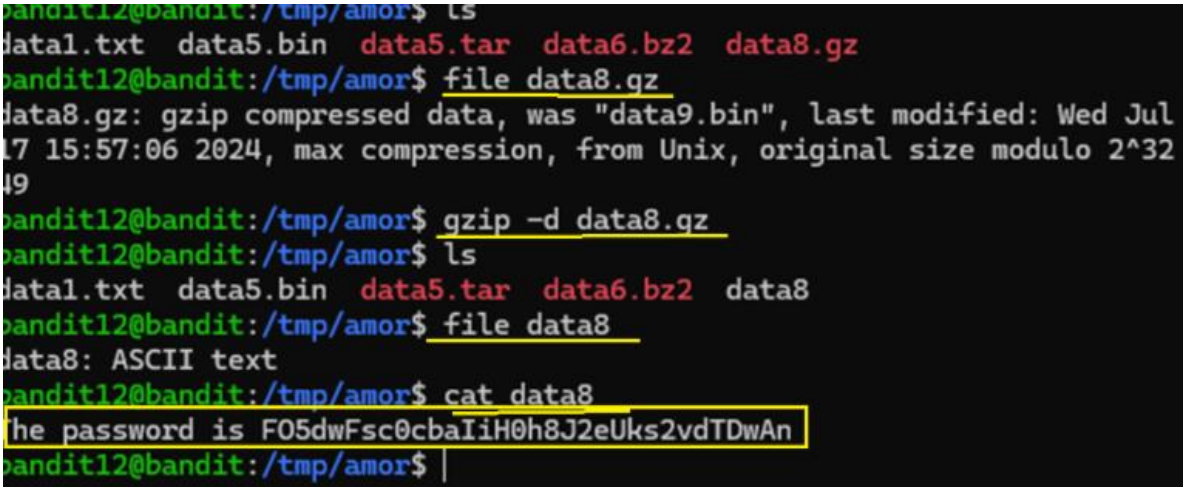
Commands	***Function***
ls	Lists files and directories in the current directory.
Cd	Changes the current working directory.
mkdir	Creates a new directory.
cp	Copies files or directories.
cat	Concatenates and displays file contents.
xxd	Creates a hex dump of a file or converts a hex dump back to binary.
file	Determines the type of a file.
mv	Moves or renames files or directories.
Gzip -d	decompresses files using the gzip algorithm.
bzip2-d	decompresses files using the bzip algorithm.
tar	Archives files into a single file or extracts files from an archive.



```
bandit12@bandit:/tmp/amor$ cat data1.txt | xxd -r >> data2
bandit12@bandit:/tmp/amor$ ls
data1.txt  data2
bandit12@bandit:/tmp/amor$ file data2
data2: gzip compressed data, was "data2.bin", last modified: Wed Jul 17 15:57:06 2024, max compression
, from Unix, original size modulo 2^32 577
bandit12@bandit:/tmp/amor$ mv data2 data3.gz
bandit12@bandit:/tmp/amor$ ls
data1.txt  data3.gz
bandit12@bandit:/tmp/amor$ gzip -d data3.gz
bandit12@bandit:/tmp/amor$ ls
data1.txt  data3
bandit12@bandit:/tmp/amor$ mv data3 data4.gz
bandit12@bandit:/tmp/amor$ ls
data1.txt  data4.gz
bandit12@bandit:/tmp/amor$ gzip -d data4.gz

gzip: data4.gz: not in gzip format
bandit12@bandit:/tmp/amor$ file data4.gz
data4.gz: bzip2 compressed data, block size = 900k
bandit12@bandit:/tmp/amor$ bzip2 -d data4.gz
bzip2: Can't guess original name for data4.gz -- using data4.gz.out
bandit12@bandit:/tmp/amor$ bzip2 -d data4.gz.out
bzip2: Can't guess original name for data4.gz.out -- using data4.gz.out.out
bzip2: data4.gz.out is not a bzip2 file.
bandit12@bandit:/tmp/amor$ ls
data1.txt  data4.gz.out
bandit12@bandit:/tmp/amor$ mv data4 data5.bzip2
mv: cannot stat 'data4': No such file or directory
bandit12@bandit:/tmp/amor$ mv data4.gz.out data5.bzip2
bandit12@bandit:/tmp/amor$ ls
```

```
bandit12@bandit:/tmp/amor$ gzip -d data5.gzip
gzip: data5.gzip: unknown suffix -- ignored
bandit12@bandit:/tmp/amor$ gzip -d data5.gz
gzip: data5.gz: No such file or directory
bandit12@bandit:/tmp/amor$ mv data5.bzip2 data5.gz
mv: cannot stat 'data5.bzip2': No such file or directory
bandit12@bandit:/tmp/amor$ mv data5.gzip data5.gz
bandit12@bandit:/tmp/amor$ ls
data1.txt  data5.gz
bandit12@bandit:/tmp/amor$ gzip -d data5.gz
bandit12@bandit:/tmp/amor$ ls
data1.txt  data5
bandit12@bandit:/tmp/amor$ file data5
data5: POSIX tar archive (GNU)
```





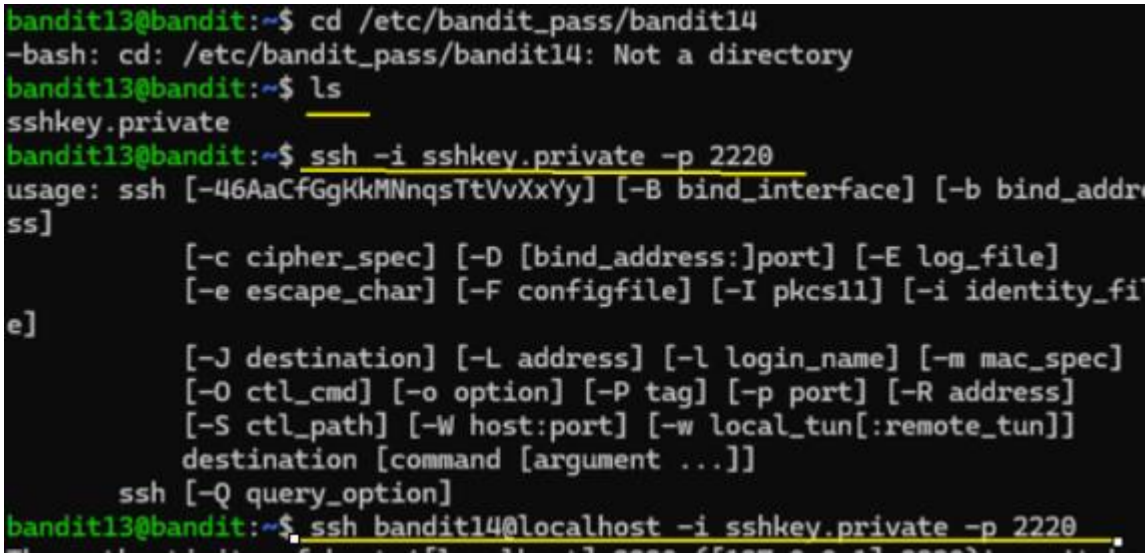
I left the session and entered the next level bandit13@bandit.labs.overthewire.org - p 2220.

Bandit Level 13 → Level 14

First, check the contents of the directory (ls). Then, I use an SSH private key to log in as bandit14. That can confirm the successful login by looking at your command prompt, which should indicate that i are logged in as bandit14.

Commands	***Function***
ls	Lists files and directories in the current directory.

Ssh -i	Is used to specify a private key file for authentication when connecting to a remote server via SSH.



I left the session and entered the next level bandit14@bandit.labs.overthewire.org - p 2220.

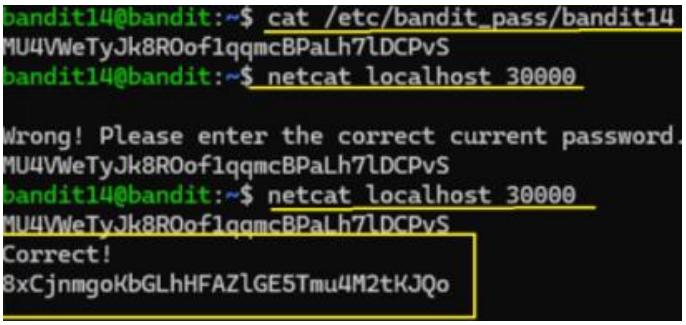
Bandit Level 14 → Level 15

To retrieve the password for the next level, first I use the cat command to view the current level's password from the file /etc/band_pass/bandit14. Next, connect to the service running on port 30000 on localhost using netcat with the command netcat localhost 30000. Once connected, provide the retrieved password as input.

Session: ssh bandit14@bandit.labs.overthewire.org -p 2220.

Password: 8xCjnmgoKbGLhHFAZlGE5Tmu4M2tKJQo

Commands	***Function***
cat	Concatenates and displays the contents of files.
netcat	Can read and write data across network connections using TCP or UDP.
localhost	Refers to the local machine.



I left the session and entered the next level bandit15@bandit.labs.overthewire.org - p 2220.

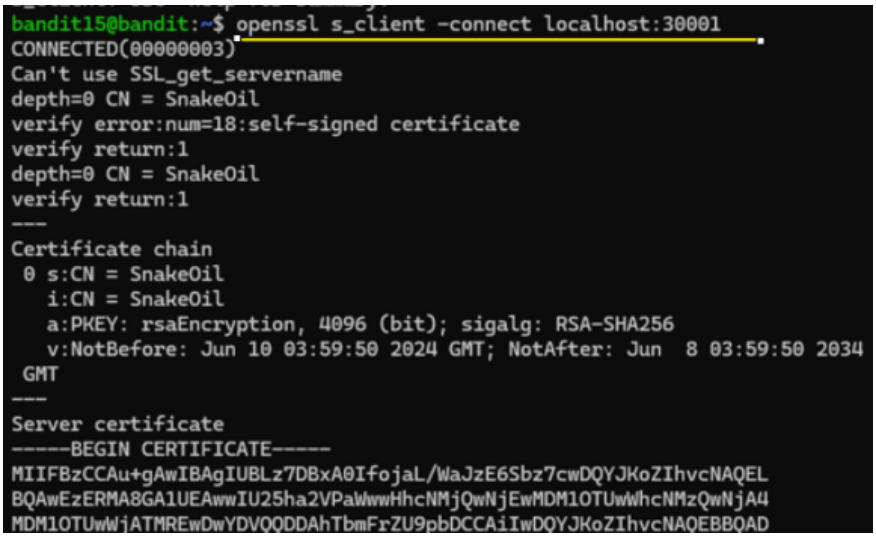
Bandit Level 15 → Level 16

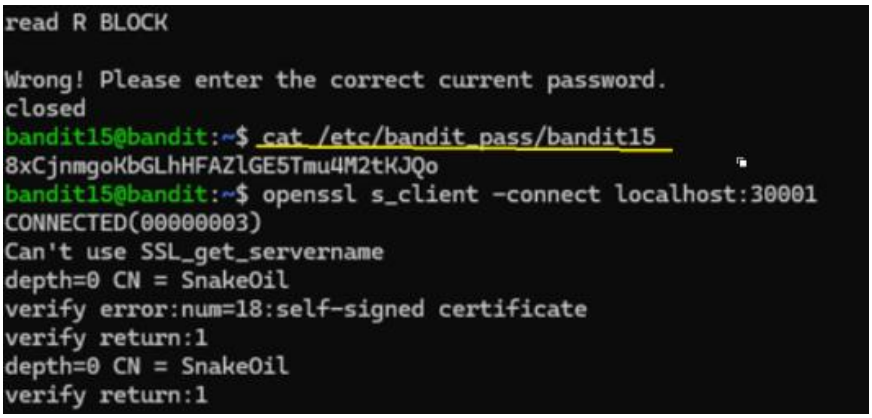
To connect on port 30001 on localhost using SSL/TLS encryption I used the openssl command with the s_client option, which enables SSL connections to services on my machine. First , that provide the incorrect password, but then I supplied the correct password.

