



ISLAMIC UNIVERSITY OF TECHNOLOGY

LAB 01

LINUX COMMAND LINE

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COURSE ID	4504
COURSE TITLE	SOFTWARE SECURITY LAB
SECTION	B
DATE OF SUBMISSION	29-08-2023

Task 1

```
showvlg@showvlg-Pro:~$ ls
35E4582_200042150  Documents  Lab01.txt  Pictures  snap      Videos
Desktop            Downloads  Music      Public    Templates

showvlg@showvlg-Pro:~$ cd Documents
showvlg@showvlg-Pro:~/Documents$ ls
'The Witcher_Blood Of Elves_Summary.txt'

showvlg@showvlg-Pro:~/Documents$ grep -E '\b[A-Z]\w*\s[a-z]+\s[A-Z]\w*\b' The\ Witcher_Blood\ Of\ Elves_Summary.txt
showvlg@showvlg-Pro:~/Documents$ grep -E '\b[A-Z]\w*\s[a-z]+\s[A-Z]\w*\b' The\ Witcher_Blood\ Of\ Elves_Summary.txt
The Empire of Nilfgaard attacks the Kingdom of Cintra. Queen Calanthe commits suicide and her granddaughter, Cirilla, called Ciri and nicknamed the "Lion Cub of Cintra" manages to flee from the burning capital city. Emhyr var Enreis, Emperor of Nilfgaard, sends his spies to find her. He knows that this young girl has great importance, not only because of her royal blood, but also because of her magical potential and elven blood in her veins.
The girl is being protected by Geralt of Rivia, a witcher - a magically and genetically mutated monster slayer for hire, who takes her to the witchers' keep - Kaer Morhen. There, Ciri is being taught by the other witchers, including old Vesemir, Coën, Eskel and Lambert. She learns about monsters and how to fight them. She is taught to fight with a sword in the witcher style. But during her "education", the sorceress Triss Merigold comes to Kaer Morhen. She is called by Geralt to help with occasional strange and abnormal behavior he has seen in Ciri. Triss realizes that Ciri is a source. She acknowledges that she does not have the power to control Ciri's talent, and advises Geralt to swallow his pride and seek help with Yennefer of Vengerberg, a more experienced sorceress and his former lover.
In the spring, Geralt leaves Kaer morhen with Triss and Ciri, intending to deliver Ciri to the Temple School in Ellander where she would receive a "normal" education from Nenneke. On the way, Triss falls ill, and they join Yarpin Zigrin's dwarven company who is guarding a caravan for King Henselt. Geralt tells Ciri about the roses of Aelirenn, an elf who died leading the elven youths to fight the humans. The caravan is attacked by the Scoia'tael, and it is revealed that the escort mission was a trap set by the kings who doubted Yarpin's loyalty.
Meanwhile, Geralt does his best to track Rience and his mysterious employer. With the help of Dandelion and Shani, he forces a confrontation with Rience, during which both are injured. Rience's master intervenes again, opening a portal for him, and Geralt is prevented from pursuing the mage by Philippa Eilhart, who also kills the last surviving of the Michelet brothers so as not to provide Geralt any source of information which might eventually reveal the mysterious mage. Eilhart then leaves behind a wounded Geralt.
showvlg@showvlg-Pro:~/Documents$ grep -oE '\b[A-Z]\w*\s[a-z]+\s[A-Z]\w*\b' The\ Witcher_Blood\ Of\ Elves_Summary.txt
Empire of Nilfgaard
Kingdom of Cintra
Cub of Cintra
Emhyr var Enreis
Emperor of Nilfgaard
Geralt of Rivia
Eskel and Lambert
Yennefer of Vengerberg
Geralt leaves Kaer
Triss and Ciri
School in Ellander
Dandelion and Shani
showvlg@showvlg-Pro:~/Documents$ grep -oP '\b[A-Z]\w*\s[a-z]+\s[A-Z]\w*\b' The\ Witcher_Blood\ Of\ Elves_Summary.txt
Empire of Nilfgaard
Kingdom of Cintra
Cub of Cintra
Emhyr var Enreis
Emperor of Nilfgaard
Geralt of Rivia
Eskel and Lambert
Yennefer of Vengerberg
Geralt leaves Kaer
Triss and Ciri
School in Ellander
Dandelion and Shani
showvlg@showvlg-Pro:~/Documents$
```

