


COGNIZANCE TASK - 5.

A screenshot of a terminal window titled "Ubuntu 20.04 [Running] - Oracle VM VirtualBox". The terminal shows a user named "ashutosh@ashutosh-VirtualBox" running the command "ssh bandit0@bandit:". The output displays the standard SSH usage information, followed by the execution of "ssh bandit0@bandit.labs.overthewire.org -p 2220". This results in a warning about the authenticity of the host's ECDSA key fingerprint, which the user accepts. The terminal then prompts for the password of "bandit0@bandit.labs.overthewire.org". At the bottom, there is a large ASCII art logo for "OverTheWire" and the URL "www.overthewire.org". The terminal window has a dark background and a sidebar on the left with various application icons. The top bar shows system status like date and time.

Level 0 to 1: (password: boJ9jbbUNNfktd78OOpsqOltutMc3MY1)

```
Ubuntu 20.04 [Running] - Oracle VM VirtualBox  
File Machine View Input Devices Help
```

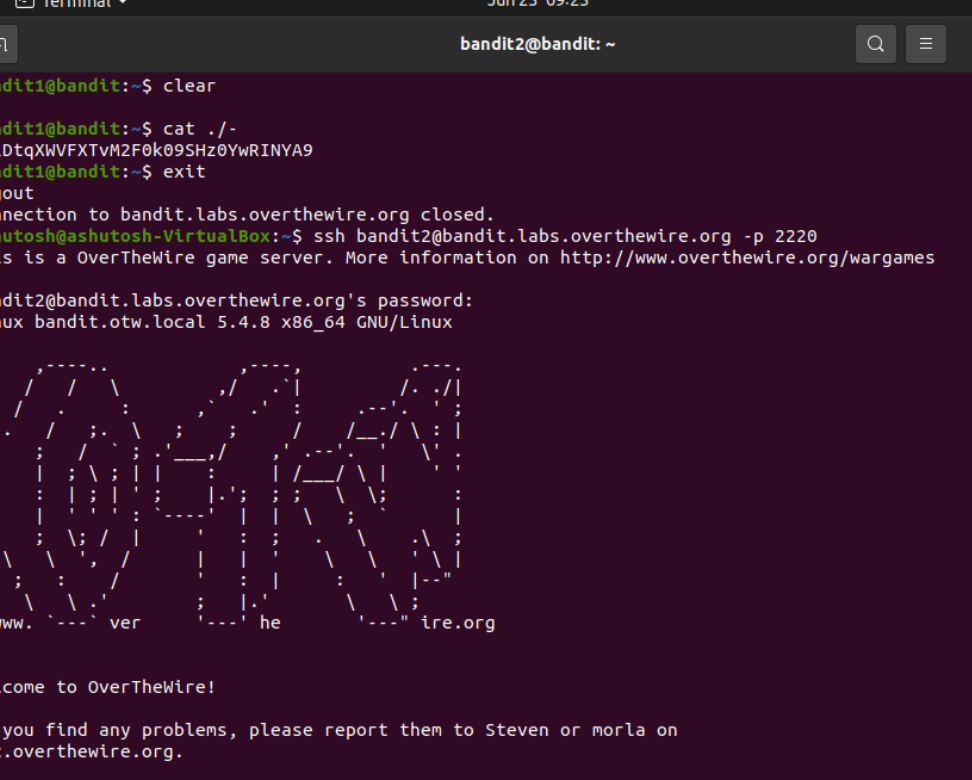
```
Activities Terminal Jun 25 09:21 bandit1@bandit: ~  
bandit0@bandit:~$ clear  
bandit0@bandit:~$ ls  
readme  
bandit0@bandit:~$ cat readme  
boJ9jbbUNNfktD7800psq0ltutMc3MY1  
bandit0@bandit:~$ exit  
logout  
Connection to bandit.labs.overthewire.org closed.  
ashutosha@ashutosha-VirtualBox:~$ ssh bandit1@bandit.labs.overthewire.org -p 2220  
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames  
  
bandit1@bandit.labs.overthewire.org's password:  
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux
```



```
www.ver he ire.org  
Welcome to OverTheWire!  
  
If you find any problems, please report them to Steven or morla on  
irc.overthewire.org.
```

```
--[ Playing the games ]--  
  
This machine might hold several wargames.
```

Level 1 to 2: (password: CV1DtqXWVFXTvM2F0k09SHz0YwRINYA9)



