TASK 2 [LINUX GAMES]

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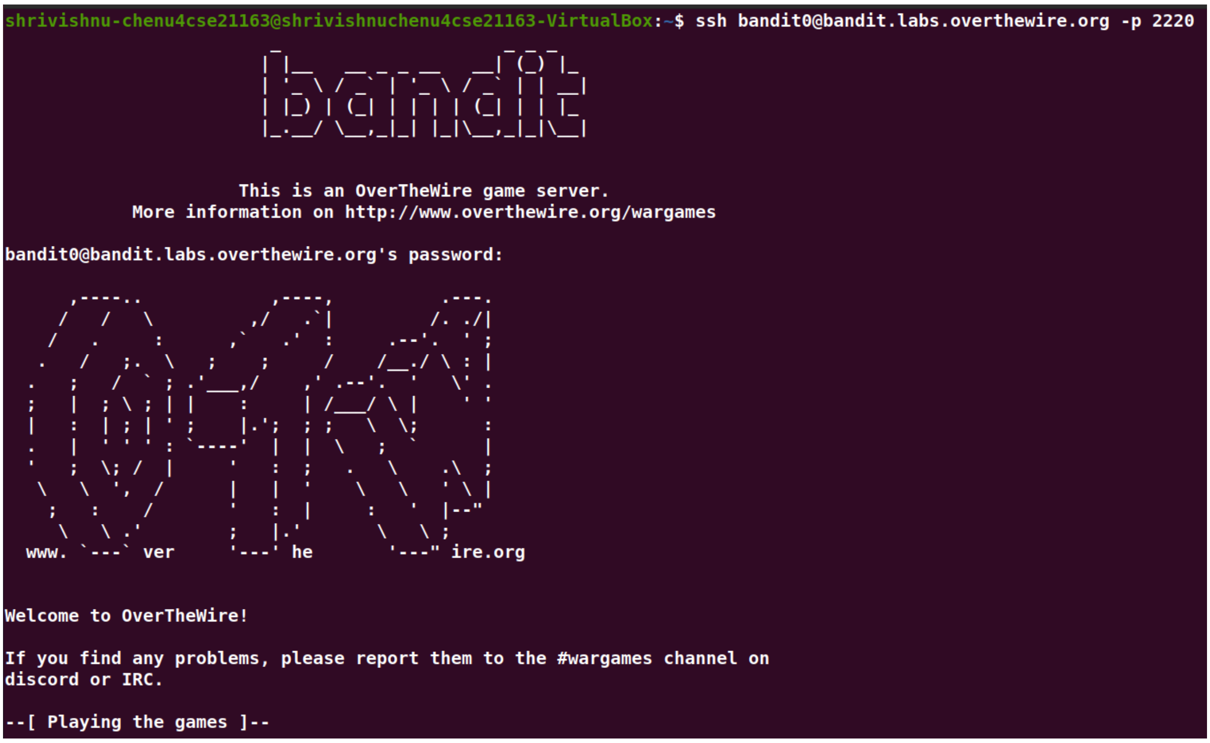
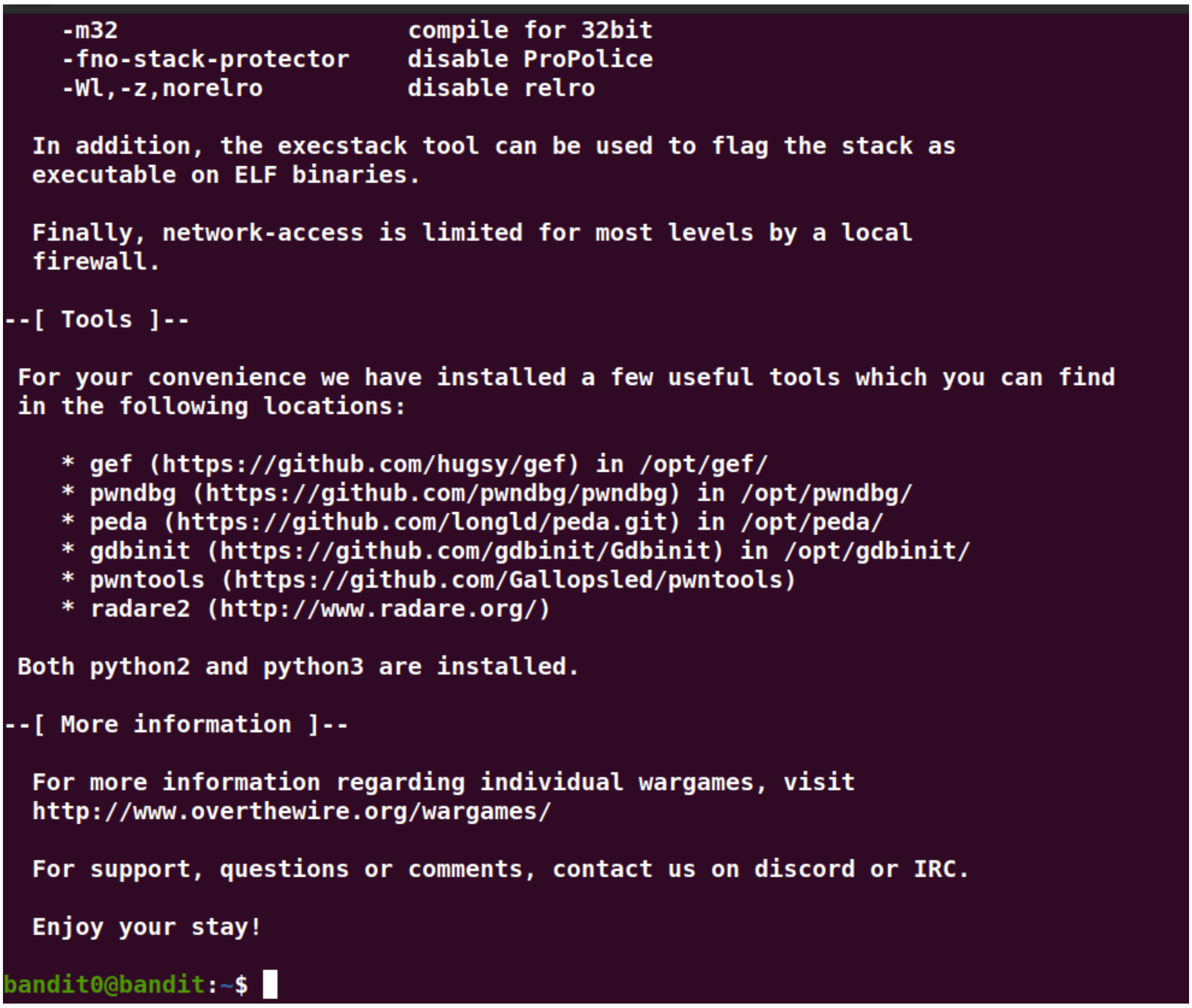
Accessing Level 0

We use ssh command to access level 0.

