Level -0

```
bandit0@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux
                                                         ire.ora
Welcome to OverTheWire!
If you find any problems, please report them to Steven or morla on
irc.overthewire.org.
 - F Playing the games 1--
  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/.
  Write-access to homedirectories is disabled. It is advised to creat
  Write-access to homedirectories is disabled. It is advised to create a
 working directory with a hard-to-guess name in /tmp/. You can use the command "mktemp -d" in order to generate a random and hard to guess
 directory in /tmp/. Read-access to both /tmp/ and /proc/ is disabled so that users can not snoop on eachother. Files and directories with easily guessable or short names will be periodically deleted!
 Please play nice:
    * don't leave orphan processes running
* don't leave exploit-files laying around
     * don't annoy other players
     * don't post passwords or spoilers
* again, DONT POST SPOILERS!
This includes writeups of your solution on your blog or website!
 -[ Tips ]--
  This machine has a 64bit processor and many security-features enabled
 by default, although ASLR has been switched off. The following compiler flags might be interesting:
                                         compile for 32bit
                                         disable ProPolice
     -fno-stack-protector
                                         disable relro
     -Wl,-z,norelro
  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.
```

havirbhavi@havirbhavi-VirtualBox:~/Desktop\$ ssh bandit0@bandit.labs.overthewire.org -p 2220 This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

```
For your convenience we have installed a few usefull tools which you can find in the following locations:

* gef (https://github.com/hugsy/gef) in /usr/local/gef/
* pwndbg (https://github.com/pwndbg/pwndbg) in /usr/local/pwndbg/
* peda (https://github.com/gold/peda.git) in /usr/local/peda/
* gdbinit (https://github.com/goldinit/dobinit) in /usr/local/gdbinit/
* pwntools (https://github.com/Gallopsled/pwntools)
* radare2 (http://www.radare.org/)
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh
--[ More information ]--

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

For support, questions or comments, contact us through IRC on
irc.overthewire.org #wargames.

Enjoy your stay!

bandito@bandit:-$ ls -alps
total 24
4 drwxr-xr-x 2 root root 4096 May 7 2020 //
4 drwxr-xr-x 2 troot root 320 May 15 2017 .bash_logout
4 -rw-r---- 1 root root 320 May 15 2017 .bash_logout
4 -rw-r---- 1 root root 320 May 15 2017 .bashrc
4 -rw-r---- 1 root root 678 May 15 2017 .pofile
4 -rw-r---- 1 bandit1 bandit0 33 May 7 2020 readme
bandito@bandit:-$ cat readme
boJ9jbbUNNfktd7800psqoltutMc3MY1
```

Level0 -level1:

```
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/.

Write-access to homedirectories is disabled. It is advised to create a working directory with a hard-to-guess name in /tmp/. You can use the command "mktemp -d" in order to generate a random and hard to guess directory in /tmp/. Read-access to both /tmp/ and /proc/ is disabled so that users can not snoop on eachother. Files and directories with easily guessable or short names will be periodically deleted!

Please play nice:

* don't leave orphan processes running

* don't leave exploit-files laying around

* don't annoy other players

* don't post passwords or spoilers

* again, DONT POST SPOILERS!

This includes writeups of your solution on your blog or website!

--[Tips ]--

This machine has a 64bit processor and many security-features enabled by default, although ASLR has been switched off. The following compiler flags might be interesting:

-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.
```

```
* again, DONT POST SPOILERS!
This includes writeups of your solution on your blog or website!

--[Tips]--

This machine has a 64bit processor and many security-features enabled by default, although ASLR has been switched off. The following compiler flags might be interesting:

-m32 compile for 32bit
-fno-stack-protector disable ProPolice
-Wl,-z,norelro 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 usefull tools which you can find in the following locations:

* gef (https://github.com/hugsy/gef) in /usr/local/gef/
* pwndbg (https://github.com/pwndbg/pwndbg) in /usr/local/pwndbg/
* peda (https://github.com/longld/peda.git) in /usr/local/peda/
* gdbinit (https://github.com/gdbinit/Gdbinit) in /usr/local/gdbinit/
* pwntools (https://github.com/gdbinit/Gdbinit) in /usr/local/gdbinit/
* pwntools (https://github.com/gdbinit/Gdbinit) in /usr/local/gdbinit/
* pwntools (https://yithub.com/gdbinit/Gdbinit) in /usr/local/gbinic/
* radare2 (http://www.radare.org/)
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh

--[More information ]--

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

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

-[ Tools ]--

For your convenience we have installed a few usefull tools which you can find in the following locations:

* gef (https://github.com/hugsy/gef) in /usr/local/gef/

* pwndbg (https://github.com/pwndbg/pwndbg) in /usr/local/pwndbg/

* peda (https://github.com/longld/peda.gtt) in /usr/local/peda/

* gdbinit (https://github.com/gdbinit/Gdbinit) in /usr/local/gdbinit/

* pwntools (https://github.com/Gallopsled/pwntools)

* radare2 (http://www.radare.org/)

* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh

-[ More information ]--

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

For support, questions or comments, contact us through IRC on irc.overthewire.org #wargames.

Enjoy your stay!

andditigbandit:~$
```

