

# My OverTheWire: Bandit walkthroughs.

## Bandit00

Use **SSH** command to login.

```
nukerducker@MSI:~$ ssh bandit0.labs.overthewire.org -p 2220
```

The password is bandit0

```
bandit0@bandit:~$ ls
```

Use **ls** to list all the file in the directory.

```
bandit0@bandit:~$ ls
readme
bandit0@bandit:~$ cat readme
```

Then, use **cat** command to read readme file.

The password is ZjLjTmM6FvvyRnrb2rfNW0Z0Ta6ip5If

```
bandit0@bandit:~$ ls
readme
bandit0@bandit:~$ cat readme
Congratulations on your first steps into the bandit game!!
Please make sure you have read the rules at https://overthewire.org/rules/
If you are following a course, workshop, walkthrough or other educational activity,
please inform the instructor about the rules as well and encourage them to
contribute to the OverTheWire community so we can keep these games free!

The password you are looking for is: ZjLjTmM6FvvyRnrb2rfNW0Z0Ta6ip5If
bandit0@bandit:~$
```

```
bandit0@bandit:~$ exit
```

# Bandit01

Login using password from previous level.

```
nukerducker@MSI:~$ ssh bandit1.labs.overthewire.org -p 2220
```

```
bandit1@bandit:~$ ls
```

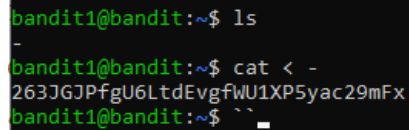
```
-
```

```
bandit1@bandit:~$ cat < -
```

```
263JGJPFfgU6LtdEvGfWU1XP5yac29mFx
```

```
bandit1@bandit:~$ exit
```

The < operator tells the shell to read input from a file name - .



```
bandit1@bandit:~$ ls
-
bandit1@bandit:~$ cat < -
263JGJPFfgU6LtdEvGfWU1XP5yac29mFx
bandit1@bandit:~$ ``
```

The password is 263JGJPFfgU6LtdEvGfWU1XP5yac29mFx

# Bandit02

Login using password from previous level.

```
nukerducker@MSI:~$ ssh bandit2.labs.overthewire.org -p 2220
```

```
bandit2@bandit:~$ ls
```

```
spaces in this filename
```

```
bandit2@bandit:~$ cat < 'spaces in this filename'
```

```
MNk8KNH3Usiio41PRUEoDFPqfxLP1Smx
```

Use ' ' to create a string of filename.

```
bandit2@bandit: ~  
lsbandit2@bandit:~$ ls^C  
bandit2@bandit:~$ ls  
spaces in this filename  
bandit2@bandit:~$ cat < 'spaces in this filename'  
MNk8KNH3Usiio41PRUEoDFPqfxLP1Smx  
bandit2@bandit:~$ `
```

The password is MNk8KNH3Usiio41PRUEoDFPqfxLP1Smx

## Bandit03

Login using password from previous level.

```
nukerducker@MSI:~$ ssh bandit3.labs.overthewire.org -p 2220
```

```
bandit3@bandit:~$ ls  
inhere  
bandit3@bandit:~$ cd inhere  
bandit3@bandit:~$ ls -a  
bandit3@bandit:~$ cat < '...Hiding-From-You'  
2WmrDFRmJIq3IPxneAaMGhap0pFhF3NJ
```

Use `cd` to change the working directory.

Use `ls -a` to see all the files including hidden files.

```
bandit3@bandit:~$ ls  
inhere  
bandit3@bandit:~$ cd inhere  
bandit3@bandit:~/inhere$ ls -a  
.  ..  ...Hiding-From-You  
bandit3@bandit:~/inhere$ cat < '...Hiding-From-You'  
2WmrDFRmJIq3IPxneAaMGhap0pFhF3NJ  
bandit3@bandit:~/inhere$ exit
```