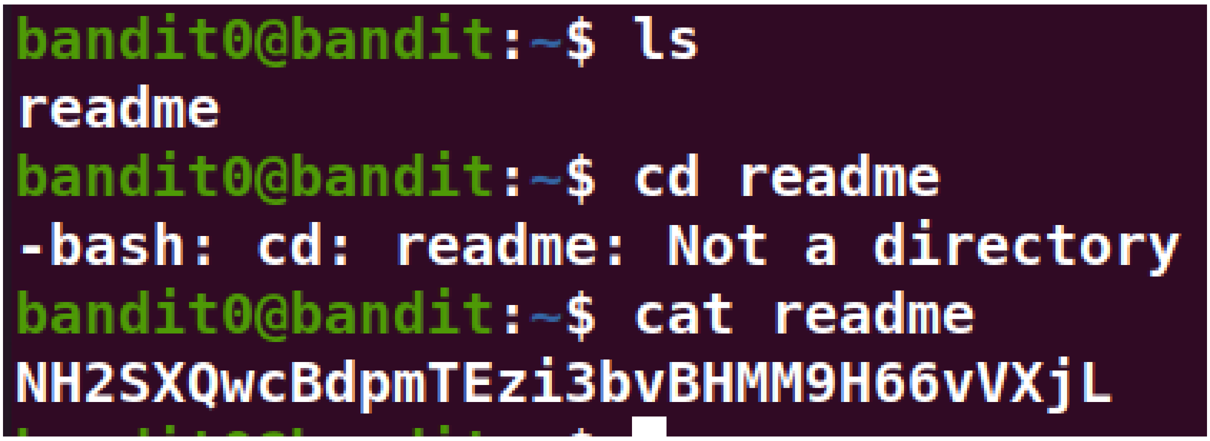


```
shrivishnu-chenu4cse21163@shrivishnuchenu4cse21163-VirtualBox:~$ ssh bandit0@bandit.labs.overthewire.org -p 2220
                         _                     _ _ _
                        | |__   __ _ _ __   __| (_) |_
                        | '_ \ / _` | '_ \ / _` | | __|
                        | |_) | (_| | | | | (_| | | |_
                        |_.__/ \__,_|_| |_|\__,_|_|\__|


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

bandit0@bandit.labs.overthewire.org's password:

      ,----..            ,----,          .---.
     /   /   \         ,/   .`|         /. ./|
    /   .     :      ,`   .'  :     .--'.  ' ;
   .   /   ;.  \   ;    ;     /    /__./ \ : |
  .   ;   /  ` ; .'___,/    ,' .--'.  '   \' .
  ;   |  ; \ ; | |    :     | /___/ \ |    ' '
  |   :  | ; | ' ;    |.';  ; ;   \  \;      :
  .   |  ' ' ' : `----'  |  |  \   ;  `      |
  '   ;  \; /  |     '   :  ;   .   \    .\  ;
   \   \  ',  /      |   |  '    \   \   ' \ |
    ;   :    /       '   :  |     :   '  |--"
     \   \ .'        ;   |.'       \   \ ;
  www. `---` ver     '---' he       '---" ire.org


Welcome to OverTheWire!

If you find any problems, please report them to the #wargames channel on
discord or IRC.

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



```
    -m32                    compile for 32bit
    -fno-stack-protector    disable ProPolice
    -Wl,-z,norelro          disable relro

  In addition, the execstack tool can be used to flag the stack as
  executable on ELF binaries.

  Finally, network-access is limited for most levels by a local
  firewall.

--[ 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!

bandit0@bandit:~$
```

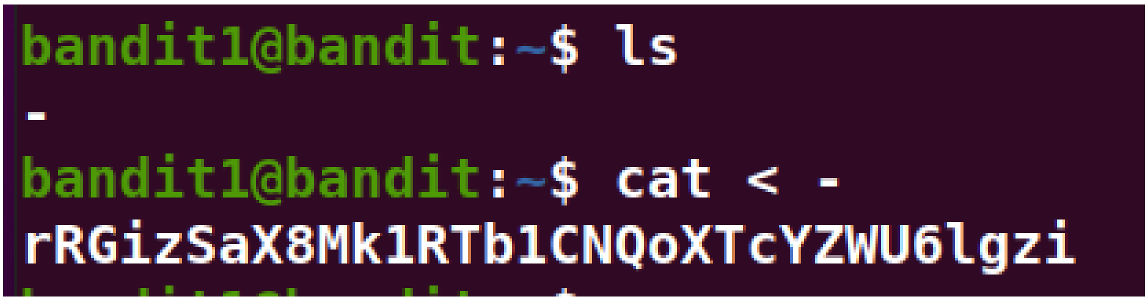
Level 0 to Level 1



```
bandit0@bandit:~$ ls
readme
bandit0@bandit:~$ cd readme
-bash: cd: readme: Not a directory
bandit0@bandit:~$ cat readme
NH2SXQwcBdpmTEzi3bvBHMM9H66vVXjL
```

The password for the next level is NH2SXQwcBdpmTEzi3bvBHMM9H66vVXjL

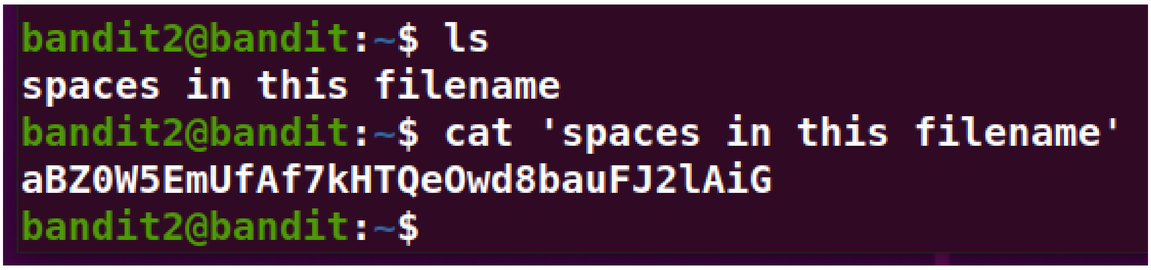
Level 1 to Level 2