The screenshot shows a terminal window titled "Ubuntu 20.04 [Running] - Oracle VM VirtualBox". The terminal output is as follows:

```
bandit1@bandit:~$ clear
bandit1@bandit:~$ cat ./-
CV1DtqXWVFXTvM2F0k09SHz0YwRINYA9
bandit1@bandit:~$ exit
logout
Connection to bandit.labs.overthewire.org closed.
ashutosh@ashutosh-VirtualBox:~$ ssh bandit2@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit2@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux

www. ver he " ire.org

Welcome to OverTheWire!

If you find any problems, please report them to Steven or morla on
irc.overthewire.org.

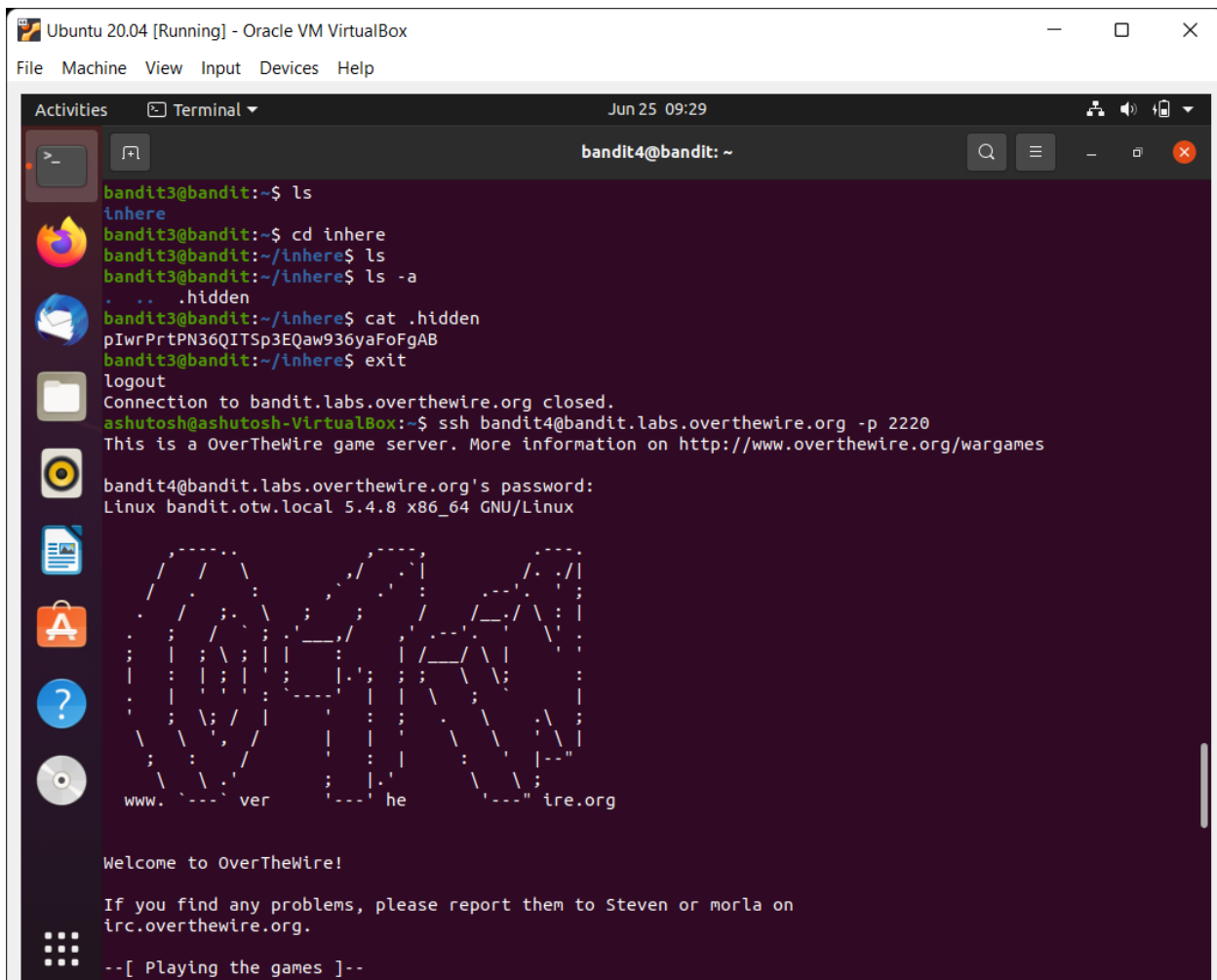
--[ Playing the games ]--

This machine might hold several wargames.
If you are playing "somegame", then:
```

Level 2 to 3: (password: UmHadQclWmgdLOKQ3YNggjWxGoRMb5luK)

[illegible]

Level 3 to 4: (password: plwrPrtPN36QITSp3EQaw936yaFoFgAB)



The screenshot shows a terminal window titled "Ubuntu 20.04 [Running] - Oracle VM VirtualBox". The user is logged in as "bandit3@bandit". The terminal output shows the following sequence of commands and responses:

```
bandit3@bandit:~$ ls
inhere
bandit3@bandit:~$ cd inhere
bandit3@bandit:~/inhere$ ls
bandit3@bandit:~/inhere$ ls -la
.  ..  .hidden
bandit3@bandit:~/inhere$ cat .hidden
pIwrPrtPN36QITSp3EQaw936yaFoFgAB
bandit3@bandit:~/inhere$ exit
logout
Connection to bandit.labs.overthewire.org closed.
ashutosh@ashutosh-VirtualBox:~$ ssh bandit4@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit4@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux
```

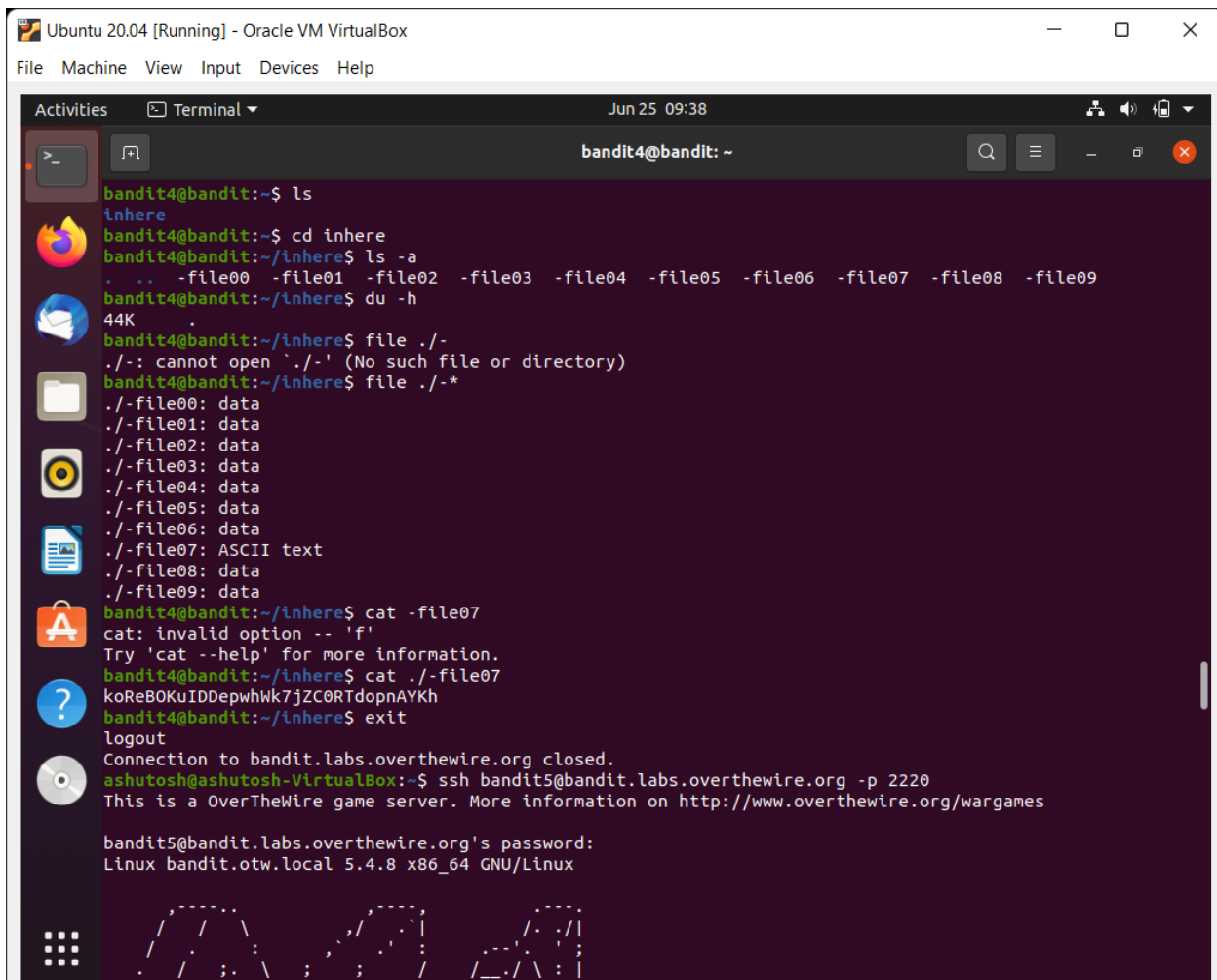
Below the terminal output, there is a large ASCII art logo for "OverTheWire" in a dashed font. Below the logo, the text "www.OverTheWire.org" is displayed. At the bottom of the terminal, a welcome message is shown:

```
Welcome to OverTheWire!

If you find any problems, please report them to Steven or morla on
irc.overthewire.org.

--[ Playing the games ]--
```