Session: ssh bandit15@bandit.labs.overthewire.org -p 2220.

Password: kSkvUpMQ7lBYyCM4GBPvCvT1BfWRy0Dx

Commands	***Function***
openssl	A toolkit for various cryptographic operations, including generating keys, encrypting and decrypting data.
cat	Concatenates and displays the contents of files.





I left the session and entered the next level bandit16@bandit.labs.overthewire.org - p 2220.

Bandit Level 16 → Level 17

To identify the service running within the port range 31,000–32,000, I used the nmap command. The scan revealed multiple services within this range, but upon closer inspection, I noticed that port 31790 hosts a service prompting for the correct password and uses SSL encryption. To connect to this service, I utilized the openssl command with the s_client option.I obtained an RSA key, which is necessary for SSH access to the next level. To manage the key securely, I created a directory(mkdir) named amor_sskey within the /tmp directory and conducted all operations there. Using the Vim editor, I saved the RSA key and then modified the file permissions (chmod). Finally, I used this key with the ssh command to gain access to the next level.

Commands	***Function***
cat	Concatenates and displays the contents of files.
nmap -sV	Scans a network for open ports and attempts to determine the version of the services running on those ports.
Openssl	A toolkit for cryptographic operations such as generating keys, encrypting/decrypting data, and managing certificates.
Cd	Changes the current working directory.
mkdir	Creates a new directory.
touch	Creates an empty file or updates the timestamp of an existing file.

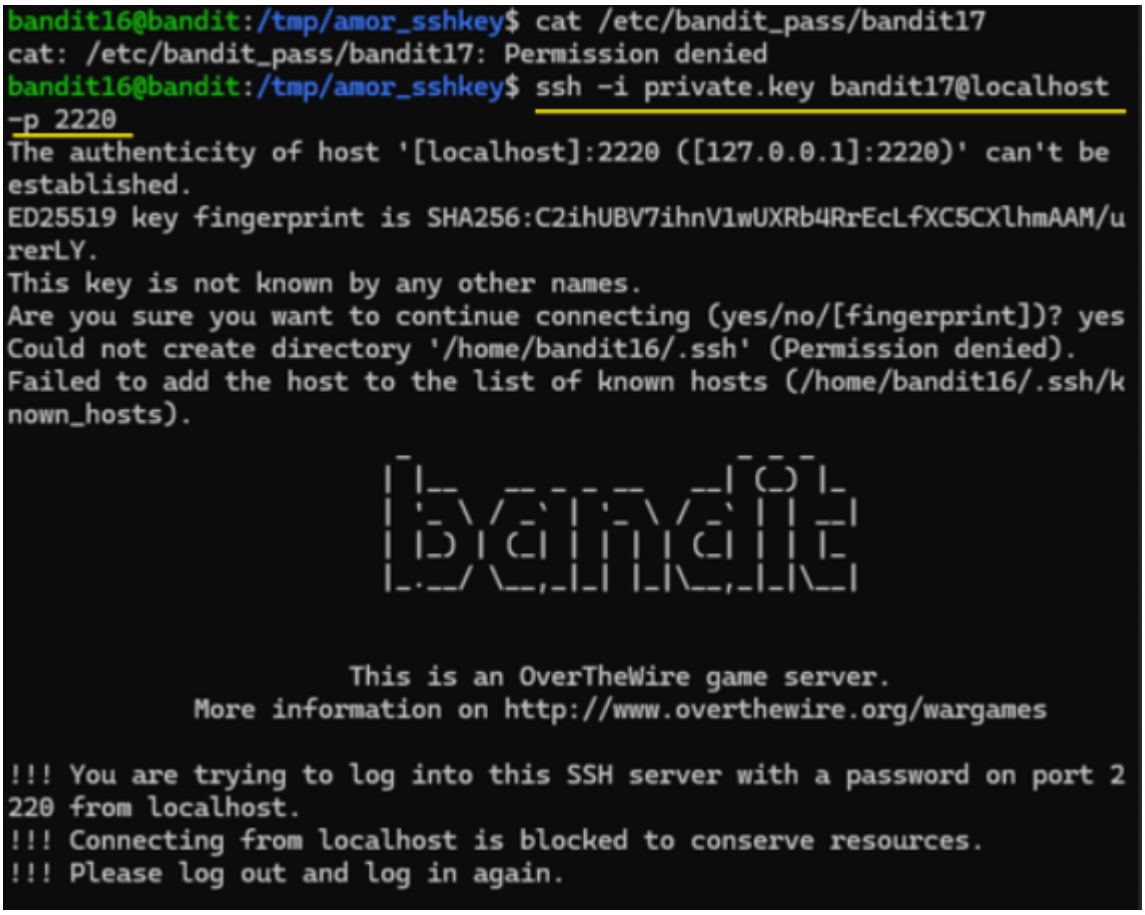
vim	A text editor for creating and editing files.
chmod	Changes the permissions of files or directories.
Ls -l	Lists files and directories with detailed information including permissions, ownership, size, and modification date.
Ssh	Connects to a remote machine securely over SSH.

```
bandit16@bandit:~$ cat /etc/bandit_pass/bandit16
kSkvUpMQ7lBYyCM4GBPvCvT1BfWRy0Dx
```

```
bandit16@bandit:~$ nmap -sV localhost -p 31000-32000
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-08-27 22:29 UTC
Stats: 0:01:50 elapsed; 0 hosts completed (1 up), 1 undergoing Service S
can
Service scan Timing: About 80.00% done; ETC: 22:31 (0:00:28 remaining)
Stats: 0:02:00 elapsed; 0 hosts completed (1 up), 1 undergoing Service S
can
Service scan Timing: About 80.00% done; ETC: 22:31 (0:00:30 remaining)
Nmap scan report for localhost (127.0.0.1)
Host is up (0.00016s latency).
Not shown: 996 closed tcp ports (conn-refused)
PORT      STATE SERVICE     VERSION
31046/tcp open  echo
31518/tcp open  ssl/echo
31691/tcp open  echo
31790/tcp open  ssl/unknown
31960/tcp open  echo
1 service unrecognized despite returning data. If you know the service/v
ersion, please submit the following fingerprint at https://nmap.org/cgi-
bin/submit.cgi?new-service :
SF-Port31790-TCP:V=7.94SVN%T=SSL%I=7%D=8/27%Time=66CE534E%P=x86_64-pc-li
```

```
bandit16@bandit:/$ openssl s_client -connect localhost:31790
CONNECTED(00000003)
Can't use SSL_get_servername
depth=0 CN = SnakeOil
verify error:num=18:self-signed certificate
verify return:1
depth=0 CN = SnakeOil
verify return:1
---
Certificate chain
 0 s:CN = SnakeOil
   i:CN = SnakeOil
   a:PKEY: rsaEncryption, 4096 (bit); sigalg: RSA-SHA256
   v:NotBefore: Jun 10 03:59:50 2024 GMT; NotAfter: Jun  8 03:59:50 2034
 GMT
---
Server certificate
-----BEGIN CERTIFICATE-----
MIIFBzCCAu+gAwIBAgIUBLz7DBxA0IfojaL/WaJzE6Sbz7cwDQYJKoZIhvcNAQEL
BQAwEzERMA8GA1UEAwwIU25ha2VPaWwwHhcNMjQwNjEwMDM1OTUwWhcNMzQwNjA4
MDM1OTUwWjATMREwDwYDVQQDDAhTbmFrZU9pbDCCAiIwDQYJKoZIhvcNAQEBBQAD
ggIPADCCAgoCggIBANI+P5QXm9Bj21FIPsQqbqZRb5XmSZZJYaam7EIJ16Fxedf+
jXAv4d/FVqiEM4BuSNsNMeBMx2Gq0lAfN33h+RMTjRoMb8yBsZsC063MLfXCk4p+
09gtGP7BS6Iy5XdmfY/fPHvA3JDEScdlDDmd6Lsbdwhv93Q8M6POVO9sv4HuS4t/
jEjr+NhE+Bjr/wDbyg7GL71BP1WPZpQnRE4OzoSrt5+bZVLvODWUFwinB0fLaGRk
GmI0r5EUOUd7HpYyoIQbiNlePGfPpHRKnmdXTTEZEoxeWWAaM1VhPGqfrB/Pnca+
vAJX7iBOb3kHinmfVOScsG/YAUR94wSELeY+UlEWJaELVUntrJ5HeRDiTChiVQ++
wnnjNbepaW6shopybUF3XXfhIb4NvwLWpvoKFXVtcVjlOujF0snVvpE+MRT0wacy
tHtjZs7Ao7GYxDz6H8AdBLKJW67uQon37a4MI260ADFMS+2vEAbNSFP+f6ii5mrB
```

```
bandit16@bandit:~$ cd /tmp
bandit16@bandit:/tmp$ mkdir amor
mkdir: cannot create directory ‘amor’: File exists
bandit16@bandit:/tmp$ mkdir amor_sshkey
bandit16@bandit:/tmp$ cd amor_sshkey
bandit16@bandit:/tmp/amor_sshkey$ touch private.key
bandit16@bandit:/tmp/amor_sshkey$ vim private.key
bandit16@bandit:/tmp/amor_sshkey$ chmod 400 private.key
bandit16@bandit:/tmp/amor_sshkey$ ls -l
total 4
-r-------- 1 bandit16 bandit16 1805 Aug 27 22:52 private.key
bandit16@bandit:/tmp/amor_sshkey$
```



I left the session and entered the next level bandit18@bandit.labs.overthewire.org - p 2220.