```
bandit1@bandit:~$ ls
-
bandit1@bandit:~$ cat < -
rRGizSaX8Mk1RTb1CNQoXTcYZWU6lgzi
```

The password for the next level is rRGizSaX8Mk1RTb1CNQoXTcYZWU6lgzi

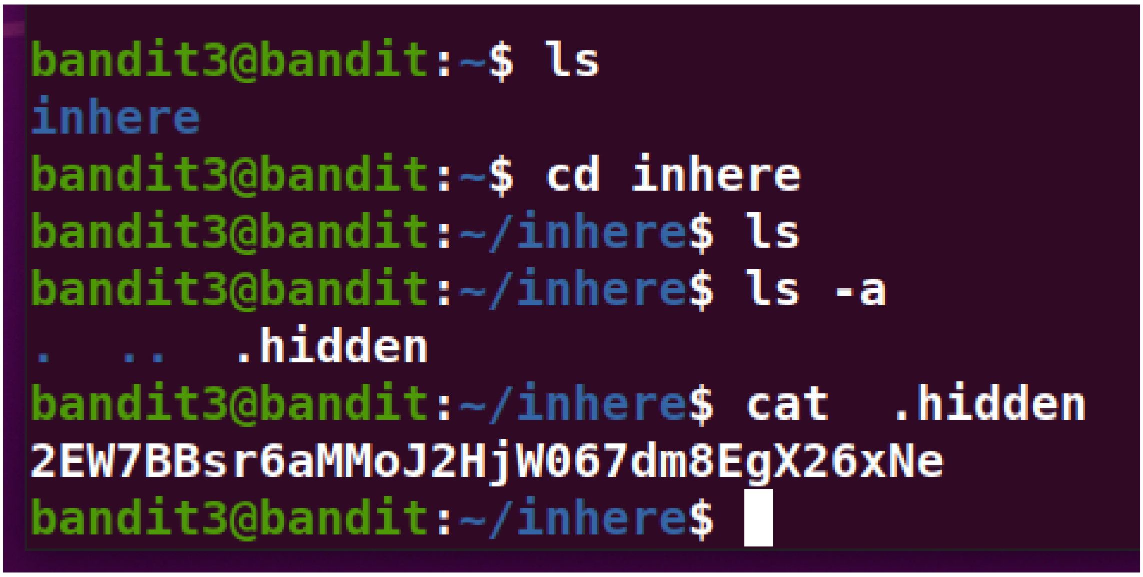
Level 2 to Level 3



```
bandit2@bandit:~$ ls
spaces in this filename
bandit2@bandit:~$ cat 'spaces in this filename'
aBZ0W5EmUfAf7kHTQeOwd8bauFJ2lAiG
bandit2@bandit:~$
```

The password for the next level is aBZ0W5EmUfAf7kHTQe0wd8bauFJ2lAiG

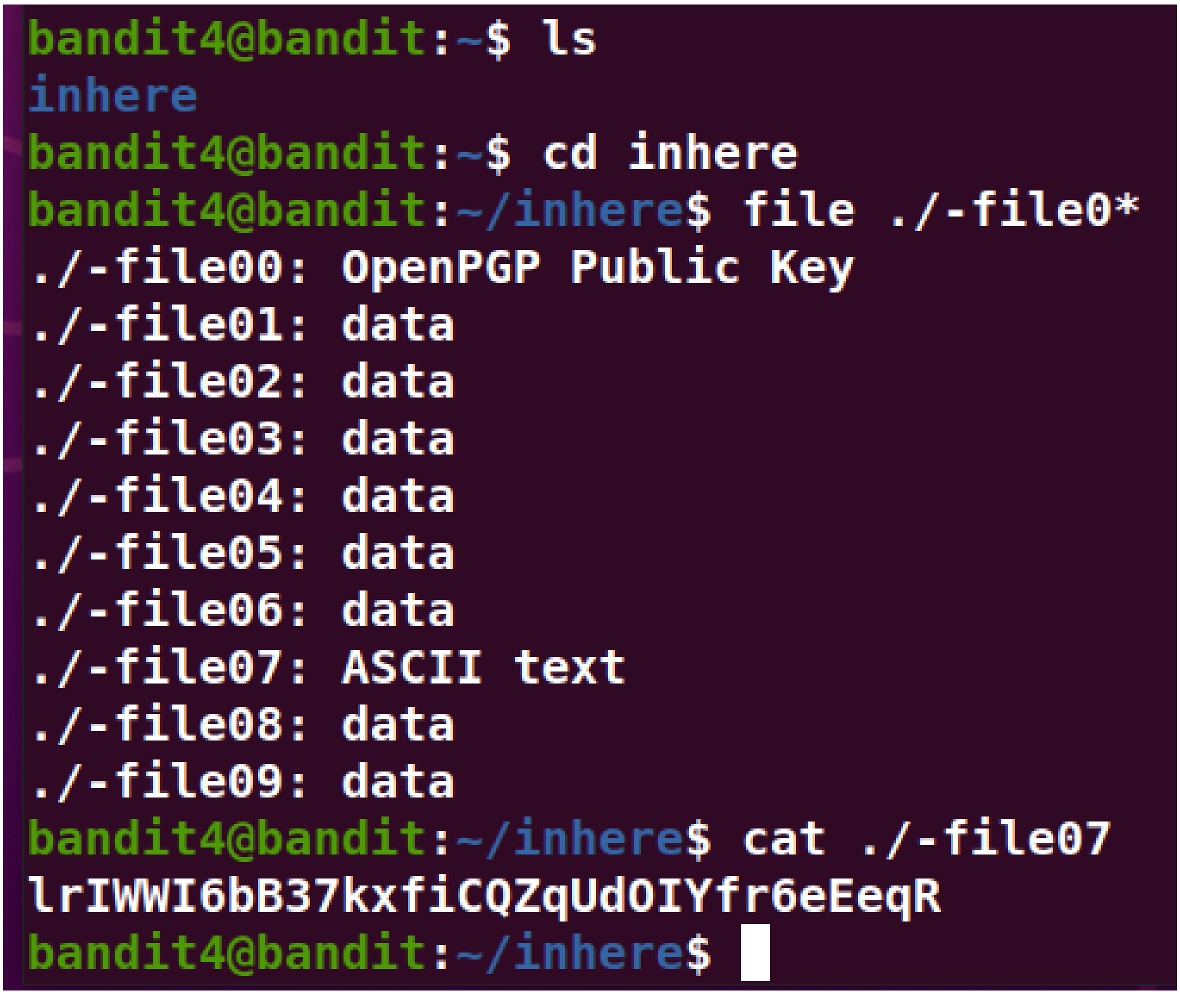
Level 3 to Level 4