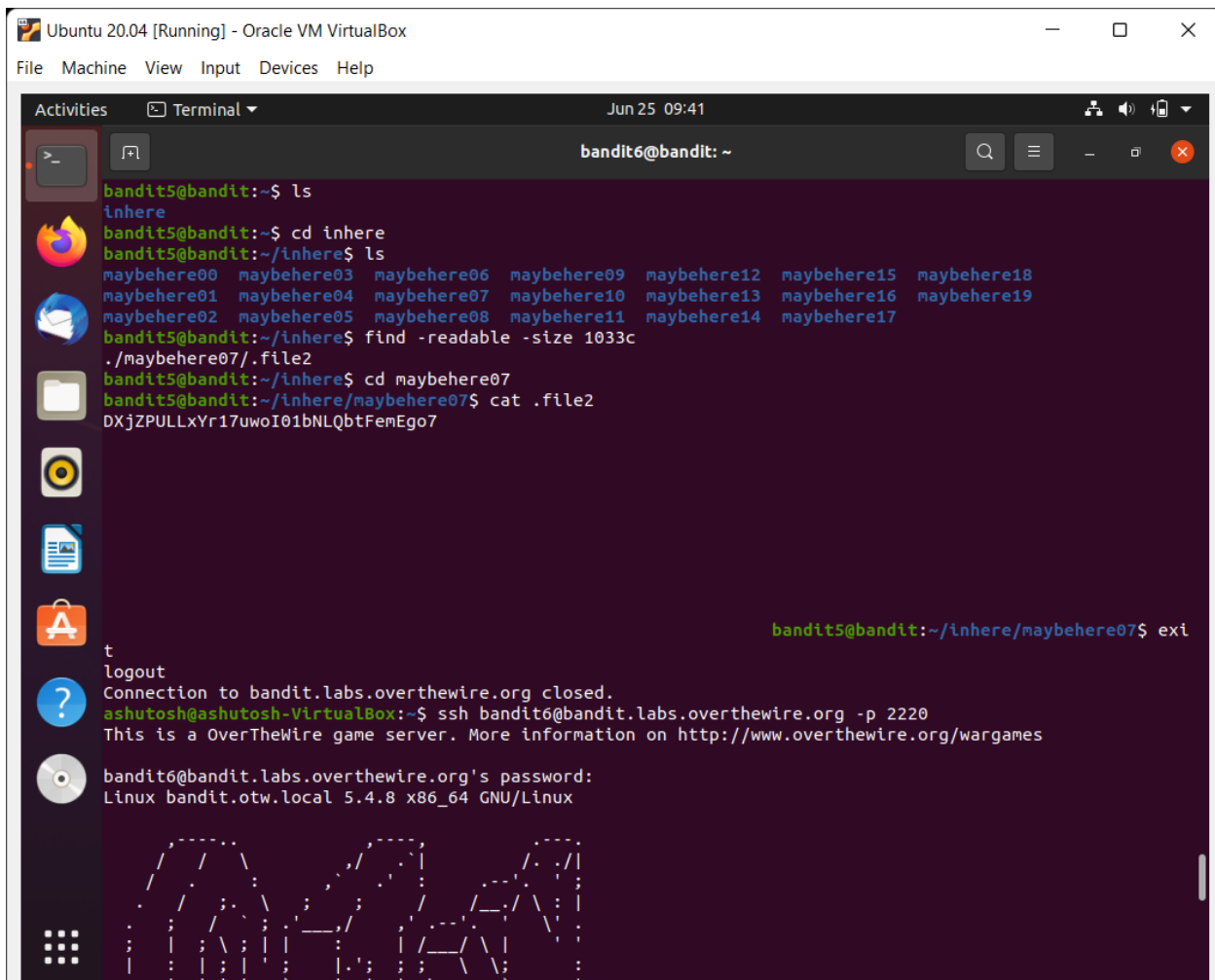
Level 4 to 5: (password: koReBOKuIDDepwhWk7jZC0RTdopnAYKh)



```
bandit4@bandit:~$ ls
inhere
bandit4@bandit:~$ cd inhere
bandit4@bandit:~/inhere$ ls -la
.  .. -file00 -file01 -file02 -file03 -file04 -file05 -file06 -file07 -file08 -file09
bandit4@bandit:~/inhere$ du -h
44K .
bandit4@bandit:~/inhere$ file ./-
./-: cannot open './-' (No such file or directory)
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$ cat -file07
cat: invalid option -- 'f'
Try 'cat --help' for more information.
bandit4@bandit:~/inhere$ cat ./-file07
koReBOKuIDDepwhWk7jZC0RTdopnAYKh
bandit4@bandit:~/inhere$ exit
logout
Connection to bandit.labs.overthewire.org closed.
ashutosh@ashutosh-VirtualBox:~$ ssh bandit5@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit5@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux
```