Bandit Level 17 → Level 18

First, I listed the files to see both the old and new passwords (ls). Then, by using the diff command, I compared the files to identify the changes made, which differed in only one line. This allowed me to obtain the correct password.

Session: ssh bandit17@bandit.labs.overthewire.org -p 2220.

Password: EReVavePLFHtFlFsjn3hyzMlvSuSAcRD

Commands	***Function***
ls	Lists files and directories within the current directory.
cat	Concatenates and displays the contents of files.
diff	Compares the contents of two files line by line and displays the differences.

```
bandit17@bandit:~$ cat /etc/bandit_pass/bandit17
EReVavePLFHtFlFsjn3hyzMlvSuSAcRD
```

```
bandit17@bandit:~$ ls
passwords.new  passwords.old
bandit17@bandit:~$ diff passwords.old passwords.new
42c42
< bSrACvJvvBSxEM2SGsV5sn09vc3xgqyp
---
> x2gLTTjFwMOhQ8oWNbMN362QKxfRqGlO
bandit17@bandit:~$
```

I left the session and entered the next level bandit18@bandit.labs.overthewire.org - p 2220.

Bandit Level 18 → Level 19

To access the system using a shell other than bash, I used the -t flag with the SSH command, which allows specifying the shell to be used during login. After logging in, I listed the directory contents (ls) to see what files were available, and then I read the file using the cat command to retrieve the password.

Session: ssh bandit18@bandit.labs.overthewire.org -p 2220.

Password: cGWpMaKXVwDUNgPAVJbWYuGHVn9zl3j8

Commands	***Function***
ls	Lists files and directories within the current directory.
cat	Concatenates and displays the contents of files.
ssh	Establishes a secure connection to a remote machine, allowing to execute commands, transfer files, and manage the remote system.

I left the session and entered the next level bandit19@bandit.labs.overthewire.org - p 2220.

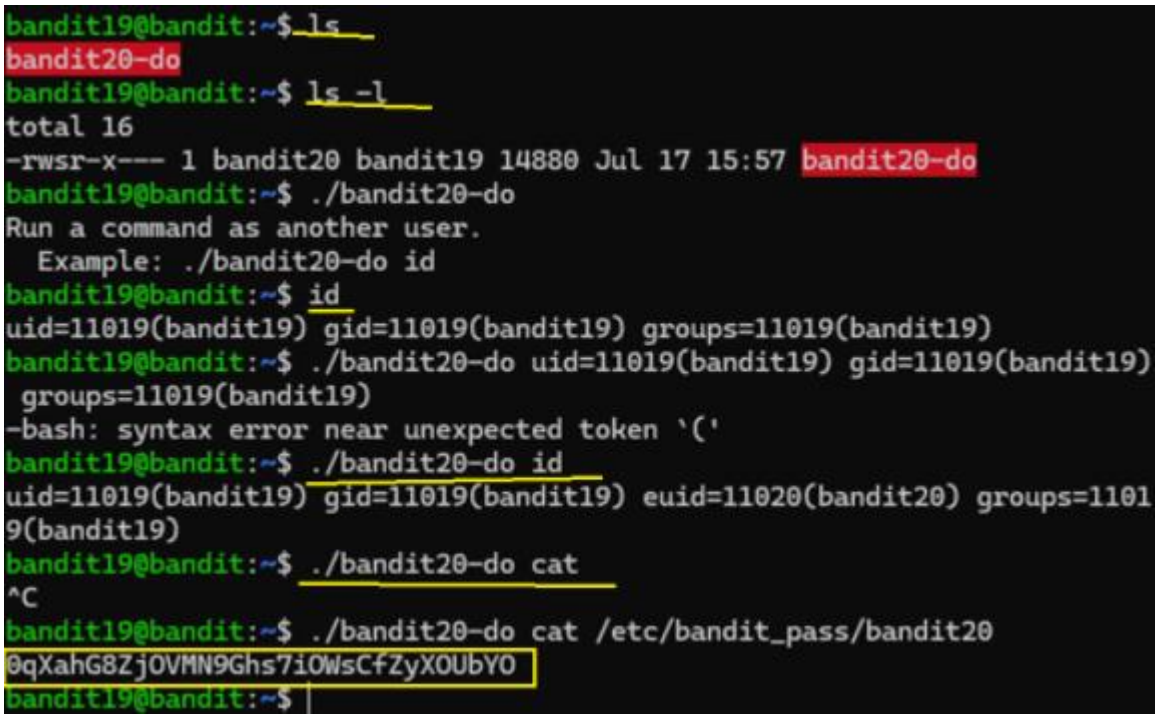
Bandit Level 19 → Level 20

First, I listed the contents of the directory (ls) to see what files were present, and noticed a file named bandit20. The file's description indicated that it allows running a command as another user. Next, I used the id command to verify user information. The binary file allowed running commands as the user bandit20, so I used it to access the password for the bandit20 user.

Session: ssh bandit19@bandit.labs.overthewire.org -p 2220.

Password: 0qXahG8ZjOVMN9Ghs7iOWsCfZyXOUbYO

Commands	***Function***
Ls-l	Lists files and directories in the current directory with detailed information.
cat	Concatenates and displays the contents of files.
id	Displays the user (UID), group (GID), and the groups a user belongs to.



I left the session and entered the next level bandit20@bandit.labs.overthewire.org - p 2220.

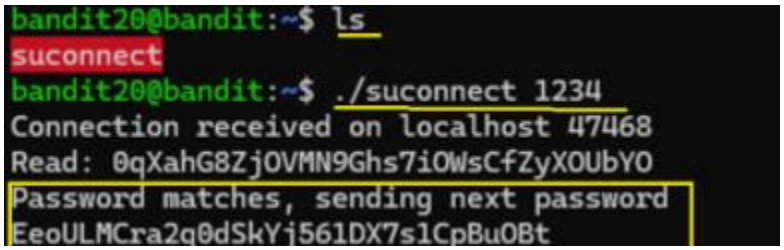
Bandit Level 20 → Level 21

First, I need to set up a listener on any port, which can be done using the netcat command. After that, the jobs command is used to view all the processes running on the system. Next, i list the files in the directory (ls) to identify the necessary files. Finally, the binary file is executed to connect to the listener on the same port.

Session: ssh bandit20@bandit.labs.overthewire.org -p 2220.

Password:

Commands	***Function***
echo	Displays a line of text or the value of a variable to the standard output.
jobs	Lists all jobs that are currently running or paused in the background in the current shell session.
ls	Lists files and directories in the current directory with detailed information.



I left the session and entered the next level bandit21@bandit.labs.overthewire.org - p 2220.

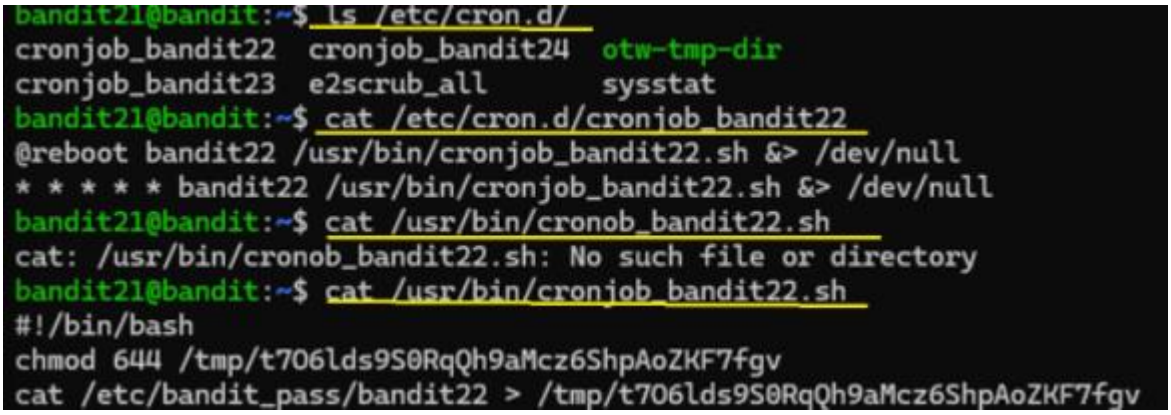
Bandit Level 21 → Level 22

First, I listed the contents of the /etc/cron.d/ directory using ls to check for any relevant files, particularly those that might contain the password for bandit22. Upon identifying a script of interest, I examined its content to understand how it operates. Then, I created a temporary file to capture the password and used cat to view the contents of this file, revealing the password for the next level.

Session: ssh bandit21@bandit.labs.overthewire.org -p 2220.

Password: tRae0UfB9v0UzbCdn9cY0gQnds9GF58Q

Commands	***Function***
Ls	Lists files and directories in the current directory.
cat	Concatenates and displays the contents of files.



I left the session and entered the next level bandit22@bandit.labs.overthewire.org - p 2220.

Bandit Level 22 → Level 23

First, I listed the contents of the /etc/cron.d/ directory using ls to find relevant files. I then used cat on cronjob_bandit23 to display the script associated with bandit23. To generate the required password, I ran the command echo "Iam user bandit23" | md5sum | cut -d ' ' -f 1, which outputs the MD5 hash of the string "Iam user bandit23", providing the password for the next level.

Session: ssh bandit22@bandit.labs.overthewire.org -p 2220.

Password: 0Zf11ioIjMVN551jX3CmStKLYqjk54Ga

Commands	***Function***
Ls -al	Lists files and directories in the current directory.
cat	Concatenates and displays the contents of files.
echo	Displays a line of text or the value of a variable to the standard output.

```
bandit22@bandit:~$ ls -al
total 20
drwxr-xr-x  2 root root 4096 Jul 17 15:56 .
drwxr-xr-x 70 root root 4096 Jul 17 15:58 ..
-rw-r--r--  1 root root  220 Mar 31 08:41 .bash_logout
-rw-r--r--  1 root root 3771 Mar 31 08:41 .bashrc
-rw-r--r--  1 root root  807 Mar 31 08:41 .profile
bandit22@bandit:~$ ls -al /etc/cron.d
total 44
drwxr-xr-x   2 root root  4096 Jul 17 15:59 .
drwxr-xr-x 121 root root 12288 Aug  1 14:49 ..
-rw-r--r--   1 root root   120 Jul 17 15:57 cronjob_bandit22
-rw-r--r--   1 root root   122 Jul 17 15:57 cronjob_bandit23
-rw-r--r--   1 root root   120 Jul 17 15:57 cronjob_bandit24
-rw-r--r--   1 root root   201 Apr  8 14:38 e2scrub_all
-rwx------   1 root root    52 Jul 17 15:59 otw-tmp-dir
-rw-r--r--   1 root root   102 Mar 31 00:06 .placeholder
-rw-r--r--   1 root root   396 Jan  9  2024 sysstat
bandit22@bandit:~$ cat /etc/cron.d/cronjob_bandit23
@reboot bandit23 /usr/bin/cronjob_bandit23.sh  &> /dev/null
* * * * * bandit23 /usr/bin/cronjob_bandit23.sh  &> /dev/null
bandit22@bandit:~$ cat /usr/bin/cronjob_bandit23
cat: /usr/bin/cronjob_bandit23: No such file or directory
bandit22@bandit:~$ cat /usr/bin/cronjob_bandit23.sh
#!/bin/bash

myname=$(whoami)
mytarget=$(echo I am user $myname | md5sum | cut -d ' ' -f 1)

echo "Copying passwordfile /etc/bandit_pass/$myname to /tmp/$mytarget"

cat /etc/bandit_pass/$myname > /tmp/$mytarget
bandit22@bandit:~$
```

```
bandit22@bandit:~$ echo "I am user bandit23" | md5sum | cut -d ' ' -f 1
8ca319486bfbbc3663ea0fbe81326349
bandit22@bandit:~$ cat /tmp/8ca319486bfbbc3663ea0fbe81326349
0Zf11ioIjMVN551jX3CmStKLYqjk54Ga
bandit22@bandit:~$
```

I left the session and entered the next level bandit23@bandit.labs.overthewire.org - p 2220.