Task 2

Bandit Level 0



```
bandit0@bandit: ~  
in the following locations:  
  
* gef (https://github.com/hugsy/gef) in /opt/gef/  
* pwndbg (https://github.com/pwndbg/pwndbg) in /opt/pwndbg/  
* peda (https://github.com/longld/peda.git) in /opt/peda/  
* gdbinit (https://github.com/gdbinit/Gdbinit) in /opt/gdbinit/  
* pwntools (https://github.com/Gallopsled/pwntools)  
* radare2 (http://www.radare.org/)  
  
Both python2 and python3 are installed.  
  
--[ More information ]--  
  
For more information regarding individual wargames, visit  
http://www.overthewire.org/wargames/  
  
For support, questions or comments, contact us on discord or IRC.  
  
Enjoy your stay!  
  
bandit0@bandit:~$ ls  
readme  
bandit0@bandit:~$ cat readme  
NH2SXQwcBdpmTEzi3bvBHMM9H66vVXjL  
bandit0@bandit:~$
```

P/W : NH2SXQwcBdpmTEzi3bvBHMM9H66vVXjL

Bandit Level 1

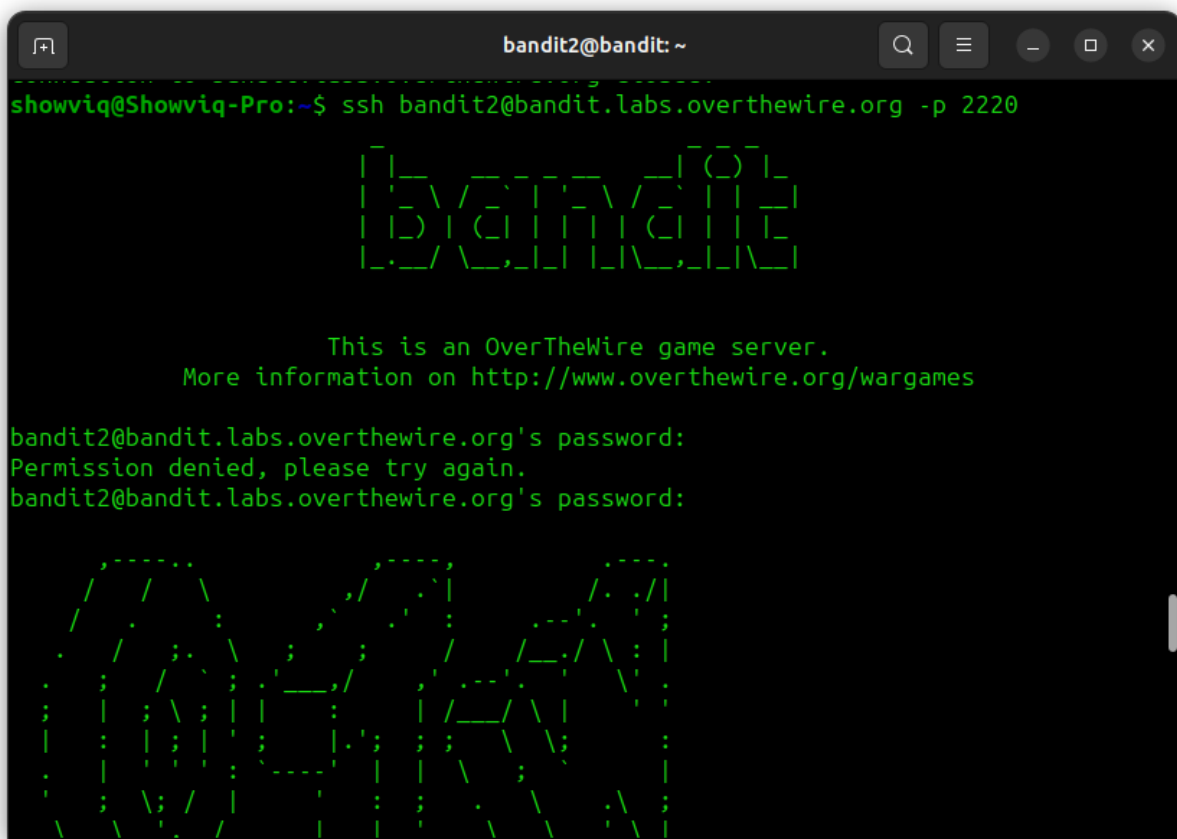
```
bandit1@bandit: ~  
in the following locations:  
  
* gef (https://github.com/hugsy/gef) in /opt/gef/  
* pwndbg (https://github.com/pwndbg/pwndbg) in /opt/pwndbg/  
* peda (https://github.com/longld/peda.git) in /opt/peda/  
* gdbinit (https://github.com/gdbinit/Gdbinit) in /opt/gdbinit/  
* pwntools (https://github.com/Gallopsled/pwntools)  
* radare2 (http://www.radare.org/)  
  
Both python2 and python3 are installed.  
  
--[ More information ]--  
  
For more information regarding individual wargames, visit  
http://www.overthewire.org/wargames/  
  
For support, questions or comments, contact us on discord or IRC.  
  
Enjoy your stay!  
  
bandit0@bandit:~$ ls  
readme  
bandit0@bandit:~$ cat readme  
NH2SXQwcBdpnTEzi3bvBHMM9H66vVXjL  
bandit0@bandit:~$ exit
```



```
bandit1@bandit: ~  
* gef (https://github.com/hugsy/gef) in /opt/gef/  
* pwndbg (https://github.com/pwndbg/pwndbg) in /opt/pwndbg/  
* peda (https://github.com/longld/peda.git) in /opt/peda/  
* gdbinit (https://github.com/gdbinit/Gdbinit) in /opt/gdbinit/  
* pwntools (https://github.com/Gallopsled/pwntools)  
* radare2 (http://www.radare.org/)  
  
Both python2 and python3 are installed.  
  
--[ More information ]--  
  
For more information regarding individual wargames, visit  
http://www.overthewire.org/wargames/  
  
For support, questions or comments, contact us on discord or IRC.  
  
Enjoy your stay!  
  
bandit1@bandit:~$ ls  
-  
bandit1@bandit:~$ cd ./-  
-bash: cd: ./-: Not a directory  
bandit1@bandit:~$ cat ./-  
rRGizSaX8Mk1RTb1CNQoXTcYZWU6lgzi  
bandit1@bandit:~$
```