Level 5 to 6: (password: DXjZPULLxYr17uwoI01bNLQbtFemEgo7)



The screenshot shows a terminal window titled "Ubuntu 20.04 [Running] - Oracle VM VirtualBox". The user is logged in as "bandit6@bandit: ~". The terminal output shows the following commands and results:

```
bandit5@bandit:~$ ls
inhere
bandit5@bandit:~$ cd inhere
bandit5@bandit:~/inhere$ ls
maybehere00 maybehere03 maybehere06 maybehere09 maybehere12 maybehere15 maybehere18
maybehere01 maybehere04 maybehere07 maybehere10 maybehere13 maybehere16 maybehere19
maybehere02 maybehere05 maybehere08 maybehere11 maybehere14 maybehere17
bandit5@bandit:~/inhere$ find -readable -size 1033c
./maybehere07/.file2
bandit5@bandit:~/inhere$ cd maybehere07
bandit5@bandit:~/inhere/maybehere07$ cat .file2
DXjZPULLxYr17uwoI01bNLQbtFemEgo7
bandit5@bandit:~/inhere/maybehere07$ exit
t
logout
Connection to bandit.labs.overthewire.org closed.
ashutosh@ashutosh-VirtualBox:~$ ssh bandit6@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames
bandit6@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux
```

At the bottom of the terminal, there is a large ASCII art graphic that reads "WELCOME TO BANDIT" in a stylized, blocky font.

Level 6 to 7: (password: HKBPTKQnIay4Fw76bEy8PVxKEDQRKTzs)

```
Ubuntu 20.04 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

Activities Terminal Jun 25 09:45
bandit6@bandit: ~

bandit6@bandit:~$ ls
bandit6@bandit:~$ ls -a
. . . .bash_logout .bashrc .profile
bandit6@bandit:~$ find. -user bandit7 -group bandit6 -size 33c
-bash: find.: command not found
bandit6@bandit:~$ find . -user bandit7 -group bandit6 -size 33c
bandit6@bandit:~$ clear

bandit6@bandit:~$ ls
bandit6@bandit:~$ ls -a
. . . .bash_logout .bashrc .profile
bandit6@bandit:~$ find / -user bandit7 -group bandit6 -size 33c
find: '/root': Permission denied
find: '/home/bandit28-git': Permission denied
find: '/home/bandit30-git': Permission denied
find: '/home/bandit5/inhere': Permission denied
find: '/home/bandit27-git': Permission denied
find: '/home/bandit29-git': Permission denied
find: '/home/bandit31-git': Permission denied
find: '/lost+found': Permission denied
find: '/etc/ssl/private': Permission denied
find: '/etc/polkit-1/localauthority': Permission denied
find: '/etc/lvm/archive': Permission denied
find: '/etc/lvm/backup': Permission denied
find: '/sys/fs/pstore': Permission denied
find: '/proc/tty/driver': Permission denied
find: '/proc/31660/task/31660/fd/6': No such file or directory
find: '/proc/31660/task/31660/fdinfo/6': No such file or directory
find: '/proc/31660/fd/5': No such file or directory
find: '/proc/31660/fdinfo/5': No such file or directory
find: '/cgroup2/csessions': Permission denied
find: '/boot/lost+found': Permission denied
find: '/tmp': Permission denied
find: '/run/lvm': Permission denied
find: '/run/screen/S-bandit5': Permission denied
find: '/run/screen/S-bandit11': Permission denied
find: '/run/screen/S-bandit20': Permission denied
find: '/run/screen/S-bandit13': Permission denied
```

```
Ubuntu 20.04 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

Activities Terminal Jun 25 09:46
bandit6@bandit: ~

find: '/run/screen/S-bandit13': Permission denied
find: '/run/screen/S-bandit29': Permission denied
find: '/run/screen/S-bandit1': Permission denied
find: '/run/screen/S-bandit25': Permission denied
find: '/run/screen/S-bandit30': Permission denied
find: '/run/screen/S-bandit9': Permission denied
find: '/run/screen/S-bandit28': Permission denied
find: '/run/screen/S-bandit18': Permission denied
find: '/run/screen/S-bandit7': Permission denied
find: '/run/screen/S-bandit16': Permission denied
find: '/run/screen/S-bandit26': Permission denied
find: '/run/screen/S-bandit8': Permission denied
find: '/run/screen/S-bandit15': Permission denied
find: '/run/screen/S-bandit4': Permission denied
find: '/run/screen/S-bandit19': Permission denied
find: '/run/screen/S-bandit31': Permission denied
find: '/run/screen/S-bandit17': Permission denied
find: '/run/screen/S-bandit2': Permission denied
find: '/run/screen/S-bandit22': Permission denied
find: '/run/screen/S-bandit21': Permission denied
find: '/run/screen/S-bandit14': Permission denied
find: '/run/screen/S-bandit24': Permission denied
find: '/run/screen/S-bandit23': Permission denied
find: '/run/shm': Permission denied
find: '/run/lock/lvm': Permission denied
find: '/var/spool/bandit24': Permission denied
find: '/var/spool/cron/crontabs': Permission denied
find: '/var/spool/rsyslog': Permission denied
find: '/var/tmp': Permission denied
find: '/var/lib/apt/lists/partial': Permission denied
find: '/var/lib/polkit-1': Permission denied
/var/lib/dpkg/info/bandit7.password
find: '/var/log': Permission denied
find: '/var/cache/apt/archives/partial': Permission denied
find: '/var/cache/ldconfig': Permission denied
bandit6@bandit:~$ cat /var/lib/dpkg/info/bandit7.password
HKBPTKQnIay4Fw76bEy8PVxKEDQRKTzs
bandit6@bandit:~$
```