Bandit Level 23 → Level 24

First, I listed the contents of the /etc/cron.d/ directory and used cat to view the cronjob_bandit24 file. Upon examining the file, I found that it contains a script. I looked at the contents of the script, which included some code. Next, I created and navigated into a

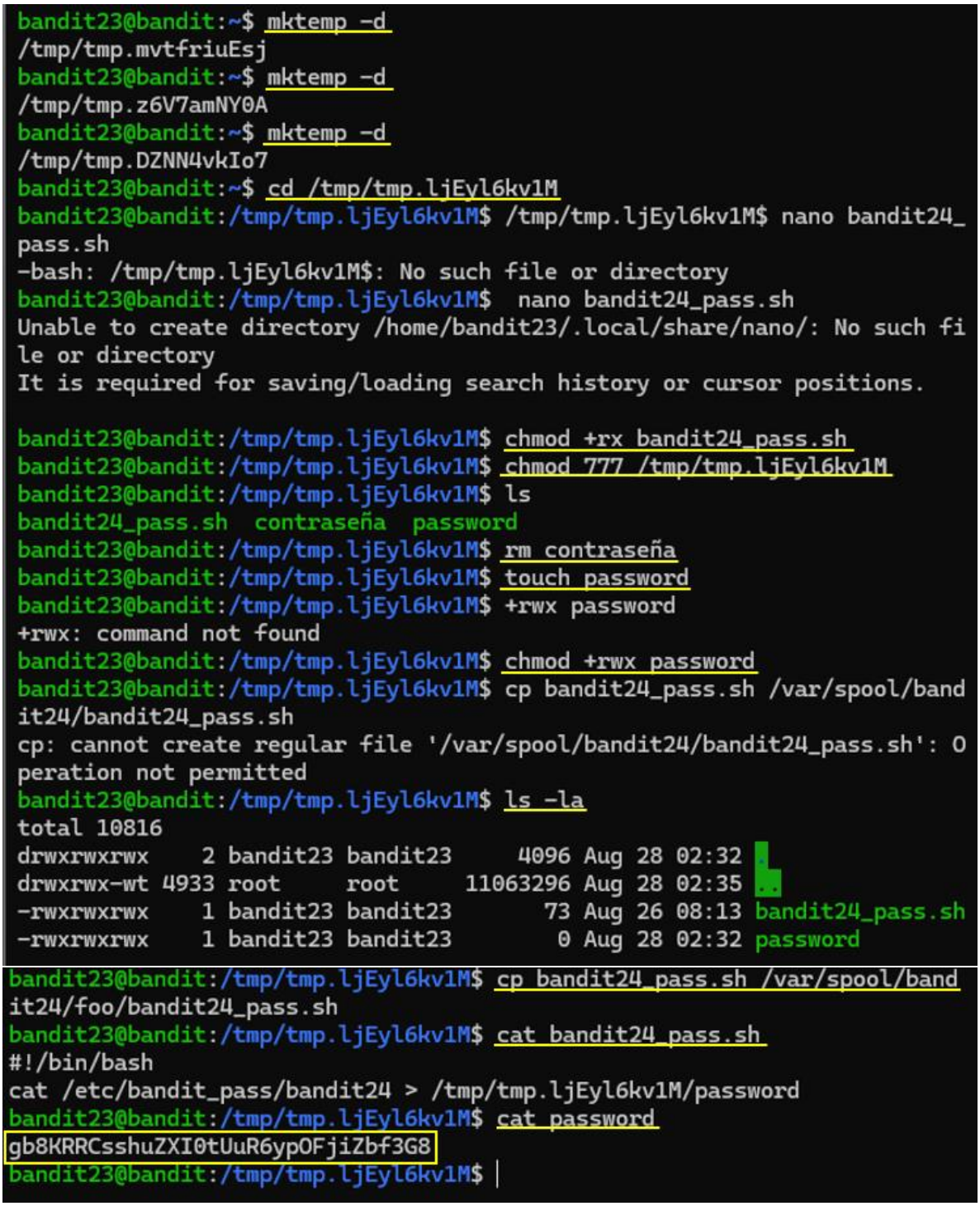
temporary directory using mktemp -d. I adjusted the permissions as needed with chmod, then copied the password to another file using cp. Finally, I used cat to read the contents of this file and obtained the password for the next level.

Session: ssh bandit23@bandit.labs.overthewire.org -p 2220.

Password: gb8KRRCsshuZXI0tUuR6ypOFjiZbf3G8

Commands	***Function***
Ls -al	Lists files and directories in the current directory.
cat	Concatenates and displays the contents of files.
Mktemp -d	Creates a temporary directory with a unique name.
Chmod	Changes the permissions of files or directories.
rm	Removes files or directories.
touch	Creates an empty file or updates the timestamp of an existing file.
cp	Copies files or directories from one location to another.

```
bandit23@bandit:~$ ls /etc/cron.d
cronjob_bandit22  cronjob_bandit24  otw-tmp-dir
cronjob_bandit23  e2scrub_all       sysstat
bandit23@bandit:~$ cat /etc/cronjob_bandit24
cat: /etc/cronjob_bandit24: No such file or directory
bandit23@bandit:~$ cat /etc/cron.d/cronjob_bandit24
@reboot bandit24 /usr/bin/cronjob_bandit24.sh &> /dev/null
* * * * * bandit24 /usr/bin/cronjob_bandit24.sh &> /dev/null
bandit23@bandit:~$ cat /usr/bin/cronjob_bandit24.sh
#!/bin/bash

myname=$(whoami)

cd /var/spool/$myname/foo
echo "Executing and deleting all scripts in /var/spool/$myname/foo:"
for i in * .*;
do
    if [ "$i" != "." -a "$i" != ".." ];
    then
        echo "Handling $i"
        owner="$(stat --format "%U" ./$i)"
        if [ "${owner}" = "bandit23" ]; then
            timeout -s 9 60 ./$i
        fi
        rm -f ./$i
    fi
done
```



I left the session and entered the next level bandit24@bandit.labs.overthewire.org - p 2220.

Bandit Level 24 → Level 25

I connected to the port using Netcat to view the script, which was divided into two parts. In the first part, I used a for loop to iterate over all possible PIN codes listed in a file called possibilities.txt. In the second part, I created a temporary directory, set the appropriate permissions, and executed the code to test each PIN code.

Session: ssh bandit24@bandit.labs.overthewire.org -p 2220.

Password: gb8KRRCsshuZXI0tUuR6ypOFjiZbf3G8

Commands	***Function***
nc	Can establish TCP or UDP connections to remote or local servers.
cat	Concatenates and displays the contents of files.
Mktemp -d	Creates a temporary directory with a unique name.
Chmod	Changes the permissions of files or directories.
rm	Removes files or directories.
touch	Creates an empty file or updates the timestamp of an existing file.
nano	A simple, user-friendly text editor for editing files in the command line interface
ls	Lists files and directories in the current directory.
sort	Sorts lines of text files.

```
bandit24@bandit:~$ nc localhost 30002
I am the pincode checker for user bandit25. Please enter the password fo
r user bandit24 and the secret pincode on a single line, separated by a
space.
nano shel.sh
Wrong! Please enter the correct current password and pincode. Try again.
^C
bandit24@bandit:~$ mktemp -d
/tmp/tmp.o3KsPStnWT
bandit24@bandit:~$ cd /tmp/tmp.o3KsPStnWT
bandit24@bandit:/tmp/tmp.o3KsPStnWT$ nano brute_force_pin.sh
Unable to create directory /home/bandit24/.local/share/nano/: No such fi
le or directory
It is required for saving/loading search history or cursor positions.

bandit24@bandit:/tmp/tmp.o3KsPStnWT$ nano brute_force_pin.sh
Unable to create directory /home/bandit24/.local/share/nano/: No such fi
le or directory
It is required for saving/loading search history or cursor positions.

bandit24@bandit:/tmp/tmp.o3KsPStnWT$ chmod +x brute_force_pin.sh
bandit24@bandit:/tmp/tmp.o3KsPStnWT$ ./brute_force_pin.sh
bandit24@bandit:/tmp/tmp.o3KsPStnWT$ ls
brute_force_pin.sh  possibilities.txt  result.txt
bandit24@bandit:/tmp/tmp.o3KsPStnWT$ sort result.txt | grep -v "Wrong!"

Correct!
I am the pincode checker for user bandit25. Please enter the password fo
r user bandit24 and the secret pincode on a single line, separated by a
space.
The password of user bandit25 is iCi86ttT4KSNe1armKiwbQNmB3YJP3q4
bandit24@bandit:/tmp/tmp.o3KsPStnWT$
```

I left the session and entered the next level bandit25@bandit.labs.overthewire.org - p 2220.