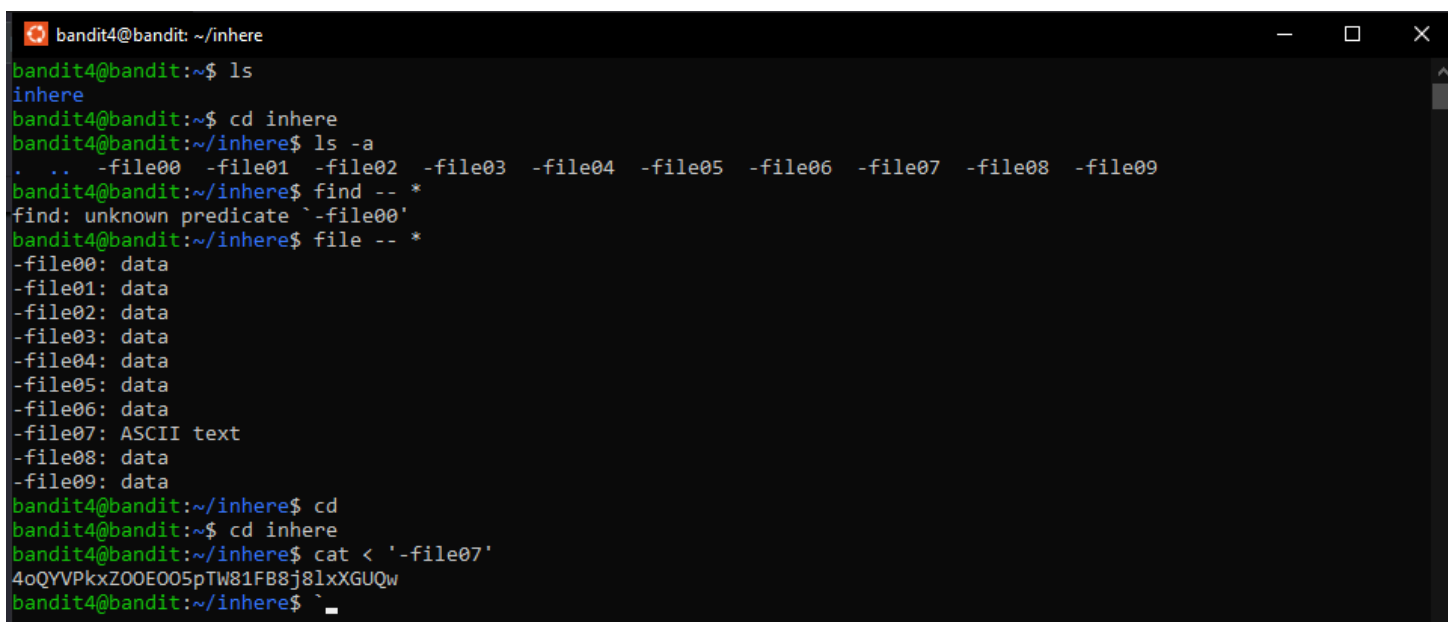
The password is 2WmrDFRmJIq3IPxneAaMGhap0pFhF3NJ

## Bandit04

Login using password from previous level.

```
nukerducker@MSI:~$ ssh bandit4.labs.overthewire.org -p 2220
bandit4@bandit:~$ ls
inhere
bandit4@bandit:~$ cd inhere
bandit4@bandit:~/inhere$ ls -a
bandit4@bandit:~/inhere$ file -- *
-file07: ASCII text
bandit4@bandit:~/inhere$ cat < '-file07'
4oQYVPkxZ00E005pTW81FB8j81xXGUQw
```

Use `file` to check file types, then use `--` to tell the command that the next arguments are file names, then use `*` to check all files in the folder.

A terminal window titled 'bandit4@bandit: ~/inhere' with standard window controls. The terminal shows a series of commands and their outputs. The user starts by running 'ls' in the 'inhere' directory, which lists files from '-file00' to '-file09'. Then, they run 'find -- \*' which returns an error 'find: unknown predicate `'-file00'''. Next, they run 'file -- \*' which lists the file types: data for files 00-06 and 08-09, and ASCII text for file 07. Finally, they run 'cat < '-file07'' which outputs the password '4oQYVPkxZ00E005pTW81FB8j81xXGUQw'.

```
bandit4@bandit: ~/inhere
bandit4@bandit:~$ ls
inhere
bandit4@bandit:~$ cd inhere
bandit4@bandit:~/inhere$ ls -a
.  .. -file00 -file01 -file02 -file03 -file04 -file05 -file06 -file07 -file08 -file09
bandit4@bandit:~/inhere$ find -- *
find: unknown predicate `'-file00'
bandit4@bandit:~/inhere$ file -- *
-file00: data
-file01: data
-file02: data
-file03: data
-file04: data
-file05: data
-file06: data
-file07: ASCII text
-file08: data
-file09: data
bandit4@bandit:~/inhere$ cd
bandit4@bandit:~$ cd inhere
bandit4@bandit:~/inhere$ cat < '-file07'
4oQYVPkxZ00E005pTW81FB8j81xXGUQw
bandit4@bandit:~/inhere$ `
```

The password is 4oQYVPkxZ00E005pTW81FB8j81xXGUQw

## Bandit05

After logged in,

```
bandit5@bandit:~$ ls
inhere
bandit5@bandit:~$ cd inhere
bandit5@bandit:~/inhere$ ls -a
bandit5@bandit:~/inhere$ find -type f -size 1033c
./maybehere07/.file2
bandit5@bandit:~/inhere$ cat ./maybehere07/.file2
HWasnPhtq9AVKe0dmk45nxy20cvUa6EG
```