Level 7 to 8: (password: cvX2JJa4CFALtqS87jk27qwqGhBM9pIV)

The screenshot shows a terminal window titled "Ubuntu 20.04 [Running] - Oracle VM VirtualBox". The terminal output is as follows:

```

bandit7@bandit:~$ ls
data.txt
bandit7@bandit:~$ grep -i "millionth" data.txt
millionth      cvX2JJJa4CFALtqS87jk27qwqghBM9p1V
bandit7@bandit:~$ exit
logout
Connection to bandit.labs.overthewire.org closed.
ashutosh@ashutosh-VirtualBox:~$ ssh bandit8@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit8@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux

```

The terminal then displays a large ASCII art logo for "OverTheWire" and the URL "www.overthewire.org". Below the logo, it says "Welcome to OverTheWire!" and provides instructions for reporting problems and playing games.

```

--[ Playing the games ]--

This machine might hold several wargames.
If you are playing "somegame", then:

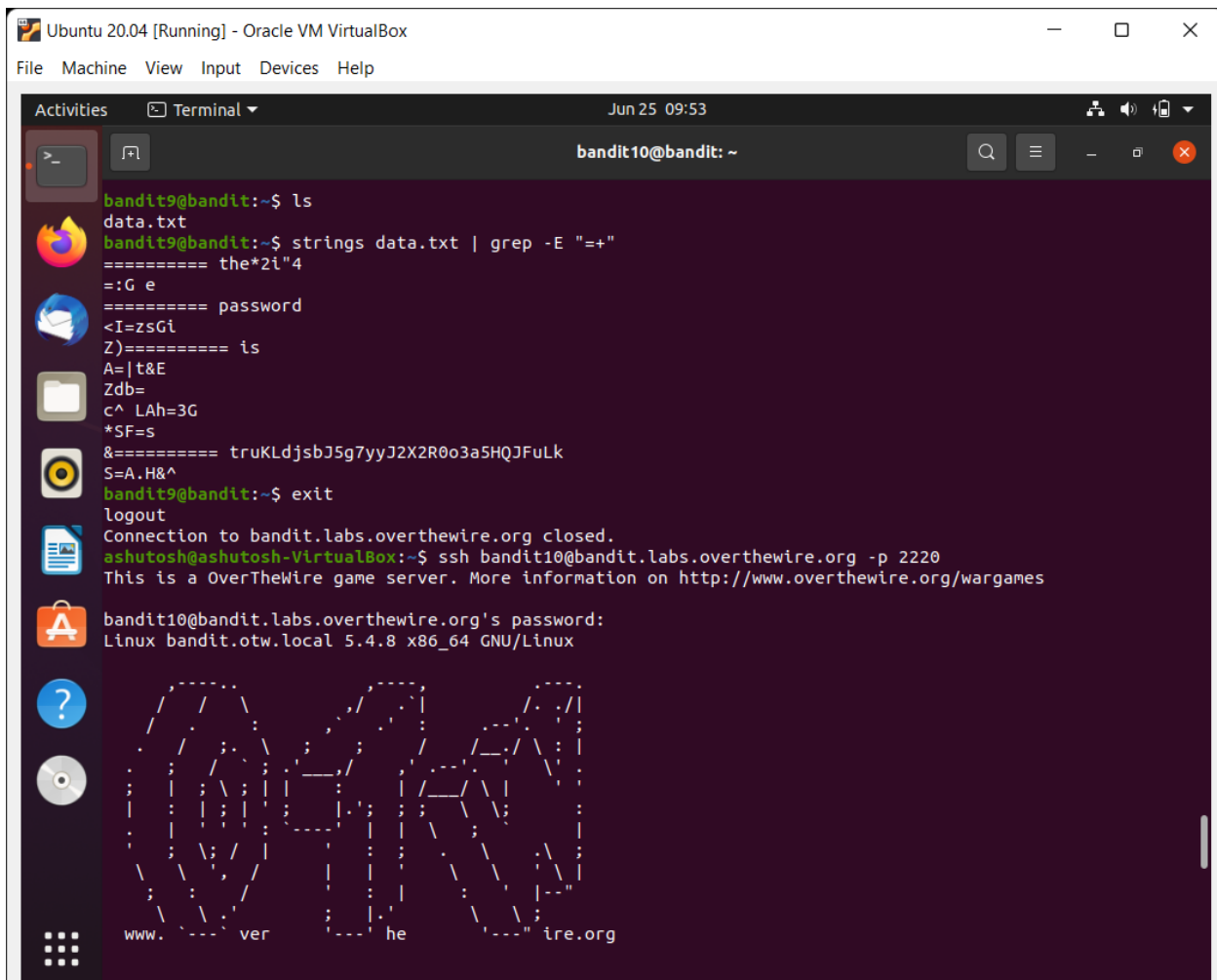
* USERNAMES are usernames0 - usernames4

```

Level 8 to 9: (password: UsvVyFsfZZWbi6wgC7dAFyFuR6jQQUhR)

[illegible]

Level 9 to 10: (password: truKLdjsbJ5g7yyJ2X2R0o3a5HQJFuLk)