Level1-level2:

```
anditi@bandit:~$ ls -alps
otal 24
                                              33 May 7 2020 -
4096 May 7 2020 /
4096 May 7 2020 /
220 May 15 2017 .bash_logout
3526 May 15 2017 .bashrc
675 May 15 2017 .profile
 -rw-r---- 1 bandit2 bandit1
drwxr-xr-x 2 root root 4
drwxr-xr-x 41 root root 4
 -rw-r--r-- 1 root
-rw-r--r-- 1 root
-rw-r--r-- 1 root
                                   root
                                   root
                                   root
   ndit1@bandit:~$ cat ./-
CV1DtqXWVFXTvM2F0k09SHz0YwRINYA9
andit1@bandit: $ exit
Logout
Connection to bandit.labs.overthewire.org closed.
                                -VirtualBox:~/Desktop$ ssh bandit2@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames
pandit2@bandit.labs.overthewire.org's password:
Permission denied, please try again.
pandit2@bandit.labs.overthewire.org's password:
_inux bandit.otw.local 5.4.8 x86_64 GNU/Linux
                   ver
                                                                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:
      * USERNAMES are somegame0, somegame1, ...
* Most LEVELS are stored in /somegame/.
      * PASSWORDS for each level are stored in /etc/somegame_pass/.
  Write-access to homedirectories is disabled. It is advised to create a working directory with a hard-to-guess name in /tmp/. You can use the command "mktemp -d" in order to generate a random and hard to guess directory in /tmp/. Read-access to both /tmp/ and /proc/ is disabled so that users can not snoop on eachother. Files and directories with easily guessable or short names will be periodically deleted!
  Please play nice:
       * don't leave orphan processes running
      * don't leave exploit-files laying around
      * don't annoy other players
       * don't post passwords or spoilers
      * again, DONT POST SPOILERS!
  This includes writeups of your solution on your blog or website!
  This machine has a 64bit processor and many security-features enabled
by default, although ASLR has been switched off. The following
compiler flags might be interesting:
```

```
compile for 32bit
                                                                                                                             disable ProPolice
disable relro
               -fno-stack-protector
              -Wl,-z,norelro
    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. % \begin{center} \end{center} \begin{center} \begin{
  -[ Tools ]--
For your convenience we have installed a few usefull tools which you can find
in the following locations:
             * gef (https://github.com/hugsy/gef) in /usr/local/gef/
* pwndbg (https://github.com/pwndbg/pwndbg) in /usr/local/pwndbg/
* peda (https://github.com/longld/peda.git) in /usr/local/peda/
* gdbinit (https://github.com/gdbinit/Gdbinit) in /usr/local/gdbinit/
* pwntools (https://github.com/Gallopsled/pwntools)
* radare2 (http://www.radare.org/)
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh
  - [ More information ]--
    For more information regarding individual wargames, visit
    http://www.overthewire.org/wargames/
   For support, questions or comments, contact us through IRC on irc.overthewire.org \ensuremath{\text{\#Wargames}} .
    Enjoy your stay!
    indit2@bandit:~$
```

Level2-level3:

```
Velcome to OverTheWire!
If you find any problems, please report them to Steven or morla on 
lrc.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/.
  Write-access to homedirectories is disabled. It is advised to create a
  working directory with a hard-to-guess name in /tmp/. You can use the command "mktemp -d" in order to generate a random and hard to guess directory in /tmp/. Read-access to both /tmp/ and /proc/ is disabled so that users can not snoop on eachother. Files and directories with
   easily guessable or short names will be periodically deleted!
   Please play nice:

    * don't leave orphan processes running
    * don't leave exploit-files laying around
    * don't annoy other players

       * don't post passwords or spoilers
* again, DONT POST SPOILERS!
This includes writeups of your solution on your blog or website!
  -[ Tips ]--
   This machine has a 64bit processor and many security-features enabled
by default, although ASLR has been switched off. The following
compiler flags might be interesting:
                                                  compile for 32bit
disable ProPolice
       -m32
        -fno-stack-protector
                                                  disable relro
       -Wl,-z,norelro
   In addition, the execstack tool can be used to flag the stack as executable on \ensuremath{\mathsf{ELF}} binaries.
   Finally, network-access is limited for most levels by a local firewall.  \label{eq:firewall} % \begin{array}{ll} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ \end{array} 
  -[ Tools ]--
```

```
-fno-stack-protector
-wl,-z,norelro

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 usefull tools which you can find in the following locations:

* gef (https://github.com/hugsy/gef) in /usr/local/gef/
* pwndbg (https://github.com/pwndbg/pwndbg) in /usr/local/pwndbg/
* peda (https://github.com/pwndbg/pwndbg) in /usr/local/peda/
* gdbinit (https://github.com/gdbinit/ddbinit) in /usr/local/gdbinit/
* pwntools (https://github.com/Gallopsled/pwntools)
* radare2 (http://www.radare.org/)
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh
--[ More information ]--

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

For support, questions or comments, contact us through IRC on irc.overthewire.org #wargames.

Enjoy your stay!

bandit3@bandit:-$
```

Level3-level4:

```
total 24
4 drwxr-xr-x 3 root root 4096 May 7 2020 ./
4 drwxr-xr-x 41 root root 4096 May 7 2020 ./
4 drwxr-xr-x 41 root root 220 May 15 2017 .bash_logout
4 -rw-r--r- 1 root root 3526 May 15 2017 .bash_logout
4 -rw-r--r- 1 root root 4096 May 7 2020 inhere/
4 drwxr-xr-x 2 root root 4096 May 7 2020 inhere/
4 -rw-r--r- 1 root root 675 May 15 2017 .profile
bandits@bandit:-/inhere$ ls -al
total 12
drwxr-xr-x 2 root root 4096 May 7 2020 .
drwxr-xr-x 3 root root 4096 May 7 2020 .
drwxr-xr-x 3 root root 4096 May 7 2020 .
drwxr-xr-x 3 root root 4096 May 7 2020 .
drwxr-xr-x 3 root root 4096 May 7 2020 .
logout
Dandits@bandit:-/inhere$ cat .hidden
plwrPrtPN36QITsp3EQaw936yaFoFgAB
bandit3@bandit:-/inhere$ exit
logout
Connection to bandit.labs.overthewire.org closed.
havtrbhavi@havirbhavi-VirtualBoxr-/Desktop$ 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
```

```
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/.

Write-access to homedirectories is disabled. It is advised to create a working directory with a hard-to-guess name in /tmp/. You can use the command "mktemp -d" in order to generate a random and hard to guess directory in /tmp/. Read-access to both /tmp/ and /proc/ is disabled so that users can not snoop on eachother. Files and directories with easily guessable or short names will be periodically deleted!

Please play nice:

* don't leave orphan processes running
 * don't leave exploit-files laying around
 * don't leave exploit-files laying around
 * don't post passwords or spoilers
 * again, DONT POST SPOILERS!
 This includes writeups of your solution on your blog or website!

--[Tips]--

This machine has a 64bit processor and many security-features enabled by default, although ASLR has been switched off. The following commiler flacs might be interesting:
```