Use `find` to search, then use `-type f` to look only for files, and use `-size 1033c` ( `c` is for bytes) to find specific file size.

```
bandit5@bandit:~$ ls
inhere
bandit5@bandit:~$ cd inhere
bandit5@bandit:~/inhere$ ls -a
.          maybehere01  maybehere04  maybehere07  maybehere10  maybehere13  maybehere16  maybehere19
..         maybehere02  maybehere05  maybehere08  maybehere11  maybehere14  maybehere17
maybehere00  maybehere03  maybehere06  maybehere09  maybehere12  maybehere15  maybehere18
bandit5@bandit:~/inhere$ find -type f -size 1033c
./maybehere07/.file2
bandit5@bandit:~/inhere$ cat ./maybehere07/.file2
HWasnPhtq9AVKe0dmk45nxy20cvUa6EG
```

The password is `HWasnPhtq9AVKe0dmk45nxy20cvUa6EG`

## Bandit06

After logged in,

```
bandit6@bandit:~$ ls -la
bandit6@bandit:~$ find / -type f -user bandit7 -group bandit6 -size 33c 2>/dev/null
/var/lib/dpkg/info/bandit7.password
bandit6@bandit:~$ cat /var/lib/dpkg/info/bandit7.password
morbNTDkSW6jIlUc0ymOdMaLn0lFVAaj
```

Use `find /` to start from root directory, then use `-type f` to look only for files, use `-user bandit7` find files that are owned by the user **bandit7**, use `-group bandit6` search for files that belong to the group **bandit6**, use `-size 33c` to find specific file size, and use `2>/dev/null` to ignore error messages.

```
morbNTDkSW6jI1Uc0ymOdMaLn01FVAaj
bandit6@bandit: ~
find: '/run/user/11016': Permission denied
find: '/run/user/11012': Permission denied
find: '/run/user/11008': Permission denied
find: '/run/user/11001': Permission denied
find: '/run/user/11020': Permission denied
find: '/run/user/11013': Permission denied
find: '/run/user/11004': Permission denied
find: '/run/user/11007': Permission denied
find: '/run/user/11024': Permission denied
find: '/run/user/11023': Permission denied
find: '/run/user/11014': Permission denied
find: '/run/user/11002': Permission denied
find: '/run/user/11018': Permission denied
find: '/run/user/11032': Permission denied
find: '/run/user/11009': Permission denied
find: '/run/user/11025': Permission denied
find: '/run/user/11010': Permission denied
find: '/run/user/11015': Permission denied
find: '/run/user/11019': Permission denied
find: '/run/user/11017': Permission denied
find: '/run/user/11022': Permission denied
find: '/run/user/11028': Permission denied
find: '/run/user/11027': Permission denied
find: '/run/chromy': Permission denied
find: '/run/udisks2': Permission denied
bandit6@bandit:~$ find / -type f -user bandit7 -group bandit6 -size 33c 2>/dev/null
/var/lib/dpkg/info/bandit7.password
bandit6@bandit:~$ cat /var/lib/dpkg/info/bandit7.password
morbNTDkSW6jI1Uc0ymOdMaLn01FVAaj
bandit6@bandit:~$
```

The password is `morbNTDkSW6jI1Uc0ymOdMaLn01FVAaj`

## Bandit07

After logged in,

```
bandit7@bandit:~$ ls
data.txt
bandit7@bandit:~$ grep -w 'data.txt' -e 'millionth'
millionth      dfwvzFQi4mU0wfNbF0e9RoWskMLg7eEc
```

Use `grep` to search text within files, use `-w` ensures that `grep` matches whole words only, `'data.txt'` name of the file, and use `-e 'millionth'` to find specifics term.

```
bandit7@bandit:~$ ls
data.txt
bandit7@bandit:~$ grep -w 'data.txt' 'millionth'
grep: millionth: No such file or directory
bandit7@bandit:~$ grep -w 'data.txt' -e 'millionth'
millionth      dfwvzFQi4mU0wfNbF0e9RoWskMLg7eEc
bandit7@bandit:~$ `
```