```
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$
```

The password for the next level is 2EW7BBsr6aMMoJ2HjW067dm8EgX26xNe

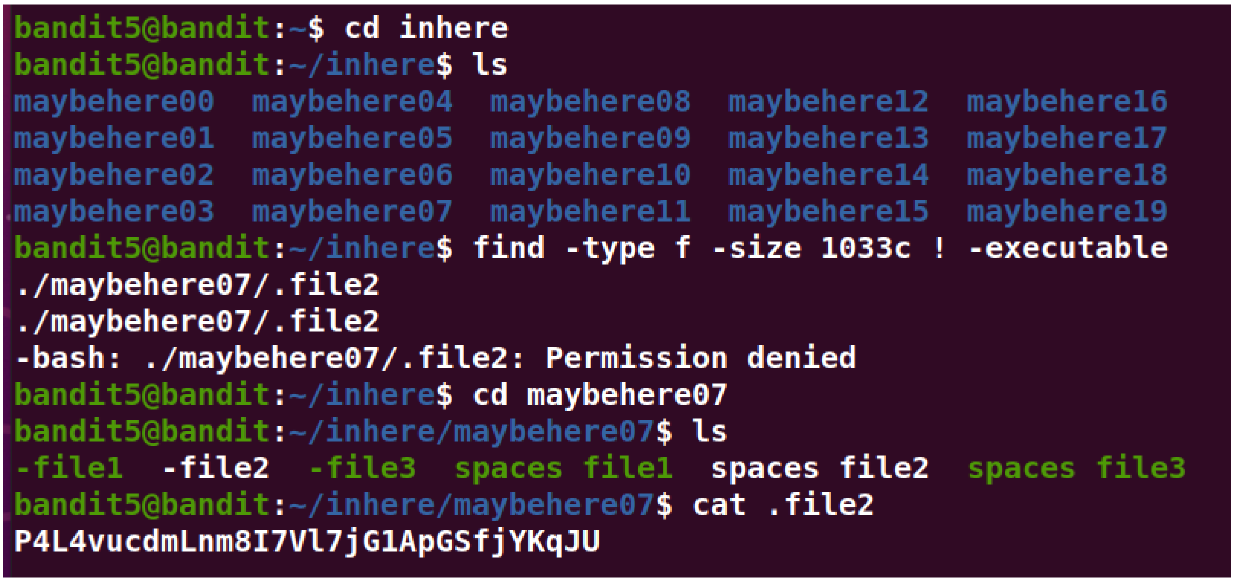
Level 4 to Level 5



```
bandit4@bandit:~$ ls
inhere
bandit4@bandit:~$ cd inhere
bandit4@bandit:~/inhere$ file ./-file0*
./-file00: OpenPGP Public Key
./-file01: data
./-file02: data
./-file03: data
./-file04: data
./-file05: data
./-file06: data
./-file07: ASCII text
./-file08: data
./-file09: data
bandit4@bandit:~/inhere$ cat ./-file07
lrIWWI6bB37kxfiCQZqUdOIYfr6eEeqR
bandit4@bandit:~/inhere$ 
```

The password for the next level is lrIWWI6bB37kxfiCQZqUdOIYfr6eEeqR

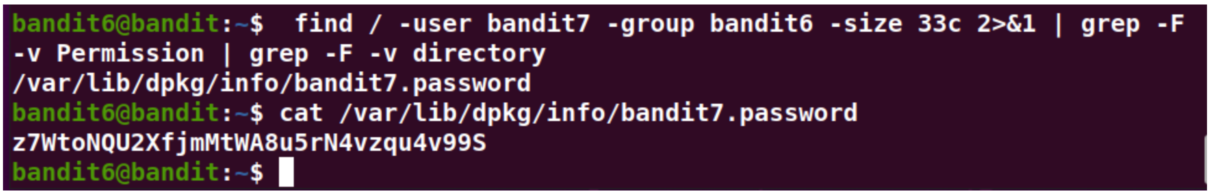
Level 5 to Level 6



```
bandit5@bandit:~$ cd inhere
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$ find -type f -size 1033c ! -executable
./maybehere07/.file2
./maybehere07/.file2
-bash: ./maybehere07/.file2: Permission denied
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
P4L4vucdmLnm8I7Vl7jG1ApGSfjYKqJU
```

The password for the next level is P4L4vucdmLnm8I7Vl7jG1ApGSfjYKqJU

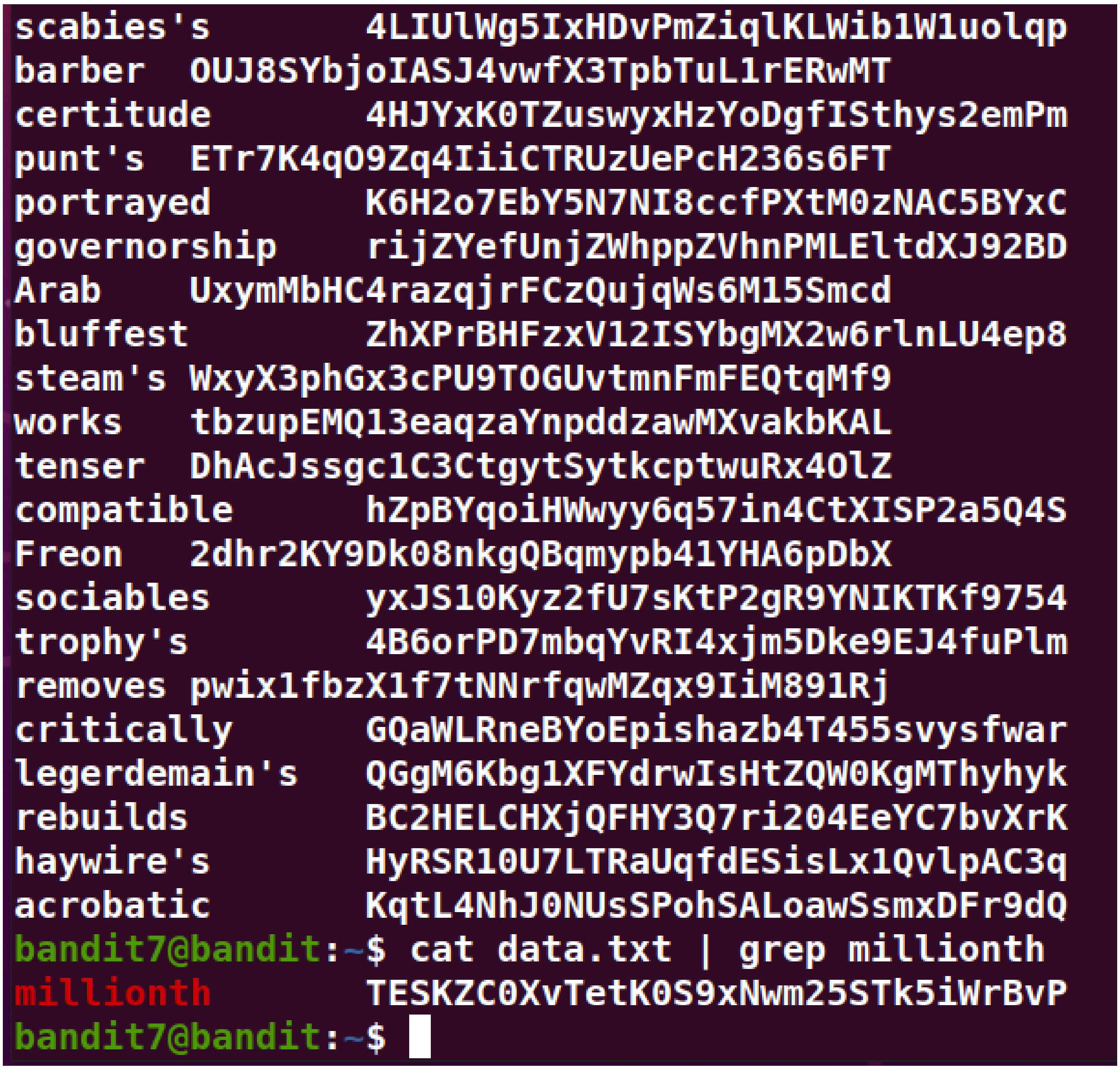
Level 6 to Level 7