P/W : rRGizSaX8Mk1RTb1CNQoXTcYZWU6lgzi

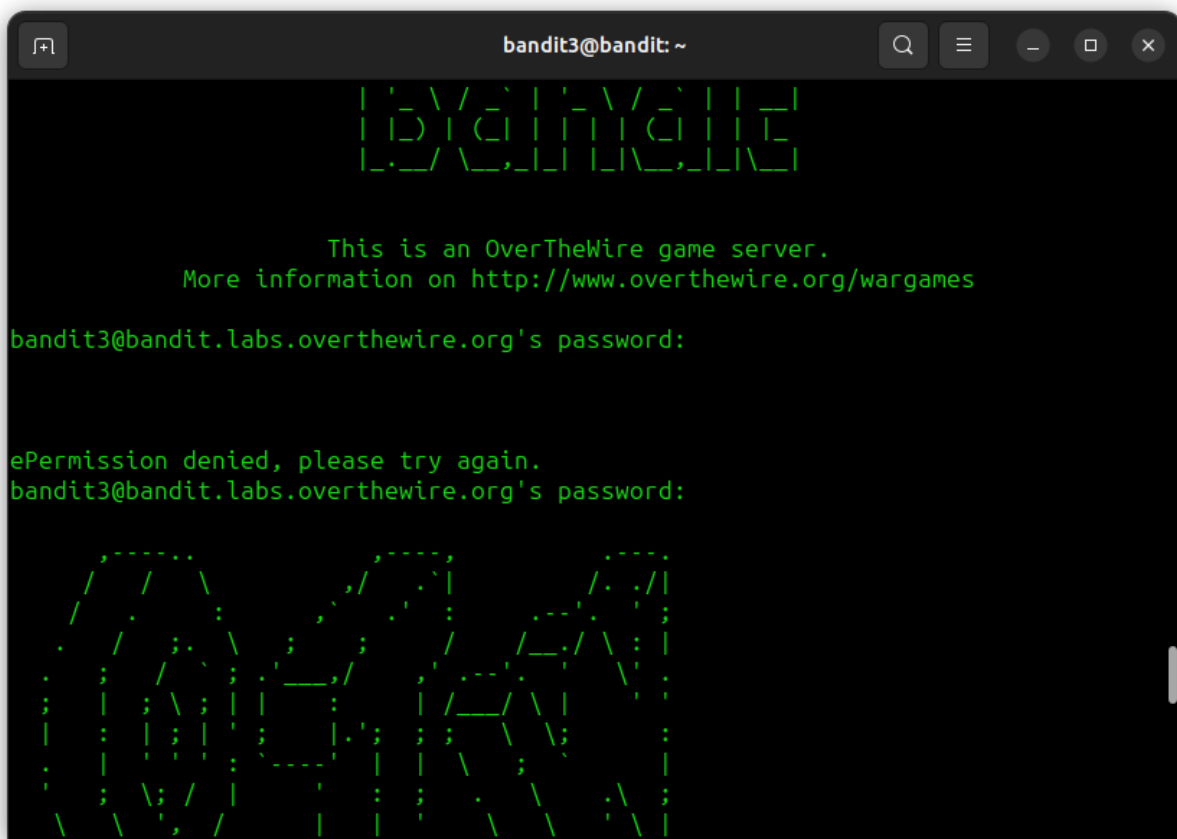
Bandit Level 2



```
bandit2@bandit: ~  
in the following locations:  
  
* gef (https://github.com/hugsy/gef) in /opt/gef/  
* pwndbg (https://github.com/pwndbg/pwndbg) in /opt/pwndbg/  
* peda (https://github.com/longld/peda.git) in /opt/peda/  
* gdbinit (https://github.com/gdbinit/Gdbinit) in /opt/gdbinit/  
* pwntools (https://github.com/Gallopsled/pwntools)  
* radare2 (http://www.radare.org/)  
  
Both python2 and python3 are installed.  
  
--[ More information ]--  
  
For more information regarding individual wargames, visit  
http://www.overthewire.org/wargames/  
  
For support, questions or comments, contact us on discord or IRC.  
  
Enjoy your stay!  
  
bandit2@bandit:~$ ls  
spaces in this filename  
bandit2@bandit:~$ cat 'spaces in this filename'  
aBZ0W5EmUfAf7kHTQeOwd8bauFJ2lAiG  
bandit2@bandit:~$
```