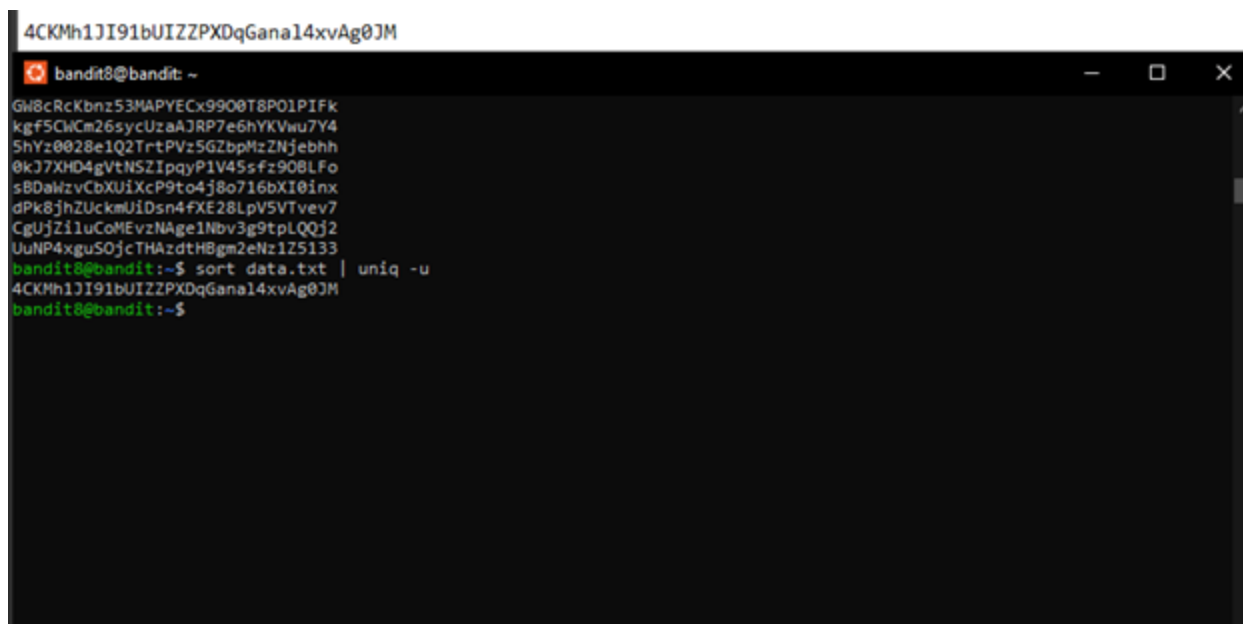
The password is `dfwvzFQi4mU0wfNbF0e9RoWskMLg7eEc`

## Bandit08

After logged in,

```
bandit8@bandit:~$ ls
data.txt
bandit8@bandit:~$ sort data.txt | uniq -u
4CKMh1JI91bUIZZPXDqGana14xvAg0JM
```

Use `sort` to sort lines in file in alphabetical order, use `|` to take output from previous command and uses it as input for the next command, use `uniq -u` to filter out duplicate lines.

A screenshot of a terminal window with a black background and white text. The window title is "bandit8@bandit: ~". The terminal shows the output of the command `ls` as a list of random strings. Then, the command `sort data.txt | uniq -u` is entered, and the output is a single line of random characters: `4CKMh1JI91bUIZZPXDqGana14xvAg0JM`. The prompt `bandit8@bandit:~$` is visible at the bottom.

```
bandit8@bandit: ~
GM8cRcKbnz53MAPYECx9900T8P01PIFk
kgf5CmCm26syncUzaAJRP7e6hYKvWu7Y4
ShYz0028e1Q2TrtPVz5GZbpMzZNjebhh
0k37XHD4gVtNSZIpqyP1V45sfz908LFo
s8DaWzvCbXUjXcP9to4j8o716bXI0inx
dPk8jhZuckmUiDsn4fXE28LpVSVTvev7
CgUjZi1uCoMEvzNAge1Nbv3g9tpLQQj2
UuNP4xguSOjcTHAztH8gm2eNz1Z5133
bandit8@bandit:~$ sort data.txt | uniq -u
4CKMh1JI91bUIZZPXDqGana14xvAg0JM
bandit8@bandit:~$
```

The password is `4CKMh1JI91bUIZZPXDqGana14xvAg0JM`

## Bandit09

After logged in,

```
bandit8@bandit:~$ ls
data.txt
bandit8@bandit:~$ strings data.txt | grep '====='
```