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

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 usefull tools which you can find in the following locations:

* gef (https://github.com/pwndbg/pwndbg) in /usr/local/pwndbg/
* pwndbg (https://github.com/pwndbg/pwndbg) in /usr/local/pwndbg/
* peda (https://github.com/pdbinit/Gdbinit) in /usr/local/gdbinit/
* pwntools (https://github.com/dallopsled/pwntools)

* radarez (http://www.radare.org/)
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh

--[More information]--

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

For support, questions or comments, contact us through IRC on irc.overthewire.org #wargames.

Enjoy your stay!
```

Level4-level5:

```
bandit4@bandt:-$ ls -alps

total 24

4 drwxr-xr-x 3 root root 4096 May 7 2020 ./

4 drwxr-xr-x 41 root root 4096 May 7 2020 ../

4 -rw-r--r- 1 root root 220 May 15 2017 .bash_logout

4 -rw-r--r- 1 root root 3256 May 15 2017 .bashrc

4 drwxr-xr-x 2 root root 4096 May 7 2020 inhere/

4 -rw-r--r- 1 root root 675 May 15 2017 .profile

bandit4@bandti:-/inhere/
bandit4@bandti:-/inhere/
bandit4@bandti:-/inhere/
bandit4@bandti:-/inhere/
file00: data
./-file00: data
./-file00: data
./-file00: data
./-file03: data
./-file06: data
./-file06: data
./-file07: ASCII text
./-file06: data
./-file06:
```

```
logout
Connection to bandit.labs.overthewire.org closed.
havirbhavighavirbhavi-VirtualBox:-/<mark>Desktop</mark>$ ssh bandit5@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames
 oandit5@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux
                                                                                           ire.org
 Velcome to OverTheWire!
If you find any problems, please report them to Steven or morla on
lrc.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/s
If you find any problems, please report them to Steven or morla on irc.overthewire.org.
   -[ Playing the games 1--
    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/.
    Write-access to homedirectories is disabled. It is advised to create a working directory with a hard-to-guess name in /tmp/. You can use the command "mktemp -d" in order to generate a random and hard to guess directory in /tmp/. Read-access to both /tmp/ and /proc/ is disabled so that users can not snoop on eachother. Files and directories with easily guessable or short names will be periodically deleted!
     Please play nice:
          * don't leave orphan processes running* don't leave exploit-files laying around* don't annoy other players
          * don't post passwords or spoilers
* again, DONT POST SPOILERS!
This includes writeups of your solution on your blog or website!
```

This machine has a 64bit processor and many security-features enabled by default, although ASLR has been switched off. The following compiler flags might be interesting:

-[Tips]--

```
For your convenience we have installed a few usefull tools which you can find in the following locations:

* gef (https://github.com/hugsy/gef) in /usr/local/gef/
* pwndbg (https://github.com/longld/peda.git) in /usr/local/pwndbg/
* peda (https://github.com/longld/peda.git) in /usr/local/peda/
* gdbinit (https://github.com/gdbinit/ddbinit) in /usr/local/gdbinit/
* pwntools (https://www.radare.org/)
* radare2 (http://www.radare.org/)
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh
--[ More information ]--

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

For support, questions or comments, contact us through IRC on irc.overthewire.org #wargames.

Enjoy your stay!

DanditS@bandit:-$ ls -alps
total 24
4 drwxr-xr-x 3 root root 4096 May 7 2020 ./
4 drwxr-xr-x 41 root root 4096 May 7 2020 ./
4 drwxr-xr-x 1 root root 3226 May 15 2017 .bash_logout
4 -rw-r--r- 1 root root 3256 May 15 2017 .bashrc
4 drwxr-x-- 22 root bandits 4096 May 7 2020 inhere/
4 -rw-r--r- 1 root root 675 May 15 2017 .profile
DanditS@bandit:-$ ls
Linhere
DanditSgbandit:-$ cd inhere/
DanditSgbandit:-$ fod inhere/
DanditSgbandit:-$ cd inhere/
DanditSgbandit:-$ cd inhere/
DanditSgbandit:-$ fod inhere/
DanditSgbandit:-$ fod inhere/
DanditSgbandit:-$ cd inhere/
DanditSgbandit:-$ fod inhere/
DanditSgbandit:-$ cd inhere/
DanditSgbandit:-$ fod inhere/
DanditSgbandit:-$ fod inhere/
DanditSgbandit:-$ fod inhere/
DanditSgbandit:-$ cd inhere/
```

Level5-level6:

```
banditS@bandit:-$ ls -alps

total 24

4 drwxr-x-x 3 root root 4096 May 7 2020 ./
4 drwxr-xr-x 41 root root 4096 May 7 2020 ../
4 -rw-r-r-- 1 root root 220 May 15 2017 .bash logout
4 -rw-r-r-- 1 root root 3256 May 15 2017 .bashrc
4 drwxr-x-- 22 root bandit5 4096 May 7 2020 !nhere/
4 -rw-r-r- 1 root root 675 May 15 2017 .profile

banditS@bandit:-$ ls

inhere

banditS@bandit:-\inhere$ find . -type f -size 1033c ! -executable

./maybehere07/.file2

DxjZPULLxYr17uwo101bNLQbtFenEgo7

banditS@bandit:-/inhere$ cat ./maybehere07/.file2

DxjZPULLxYr17uwo101bNLQbtFenEgo7

banditS@bandit:-/inhere$ cat ./maybehere07/.file2

DxjZPULLxYr17uwo101bNLQbtFenEgo7

banditS@bandit:-/inhere$ exit

connection to bandit.labs.overthewire.org closed.

havirbhavi@havirbhavi-VirtualBox:-/Desktop$ 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
```

```
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/.
Write-access to homedirectories is disabled. It is advised to create a working directory with a hard-to-guess name in /tmp/. You can use the command "mktemp -d" in order to generate a random and hard to guess directory in /tmp/. Read-access to both /tmp/ and /proc/ is disabled
 so that users can not snoop on eachother. Files and directories with
 easily guessable or short names will be periodically deleted!
 Please play nice:
     * don't leave orphan processes running* don't leave exploit-files laying around
     * don't annoy other players
     * don't post passwords or spoilers
       again, DONT POST SPOILERS!
        This includes writeups of your solution on your blog or website!
-[ Tips ]--
This machine has a 64bit processor and many security-features enabled by default, although ASLR has been switched off. The following compiler flags might be interesting:
                                            compile for 32bit
disable ProPolice
    -m32
    -fno-stack-protector
                                            disable relro
    -Wl,-z,norelro
In addition, the execstack tool can be used to flag the stack as executable on FLF binaries.
```

```
This machine has a 64bit processor and many security-features enabled by default, although ASLR has been switched off. The following compiler flags might be interesting:

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

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 usefull tools which you can find in the following locations:

* gef (https://github.com/hugsy/gef) in /usr/local/gef/
* pwndbg (https://github.com/pwndbg/pwndbg) in /usr/local/peda/
* gdbinit (https://github.com/gabinit/Gbinit) in /usr/local/geda/
* gdbinit (https://github.com/Gallopsled/pwntools)

* radare2 (http://www.radare.org/)
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh
--[ More information ]--

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

For support, questions or comments, contact us through IRC on irc.overthewire.org #wargames.
```

Level 6-level7:

```
bandit6@bandit:~$ find / -type f -user bandit7 -group bandit6 -size
find: missing argument to `-size'
Try 'find --help' for more information.
bandit6@bandit:~$ find / -type f -user bandit7 -group bandit6 -size 33c
find: '/root': Permission denied
ffind: '/home/bandit28-git': Permission denied
ffind: '/home/bandit38-git': Permission denied
ffind: '/home/bandit37-git': Permission denied
ffind: '/home/bandit27-git': Permission denied
ffind: '/home/bandit27-git': Permission denied
ffind: '/home/bandit29-git': Permission denied
ffind: '/home/bandit31-git': Permission denied
ffind: '/etc/ssl/private': Permission denied
ffind: '/etc/spl/private': Permission denied
ffind: '/etc/plokit-1/localauthority': Permission denied
ffind: '/etc/lvm/backup': Permission denied
ffind: '/sys/fs/pstore': Permission denied
ffind: '/proc/13574/task/13574/fdinfo/6': No such file or directory
ffind: '/proc/13574/fdinfo/5': No such file or directory
ffind: '/ron/screen/S-bandit13': Permission denied
find: '/run/screen/S-bandit13': Permission denied
find: '/run/screen/S-bandit13': Permission denied
find: '/run/screen/S-bandit13': Permission denied
find: '/run/screen/S-bandit13': Permission denied
find: '/run/screen/S-bandit29': Permission denied
find: '/run/screen/S-bandit13': Permission denied
find: '/run/screen/S-bandit29': Permission denied
find: '/run/screen/S-bandit13': Permission denied
find: '/run/screen/S-bandit29': Permission denied
```

```
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/.
          Write-access to homedirectories is disabled. It is advised to create a working directory with a hard-to-guess name in /tmp/. You can use the command "mktemp -d" in order to generate a random and hard to guess directory in /tmp/. Read-access to both /tmp/ and /proc/ is disabled so that users can not snoop on eachother. Files and directories with easily guessable or short names will be periodically deleted!
             Please play nice:
                               * don't leave orphan processes running
                               * don't leave exploit-files laying around
* don't annoy other players
                                 * don't post passwords or spoilers
                                             again, DONT POST SPOILERS!
This includes writeups of your solution on your blog or website!
--[ Tips ]--
          This machine has a 64bit processor and many security-features enabled by default, although ASLR has been switched off. The following compiler flags might be interesting:
                                                                                                                                                                                                                                    compile for 32bit
disable ProPolice
                               -m32
                               -fno-stack-protector
                              -Wl,-z,norelro
                                                                                                                                                                                                                                       disable relro
          In addition, the execstack tool can be used to flag the stack as executable on ELF binaries.  \label{eq:executable} % \begin{array}{c} \left( \frac{1}{2} \right) \left(
```

```
-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 usefull tools which you can find
in the following locations:

* gef (https://github.com/hugsy/gef) in /usr/local/gef/
* pwndbg (https://github.com/pwndbg/pwndbg) in /usr/local/pwndbg/
* peda (https://github.com/pwndbg/pwndbg) in /usr/local/peda/
* gdbinit (https://github.com/gdbinit/Gdbinit) in /usr/local/gdbinit/
* pwntools (https://github.com/gallopsled/pwntools)
* radare2 (http://www.radare.org/)
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh
--[ More information ]--

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

For support, questions or comments, contact us through IRC on
irc.overthewire.org #wargames.