P/W : aBZ0W5EmUfAf7kHTQeOwd8bauFJ2lAiG

Bandit Level 3



P/W : 2EW7BBsr6aMMoJ2HjW067dm8EgX26xNe

Bandit Level 4

```
bandit4@bandit: ~  
For more information regarding individual wargames, visit  
http://www.overthewire.org/wargames/  
  
For support, questions or comments, contact us on discord or IRC.  
  
Enjoy your stay!  
  
bandit3@bandit:~$ ls  
inhere  
bandit3@bandit:~$ cd inhere  
bandit3@bandit:~/inhere$ ls  
bandit3@bandit:~/inhere$ ls -a  
.. .. .hidden  
bandit3@bandit:~/inhere$ cat .hidden  
2EW7BBsr6aMMoJ2HjW067dm8EgX26xNe  
bandit3@bandit:~/inhere$ exit  
logout  
Connection to bandit.labs.overthewire.org closed.  
showviq@Showviq-Pro:~$ ssh bandit4@bandit.labs.overthewire.org -p 2220  
  
  _ _ _ _ _  
 | _ _ _ _ _ |  
 | _ _ _ _ _ |  
 | _ _ _ _ _ |
```



```
bandit4@bandit: ~/inhere
command 'lsns' from deb util-linux (2.37.2-4ubuntu3)
Try: apt install <deb name>
bandit4@bandit:~/inhere$
bandit4@bandit:~/inhere$
bandit4@bandit:~/inhere$
bandit4@bandit:~/inhere$
bandit4@bandit:~/inhere$
bandit4@bandit:~/inhere$
bandit4@bandit:~/inhere$ ls
-file00 -file02 -file04 -file06 -file08
-file01 -file03 -file05 -file07 -file09
bandit4@bandit:~/inhere$ for x in {0..9}; do file ./-file0$x; done
./-file00: data
./-file01: data
./-file02: data
./-file03: data
./-file04: data
./-file05: data
./-file06: data
./-file07: ASCII text
./-file08: data
./-file09: Non-ISO extended-ASCII text, with no line terminators
bandit4@bandit:~/inhere$ cat <-file07
lrIWWI6bB37kxfiCQZqUdOIYfr6eEeqR
bandit4@bandit:~/inhere$
```

P/W : lrIWWI6bB37kxfiCQZqUdOIYfr6eEeqR

Bandit Level 5


```
bandit5@bandit: ~/Inhere/maybehere07
bandit5@bandit:~$ ls
Inhere
bandit5@bandit:~$ cd Inhere
bandit5@bandit:~/Inhere$ find -type f -size 1033c ! -executable
./maybehere07/.file2
bandit5@bandit:~/Inhere$ ls
maybehere00  maybehere04  maybehere08  maybehere12  maybehere16
maybehere01  maybehere05  maybehere09  maybehere13  maybehere17
maybehere02  maybehere06  maybehere10  maybehere14  maybehere18
maybehere03  maybehere07  maybehere11  maybehere15  maybehere19
bandit5@bandit:~/Inhere$ cd maybehere07
bandit5@bandit:~/Inhere/maybehere07$ ls
-file1 -file2 -file3 spaces file1 spaces file2 spaces file3
bandit5@bandit:~/Inhere/maybehere07$ cat file2
cat: file2: No such file or directory
bandit5@bandit:~/Inhere/maybehere07$ cat -file2
cat: invalid option -- 'f'
Try 'cat --help' for more information.
bandit5@bandit:~/Inhere/maybehere07$ cat .file2
P4L4vucdmLnm8I7Vl7jG1ApGSfjYKqJU
```

P/W : P4L4vucdmLnm8I7Vl7jG1ApGSfjYKqJU

Bandit Level 6

bandit6@bandit: ~



```
showviq@Showviq-Pro:~$ ssh bandit6@bandit.labs.overthewire.org -p 2220
```