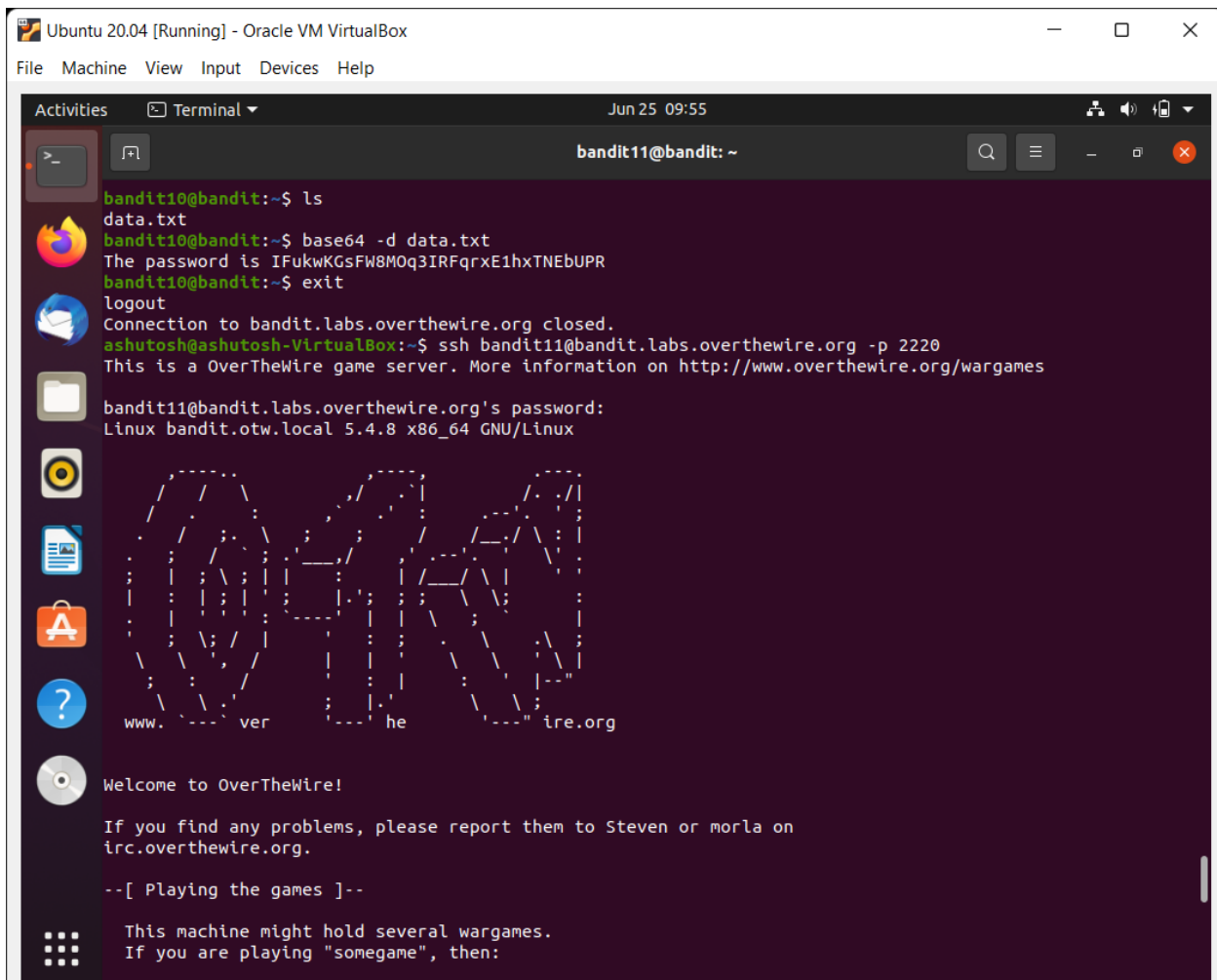


The screenshot shows a terminal window titled "Ubuntu 20.04 [Running] - Oracle VM VirtualBox". The terminal is running as the user "bandit10@bandit:". The user has executed the following commands and received the following output:

```
bandit9@bandit:~$ ls
data.txt
bandit9@bandit:~$ strings data.txt | grep -E "="
===== the*2i"4
=:G e
===== password
<I=zsG!
Z)===== is
A=|t&E
Zdb=
c^ LAh=3G
*SF=s
&===== truKLdjsbJ5g7yyJ2X2R0o3a5HQJFuLk
S=A.H&^
bandit9@bandit:~$ exit
logout
Connection to bandit.labs.overthewire.org closed.
ashutosh@ashutosh-VirtualBox:~$ ssh bandit10@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames
bandit10@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux
```

At the bottom of the terminal window, there is a large ASCII art logo for "OverTheWire" and the website "www.overthewire.org".

Level 10 to 11: (password: IFukwKGsFW8MOq3IRFqrxE1hxTNEbUPR)



The screenshot shows a terminal window titled "Ubuntu 20.04 [Running] - Oracle VM VirtualBox". The terminal session starts with the user logged in as bandit10. They run 'ls' and see 'data.txt'. Then they run 'base64 -d data.txt', which reveals the password 'IFukwKGsFW8MOq3IRFqrxE1hxTNEbUPR'. After exiting bandit10, they SSH into bandit11 at bandit.labs.overthewire.org. The bandit11 login banner includes a large ASCII art '0411' and a welcome message. The terminal output is as follows:

```
bandit10@bandit:~$ ls
data.txt
bandit10@bandit:~$ base64 -d data.txt
The password is IFukwKGsFW8MOq3IRFqrxE1hxTNEbUPR
bandit10@bandit:~$ exit
logout
Connection to bandit.labs.overthewire.org closed.
ashutosh@ashutosh-VirtualBox:~$ ssh bandit11@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit11@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux

      0411
  www. ver he " ire.org

Welcome to OverTheWire!

If you find any problems, please report them to Steven or morla on
irc.overthewire.org.

--[ Playing the games ]--

This machine might hold several wargames.
If you are playing "somegame", then:
```

Level 11 to 12: (password: 5Te8Y4drgCRfCx8ugdWuEX8KFC6k2EUu)

```
Ubuntu 20.04 [Running] - Oracle VM VirtualBox  
File Machine View Input Devices Help
```

```
Activities Terminal Jun 25 09:58 bandit12@bandit: ~  
bandit11@bandit:~$ ls  
data.txt  
bandit11@bandit:~$ cat data.txt  
Gur cnffjbeq vf 5Gr8L4getPEsPk8htqjhRK8XSP6x2RHH  
bandit11@bandit:~$ cat data.txt | tr "A-Za-z" "N-ZA-Mn-za-m"  
The password is STe8Y4drgrCfCx8ugdwuEX8KFC6k2EUu  
bandit11@bandit:~$ exit  
logout  
Connection to bandit.labs.overthewire.org closed.  
ashutosh@ashutosh-VirtualBox:~$ ssh bandit12@bandit.labs.overthewire.org -p 2220  
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames  
  
bandit12@bandit.labs.overthewire.org's password:  
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux  
  
www. ver he ire.org  
  
Welcome to OverTheWire!  
  
If you find any problems, please report them to Steven or morla on  
irc.overthewire.org.  
  
--[ Playing the games ]--  
  
This machine might hold several wargames.
```