Enjoy your stay!
bandit7@bandit:-$

bandit7@bandit:-$

bandit7@bandit:-$
```

Level7-level8:

```
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/.

Write-access to homedirectories is disabled. It is advised to create a working directory with a hard-to-guess name in /tmp/. You can use the command "mktemp -d" in order to generate a random and hard to guess directory in /tmp/. Read-access to both /tmp/ and /proc/ is disabled so that users can not snoop on eachother. Files and directories with easily guessable or short names will be periodically deleted!

Please play nice:

* don't leave orphan processes running

* don't leave exploit-files laying around

* don't leave exploit-files laying around

* don't post passwords or spoilers

* again, DONT POST SPOILERS!

This includes writeups of your solution on your blog or website!

--[ Tips ]--

This machine has a 64bit processor and many security-features enabled by default, although ASLR has been switched off. The following compiler flags might be interesting:

-m32

compile for 32bit

-fno-stack-protector disable ProPolice

-Wl.-z.norelro disable ProPolice
```

```
-m32 compile for 32bit
-fno-stack-protector
-Wl,-z,norelro disable ProPolice
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 usefull tools which you can find
in the following locations:

* gef (https://github.com/hugsy/gef) in /usr/local/gef/
* pwndbg (https://github.com/pwndbg/pwndbg) in /usr/local/pwndbg/
* peda (https://github.com/longld/peda.git) in /usr/local/peda/
* gdbinit (https://github.com/gdbintt/Gdbintt) in /usr/local/gdbinit/
* pwntools (https://github.com/gallopsled/pwntools)

* radare2 (http://www.radare.org/)
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh

--[ More information ]--

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

For support, questions or comments, contact us through IRC on
irc.overthewire.org #wargames.

Enjoy your stay!

pandit8@bandit:-$

Enjoy your stay!
```

Level 8-level9:

```
bendtt@phandtt:-S sort data.txt | uniq -c
10 07KClukwYksultsLedebbalsbonish2
10 10 07KClukwYksultsLedebbalsbonish2
10 10 07KClukwYksultsLedebbalsbonish2
10 10 17KClukwYksultsLedebbalsbonish2
10 10 17KClukwYksultsLedebbalsbonish2
10 10 17KClukwYksultsLedebbalsbonish2
10 17KClukwYksultsLedebbalsbo
```

```
-m32 compile for 32bit disable ProPolice disable ProPolice -W1,-z,norelro disable ProPolice 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 usefull tools which you can find in the following locations:

* gef (https://github.com/hugsy/gef) in /usr/local/gef/
* pwndbg (https://github.com/pwndbg/pwndbg) in /usr/local/pwndbg/
* peda (https://github.com/com/longld/peda.git) in /usr/local/peda/
* gdbinth (https://github.com/Gallopsled/pwntools)

* radare2 (http://www.radare.org/)
* checksec.sh (http://www.trapktt.de/tools/checksec.html) in /usr/local/bin/checksec.sh

--[ More information ]--

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For support, questions or comments, contact us through IRC on irc.overthewire.org #wargames.

Enjoy your stay!

bandit9gbandit:-5
```

Level 9 – level 10:

```
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/.

Write-access to homedirectories is disabled. It is advised to create a working directory with a hard-to-guess name in /tmp/. You can use the command "mktemp -d" in order to generate a random and hard to guess directory in /tmp/. Read-access to both /tmp/ and /proc/ is disabled so that users can not snoop on eachother. Files and directories with easily guessable or short names will be periodically deleted!

Please play nice:

* don't leave orphan processes running

* don't leave exploit-files laying around

* don't annoy other players

* don't post passwords or spoilers

* again, DONT POST SPOILERS!

This includes writeups of your solution on your blog or website!

--[Tips]--

This machine has a 64bit processor and many security-features enabled by default, although ASLR has been switched off. The following compiler flans might be interesting:
```

```
-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 usefull tools which you can find
in the following locations:

* gef (https://github.com/hugsy/gef) in /usr/local/gef/
* pwndbg (https://github.com/pwndbd/pwndbg) in /usr/local/pwndbg/
* peda (https://github.com/longld/peda.git) in /usr/local/peda/
* gdbinit (https://github.com/gdbinit/Gdbinit) in /usr/local/gdbinit/
* pwntools (https://github.com/gdllopsled/pwntools)
* radare2 (http://www.radare.org/)
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh

--[More information ]--

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

For support, questions or comments, contact us through IRC on
irc.overthewire.org #wargames.

Enjoy your stay!
```

Level 10-level11:

```
-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 usefull tools which you can find in the following locations:

* gef (https://github.com/hugsy/gef) in /usr/local/gef/
* pwndbg (https://github.com/pwndbg/pwndbg) in /usr/local/pwndbg/
* peda (https://github.com/glongld/peda.git) in /usr/local/peda/
* gdbinit (https://github.com/gdbinit/Gdbinit) in /usr/local/gdbinit/
* pwntools (https://github.com/gdbinit/Gdbinit) in /usr/local/gdbinit/
* pwntools (https://github.com/gdllopsled/pwntools)

* radare2 (http://www.radare.org/)
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh

--[ More information ]--

For more information regarding individual wargames, visit http://www.overthewire.org/wargames/
For support, questions or comments, contact us through IRC on irc.overthewire.org #wargames.