Use `string` to output human-readable texts, use `grep '====='` to searches for lines that contain the specific string in the text extracted by strings.

```
FGUW5i1LVJrxX9kMYMm1N4MgbpfMiqey

bandit9@bandit:~$ cat file.txt
1#4!9x:79(8)>|x
ZL ws %Z{[Btnd0L: sXh" "w000?^oxGz$W~"O@0068t0160Un)00 m~kC600~Odqs0Ed*0$1mp;206_CuN0x00M<B(300401BTI=0q0_500_ 0H)mc00&0Z>Pd-";.u:yz0QK0K:
P>0cp*00
z>^>X510000{ [0T0000|{000q.cd0|_00&i0gb0;c<Q=.dEXU1N),w8J000 EOS:V00005^dt0U)UUz0(F~GJanhxG'00Kd00U1-60o+dg00000z:00;hn00>=p200eaI~SZNS#fBQ
30YJ00>0|kY4/000$0r)1tQd_hnA;00I7|^#;AfN0)y0(3g(0 1 h5Gvm[.KcY
MNO0-\0Ii)W5\00"0Phy8NaQ4#+"`Z3^\0c000.wkp9"$0(F^000+000000MKn0Y31Y~"K0^0qC(= 00c00\000"t<2~u0'\)0J00,0Jh00 0
0]#00/+>0[?^_n0t(00X)00YN00+000bo<C_0)97M<1s%0;D10n00uiz:00X5)?0#0ae000e*/OCQ02]000"Kz8I'0/40h)0z~00d6?50[ ]0Q4(fbc g5tG7i,091]w*mDz0(-00(d
000700t)eXX000130"00 M20d00~0o|A~064zP= 0tke6o+u0wY0Z00180w?C~sXy0m@: 0:ryw0w(-0C+s#0[}0(p^A~45c1600Tq00~A70j01N0(//,*500:00000' |60vN3ie
00o"0 0e+^w0K'>0ltL%,KfP&1ZG
!F0_0+M02jX090)UF00(>0X0J603)nLr\w000005Gfy(0
L'0])00'90(bq$0]'%0m)*k02H0e+UEnd[0go?0m00000 Nn$0.0 0200T44vDq^0018T00(4Qv^Y0XjX#0txnfk)000d00=>+0(PA0"NW0ingi'031u~J000 0Yaus010u:$0^dQ0_d
)0bez'0200Aw
bandit9@bandit:~$ grep '^======' file.txt
grep: file.txt: No such file or directory
bandit9@bandit:~$ grep '^======' data.txt
bandit9@bandit:~$ sort data.txt | grep '^======'
bandit9@bandit:~$ sort data.txt | grep '^======'
bandit9@bandit:~$ grep '^======' data.txt
bandit9@bandit:~$ grep '^======' data.txt
bandit9@bandit:~$ strings data.txt | grep '^======'
)===== the
3jpr0===== passwordi
~fDV3===== is
D9===== FGUW5i1LVJrxX9kMYMm1N4MgbpfMiqey
bandit9@bandit:~$ strings data.txt | grep '^======'
)===== the
3jpr0===== passwordi
~fDV3===== is
D9===== FGUW5i1LVJrxX9kMYMm1N4MgbpfMiqey
bandit9@bandit:~$
```

The password is `FGUW5i1LVJrxX9kMYMm1N4MgbpfMiqey`

## Bandit10

After logged in,

```
bandit10@bandit:~$ ls
data.txt
bandit10@bandit:~$ cat data.txt | base64 -d
The password is dtR173fZKb0RRsDFSGsg2RWnpNVj3qRr
```

Use `base64 -d` to decode the output text from `cat` command.

```
bandit10@bandit:~$ ls
data.txt
bandit10@bandit:~$ cat data.txt | base64 -d
The password is dtR173fZKb0RRsDFSGsg2RWnpNVj3qRr
bandit10@bandit:~$ ``
```

The password is `dtR173fZKb0RRsDFSGsg2RWnpNVj3qRr`



# Bandit11

After logged in,

```
bandit10@bandit:~$ ls
data.txt
bandit10@bandit:~$ cat data.txt | tr 'A-Za-z' 'N-ZA-Mn-za-m'
The password is 7x16WNeHIi5YkIhWsfFIqoognUTyj9Q4
```

Assuming that this is **ROT13** cipher I sought out to find command that could decrypt this and found `tr 'A-Za-z' .` `tr` is command for translate or replace characters, `'A-Za-z'` this specifies the set of characters to be translated. `'N-ZA-Mn-za-m'` It maps each letter to another letter with a shift.