Bandit Level 25 → Level 26

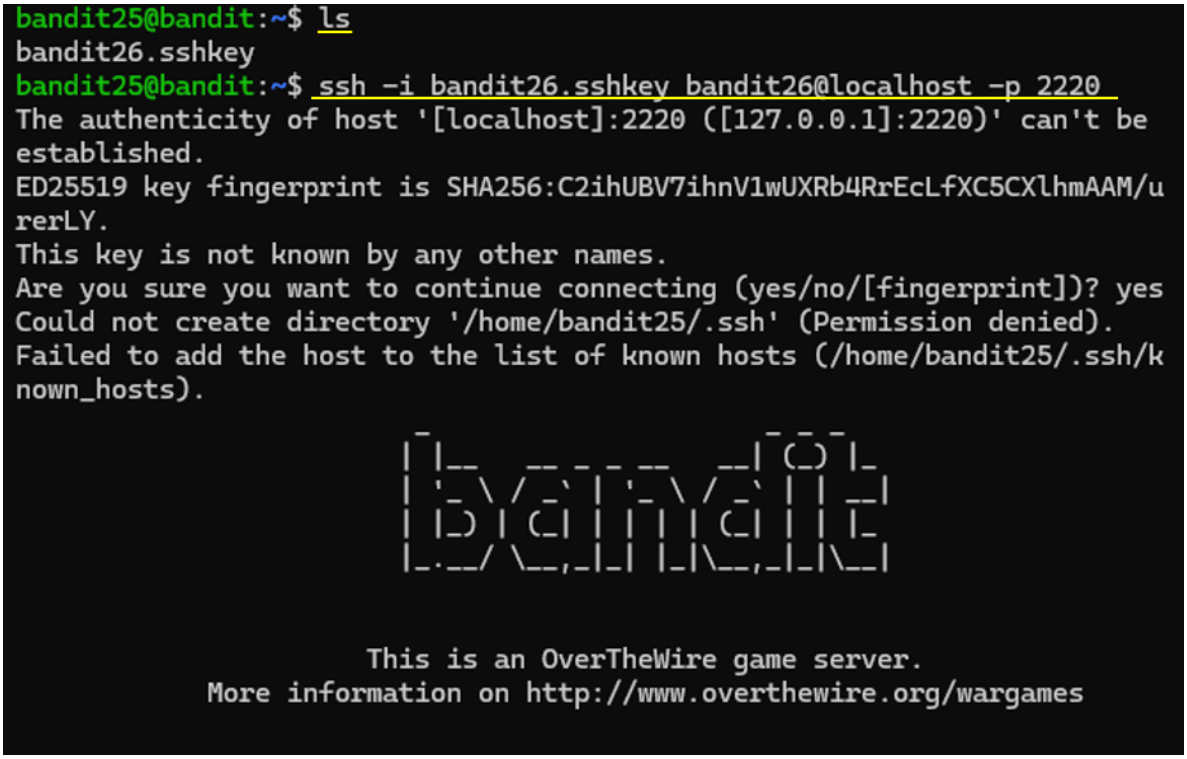
I started by listing the contents of the directory to identify available files. I then connected to the remote system via SSH and resized the console. A window displaying content with more appeared, prompting me to use the Vim editor. I opened Vim to locate and read the file containing the password, which I used to advance to the next level.

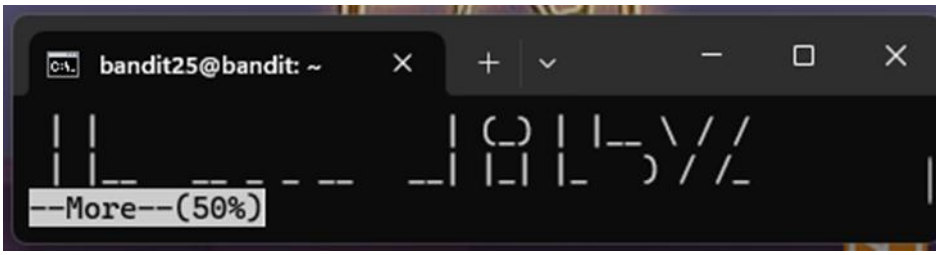
Session: ssh bandit25@bandit.labs.overthewire.org -p 2220.

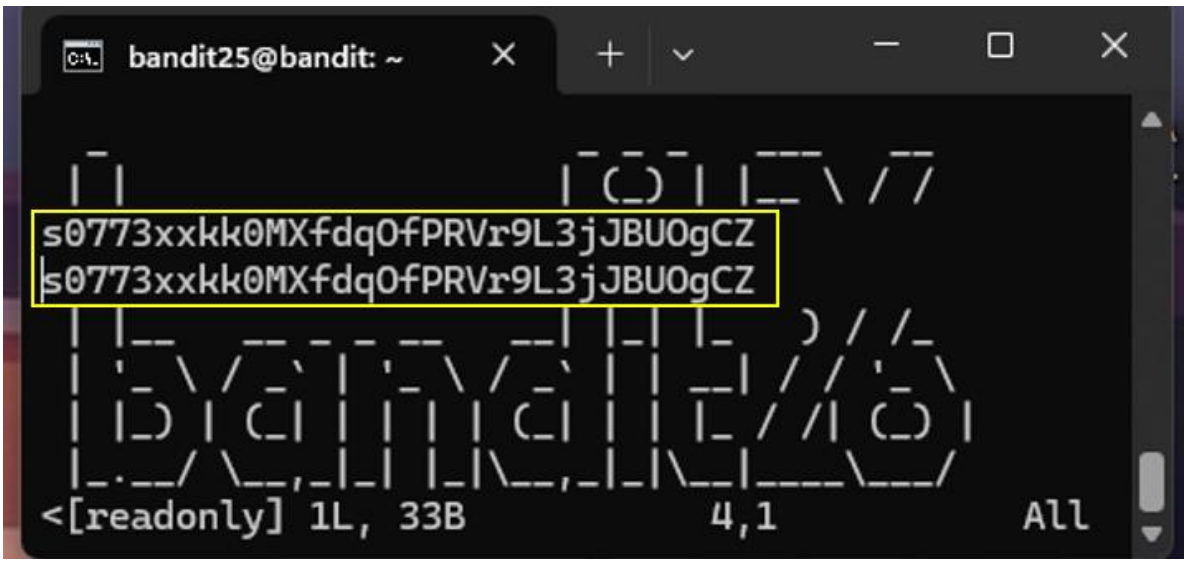
Password: s0773xxkk0MXfdqOfPRVr9L3jJBUOgCZ

Commands	***Function***

Ls	Lists files and directories in the current directory.
ssh	Connects to a remote machine securely, allowing you to perform tasks as if you were physically present at the machine.

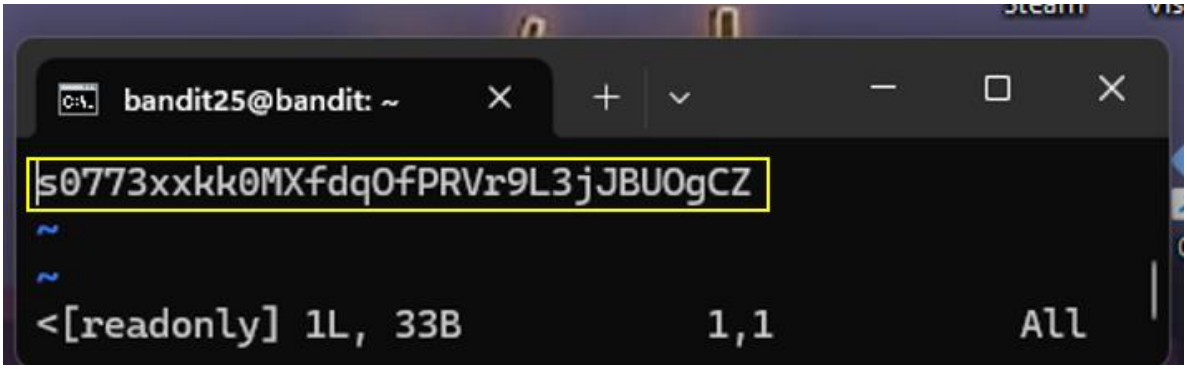






:e /etc/bandit_pass/bandit26

:set shell=/bin/bash and then use :shell.



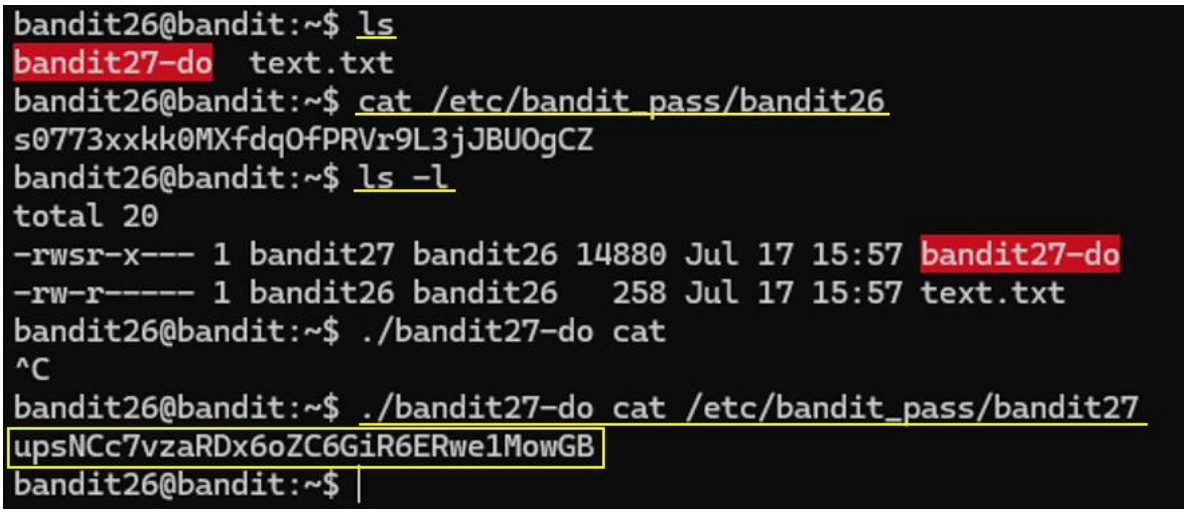
Bandit Level 26 → Level 27

I listed the contents of the directory to see the available files. I then examined the file named bandit27-do to check its permissions. Next, I executed the file bandit27-do while it read the password with cat /etc/bandit_pass/bandit27.

Session: ssh bandit26@bandit.labs.overthewire.org -p 2220.

Password: upsNCc7vzaRDx6oZC6GiR6ERwe1MowGB

Commands	*Function*
Ls	Lists files and directories in the current directory.
cat	Concatenates and displays the contents of files.



I left the session and entered the next level bandit27@bandit.labs.overthewire.org - p 2220.

Bandit Level 27 → Level 28

First, I created a directory named gnivel27 using mkdir and then navigated into it with cd. Next, I cloned the repository using git clone with the URL provided by the exercise. After cloning, I listed the contents of the directory with ls to confirm the repository was downloaded. I then entered the repository directory and read the README file using cat, which contained the password needed to advance to the next level.

Session: ssh bandit27@bandit.labs.overthewire.org -p 2220.