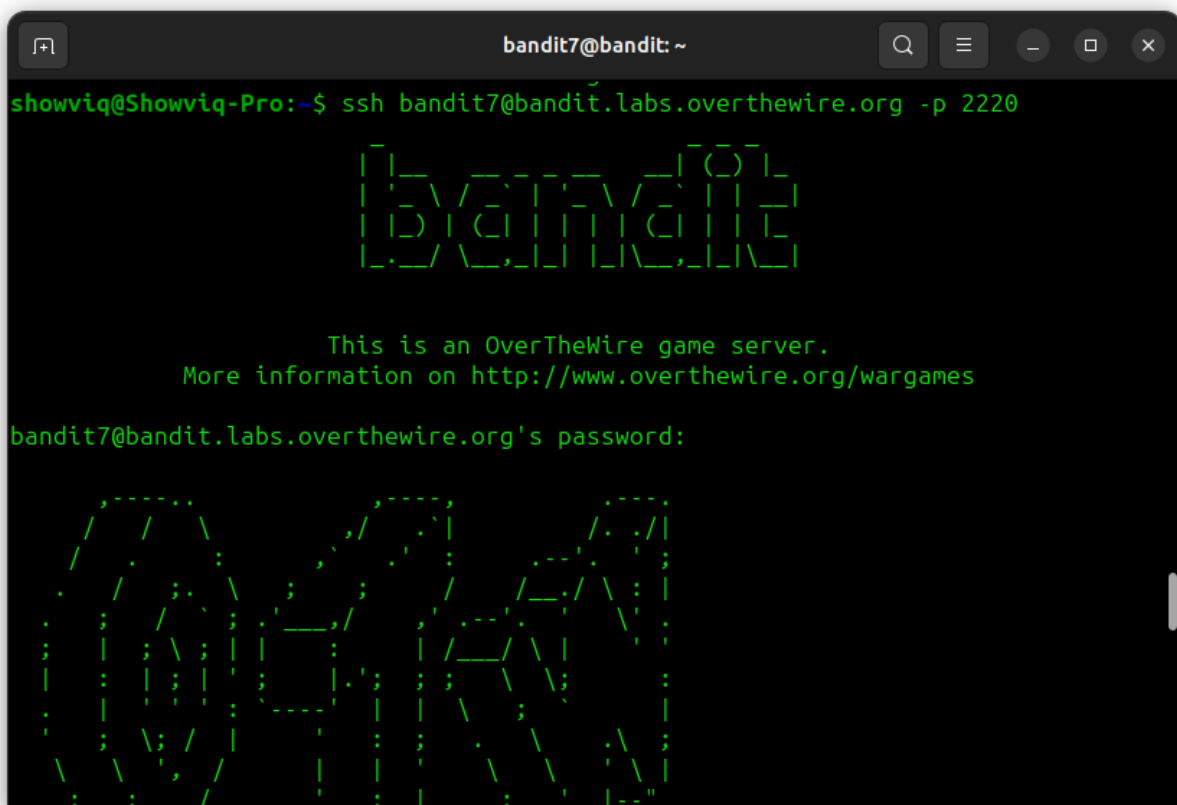
This is an OverTheWire game server.
More information on <http://www.overthewire.org/wargames>

```
bandit6@bandit.labs.overthewire.org's password:
```

```
showviq@Showviq-Pro: ~  
find: '/run/lvm': Permission denied  
find: '/run/credentials/systemd-sysusers.service': Permission denied  
find: '/run/systemd/propagate': Permission denied  
find: '/run/systemd/unit-root': Permission denied  
find: '/run/systemd/inaccessible/dir': Permission denied  
find: '/run/lock/lvm': Permission denied  
find: '/root': Permission denied  
find: '/sys/kernel/tracing': Permission denied  
find: '/sys/kernel/debug': Permission denied  
find: '/sys/fs/pstore': Permission denied  
find: '/sys/fs/bpf': Permission denied  
bandit6@bandit:~$  
bandit6@bandit:~$  
bandit6@bandit:~$  
bandit6@bandit:~$ find / -user bandit7 -group bandit6 -size 33c 2>/dev/null  
/var/lib/dpkg/info/bandit7.password  
bandit6@bandit:~$ /dev$ cat /var/lib/dpkg/info/bandit7.password  
-bash: /dev$: No such file or directory  
bandit6@bandit:~$ /dev$ cat /var/lib/dpkg/info/bandit7.password  
-bash: /dev$: No such file or directory  
bandit6@bandit:~$ find / -user bandit7 -group bandit6 -size 33c 2>/dev/null  
/var/lib/dpkg/info/bandit7.password  
bandit6@bandit:~$ cat /var/lib/dpkg/info/bandit7.password  
z7WtoNQU2XfjmMtWA8u5rN4vzqu4v99S
```