7x16WNeHIi5YkIhWsfFIqoognUTyj9Q4

A screenshot of a terminal window with a dark background. The prompt is 'bandit11@bandit: ~'. The user runs 'uname -r' and gets '6.8.0-1014-aws'. Then 'uname -a' and gets 'Linux bandit 6.8.0-1014-aws #15-Ubuntu SMP Thu Aug 8 19:13:06 UTC 2024 x86\_64 x86\_64 x86\_64 GNU/Linux'. Then 'cat /etc/\*release' and gets system information including 'DISTRIB\_ID=Ubuntu', 'DISTRIB\_RELEASE=24.04', 'DISTRIB\_CODENAME=noble', 'DISTRIB\_DESCRIPTION="Ubuntu 24.04.1 LTS"', 'PRETTY\_NAME="Ubuntu 24.04.1 LTS"', 'NAME="Ubuntu"', 'VERSION\_ID="24.04"', 'VERSION="24.04.1 LTS (Noble Numbat)"', 'VERSION\_CODENAME=noble', 'ID=ubuntu', 'ID\_LIKE=debian', 'HOME\_URL="https://www.ubuntu.com/"', 'SUPPORT\_URL="https://help.ubuntu.com/"', 'BUG\_REPORT\_URL="https://bugs.launchpad.net/ubuntu/"', 'PRIVACY\_POLICY\_URL="https://www.ubuntu.com/legal/terms-and-policies/privacy-policy"', 'UBUNTU\_CODENAME=noble', and 'LOGO=ubuntu-logo'. Then 'ls' and gets 'data.txt'. Finally, 'cat data.txt | tr 'A-Za-z' 'N-ZA-Mn-za-m'' and gets 'The password is 7x16WNeHIi5YkIhWsfFIqoognUTyj9Q4'.

```
bandit11@bandit: ~
bandit11@bandit:~$ uname -r
6.8.0-1014-aws
bandit11@bandit:~$ uname -a
Linux bandit 6.8.0-1014-aws #15-Ubuntu SMP Thu Aug 8 19:13:06 UTC 2024 x86_64 x86_64 x86_64 GNU/Linux
bandit11@bandit:~$ cat /etc/*release
DISTRIB_ID=Ubuntu
DISTRIB_RELEASE=24.04
DISTRIB_CODENAME=noble
DISTRIB_DESCRIPTION="Ubuntu 24.04.1 LTS"
PRETTY_NAME="Ubuntu 24.04.1 LTS"
NAME="Ubuntu"
VERSION_ID="24.04"
VERSION="24.04.1 LTS (Noble Numbat)"
VERSION_CODENAME=noble
ID=ubuntu
ID_LIKE=debian
HOME_URL="https://www.ubuntu.com/"
SUPPORT_URL="https://help.ubuntu.com/"
BUG_REPORT_URL="https://bugs.launchpad.net/ubuntu/"
PRIVACY_POLICY_URL="https://www.ubuntu.com/legal/terms-and-policies/privacy-policy"
UBUNTU_CODENAME=noble
LOGO=ubuntu-logo
bandit11@bandit:~$ ls
data.txt
bandit11@bandit:~$ cat data.txt | tr 'A-Za-z' 'N-ZA-Mn-za-m'
The password is 7x16WNeHIi5YkIhWsfFIqoognUTyj9Q4
bandit11@bandit:~$
```

The password is 7x16WNeHIi5YkIhWsfFIqoognUTyj9Q4

# Bandit12

Oh boy this is so brutal to see and explain but here we go.

After logged in,

```
bandit12@bandit:~$ mkdir -p
/tmp/tmp.H1dCj0UGDn
```

First, start with create a temp directory using `mkdir -p`

```
bandit12@bandit:~$ cp data.txt /tmp/tmp.H1dCj0UGDn
bandit12@bandit:~$ cd /tmp/tmp.H1dCj0UGDn
```

then we `cd` into the temp directory and use `cp` to copy over **data.txt** into the temp directory.

```
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ xxd -r data.txt > data.bin
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ file data.bin
data.bin: gzip compressed data, was "data2.bin", last modified: Thu Sep 19 07:08:15 2024, max co
```

use `xxd -r data.txt > data.bin` to convert hexdump file in txt to binary format as **data.bin**, then we use `file` to check type of **data.bin**.

```
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ mv data.bin data.gz
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ gunzip data.gz
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ ls
data  data.txt
```

I renamed it using `mv data.bin data.gz`. Given the output said that it is **gzip** compressed file I Used `gunzip data.gz` to decompress **data.gz**

```
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ file data
data: bzip2 compressed data, block size = 900k
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ mv data data.bz2
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ bunzip2 data.bz2
```