```
bandit6@bandit:~$  find / -user bandit7 -group bandit6 -size 33c 2>&1 | grep -F
-v Permission | grep -F -v directory
/var/lib/dpkg/info/bandit7.password
bandit6@bandit:~$ cat /var/lib/dpkg/info/bandit7.password
z7WtoNQU2XfjmMtWA8u5rN4vzqu4v99S
bandit6@bandit:~$ 
```

The password for the next level is z7WtoNQU2XfjmMtWA8u5rN4vzqu4v99S

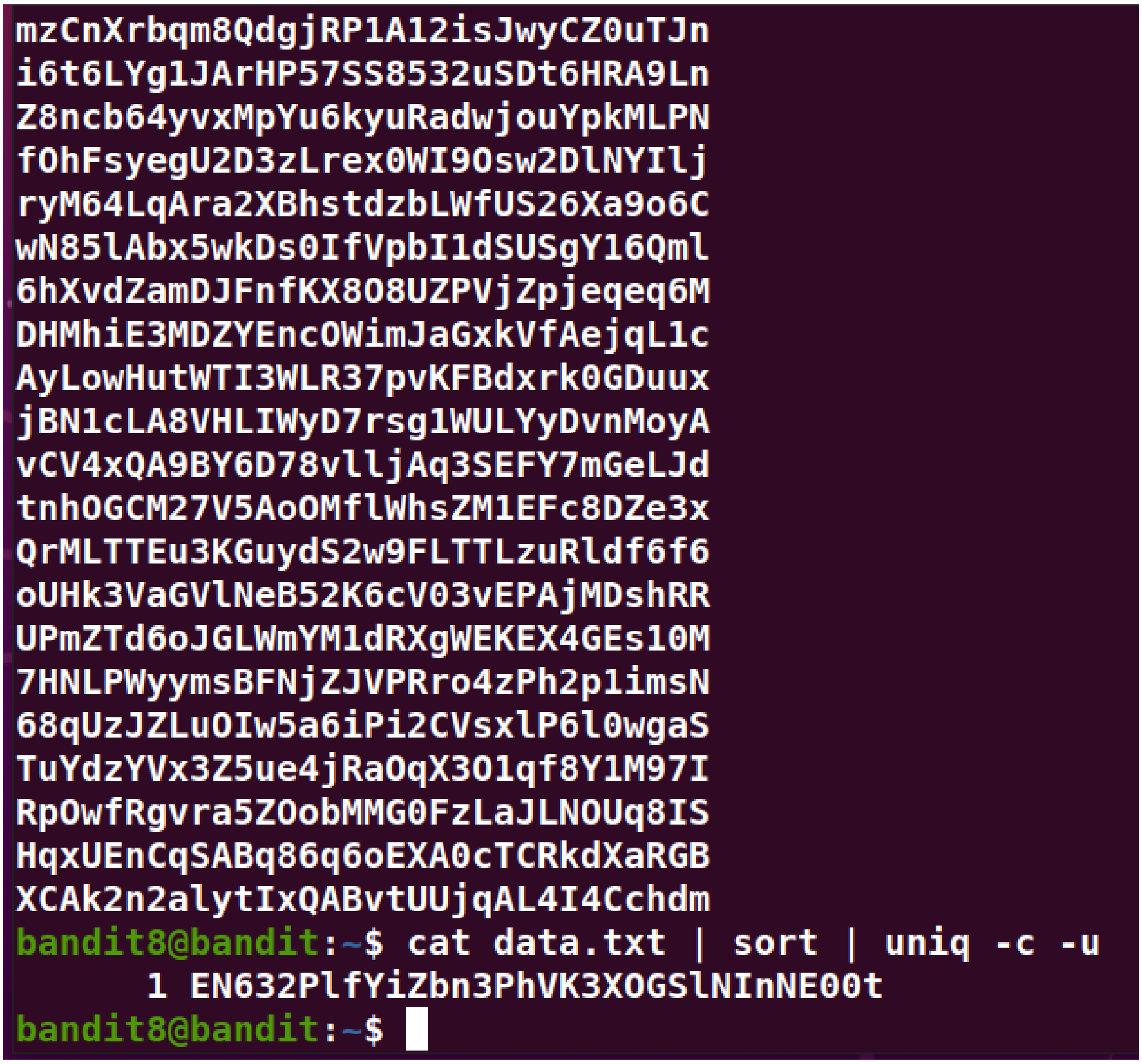
Level 7 to Level 8