Password: Yz9IpL0sBcCeuG7m9uQFt8ZNpS4HZRcN

Commands	*Function*
mkdir	Lists files and directories in the current directory.
cd	Changes the current directory to the specified directory.
Git clone	Creates a copy of a remote Git repository on your local machine.

ls	Lists the files and directories within the current directory.

```
bandit27@bandit:/tmp$ mkdir gnivel27
bandit27@bandit:/tmp$ cd gnivel27
```

```
bandit27@bandit:/tmp/gnivel27$ git clone ssh://bandit27-git@localhost:222
0/home/bandit27-git/repo
Cloning into 'repo'...
The authenticity of host '[localhost]:2220 ([127.0.0.1]:2220)' can't be e
stablished.
ED25519 key fingerprint is SHA256:C2ihUBV7ihnV1wUXRb4RrEcLfXC5CXlhmAAM/ur
erLY.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Could not create directory '/home/bandit27/.ssh' (Permission denied).
Failed to add the host to the list of known hosts (/home/bandit27/.ssh/kn
own_hosts).
                         _                     _ _ _
                        | |__   __ _ _ __   __| (_) |_
                        | '_ \ / _` | '_ \ / _` | | __|
                        | |_) | (_| | | | | (_| | | |_
                        |_.__/ \__,_|_| |_|\__,_|_|\__|


                      This is an OverTheWire game server.
            More information on http://www.overthewire.org/wargames

bandit27-git@localhost's password:
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (3/3), done.
bandit27@bandit:/tmp/gnivel27$
```

```
bandit27@bandit:/tmp/gnivel27$ ls -l
total 4
drwxrwxr-x 3 bandit27 bandit27 4096 Aug 28 15:10 repo
bandit27@bandit:/tmp/gnivel27$ cd repo
bandit27@bandit:/tmp/gnivel27/repo$ ls -la
total 16
drwxrwxr-x 3 bandit27 bandit27 4096 Aug 28 15:10 .
drwxrwxr-x 3 bandit27 bandit27 4096 Aug 28 15:10 ..
drwxrwxr-x 8 bandit27 bandit27 4096 Aug 28 15:10 .git
-rw-rw-r-- 1 bandit27 bandit27   68 Aug 28 15:10 README
bandit27@bandit:/tmp/gnivel27/repo$ cat README
The password to the next level is: Yz9IpL0sBcCeuG7m9uQFt8ZNpS4HZRcN
bandit27@bandit:/tmp/gnivel27/repo$
```

I left the session and entered the next level bandit28@bandit.labs.overthewire.org - p 2220.

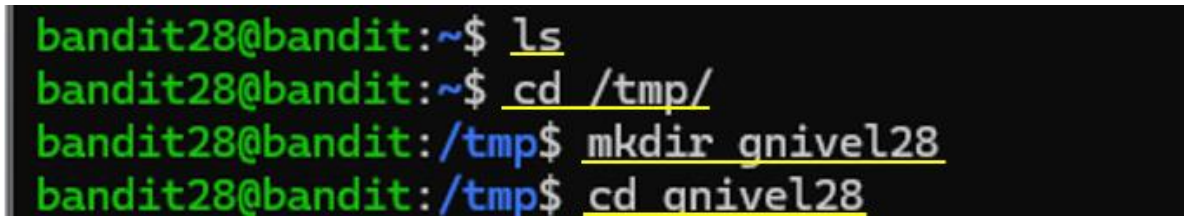
Bandit Level 28 → Level 29

In this level, I followed a similar process as before: I listed the contents of the directory using ls, created and navigated into a new folder with mkdir and cd, and then cloned the repository using git clone with the URL provided. After listing the contents again, I accessed the cloned repository and checked the README file, but the password was not there. I examined the Git history with git log and noticed a commit message about adding missing data. I then used git checkout with the commit ID mentioned in the log, which revealed another README file containing the password needed to proceed to the next level.

Session: ssh bandit28@bandit.labs.overthewire.org -p 2220.

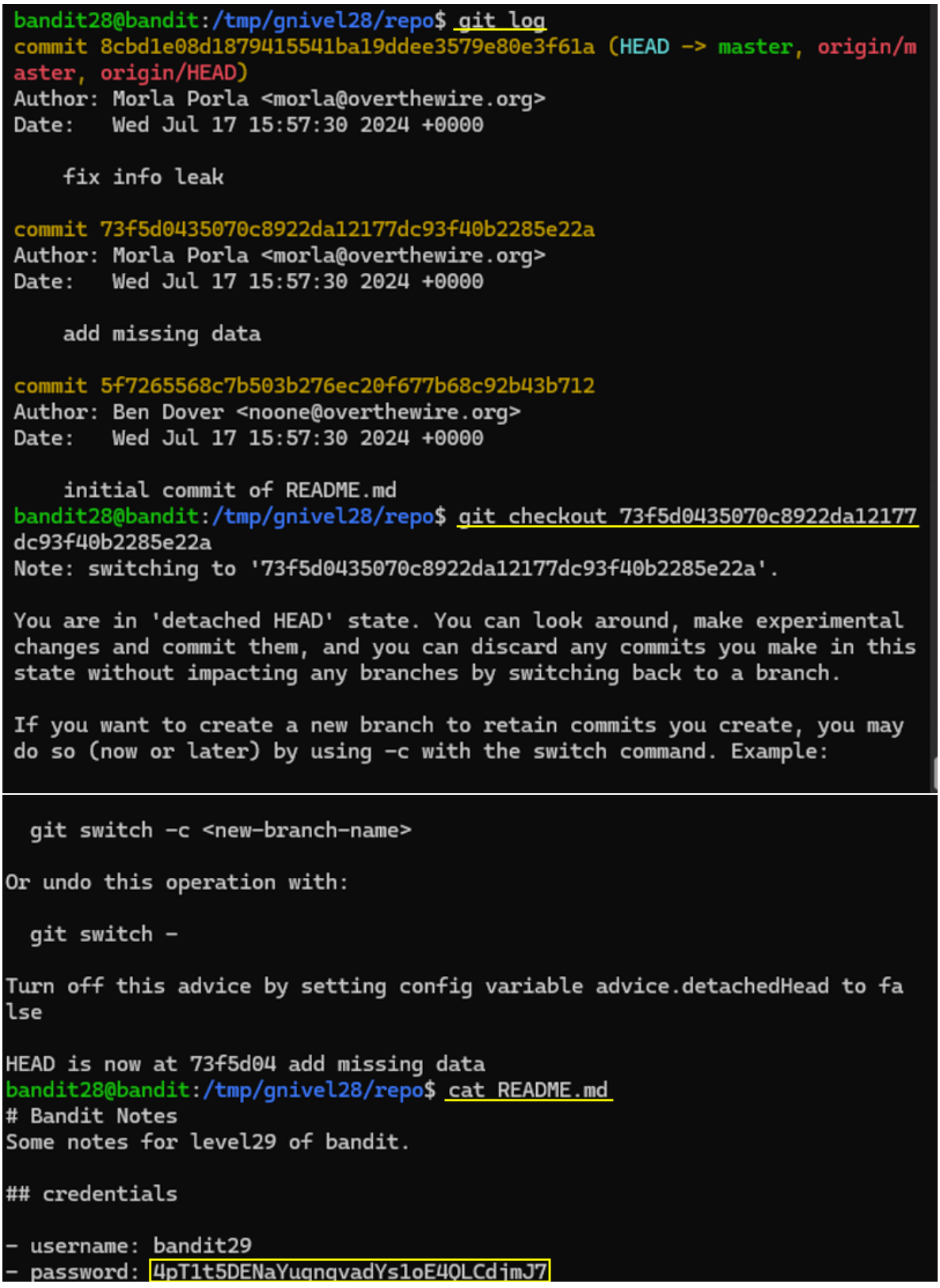
Password: 4pT1t5DENaYuqnqvadYs1oE4QLCdjmJ7

Commands	***Function***
mkdir	
cd	Changes the current directory to the specified directory.
Git clone	Creates a copy of a remote Git repository on your local machine.
ls	Lists the files and directories within the current directory.
cat	Concatenates and displays the contents of files.
Git log	Used to display the commit history of a repository.
Git checkout	Switching branches or restoring files in a working directory.



```
bandit28@bandit:/tmp/gnivel28$ git clone ssh://bandit28-git@localhost:222
0/home/bandit28-git/repo
Cloning into 'repo'...
The authenticity of host '[localhost]:2220 ([127.0.0.1]:2220)' can't be e
stablished.
ED25519 key fingerprint is SHA256:C2ihUBV7ihnV1wUXRb4RrEcLfXC5CXlhmAAM/ur
erLY.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Could not create directory '/home/bandit28/.ssh' (Permission denied).
Failed to add the host to the list of known hosts (/home/bandit28/.ssh/kn
own_hosts).
                         _                     _ _ _
                        | |__   __ _ _ __   __| (_) |_
                        | '_ \ / _` | '_ \ / _` | | __|
                        | |_) | (_| | | | | (_| | | |_
                        |_.__/ \__,_|_| |_|\__,_|_|\__|


                      This is an OverTheWire game server.
            More information on http://www.overthewire.org/wargames

bandit28-git@localhost's password:
remote: Enumerating objects: 9, done.
remote: Counting objects: 100% (9/9), done.
remote: Compressing objects: 100% (6/6), done.
remote: Total 9 (delta 2), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (9/9), 803 bytes | 267.00 KiB/s, done.
Resolving deltas: 100% (2/2), done.
bandit28@bandit:/tmp/gnivel28$
```

```
bandit28@bandit:/tmp/gnivel28$ ls -la
total 10816
drwxrwxr-x    3 bandit28 bandit28     4096 Aug 28 15:16 .
drwxrwx-wt 5485 root     root     11063296 Aug 28 15:17 ..
drwxrwxr-x    3 bandit28 bandit28     4096 Aug 28 15:16 repo
bandit28@bandit:/tmp/gnivel28$ cd repo
bandit28@bandit:/tmp/gnivel28/repo$ ls -la
total 16
drwxrwxr-x 3 bandit28 bandit28 4096 Aug 28 15:16 .
drwxrwxr-x 3 bandit28 bandit28 4096 Aug 28 15:16 ..
drwxrwxr-x 8 bandit28 bandit28 4096 Aug 28 15:16 .git
-rw-rw-r-- 1 bandit28 bandit28  111 Aug 28 15:16 README.md
bandit28@bandit:/tmp/gnivel28/repo$ car README
Command 'car' not found, but can be installed with:
apt install ucommon-utils
Please ask your administrator.
bandit28@bandit:/tmp/gnivel28/repo$ cat README
cat: README: No such file or directory
bandit28@bandit:/tmp/gnivel28/repo$ cat README.md
# Bandit Notes
Some notes for level29 of bandit.

## credentials

- username: bandit29
- password: xxxxxxxxxx
```



I left the session and entered the next level bandit29@bandit.labs.overthewire.org - p 2220.