P/W : z7WtoNQU2XfjmMtWA8u5rN4vzqu4v99S

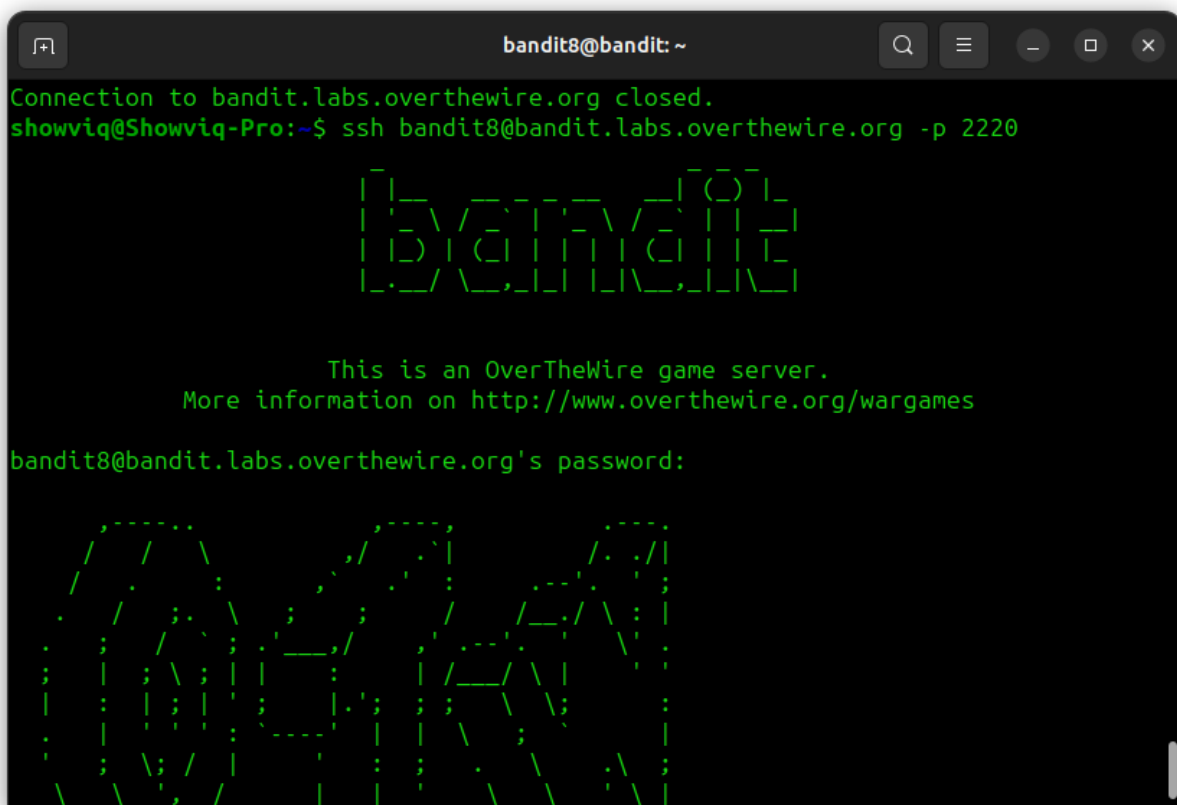
Bandit Level 7



```
bandit7@bandit: ~  
requisition qRKISXE2RsyemkkxIEheH3LuIQj3wbH1  
complainant 2GGolY9rGb10qe8ZviamsKaImQ80ydkH  
scattered Ucq17ZipFmEXUmXfGIYXDjtvS1EWdtI8  
dawdle lA7yQ308V7gm3xyW5yF9Sh0rc4owvVHR  
mastery's XWolopTHm705T7TQ5yz0v85K5DdhQeEV  
graphs sI990KmzmngMuQwKdym72g6oSrdkCXaA  
crumbed FLLR0bocq0tAFKHynG75hQpcht2nxxVW  
newness's T1Wx7NQwT5u4uC4xkpo66arsUm2NfD97  
Caesarean mKq51XFsz9R7qVprU760059oHt78ACPw  
bandit7@bandit:~$ cat data.txt | head  
Worcester's fyKdWh7VVGusiIKPygHJe6TlkDHhLHl  
arousal r8mfBurE20vHu8NFQc7mJ2x14iNjwkin  
counterespionage's 4jmzYqFkqwciprPrJleFCI9tyjbXBtdt  
Willard's ctbhPNPRDGAll4Whhsrz3Mwv6qJHM8Et  
midwife Kk9VZkoTUNUfmIa031vovUN2UKksZ56S  
rookie LVU5eslJrzjrXQh4SsuSL07f7zQbwuDu  
fezes Twv6nvASc3pqIHL09jEvrsYSKbHpSr6H  
east 3iBmPOvNXWLS8L60uLCUGQ37SEQdM8K7  
preeminence's qmAHcCxMawJxe3vHBFhL9eNWtErnoSHS  
stirred rsR2z31uFFiYWll1W1kGr38wLN6FAHgN  
bandit7@bandit:~$ cat data.txt | grep millionth  
millionth TESKZC0XvTetK0S9xNwm25STk5iWrBvP  
bandit7@bandit:~$ ^C  
bandit7@bandit:~$
```