Level 12 to 13: (password: 8ZjyCRiBWFYkneahHwxCv3wb2a1ORpYL)

```
Ubuntu 20.04 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

Activities Terminal Jun 25 10:18
bandit13@bandit: ~

bandit12@bandit:/tmp/ashu123$ cd
bandit12@bandit:~$ cp data.txt /tmp/ashu123
bandit12@bandit:~$ cd /tmp/ashu123
bandit12@bandit:/tmp/ashu123$ ls
data.txt
bandit12@bandit:/tmp/ashu123$ xxd -r data.txt data
bandit12@bandit:/tmp/ashu123$ file data
data: gzip compressed data, was "data2.bin", last modified: Thu May  7 18:14:30 2020, max compression, from Unix
bandit12@bandit:/tmp/ashu123$ mv data data.gz
bandit12@bandit:/tmp/ashu123$ gzip -d data.gz
bandit12@bandit:/tmp/ashu123$ ls
data data.txt
bandit12@bandit:/tmp/ashu123$ file data
data: bzip2 compressed data, block size = 900k
bandit12@bandit:/tmp/ashu123$ mv data data.bz2
bandit12@bandit:/tmp/ashu123$ bzip2 -d data.bz2
bandit12@bandit:/tmp/ashu123$ ls
data data.txt
bandit12@bandit:/tmp/ashu123$ file data
data: gzip compressed data, was "data4.bin", last modified: Thu May  7 18:14:30 2020, max compression, from Unix
bandit12@bandit:/tmp/ashu123$ mv data data.gz
bandit12@bandit:/tmp/ashu123$ gzip -d data.gz
bandit12@bandit:/tmp/ashu123$ ls
data data.txt
bandit12@bandit:/tmp/ashu123$ file data
data: POSIX tar archive (GNU)
bandit12@bandit:/tmp/ashu123$ mv data data.tar
bandit12@bandit:/tmp/ashu123$ tar xvf data.tar
data5.bin
bandit12@bandit:/tmp/ashu123$ file data5.bin
data5.bin: POSIX tar archive (GNU)
bandit12@bandit:/tmp/ashu123$ mv data5.bin data5.tar
bandit12@bandit:/tmp/ashu123$ tar xvf data5.tar
data6.bin
bandit12@bandit:/tmp/ashu123$ file data6.bin
data6.bin: bzip2 compressed data, block size = 900k
bandit12@bandit:/tmp/ashu123$ mv data6.bin data6.tar
```

```
Ubuntu 20.04 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

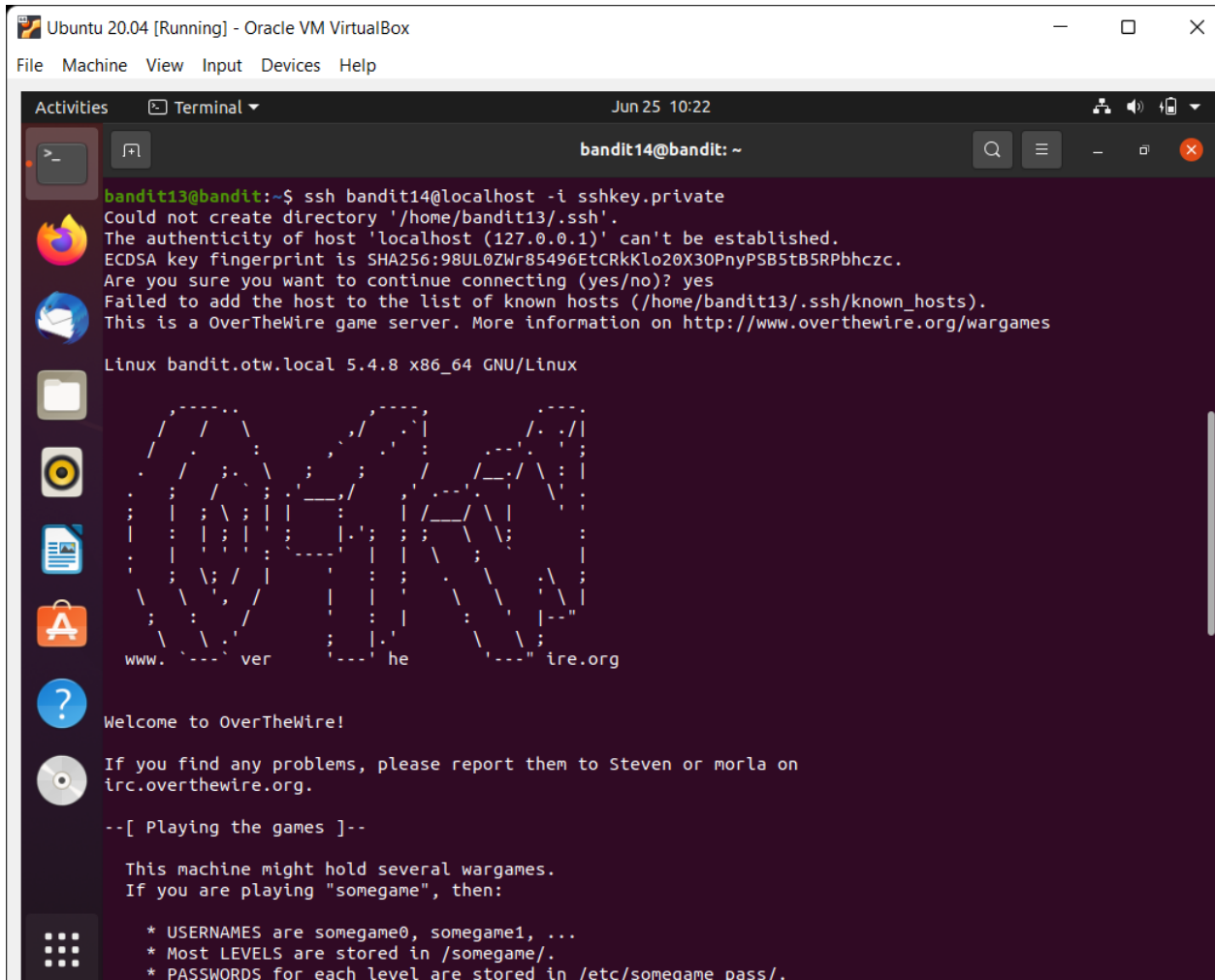
Activities Terminal Jun 25 10:19
bandit13@bandit: ~

data6.bin: bzip2 compressed data, block size = 900k
bandit12@bandit:/tmp/ashu123$ mv data6.bin data6.tar
bandit12@bandit:/tmp/ashu123$ tar xvf data6.tar
data8.bin
bandit12@bandit:/tmp/ashu123$ file data8.bin
data8.bin: gzip compressed data, was "data9.bin", last modified: Thu May  7 18:14:30 2020, max compression, from Unix
bandit12@bandit:/tmp/ashu123$ mv data8.bin data8.gz
bandit12@bandit:/tmp/ashu123$ gzip -d data8.gz
bandit12@bandit:/tmp/ashu123$ ls
data5.tar data6.tar data8 data8.tar data.txt
bandit12@bandit:/tmp/ashu123$ file data8
data8: ASCII text
bandit12@bandit:/tmp/ashu123$ cat data8
The password is 8ZjyCRiBWFYkneahHwxCv3wb2a1ORpYL
bandit12@bandit:/tmp/ashu123$ exit
logout
Connection to bandit.labs.overthewire.org closed.
ashutosh@ashutosh-VirtualBox:~$ ssh bandit13@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit13@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux

www.OverTheWire.org
```