```
scabies's       4LIUlWg5IxHDvPmZiqlKLWib1W1uolqp
barber  OUJ8SYbjoIASJ4vwfX3TpbTuL1rERwMT
certitude       4HJYxK0TZuswyxHzYoDgfISthys2emPm
punt's  ETr7K4qO9Zq4IiiCTRUzUePcH236s6FT
portrayed       K6H2o7EbY5N7NI8ccfPXtM0zNAC5BYxC
governorship    rijZYefUnjZWhppZVhnPMLEltdXJ92BD
Arab    UxymMbHC4razqjrFCzQujqWs6M15Smcd
bluffest        ZhXPrBHFzxV12ISYbgMX2w6rlnLU4ep8
steam's WxyX3phGx3cPU9TOGUvtmnFmFEQtqMf9
works   tbzupEMQ13eaqzaYnpddzawMXvakbKAL
tenser  DhAcJssgc1C3CtgytSytkcptwuRx4OlZ
compatible      hZpBYqoiHWwyy6q57in4CtXISP2a5Q4S
Freon   2dhr2KY9Dk08nkgQBqmypb41YHA6pDbX
sociables       yxJS10Kyz2fU7sKtP2gR9YNIKTKf9754
trophy's        4B6orPD7mbqYvRI4xjm5Dke9EJ4fuPlm
removes pwix1fbzX1f7tNNrfqwMZqx9IiM891Rj
critically      GQaWLRneBYoEpishazb4T455svysfwar
legerdemain's   QGgM6Kbg1XFYdrwIsHtZQW0KgMThyhyk
rebuilds        BC2HELCHXjQFHY3Q7ri204EeYC7bvXrK
haywire's       HyRSR10U7LTRaUqfdESisLx1QvlpAC3q
acrobatic       KqtL4NhJ0NUsSPohSALoawSsmxDFr9dQ
bandit7@bandit:~$ cat data.txt | grep millionth
millionth       TESKZC0XvTetK0S9xNwm25STk5iWrBvP
bandit7@bandit:~$ 
```

The password for the next level is TESKZC0XvTetK0S9xNwm25STk5iWrBvP

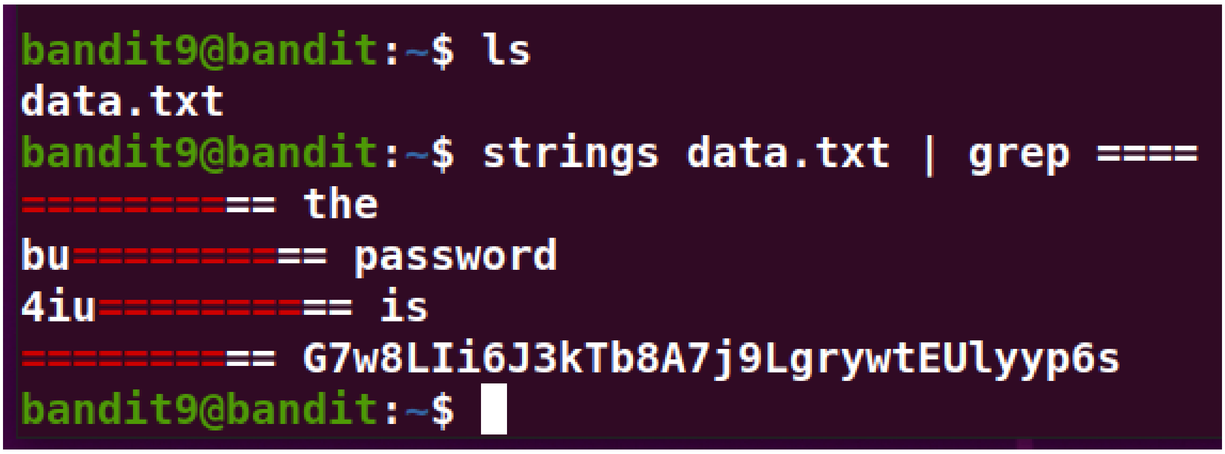
Level 8 to Level 9



```
mzCnXrbqm8QdgjRP1A12isJwyCZ0uTJn
i6t6LYg1JArHP57SS8532uSDt6HRA9Ln
Z8ncb64yvxMpYu6kyuRadwjouYpkMLPN
fOhFsyegU2D3zLrex0WI9Osw2DlNYIlj
ryM64LqAra2XBhstdzbLWfUS26Xa9o6C
wN85lAbx5wkDs0IfVpbI1dSUSgY16Qml
6hXvdZamDJFnfKX8O8UZPVjZpjeqeq6M
DHMhiE3MDZYEncOWimJaGxkVfAejqL1c
AyLowHutWTI3WLR37pvKFBdxrk0GDuux
jBN1cLA8VHLIWyD7rsg1WULYyDvnMoyA
vCV4xQA9BY6D78vlljAq3SEFY7mGeLJd
tnhOGCM27V5AoOMflWhsZM1EFc8DZe3x
QrMLTTEu3KGuydS2w9FLTTLzuRldf6f6
oUHk3VaGVlNeB52K6cV03vEPAjMDshRR
UPmZTd6oJGLWmYM1dRXgWEKEX4GEs10M
7HNLPWyymsBFNjZJVPRro4zPh2p1imsN
68qUzJZLuOIw5a6iPi2CVsxlP6l0wgaS
TuYdzYVx3Z5ue4jRaOqX3O1qf8Y1M97I
RpOwfRgvra5ZOobMMG0FzLaJLNOUq8IS
HqxUEnCqSABq86q6oEXA0cTCRkdXaRGB
XCAk2n2alytIxQABvtUUjqAL4I4Cchdm
bandit8@bandit:~$ cat data.txt | sort | uniq -c -u
      1 EN632PlfYiZbn3PhVK3XOGSlNInNE00t
bandit8@bandit:~$ 
```

The password for the next level is EN632PlfYiZbn3PhVK3XOGSlNInNE00t

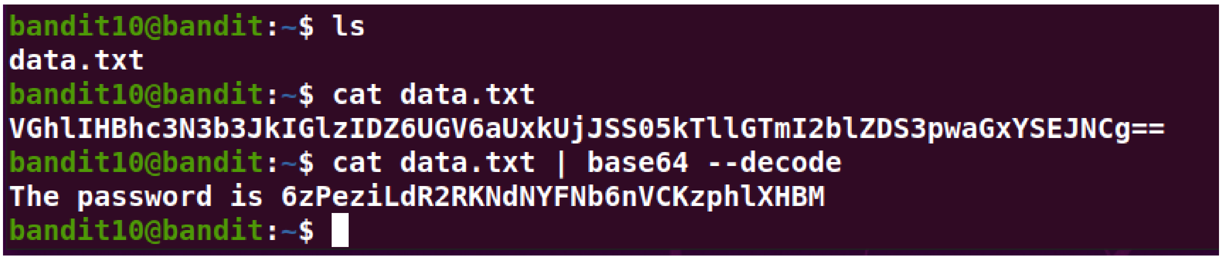
Level 9 to Level 10