P/W : TESKZC0XvTetK0S9xNwm25STk5iWrBvP

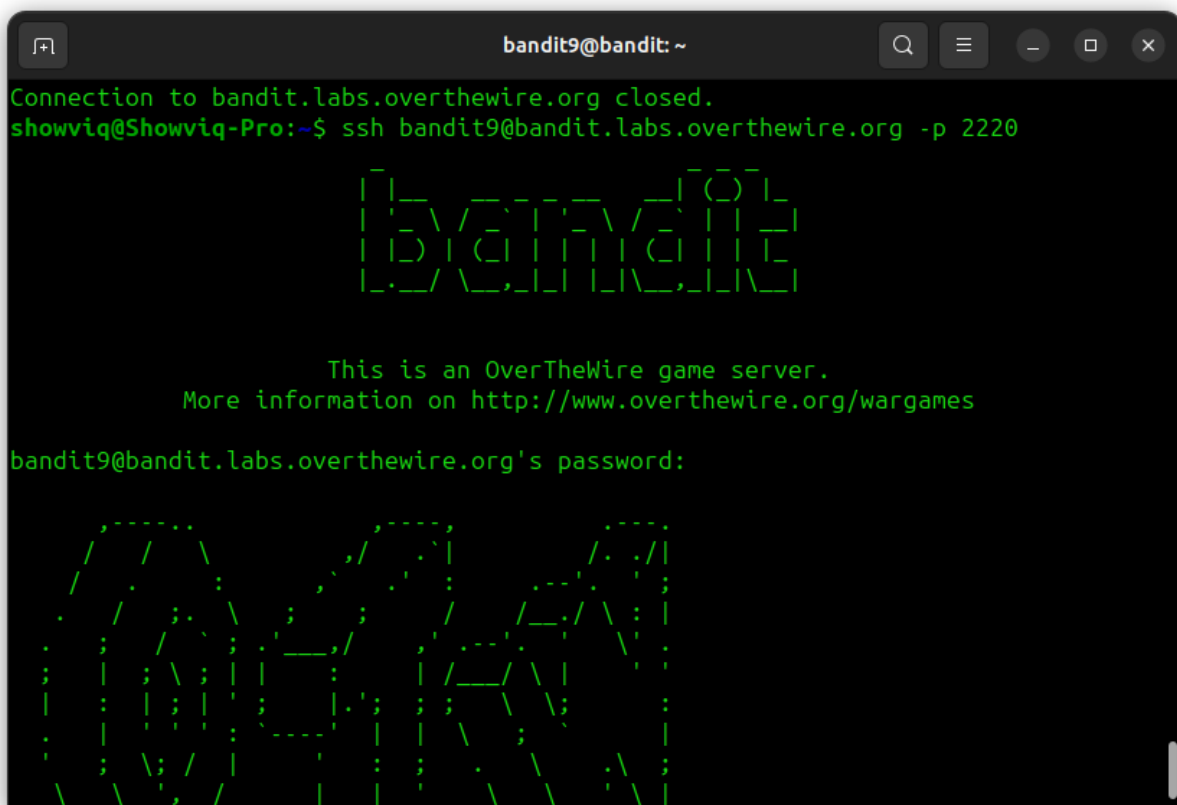
Bandit Level 8



```
showviq@Showviq-Pro: ~  
* pwndbg (https://github.com/pwndbg/pwndbg) in /opt/pwndbg/  
* peda (https://github.com/longld/peda.git) in /opt/peda/  
* gdbinit (https://github.com/gdbinit/Gdbinit) in /opt/gdbinit/  
* pwntools (https://github.com/Gallopsled/pwntools)  
* radare2 (http://www.radare.org/)  
  
Both python2 and python3 are installed.  
  
--[ More information ]--  
  
For more information regarding individual wargames, visit  
http://www.overthewire.org/wargames/  
  
For support, questions or comments, contact us on discord or IRC.  
  
Enjoy your stay!  
  
bandit8@bandit:~$ ls  
data.txt  
bandit8@bandit:~$ sort data.txt | uniq -u  
EN632PlfYiZbn3PhVK3XOGSINInNE00t  
bandit8@bandit:~$ exit  
logout  
Connection to bandit.labs.overthewire.org closed.
```