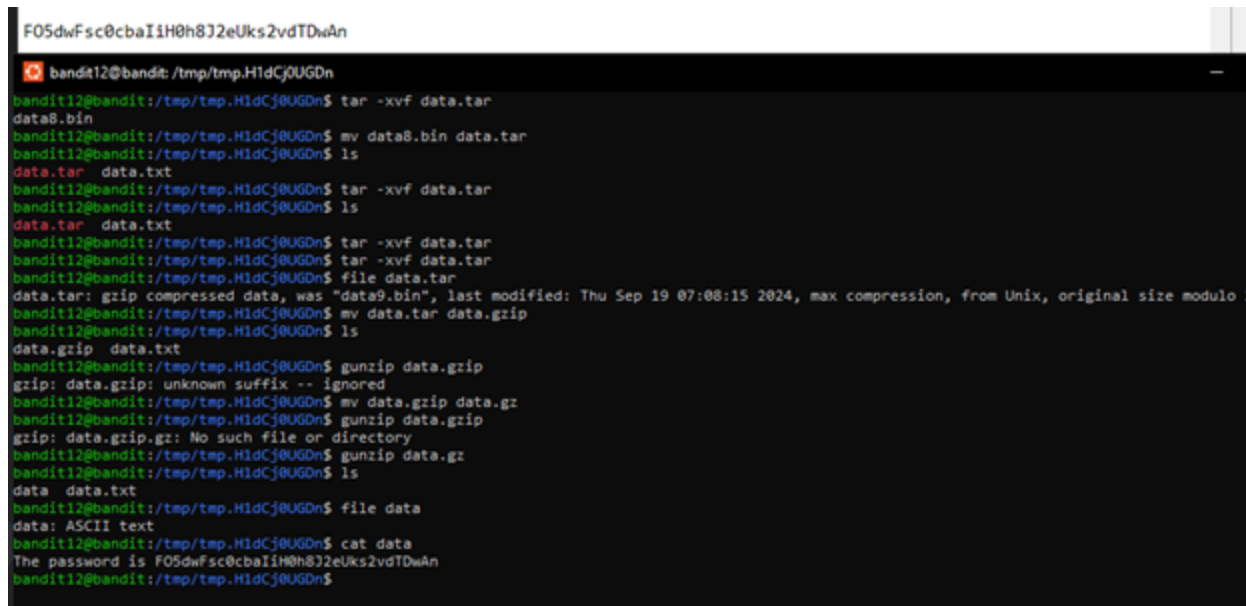
then after checking and knowing that the file is **bzip2** type I renamed it using `mv data data.bz2` to convert it back to **.bz2** file.

```
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ ls
data data.txt
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ file data
data: gzip compressed data, was "data4.bin", last modified: Thu Sep 19 07:08:15 2024, max compr
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ mv data data.gz
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ gunzip data.gz
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ ls
data data.txt
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ file data
data: POSIX tar archive (GNU)
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ mv data data.tar
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ tar -xvf data.tar
data5.bin
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ ls
data5.bin data.tar data.txt
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ file data5.bin
data5.bin: POSIX tar archive (GNU)
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ mv data5.bin data.tar
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ tar -xvf data.tar
data6.bin
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ mv data6.bin data.tar
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ tar -xvf data.tar
data8.bin
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ mv data8.bin data.tar
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ ls
data.tar data.txt
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ tar -xvf data.tar
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ ls
data.tar data.txt
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ tar -xvf data.tar
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ tar -xvf data.tar
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ file data.tar
data.tar: gzip compressed data, was "data9.bin", last modified: Thu Sep 19 07:08:15 2024, max c
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ mv data.tar data.gzip
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ ls
data.gzip data.txt
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ gunzip data.gzip
gzip: data.gzip: unknown suffix -- ignored
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ mv data.gzip data.gz
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ gunzip data.gzip
gzip: data.gzip.gz: No such file or directory
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ gunzip data.gz
```

I repeated this processes until I got new type of file which is **data.tar** so I used `tar -xvf data.tar` to extracts the contents of the tar archive **data.tar**

```
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ ls
data data.txt
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ file data
data: ASCII text
bandit12@bandit:~$ /tmp/tmp.H1dCj0UGDn$ cat data
```

I repeat all of this until I found the file with **ASCII text** data type and `cat` it.



```
F05dwFsc0cbaIiH0h8J2eUks2vdTDwAn
bandit12@bandit: /tmp/tmp.H1dCj0UGDn
bandit12@bandit:/tmp/tmp.H1dCj0UGDn$ tar -xvf data.tar
data8.bin
bandit12@bandit:/tmp/tmp.H1dCj0UGDn$ mv data8.bin data.tar
bandit12@bandit:/tmp/tmp.H1dCj0UGDn$ ls
data.tar data.txt
bandit12@bandit:/tmp/tmp.H1dCj0UGDn$ tar -xvf data.tar
bandit12@bandit:/tmp/tmp.H1dCj0UGDn$ ls
data.tar data.txt
bandit12@bandit:/tmp/tmp.H1dCj0UGDn$ tar -xvf data.tar
bandit12@bandit:/tmp/tmp.H1dCj0UGDn$ tar -xvf data.tar
bandit12@bandit:/tmp/tmp.H1dCj0UGDn$ file data.tar
data.tar: gzip compressed data, was "data9.bin", last modified: Thu Sep 19 07:08:15 2024, max compression, from Unix, original size modulo 2
bandit12@bandit:/tmp/tmp.H1dCj0UGDn$ mv data.tar data.gzip
bandit12@bandit:/tmp/tmp.H1dCj0UGDn$ ls
data.gzip data.txt
bandit12@bandit:/tmp/tmp.H1dCj0UGDn$ gunzip data.gzip
gzip: data.gzip: unknown suffix -- ignored
bandit12@bandit:/tmp/tmp.H1dCj0UGDn$ mv data.gzip data.gz
bandit12@bandit:/tmp/tmp.H1dCj0UGDn$ gunzip data.gzip
gzip: data.gzip.gz: No such file or directory
bandit12@bandit:/tmp/tmp.H1dCj0UGDn$ gunzip data.gz
bandit12@bandit:/tmp/tmp.H1dCj0UGDn$ ls
data data.txt
bandit12@bandit:/tmp/tmp.H1dCj0UGDn$ file data
data: ASCII text
bandit12@bandit:/tmp/tmp.H1dCj0UGDn$ cat data
The password is F05dwFsc0cbaIiH0h8J2eUks2vdTDwAn
bandit12@bandit:/tmp/tmp.H1dCj0UGDn$
```