Enjoy your stay!

banditilgbandit:-$
```

Level 11- level 12:

```
bandit11@bandit:-$ cat data.txt
Gur cnffjbeq vf 5Gr8L4qetPESPk8htqjhRK8XSP6x2RHh
bandit11@bandit:-$ exit
logout
Connection to bandit.labs.overthewire.org closed.
havirbhavi@havirbhavi-VirtualBox:-/Desktop$ ssh bandit12@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames
```

```
-m32
                                               compile for 32bit
     -fno-stack-protector
-Wl,-z,norelro
                                              disable ProPolice
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 usefull tools which you can find in the following locations:
    * gef (https://github.com/hugsy/gef) in /usr/local/gef/
* pwndbg (https://github.com/pwndbg/pwndbg) in /usr/local/pwndbg/
* peda (https://github.com/longld/peda.git) in /usr/local/peda/
* gdbinit (https://github.com/gdbinit/Gdbinit) in /usr/local/gdbinit/
* pwntools (https://github.com/Gallopsled/pwntools)
* radare2 (http://www.radare.org/)
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh
 -[ More information ]--
  For more information regarding individual wargames, visit
 http://www.overthewire.org/wargames/
 For support, questions or comments, contact us through IRC on irc.overthewire.org \# wargames.
 Enjoy your stay!
 andit12@bandit:~$
```

Level 12 -level 13:

bandit12@bandit:/tmp/alexis\$ ls

data: POSIX tar archive (GNU)

bandit12@bandit:/tmp/alexis\$ ls

data data.tar file,gz file.gzip file.tAR
bandit12@bandit:/tmp/alexis\$ file file
file: cannot open `file' (No such file or directory)
bandit12@bandit:/tmp/alexis\$ file data

bandit12@bandit:/tmp/alexis\$ mv data data.tar

file az file azin file tAR

```
bandtt12@bandtt:/tmp/alexis$ Is
data.txt file file.gzt file.gztp file.tAR
bandtt12@bandtt:/tmp/alexis$ file file
file: gztp compressed data, was "data4.bin", last modified: Thu May 7 18:14:30 2020, max compression, from Unix
bandtt12@bandtt:/tmp/alexis$ mc file file.gz
-bash: mc: command not found
bandtt12@bandtt:/tmp/alexis$ mv file file.gz
bandtt12@bandtt:/tmp/alexis$ gzip -d file.gz
bandtt12@bandtt:/tmp/alexis$ is
data.txt file file.gz file.gztp file.tAR
bandtt12@bandtt:/tmp/alexis$ file file
 bandit12@bandit:/tmp/alexis$ gzip -d file.gz
 bandit12@bandit:/tmp/alexis$ ls
 data.txt file file,gz file.gzip file.tAR
 bandit12@bandit:/tmp/alexis$ file file
 file: POSIX tar archive (GNU)
 bandit12@bandit:/tmp/alexis$ mv file file.tar
bandit12@bandit:/tmp/alexis$ tar xf file.tar
 bandit12@bandit:/tmp/alexis$ ls
 data5.bin data.txt file,gz file.gzip filbandit12@bandit:/tmp/alexis$ file data5.bin
                                                                                         file.tAR
 data5.bin: POSIX tar archive (GNU)
 bandit12@bandit:/tmp/alexis$ rm file.tar
bandit12@bandit:/tmp/alexis$ rm data
 rm: cannot remove 'data': No such file or directory
 bandit12@bandit:/tmp/alexis$ rm data.txt
bandit12@bandit:/tmp/alexis$ ls
data5.bin file,gz file.gzip file.tAR
bandit12@bandit:/tmp/alexis$ file data5.bin
data5.bin: POSIX tar archive (GNU)
 bandit12@bandit:/tmp/alexis$ mv data5.bin data.tar
 bandit12@bandit:/tmp/alexis$ tar xf data.tar
bandit12@bandit:/tmp/alexis$ ls
 data6.bin data.tar file,gz file.gzip file.tAR bandit12@bandit:/tmp/alexis$ file data6.bin data6.bin: bzip2 compressed data, block size = 900k
 bandit12@bandit:/tmp/alexis$ mv data6.bin data.bz2
 bandit12@bandit:/tmp/alexis$ bzip2 -d data.bz2
```