```
bandit9@bandit:~$ ls
data.txt
bandit9@bandit:~$ strings data.txt | grep ====
========== the
bu========== password
4iu========== is
========== G7w8LIi6J3kTb8A7j9LgrywtEUlyyp6s
bandit9@bandit:~$ 
```

The password for the next level is G7w8LIi6J3kTb8A7j9LgrywtEUlyyp6s

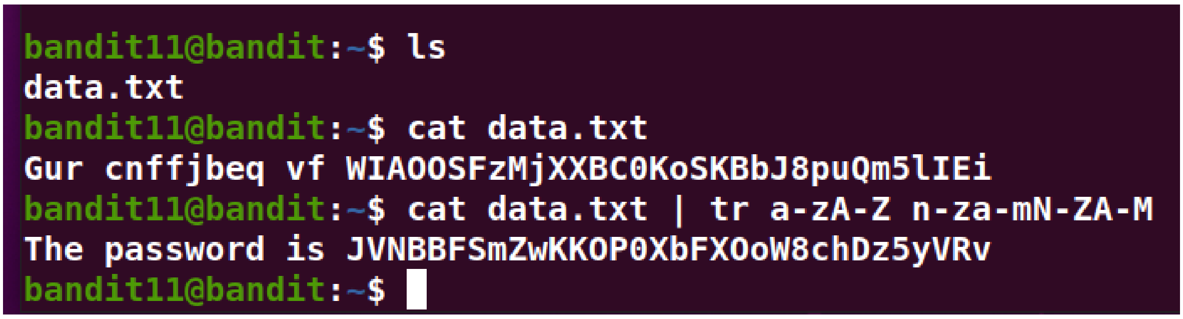
Level 10 to Level 11



```
bandit10@bandit:~$ ls
data.txt
bandit10@bandit:~$ cat data.txt
VGhlIHBhc3N3b3JkIGlzIDZ6UGV6aUxkUjJSS05kTllGTmI2blZDS3pwaGxYSEJNCg==
bandit10@bandit:~$ cat data.txt | base64 --decode
The password is 6zPeziLdR2RKNdNYFNb6nVCKzphlXHBM
bandit10@bandit:~$ 
```

The password for the next level is 6zPeziLdR2RKNdNYFNb6nVCKzphlXHBM

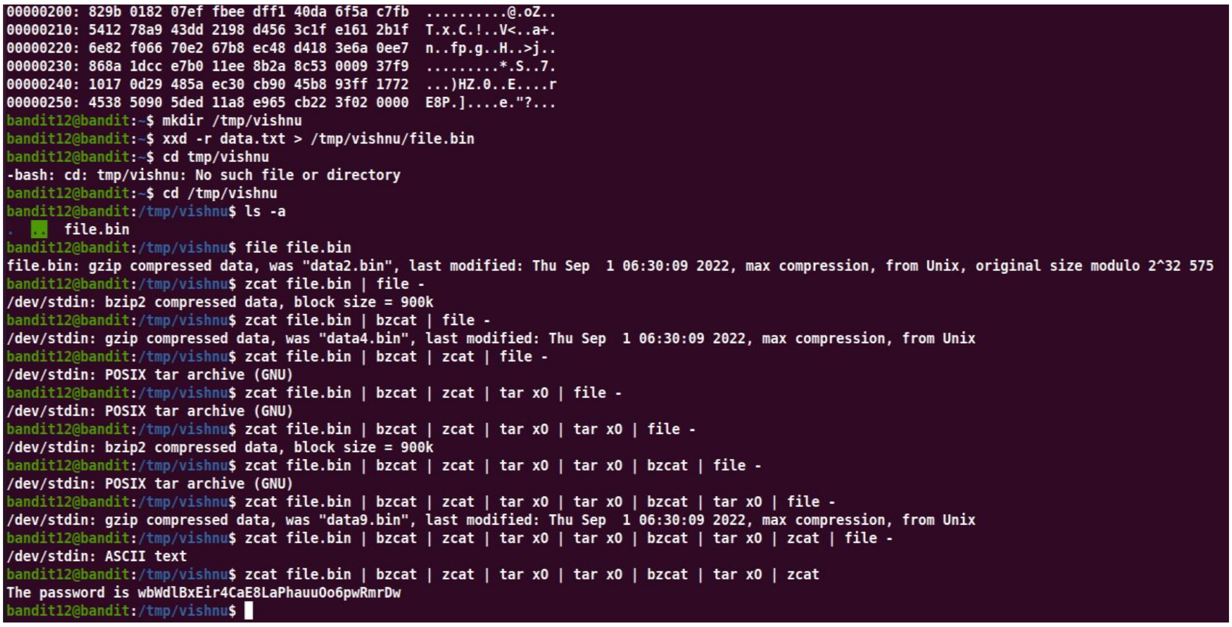
Level 11 to Level 12



```
bandit11@bandit:~$ ls
data.txt
bandit11@bandit:~$ cat data.txt
Gur cnffjbeq vf WIAOOSFzMjXXBC0KoSKBbJ8puQm5lIEi
bandit11@bandit:~$ cat data.txt | tr a-zA-Z n-za-mN-ZA-M
The password is JVNBBFSmZwKKOP0XbFXOoW8chDz5yVRv
bandit11@bandit:~$ 
```

The password for the next level is JVNBBFSmZwKKOP0XbFXOoW8chDz5yVRv

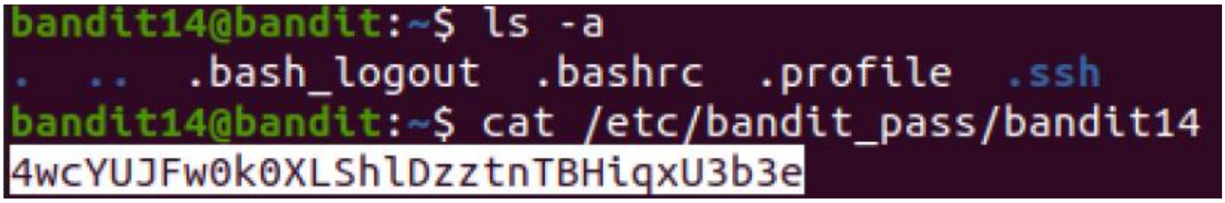
Level 12 to Level 13