Level 13 to 14: (password: logged in using private ssh key)



The screenshot shows a terminal window titled "Ubuntu 20.04 [Running] - Oracle VM VirtualBox". The terminal is running a command to SSH into bandit14 from bandit13. The output shows the SSH process, including the warning about the host's authenticity and the ECDSA key fingerprint. The terminal then displays the OverTheWire logo and a welcome message.

```
bandit13@bandit:~$ ssh bandit14@localhost -i sshkey.private
Could not create directory '/home/bandit13/.ssh'.
The authenticity of host 'localhost (127.0.0.1)' can't be established.
ECDSA key fingerprint is SHA256:98UL0ZW85496EtCRkKlo20X30PnyPSB5tB5RPbhczc.
Are you sure you want to continue connecting (yes/no)? yes
Failed to add the host to the list of known hosts (/home/bandit13/.ssh/known_hosts).
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux

Welcome to OverTheWire!

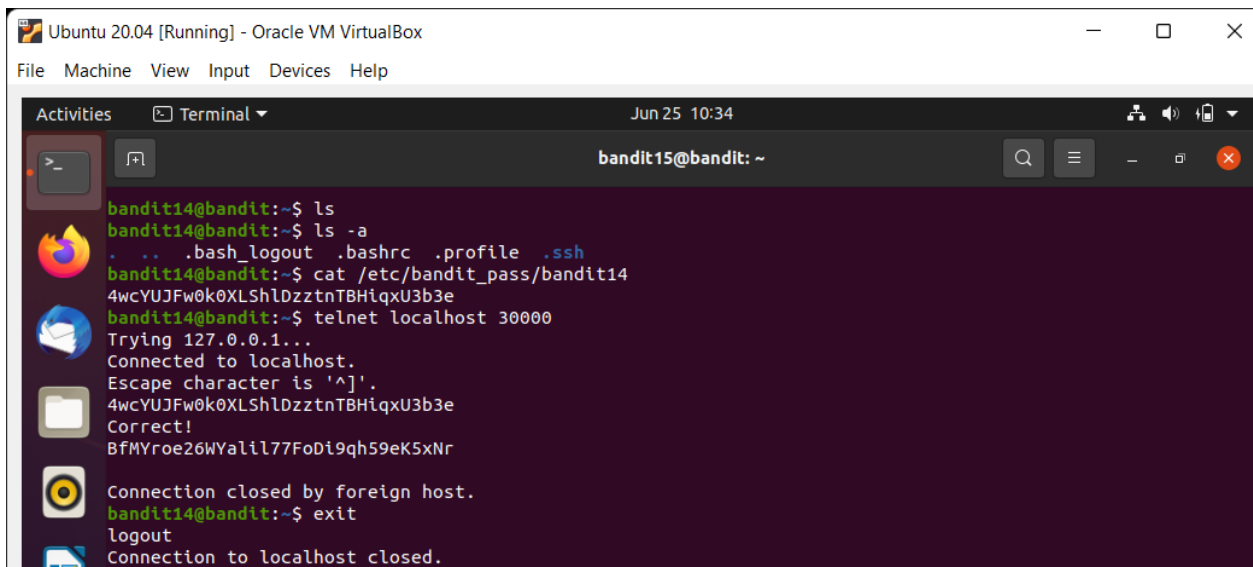
If you find any problems, please report them to Steven or morla on
irc.overthewire.org.

--[ Playing the games ]--

This machine might hold several wargames.
If you are playing "somegame", then:

* USERNAMES are somegame0, somegame1, ...
* Most LEVELS are stored in /somegame/.
* PASSWORDS for each level are stored in /etc/somegame_pass/.
```

Level 14 to 15: (password: BfMYroe26WYalil77FoDi9qh59eK5xNr)



The screenshot shows a terminal window titled "Ubuntu 20.04 [Running] - Oracle VM VirtualBox". The terminal is running as the user "bandit14" in the directory "~". The user performs the following actions:

```
bandit14@bandit:~$ ls
bandit14@bandit:~$ ls -a
.  ..  .bash_logout  .bashrc  .profile  .ssh
bandit14@bandit:~$ cat /etc/bandit_pass/bandit14
4wcYUJFw0k0XLShlDzztnTBHlqxU3b3e
bandit14@bandit:~$ telnet localhost 30000
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^J'.
4wcYUJFw0k0XLShlDzztnTBHlqxU3b3e
Correct!
BfMYroe26WYalil77FoDi9qh59eK5xNr
Connection closed by foreign host.
bandit14@bandit:~$ exit
logout
Connection to localhost closed.
```

The terminal output shows the password for bandit14, which is then used to connect to the next level, bandit15, via telnet. The connection is successful, and the password for bandit15 is displayed.