P/W : EN632PlfYiZbn3PhVK3XOGSINInNE00t

Bandit Level 9



```
bandit9@bandit: ~  
* gdbinit (https://github.com/gdbinit/Gdbinit) in /opt/gdbinit/  
* pwntools (https://github.com/Gallopsled/pwntools)  
* radare2 (http://www.radare.org/)  
  
Both python2 and python3 are installed.  
  
--[ More information ]--  
  
For more information regarding individual wargames, visit  
http://www.overthewire.org/wargames/  
  
For support, questions or comments, contact us on discord or IRC.  
  
Enjoy your stay!  
  
bandit9@bandit:~$ ls  
data.txt  
bandit9@bandit:~$ cat data.txt | strings | grep ^=  
===== password  
===== is  
=TU%  
=^,T,?  
===== G7w8LIi6J3kTb8A7j9LgrywtEUlyyp6s  
bandit9@bandit:~$
```

P/W : G7w8LIi6J3kTb8A7j9LgrywtEUlyyp6s

Bandit Level 10

[logout](#)

```
Connection to bandit.labs.overthewire.org closed.
```

```
showviq@Showviq-Pro:~$ ssh bandit10@bandit.labs.overthewire.org -p 2220
```

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

```
bandit10@bandit.labs.overthewire.org's password:
```

Permission denied, please try again.

```
bandit10@bandit.labs.overthewire.org's password:
```

```
showviq@showviq-Pro: ~  
* pwntools (https://github.com/Gallopsled/pwntools)  
* radare2 (http://www.radare.org/)  
  
Both python2 and python3 are installed.  
  
--[ More information ]--  
  
For more information regarding individual wargames, visit  
http://www.overthewire.org/wargames/  
  
For support, questions or comments, contact us on discord or IRC.  
  
Enjoy your stay!  
  
bandit10@bandit:~$ ls  
data.txt  
bandit10@bandit:~$ cat data.txt  
VGhlIHBhc3N3b3JkIGlzIDZ6UGV6aUxkUjJSS05kTl1GTmI2blZDS3pwaGxYSEJNCg==  
bandit10@bandit:~$ cat data.txt | base64 --decode  
The password is 6zPezilDR2RKNdNYFNB6nVCKzphlXHBM  
bandit10@bandit:~$  
logout  
Connection to bandit.labs.overthewire.org closed.  
showviq@showviq-Pro:~$
```

P/W : 6zPezilDR2RKNdNYFNB6nVCKzphlXHBM

Bandit Level 11

bandit11@bandit: ~



```
showviq@Showviq-Pro:~$ ssh bandit11@bandit.labs.overthewire.org -p 2220
```

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

bandit11@bandit.labs.overthewire.org's password:

```
showviq@showviq-Pro: ~
* pwntools (https://github.com/Gallopsled/pwntools)
* radare2 (http://www.radare.org/)

Both python2 and python3 are installed.

--[ More information ]--

For more information regarding individual wargames, visit
http://www.overthewire.org/wargames/

For support, questions or comments, contact us on discord or IRC.

Enjoy your stay!

bandit11@bandit:~$ ls
data.txt
bandit11@bandit:~$ cat data.txt
Gur cnffjbeq vf WIA00SFzMjXXBC0KoSKBbJ8puQm5lIEi
bandit11@bandit:~$ cat data.txt | tr 'A-Za-z' '[N-ZA-Mn-za-m]'
The password is JVNBBFSmZwKKOP0XbFXOoW8chDz5yVRv
bandit11@bandit:~$ exit
logout
Connection to bandit.labs.overthewire.org closed.
showviq@showviq-Pro:~$
```

P/W : JVNBBFSmZwKKOP0XbFXOoW8chDz5yVRv

Bandit Level 12

bandit12@bandit: ~

5

The password is JVNBBFSmZwKKOP0XbFX0oW8chDz5yVRv

```
bandit11@bandit:~$ exit
```

[logout](#)

```
Connection to bandit.labs.overthewire.org closed.
```

```
showviq@Showviq-Pro:~$ ssh bandit12@bandit.labs.overthewire.org -p 2220
```

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

```
bandit12@bandit.labs.overthewire.org's password:
```

```
bandit12@bandit: ~  
--[ Tools ]--  
  
For your convenience we have installed a few useful tools which you can find  
in the following locations:  
  
* gef (https://github.com/hugsy/gef) in /opt/gef/  
* pwndbg (https://github.com/pwndbg/pwndbg) in /opt/pwndbg/  
* peda (https://github.com/longld/peda.git) in /opt/peda/  
* gdbinit (https://github.com/gdbinit/Gdbinit) in /opt/gdbinit/  
* pwntools (https://github.com/Gallopsled/pwntools)  
* radare2 (http://www.radare.org/)  
  
Both python2 and python3 are installed.  
  
--[ More information ]--  
  
For more information regarding individual wargames, visit  
http://www.overthewire.org/wargames/  
  
For support, questions or comments, contact us on discord or IRC.  
  
Enjoy your stay!  
bandit12@bandit:~$
```