```
00000200: 829b 0182 07ef fbee dff1 40da 6f5a c7fb  ..........@.oZ..
00000210: 5412 78a9 43dd 2198 d456 3c1f e161 2b1f  T.x.C.!..V<..a+.
00000220: 6e82 f066 70e2 67b8 ec48 d418 3e6a 0ee7  n..fp.g..H..>j..
00000230: 868a 1dcc e7b0 11ee 8b2a 8c53 0009 37f9  .........*.S..7.
00000240: 1017 0d29 485a ec30 cb90 45b8 93ff 1772  ...)HZ.0..E....r
00000250: 4538 5090 5ded 11a8 e965 cb22 3f02 0000  E8P.]....e."?...
bandit12@bandit:~$ mkdir /tmp/vishnu
bandit12@bandit:~$ xxd -r data.txt > /tmp/vishnu/file.bin
bandit12@bandit:~$ cd tmp/vishnu
-bash: cd: tmp/vishnu: No such file or directory
bandit12@bandit:~$ cd /tmp/vishnu
bandit12@bandit:/tmp/vishnu$ ls -a
.  ..  file.bin
bandit12@bandit:/tmp/vishnu$ file file.bin
file.bin: gzip compressed data, was "data2.bin", last modified: Thu Sep  1 06:30:09 2022, max compression, from Unix, original size modulo 2^32 575
bandit12@bandit:/tmp/vishnu$ zcat file.bin | file -
/dev/stdin: bzip2 compressed data, block size = 900k
bandit12@bandit:/tmp/vishnu$ zcat file.bin | bzcat | file -
/dev/stdin: gzip compressed data, was "data4.bin", last modified: Thu Sep  1 06:30:09 2022, max compression, from Unix
bandit12@bandit:/tmp/vishnu$ zcat file.bin | bzcat | zcat | file -
/dev/stdin: POSIX tar archive (GNU)
bandit12@bandit:/tmp/vishnu$ zcat file.bin | bzcat | zcat | tar xO | file -
/dev/stdin: POSIX tar archive (GNU)
bandit12@bandit:/tmp/vishnu$ zcat file.bin | bzcat | zcat | tar xO | tar xO | file -
/dev/stdin: bzip2 compressed data, block size = 900k
bandit12@bandit:/tmp/vishnu$ zcat file.bin | bzcat | zcat | tar xO | tar xO | bzcat | file -
/dev/stdin: POSIX tar archive (GNU)
bandit12@bandit:/tmp/vishnu$ zcat file.bin | bzcat | zcat | tar xO | tar xO | bzcat | tar xO | file -
/dev/stdin: gzip compressed data, was "data9.bin", last modified: Thu Sep  1 06:30:09 2022, max compression, from Unix
bandit12@bandit:/tmp/vishnu$ zcat file.bin | bzcat | zcat | tar xO | tar xO | bzcat | tar xO | zcat | file -
/dev/stdin: ASCII text
bandit12@bandit:/tmp/vishnu$ zcat file.bin | bzcat | zcat | tar xO | tar xO | bzcat | tar xO | zcat
The password is wbWdlBxEir4CaE8LaPhauuOo6pwRmrDw
bandit12@bandit:/tmp/vishnu$ 
```

The password for the next level is wbWdlBxEir4CaE8LaPhauuOo6pwRmrDw

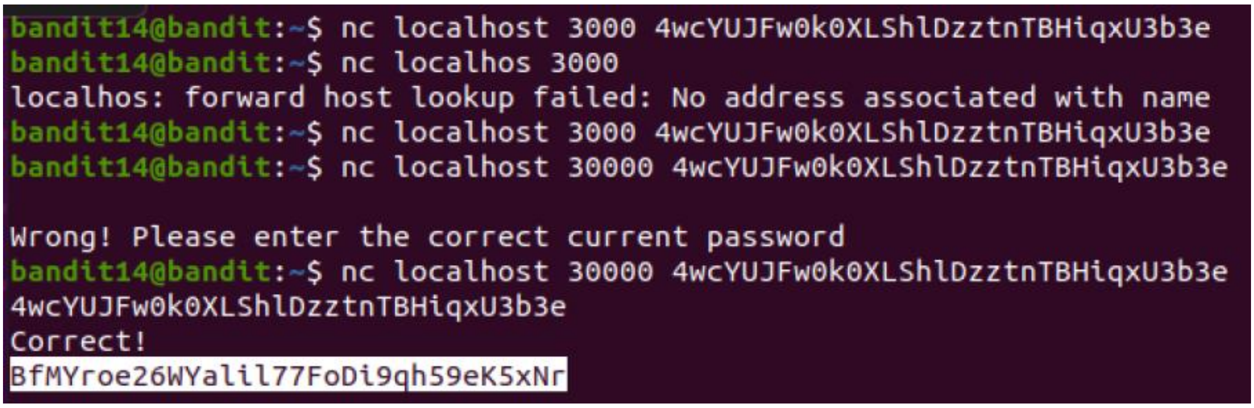
Level 13 to Level 14



```
bandit14@bandit:~$ ls -a
.  ..  .bash_logout  .bashrc  .profile  .ssh
bandit14@bandit:~$ cat /etc/bandit_pass/bandit14
4wcYUJFw0k0XLShlDzztnTBHiqxU3b3e
```

The password for the next level is 4wcYUJFw0k0XlShlDzztnTBHiqxU3b3e

Level 14 to Level 15



```
bandit14@bandit:~$ nc localhost 3000 4wcYUJFw0k0XLShlDzztnTBHiqxU3b3e
bandit14@bandit:~$ nc localhos 3000
localhos: forward host lookup failed: No address associated with name
bandit14@bandit:~$ nc localhost 3000 4wcYUJFw0k0XLShlDzztnTBHiqxU3b3e
bandit14@bandit:~$ nc localhost 30000 4wcYUJFw0k0XLShlDzztnTBHiqxU3b3e

Wrong! Please enter the correct current password
bandit14@bandit:~$ nc localhost 30000 4wcYUJFw0k0XLShlDzztnTBHiqxU3b3e
4wcYUJFw0k0XLShlDzztnTBHiqxU3b3e
Correct!
BfMYroe26WYalil77FoDi9qh59eK5xNr
```

The password for the next level is BfMYroe26WYalil77FoDi9qh59eK5xNr