Bandit Level 29 → Level 30

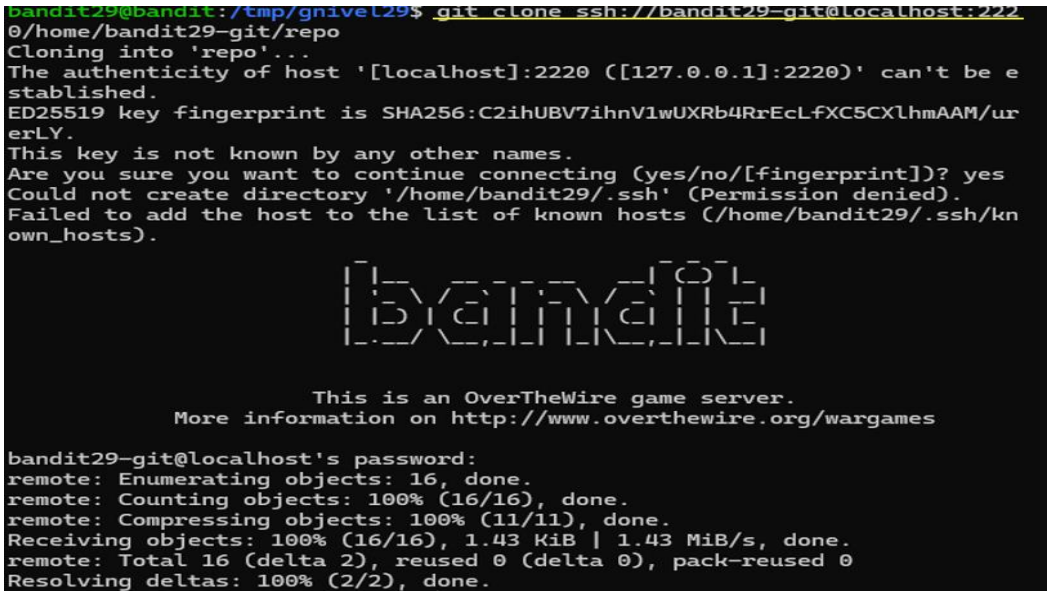
In this level, I followed the same procedure as before: I created and navigated into a directory, then cloned the repository. After checking the README file, I couldn't find the password. Next, I examined the branches and switched to the origin/dev branch. Once on this branch, I listed all the files and read the README file again, where I found the password needed to advance to the next level.

Session: ssh bandit29@bandit.labs.overthewire.org -p 2220.

Password: qp30ex3VLz5MDG1n91YowTv4Q8l7CDZL

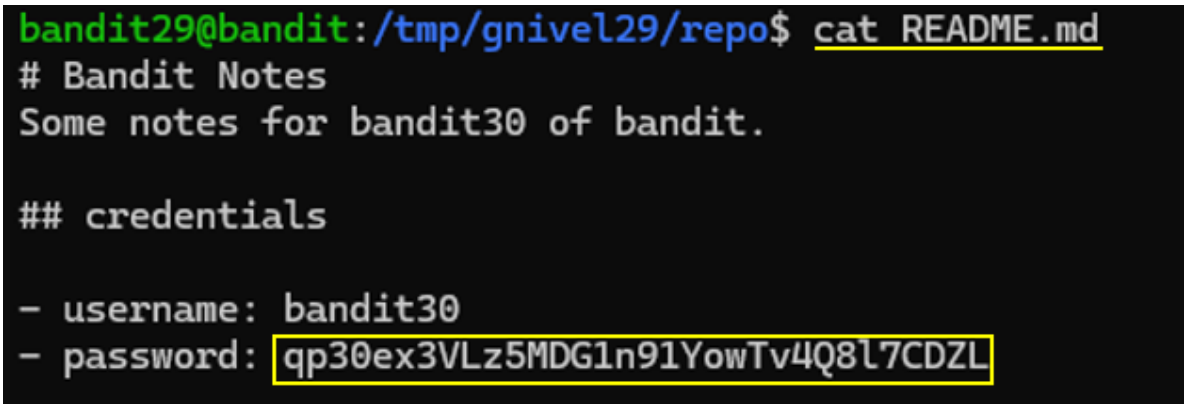
Commands	***Function***
cd	Changes the current directory to the specified directory.
Git clone	Creates a copy of a remote Git repository on your local machine.
ls	Lists the files and directories within the current directory.
cat	Concatenates and displays the contents of files.
Git branch	Used to manage branches within a repository.
Git checkout	Switching branches or restoring files in a working directory.

.



```
bandit29@bandit:/tmp/gnivel29$ ls -la
total 10816
drwxrwxr-x  3 bandit29 bandit29     4096 Aug 28 15:28 .
drwxrwx-wt 26 root     root     11063296 Aug 28 15:29 ..
drwxrwxr-x  3 bandit29 bandit29     4096 Aug 28 15:29 repo
bandit29@bandit:/tmp/gnivel29$ cd repo/
bandit29@bandit:/tmp/gnivel29/repo$ ls -la
total 16
drwxrwxr-x 3 bandit29 bandit29 4096 Aug 28 15:29 .
drwxrwxr-x 3 bandit29 bandit29 4096 Aug 28 15:28 ..
drwxrwxr-x 8 bandit29 bandit29 4096 Aug 28 15:29 .git
-rw-rw-r-- 1 bandit29 bandit29  131 Aug 28 15:29 README.md
bandit29@bandit:/tmp/gnivel29/repo$ cat README.md
# Bandit Notes
Some notes for bandit30 of bandit.

## credentials

- username: bandit30
- password: <no passwords in production!>
```

```
bandit29@bandit:/tmp/gnivel29/repo$ git branch -a
* master
  remotes/origin/HEAD -> origin/master
  remotes/origin/dev
  remotes/origin/master
  remotes/origin/sploits-dev
bandit29@bandit:/tmp/gnivel29/repo$ git checkout remotes/origin/dev
Note: switching to 'remotes/origin/dev'.

You are in 'detached HEAD' state. You can look around, make experimental
changes and commit them, and you can discard any commits you make in this
state without impacting any branches by switching back to a branch.

If you want to create a new branch to retain commits you create, you may
do so (now or later) by using -c with the switch command. Example:

  git switch -c <new-branch-name>

Or undo this operation with:

  git switch -

Turn off this advice by setting config variable advice.detachedHead to fa
lse

HEAD is now at eef5340 add data needed for development
bandit29@bandit:/tmp/gnivel29/repo$ ls -la
total 20
drwxrwxr-x 4 bandit29 bandit29 4096 Aug 28 15:31 .
drwxrwxr-x 3 bandit29 bandit29 4096 Aug 28 15:28 ..
drwxrwxr-x 2 bandit29 bandit29 4096 Aug 28 15:31 code
drwxrwxr-x 8 bandit29 bandit29 4096 Aug 28 15:31 .git
-rw-rw-r-- 1 bandit29 bandit29  134 Aug 28 15:31 README.md
bandit29@bandit:/tmp/gnivel29/repo$
```



I left the session and entered the next level bandit30@bandit.labs.overthewire.org - p 2220.

Bandit Level 30 → Level 31

In this level, I followed the same steps as before: I created and navigated into a directory, then cloned the repository. When I checked the README file, it contained the message "just empty file...". Next, I used git branch -a to view all branches and then checked the tags with git tag. This revealed a tag named secret. Finally, I used git show secret to display the content of the tag, which provided the password needed to advance to the next level.

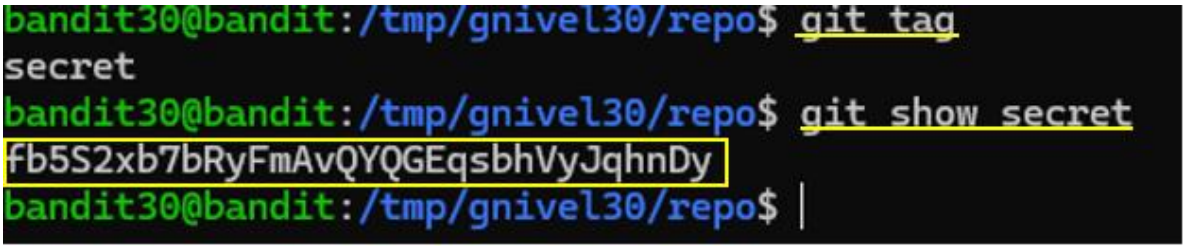
Session: ssh bandit29@bandit.labs.overthewire.org -p 2220.

Password: fb5S2xb7bRyFmAvQYQGEqsbhVyJqhnDy

Commands	***Function***
cd	Changes the current directory to the specified directory.
Git clone	Creates a copy of a remote Git repository on your local machine.
ls	Lists the files and directories within the current directory.
cat	Concatenates and displays the contents of files.
Git branch	Used to manage branches within a repository.
Git tag	Create, list, and manage tags
Git show	Used to display detailed information about various Git objects, such as commits, tags, and more

```
bandit30@bandit:/tmp/gnivel30$ git clone ssh://bandit30-git@localhost:222
0/home/bandit30-git/repo
Cloning into 'repo'...
The authenticity of host '[localhost]:2220 ([127.0.0.1]:2220)' can't be e
stablished.
ED25519 key fingerprint is SHA256:C2ihUBV7ihnV1wUXRb4RrEcLfXC5CXlhmAAM/ur
erLY.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Could not create directory '/home/bandit30/.ssh' (Permission denied).
Failed to add the host to the list of known hosts (/home/bandit30/.ssh/kn
own_hosts).
                         _                     _ _ _
                        | |__   __ _ _ __   __| (_) |_
                        | '_ \ / _` | '_ \ / _` | | __|
                        | |_) | (_| | | | | (_| | | |_
                        |_.__/ \__,_|_| |_|\__,_|_|\__|


                      This is an OverTheWire game server.
            More information on http://www.overthewire.org/wargames

bandit30-git@localhost's password:
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (4/4), done.
```

```
bandit30@bandit:/tmp/gnivel30$ ls -la
total 10816
drwxrwxr-x  3 bandit30 bandit30     4096 Aug 28 15:35 .
drwxrwx-wt 36 root     root     11063296 Aug 28 15:36 ..
drwxrwxr-x  3 bandit30 bandit30     4096 Aug 28 15:35 repo
bandit30@bandit:/tmp/gnivel30$ cd repo
bandit30@bandit:/tmp/gnivel30/repo$ ls -la
total 16
drwxrwxr-x 3 bandit30 bandit30 4096 Aug 28 15:35 .
drwxrwxr-x 3 bandit30 bandit30 4096 Aug 28 15:35 ..
drwxrwxr-x 8 bandit30 bandit30 4096 Aug 28 15:35 .git
-rw-rw-r-- 1 bandit30 bandit30   30 Aug 28 15:35 README.md
bandit30@bandit:/tmp/gnivel30/repo$ cat README.md
just an epmty file... muahaha
bandit30@bandit:/tmp/gnivel30/repo$ git branch -a
* master
  remotes/origin/HEAD -> origin/master
  remotes/origin/master
```



I left the session and entered the next level bandit31@bandit.labs.overthewire.org - p 2220.