```
banditiz@bandit:/tmp/alexis$ tar xf data.tar
banditiz@bandit:/tmp/alexis$ ls
data6.bin data tar file.gz file.gzip file.tAR
banditiz@bandit:/tmp/alexis$ file data6.bin
data6.bin: bztp2 compressed data, block stze = 900k
banditiz@bandit:/tmp/alexis$ mv data6.bin data.bz2
banditiz@bandit:/tmp/alexis$ bztp2 -d data.bz2
banditiz@bandit:/tmp/alexis$ bztp2 -d data.bz2
banditiz@bandit:/tmp/alexis$ ls
data data.tar file.gz file.gzip file.tAR
banditiz@bandit:/tmp/alexis$ file file
file: cannot open 'file' (No such file or directory)
banditiz@bandit:/tmp/alexis$ file data
data: POSIX tar archive (GNU)
banditiz@bandit:/tmp/alexis$ mv data data.tar
banditiz@bandit:/tmp/alexis$ star xf data.tar
banditiz@bandit:/tmp/alexis$ tar xf data.tar
banditiz@bandit:/tmp/alexis$ star xf data.tar
banditiz@bandit:/tmp/alexis$ file data8.bin
data8.bin: gztp compressed data, was "data9.bin", last modified: Thu May 7 18:14:30 2020, max compression, from Unix
banditiz@bandit:/tmp/alexis$ sy data8.bin data.gz
banditiz@bandit:/tmp/alexis$ sy data8.bin data.gz
banditiz@bandit:/tmp/alexis$ file data0.gz
banditiz@bandit:/tmp/alexis$ ls
data data.tar file.gz file.gzip file.tAR
banditiz@bandit:/tmp/alexis$ star data.gz
banditiz@bandit:/tmp/alexis$ ls
data data.tar file.gz file.gzip file.tAR
banditiz@bandit:/tmp/alexis$ ls
data data.tar file.gz file.gzip file.tAR
banditiz@bandit:/tmp/alexis$ file data
banditiz@bandit:/tmp/alexis$ cat data
The password is @ZjyCRIBMFYkneahbandits*
banditiz@bandit:/tmp/alexis$ cat data
The password is @ZjyCRIBMFYkneahbandits*
banditiz@bandit:/tmp/alexis$ cat data
                  banditigbandit:/tmp/alexis$ cat data
The password is <a href="mailto:32jyCRLBWFYkneahHwxCv3wb2a10RpyLbandit12gbandit:/tmp/alexis$">3zjyCRLBWFYkneahHwxCv3wb2a10RpyLbandit12gbandit:/tmp/alexis$</a> exit
                 bandttizgbandttizturg earter earte logout Connection to bandit.labs.overthewire.org closed.

Connection to bandit.labs.overthewire.org closed.

havirbhavi@havirbhavi-VirtualBox:~/Oesktop$ ssh banditi3@bandit.labs.overthewire.org -p 2220

This is a OverThewire game server. More information on http://www.overthewire.org/wargames
                 havirbhavi@havirbhavi-VirtualBox:~/Desktop$ 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
                                                                                       ver
                                                                                                                                                                                                                                                    ire.org
                  Welcome to OverTheWire!
                 If you find any problems, please report them to Steven or morla on irc.overthewire.org.
```

-- Playing the games 1--

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/.

```
-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 usefull tools which you can find in the following locations:

* gef (https://github.com/hugsy/gef) in /usr/local/gef/
* pwndbg (https://github.com/pwndbg/pwndbg) in /usr/local/pwndbg/
* peda (https://github.com/pondld/peda.git) in /usr/local/peda/
* gdbinit (https://github.com/gdbinit/Gdbinit) in /usr/local/gdbinit/
* pwntools (https://github.com/Gallopsled/pwntools)
* radare2 (http://www.adare.org/)
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh
--[ More information ]--

For more information regarding individual wargames, visit http://www.overthewire.org/wargames/
For support, questions or comments, contact us through IRC on irc.overthewire.org #wargames.

Enjoy your stay!
```

Level 13-level 14:

```
-[ 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/.
 Write-access to homedirectories is disabled. It is advised to create a working directory with a hard-to-guess name in /tmp/. You can use the command "mktemp -d" in order to generate a random and hard to guess directory in /tmp/. Read-access to both /tmp/ and /proc/ is disabled so that users can not snoop on eachother. Files and directories with easily guessable or short names will be periodically deleted!
  Please play nice:
       * don't leave orphan processes running
          don't leave exploit-files laying around
       * don't annoy other players
      * don't post passwords or spoilers
* again, DONT POST SPOILERS!
           This includes writeups of your solution on your blog or website!
--[ Tips ]--
 This machine has a 64bit processor and many security-features enabled by default, although ASLR has been switched off. The following compiler flags might be interesting:
                                                        compile for 32bit
disable ProPolice
       -m32
       -fno-stack-protector
                                                         disable relro
       -Wl,-z,norelro
   In addition, the execstack tool can be used to flag the stack as
                                                 disable ProPolice
disable relro
      -fno-stack-protector
-Wl,-z,norelro
 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.
For your convenience we have installed a few usefull tools which you can find in the following locations:  \\
     * gef (https://github.com/hugsy/gef) in /usr/local/gef/
* pwndbg (https://github.com/pwndbg/pwndbg) in /usr/local/pwndbg/
* peda (https://github.com/longld/peda.git) in /usr/local/peda/
* gdbinit (https://github.com/gdbinit/Gdbinit) in /usr/local/gdbinit/
* pwntools (https://github.com/Gallopsled/pwntools)
* radare2 (http://www.radare.org/)
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh
-- More information 1--
```

For more information regarding individual wargames, visit

For support, questions or comments, contact us through IRC on irc.overthewire.org $\mbox{\tt\#wargames}.$

http://www.overthewire.org/wargames/

bandit14@bandit:~\$ cat /etc/bandit_pass/bandit14
4wcYUJFw0k0XLShlDzztnTBHiqxU3b3e

Enjoy your stay!

Level14 -level 15:

```
bandit14@bandit:-$ nc localhost 30000
4wcYUJFw0k0XLShlDzztnTBHiqxU3b3e
Correct!
BfMYroe26WYalil77FoDi9qh59eK5xNr
  andit14@bandit:-$ exit
logout
Connection to localhost closed.
bandit13@bandit:-$ exit
logout
Connection to bandit.labs.overthewire.org closed.
havirbhavi@havirbhavi-VirtualBox:~/Desktop$ ssh bandit15@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames
bandit15@bandit.labs.overthewire.org's password:
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
    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/.
    Write-access to homedirectories is disabled. It is advised to create a working directory with a hard-to-guess name in /tmp/. You can use the command "mktemp -d" in order to generate a random and hard to guess directory in /tmp/. Read-access to both /tmp/ and /proc/ is disabled so that users can not snoop on eachother. Files and directories with easily guessable or short names will be periodically deleted!
    Please play nice:
        * don't leave orphan processes running
        * don't leave exploit-files laying around
        * don't annoy other players
        * don't post passwords or spoilers

* again, DONT POST SPOILERS!