The password is `F05dwFsc0cbaIiH0h8J2eUks2vdTDwAn`

## Bandit13

After logged in,

```
bandit13@bandit:~$ ls
sshkey.private
bandit13@bandit:~$ ssh -i sshkey.private bandit14@localhost -p 2220
```

Use `ssh` to login, use `-i sshkey.private` to specify private SSH key file.

After getting in Bandit14, just use simple `cat` followed by directories.

```
bandit14@bandit:~$ cat /etc/bandit_pass/bandit14
MU4VWeTyJk8ROof1qqmcBPALh7lDCPvS
```

```
bandit13@bandit:~$ ls
sshkey.private
bandit13@bandit:~$ ssh -i sshkey.private bandit14@localhost -p 2220
The authenticity of host '[localhost]:2220 ([127.0.0.1]:2220)' can't be established.
ED25519 key fingerprint is SHA256:C2ihUBV7ihnV1wUXRb4RrEcLfXC5CXlhmAAM/urerLY.
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/bandit13/.ssh' (Permission denied).
Failed to add the host to the list of known hosts (/home/bandit13/.ssh/known_hosts).
```

```
bandit14@bandit:~$ cd /etc/bandit_pass/bandit14
-bash: cd: /etc/bandit_pass/bandit14: Not a directory
bandit14@bandit:~$ car /etc/bandit_pass/bandit14
Command 'car' not found, but can be installed with:
apt install ucommon-utils
Please ask your administrator.
bandit14@bandit:~$ cat
^C
bandit14@bandit:~$ cat /etc/bandit_pass/bandit14
MU4VWeTyJk8ROof1qqmcBPALh7lDCPvS
bandit14@bandit:~$
```

The password is MU4VWeTyJk8ROof1qqmcBPALh7lDCPvS

## Bandit14

Still in Bandit14,

```
bandit14@bandit:~$ nc localhost 30000
MU4VWeTyJk8ROof1qqmcBPALh7lDCPvS
Correct!
8xCjnmgoKbGLhHFAZlGE5Tmu4M2tKJQo
```

I used `nc` or **Netcat** which is command to read or write to network connections, followed by `localhost` which refers to the local machine, and then `30000` which is the given port number.

```
bandit14@bandit:~$ cat
^C
bandit14@bandit:~$ cat /etc/bandit_pass/bandit14
MU4VWeTyJk8ROof1qqmcBPALh7lDCPvS
bandit14@bandit:~$ nc localhost 30000
MU4VWeTyJk8ROof1qqmcBPALh7lDCPvS
Correct!
8xCjnmgoKbGLhHFAZlGE5Tmu4M2tKJQo
```

The password is 8xCjnmgoKbGLhHFAZlGE5Tmu4M2tKJQo

## Bandit15

Still in Bandit14,

```
bandit14@bandit:~$ openssl s_client -connect localhost:30001 -quiet
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
8xCjnmgoKbGLhHFAZlGE5Tmu4M2tKJQo
Correct!
kSkvUpMQ7lBYyCM4GBPvCvT1BfWRy0Dx
```

I used `openssl` which is command-line for managing **SSL/TLS** connections, then I used `s_client` to initiates an SSL/TLS connection to remote server, use `-connect localhost:3000` to specifies the server `localhost` and the port number `30001`, and ended with `-quiet` to show only essential data of the connection.

```
closed
bandit14@bandit:~$ openssl s_client -connect localhost:30001^C
bandit14@bandit:~$ openssl s_client -connect localhost:30001 -quiet
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
8xCjnmgoKbGLhHFAZlGE5Tmu4M2tKJQo
Correct!
kSkvUpMQ7lBYyCM4GBPvCvT1BfWRy0Dx
```

The password is kSkvUpMQ7lBYyCM4GBPvCvT1BfWRy0Dx