Bandit Level 31 → Level 32

In this level, I followed the same procedure: I created and navigated into a directory, then cloned the repository. I read the README file and named it file content branch. I used echo to add the content specified in the README file, listed the files, and then deleted the .gitignore file. I staged all changes with git add ., committed the changes with git commit, and pushed the updates to the master branch using git push. This process revealed the password needed to advance to the next level.

Session: ssh bandit31@bandit.labs.overthewire.org -p 2220.

Password: 3O9RfhqyAlVBEZpVb6LYStshZoqoSx5K

Commands	***Function***
cd	Changes the current directory to the specified directory.
Git clone	Creates a copy of a remote Git repository on your local machine.
ls	Lists the files and directories within the current directory.
cat	Concatenates and displays the contents of files.
Git branch	Used to manage branches within a repository.
Echo	Used to display a line of text or a string to the termina
rm	Remove files or directories
Git add	Stage changes in your working directory for the next commit
Git commit	Used to create a new commit with the changes that have been staged using "*git add*"

Git push	Upload your local commits to a remote repository

```
bandit31@bandit:/tmp/gnivel31$ git clone ssh://bandit31-git@localhost:222
0/home/bandit31-git/repo
Cloning into 'repo'...
The authenticity of host '[localhost]:2220 ([127.0.0.1]:2220)' can't be e
stablished.
ED25519 key fingerprint is SHA256:C2ihUBV7ihnV1wUXRb4RrEcLfXC5CXlhmAAM/ur
erLY.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Could not create directory '/home/bandit31/.ssh' (Permission denied).
Failed to add the host to the list of known hosts (/home/bandit31/.ssh/kn
own_hosts).
                         _                     _ _ _
                        | |__   __ _ _ __   __| (_) |_
                        | '_ \ / _` | '_ \ / _` | | __|
                        | |_) | (_| | | | | (_| | | |_
                        |_.__/ \__,_|_| |_|\__,_|_|\__|


                      This is an OverTheWire game server.
            More information on http://www.overthewire.org/wargames

bandit31-git@localhost's password:
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (4/4), done.
```

```
bandit31@bandit:/tmp/gnivel31$ ls -la
total 10816
drwxrwxr-x  3 bandit31 bandit31     4096 Aug 28 15:41 .
drwxrwx-wt 52 root     root     11063296 Aug 28 15:41 ..
drwxrwxr-x  3 bandit31 bandit31     4096 Aug 28 15:41 repo
bandit31@bandit:/tmp/gnivel31$ cd repo
bandit31@bandit:/tmp/gnivel31/repo$ ls
README.md
bandit31@bandit:/tmp/gnivel31/repo$ ls -la
total 20
drwxrwxr-x 3 bandit31 bandit31 4096 Aug 28 15:41 .
drwxrwxr-x 3 bandit31 bandit31 4096 Aug 28 15:41 ..
drwxrwxr-x 8 bandit31 bandit31 4096 Aug 28 15:41 .git
-rw-rw-r-- 1 bandit31 bandit31    6 Aug 28 15:41 .gitignore
-rw-rw-r-- 1 bandit31 bandit31  147 Aug 28 15:41 README.md
bandit31@bandit:/tmp/gnivel31/repo$ cat README.md
This time your task is to push a file to the remote repository.

Details:
    File name: key.txt
    Content: 'May I come in?'
    Branch: master
```

```
bandit31@bandit:/tmp/gnivel31/repo$ echo "May I como in?" > key.txt
bandit31@bandit:/tmp/gnivel31/repo$ ls -la
total 24
drwxrwxr-x 3 bandit31 bandit31 4096 Aug 28 15:44 .
drwxrwxr-x 3 bandit31 bandit31 4096 Aug 28 15:41 ..
drwxrwxr-x 8 bandit31 bandit31 4096 Aug 28 15:41 .git
-rw-rw-r-- 1 bandit31 bandit31    6 Aug 28 15:41 .gitignore
-rw-rw-r-- 1 bandit31 bandit31   15 Aug 28 15:44 key.txt
-rw-rw-r-- 1 bandit31 bandit31  147 Aug 28 15:41 README.md
bandit31@bandit:/tmp/gnivel31/repo$ cat .gitignore
*.txt
bandit31@bandit:/tmp/gnivel31/repo$ rm .gitignore
bandit31@bandit:/tmp/gnivel31/repo$ ls -la
total 20
drwxrwxr-x 3 bandit31 bandit31 4096 Aug 28 15:45 .
drwxrwxr-x 3 bandit31 bandit31 4096 Aug 28 15:41 ..
drwxrwxr-x 8 bandit31 bandit31 4096 Aug 28 15:41 .git
-rw-rw-r-- 1 bandit31 bandit31   15 Aug 28 15:44 key.txt
-rw-rw-r-- 1 bandit31 bandit31  147 Aug 28 15:41 README.md
bandit31@bandit:/tmp/gnivel31/repo$ git add .
bandit31@bandit:/tmp/gnivel31/repo$ git commit -m "Se agrego key.txt"
[master f5f310b] Se agrego key.txt
 2 files changed, 1 insertion(+), 1 deletion(-)
 delete mode 100644 .gitignore
 create mode 100644 key.txt
```

```
bandit31@bandit:/tmp/gnivel31/repo$ git push origin master
The authenticity of host '[localhost]:2220 ([127.0.0.1]:2220)' can't be e
stablished.
ED25519 key fingerprint is SHA256:C2ihUBV7ihnV1wUXRb4RrEcLfXC5CXlhmAAM/ur
erLY.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Could not create directory '/home/bandit31/.ssh' (Permission denied).
Failed to add the host to the list of known hosts (/home/bandit31/.ssh/kn
own_hosts).
                         _                     _ _ _
                        | |__   __ _ _ __   __| (_) |_
                        | '_ \ / _` | '_ \ / _` | | __|
                        | |_) | (_| | | | | (_| | | |_
                        |_.__/ \__,_|_| |_|\__,_|_|\__|


                      This is an OverTheWire game server.
            More information on http://www.overthewire.org/wargames

bandit31-git@localhost's password:
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 2 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (6/6), 561 bytes | 561.00 KiB/s, done.
Total 6 (delta 0), reused 0 (delta 0), pack-reused 0
remote: ### Attempting to validate files... ####
remote:
remote: .oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.
remote:
remote: Well done! Here is the password for the next level:
remote: 3O9RfhqyAlVBEZpVb6LYStshZoqoSx5K
remote:
remote: .oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.
```

I left the session and entered the next level bandit32@bandit.labs.overthewire.org - p 2220.

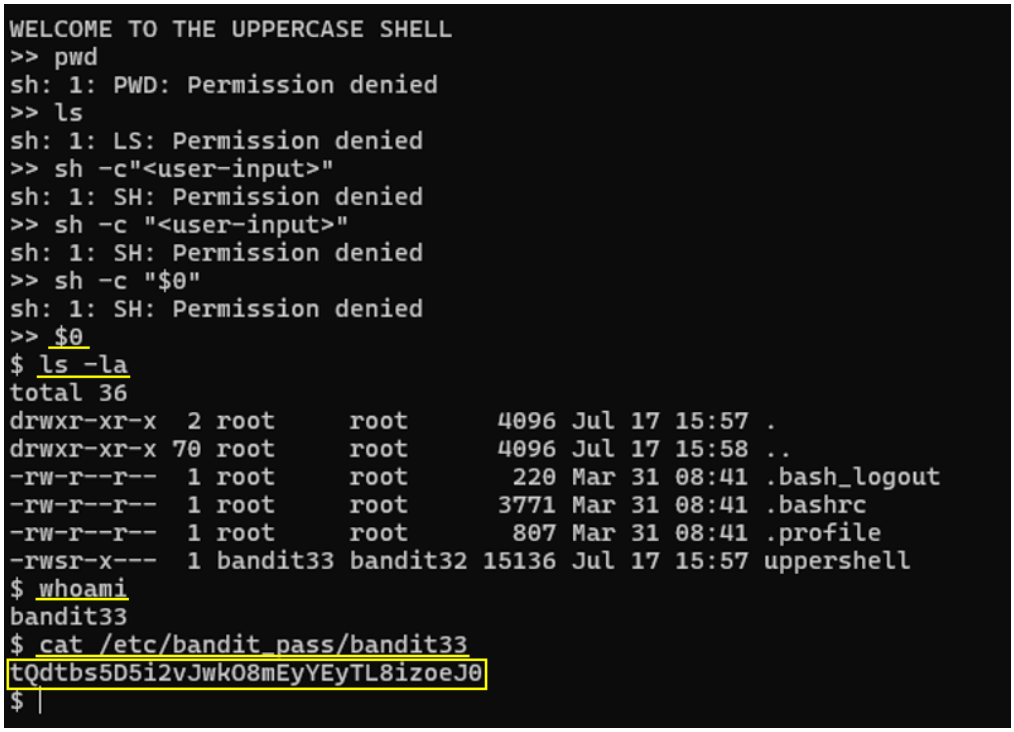
Bandit Level 32 → Level 33

In this level, since access to the common shell is restricted, I used special characters like $0 to execute commands. I started by listing the directory contents, then used whoami to determine the current user. Finally, I used cat on the bandit_pass file to retrieve the password needed to proceed to the next level.

Session: ssh bandit31@bandit.labs.overthewire.org -p 2220.

Password: tQdtbs5D5i2vJwkO8mEyYEyTL8izoeJ0

Commands	***Function***
ls	Lists the files and directories within the current directory.
$0	Special variable that represents the name of the script being executed
cat	Concatenates and displays the contents of files.
Whoami	used to display the current logged-in user's username



I left the session and entered the next level bandit33@bandit.labs.overthewire.org - p 2220.

Bandit Level 33 → Level 34

At this moment, level 34 does not exist yet.

Conclusions

OverTheWire enhances command-line skills through practical exercises with tools like ls, cat, grep, git, ssh, and nc. It teaches Git repository management, including cloning, branching, and basic operations.

The game also focuses on exploring services, examining files, and analyzing logs, while involving file and permission handling. It covers network and security commands such as ssh, netcat, and openssl, fostering problem-solving and critical thinking.

References

- https://overthewire.org/wargames/bandit/bandit0.html
- https://www.dongee.com/tutoriales/comandos-basicos-de-linux