This includes writeups of your solution on your blog or website!
  --[ Tips ]--
    This machine has a 64bit processor and many security-features enabled by default, although ASLR has been switched off. The following
    compiler flags might be interesting:
                                                    compile for 32bit
disable ProPolice
disable relro
        -fno-stack-protector
        -Wl,-z,norelro
     In addition, the execstack tool can be used to flag the stack as
     executable on ELF binaries.
```

```
compile for 32bit
                  -m32
                 -fno-stack-protector
                                                                                                                              disable ProPolice
disable relro
               -Wl,-z,norelro
     In addition, the execstack tool can be used to flag the stack as executable on \ensuremath{\mathsf{ELF}} binaries.
     Finally, network-access is limited for most levels by a local firewall. % \begin{center} \end{center} \begin{center} \begin{
--[ Tools ]--
 For your convenience we have installed a few usefull tools which you can find in the following locations:
                       gef (https://github.com/hugsy/gef) in /usr/local/gef/
              * gef (https://github.com/hugsy/gef) in /usr/local/gef/
* pwndbg (https://github.com/pwndbg/pwndbg) in /usr/local/pwndbg/
* peda (https://github.com/pwndbg/pwndbg) in /usr/local/pwda/
* gdbinit (https://github.com/gdbinit/Gdbinit) in /usr/local/gdbinit/
* pwntools (https://github.com/Gallopsled/pwntools)
* radare2 (http://www.radare.org/)
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh
--[ More information ]--
     For more information regarding individual wargames, visit
     http://www.overthewire.org/wargames/
     For support, questions or comments, contact us through IRC on irc.overthewire.org \mbox{\tt\#wargames}.
     Enjoy your stay!
bandit15@bandit:-$
```

Level 15-level 16:

```
Connection to bandit.labs.overthewire.org closed.
havirbhavi@havirbhavi-VirtualBox:~/Desktop$ ssh bandit16@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames
bandit16@bandit.labs.overthewire.org's password:
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. % \left( 1\right) =\left\{ 1\right\} =\left\{
                          -[ Playing the games ]--
                                     This machine might hold several wargames. If you are playing "somegame", then:
```

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/.

Write-access to homedirectories is disabled. It is advised to create a working directory with a hard-to-guess name in /tmp/. You can use the command "mktemp -d" in order to generate a random and hard to guess directory in /tmp/. Read-access to both /tmp/ and /proc/ is disabled so that users can not snoop on eachother. Files and directories with easily guessable or short names will be periodically deleted!

Please play nice:

- * don't leave orphan processes running
- * don't leave exploit-files laying around
- * don't annoy other players
- * don't post passwords or spoilers
- * again, DONT POST SPOILERS!

This includes writeups of your solution on your blog or website!

-[Tips]--

This machine has a 64bit processor and many security-features enabled by default, although ASLR has been switched off. The following

```
compile for 32bit
disable ProPolice
     -m32
     -fno-stack-protector
                                              disable relro
     -Wl.-z.norelro
 In addition, the execstack tool can be used to flag the stack as executable on \ensuremath{\mathsf{ELF}} binaries.
 Finally, network-access is limited for most levels by a local firewall.
 [ Tools ]--
For your convenience we have installed a few usefull tools which you can find
in the following locations:
     * gef (https://github.com/hugsy/gef) in /usr/local/gef/
* pwndbg (https://github.com/pwndbg/pwndbg) in /usr/local/pwndbg/
* peda (https://github.com/longld/peda.git) in /usr/local/peda/
* gdbinit (https://github.com/gdbinit/Gdbinit) in /usr/local/gdbinit/
* pwntools (https://github.com/Gallopsled/pwntools)
* radare2 (http://www.radare.org/)
* checksec.sh (http://www.trapkit.de/tools/checksec.html) in /usr/local/bin/checksec.sh
 -[ More information ]--
 For more information regarding individual wargames, visit
 http://www.overthewire.org/wargames/
 For support, questions or comments, contact us through IRC on irc.overthewire.org #wargames.
 Enjoy your stay!
 andit16@bandit:-$
```

Passwords

Level-0 – bandit0

Level 0 -> level 1: boJ9jbbUNNfktd78OOpsqOltutMc3MY1

Level 1 -> level 2: CV1DtqXWVFXTvM2F0k09SHz0YwRINYA9

Level 2 -> level 3: UmHadQclWmgdLOKQ3YNgjWxGoRMb5luK

Level 3 -> level 4: pIwrPrtPN36QITSp3EQaw936yaFoFgAB

Level 4 -> level 5: koReBOKuIDDepwhWk7jZC0RTdopnAYKh

Level 5 -> level 6: DXjZPULLxYr17uwoI01bNLQbtFemEgo7

Level 6 -> level 7: HKBPTKQnIay4Fw76bEy8PVxKEDQRKTzs

Level 7 -> level 8: cvX2JJa4CFALtqS87jk27qwqGhBM9plV

Level 8 -> level 9: UsvVyFSfZZWbi6wgC7dAFyFuR6jQQUhR

Level 9 -> level 10: truKLdjsbJ5g7yyJ2X2R0o3a5HQJFuLk

Level 10 -> level 11: IFukwKGsFW8MOq3IRFqrxE1hxTNEbUPR

Level 11 -> level 12: 5Te8Y4drgCRfCx8ugdwuEX8KFC6k2EUu

Level 12 -> level 13: 8ZjyCRiBWFYkneahHwxCv3wb2a1ORpYL

