Bandit Write-Up: Levels 0 —> 5

OverTheWire Bandit Write-Up: Levels 0 to 5

This write-up documents my journey through the first five levels of OverTheWire's Bandit wargame. Each level introduces new Linux commands and concepts, making it an excellent resource for beginners in Linux and cybersecurity.

Level 0: Connecting to the Bandit Server

Level Goal

- Log into the Bandit server using SSH.

Commands Used

`ssh bandit0@bandit.labs.overthewire.org -p 2220`

Explanation

- The `ssh` command is used to connect to the Bandit server.
- `bandit0` is the username for Level 0.
- `bandit.labs.overthewire.org` is the server address.
- `-p 2220` specifies the port number.

Password

- The password for `bandit0` is provided on the OverTheWire website.

Level 0 → Level 1: Finding the Password in a File

Level Goal

- The password for the next level is stored in a file called `readme` located in the home directory. Use this password to log into `bandit1` using SSH.

Commands Used

`ls`

`cat readme`

Explanation

- `ls` lists the contents of the current directory.
- `cat readme` displays the contents of the
- `readme` file, which contains the password for Level 1.

Password

- The password for `bandit1` is: `ZjLjTmM6FvvyRnrb2rfNWOZOTa6ip5If`

Screenshots

- The screenshot shows the terminal after logging into `bandit0` and using `ls` to list the contents of the home directory.
- The `cat readme` command is used to display the contents of the `readme` file, revealing the password for Level 1.

Conclusion

This level serves as an introduction to the OverTheWire Bandit wargame and teaches the basics of navigating a Linux environment. By logging into the server using SSH and using simple commands like `ls` and `cat`, you learn how to interact with files and directories. The key takeaway from this level is understanding how to locate and read files to retrieve important information, such as passwords. These foundational skills are essential for progressing through the more challenging levels of the game and for working with Linux systems in real-world scenarios.

Level 1 → Level 2: Reading a File with a Hyphen in the Name

Level Goal

- The password for the next level is stored in a file named - located in the home directory.

Steps to Solve Level 1 → Level 2

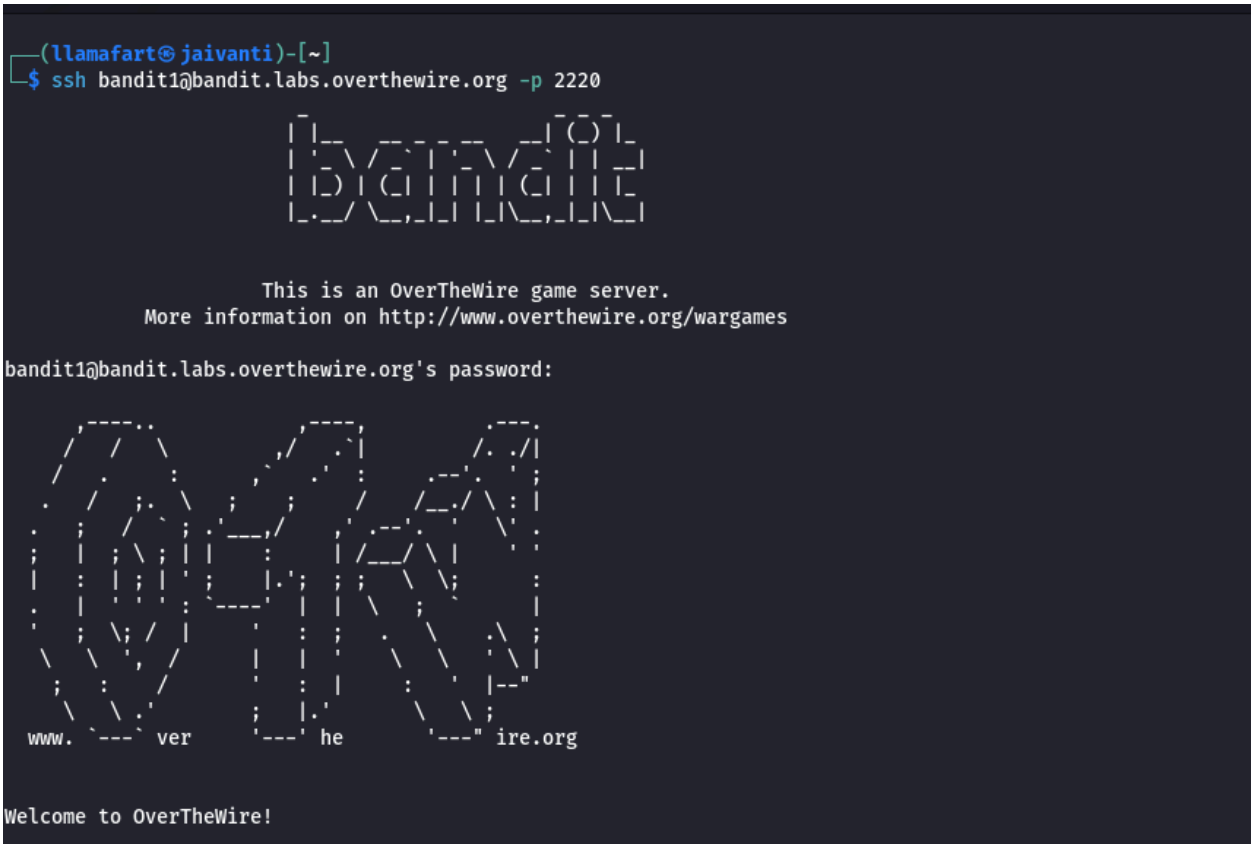
1. Log into Bandit1

Command

`ssh bandit1@bandit.labs.overthewire.org -p 2220`

Password for SSH Login

- The password for `bandit1` is: `ZjLjTmM6FvvyRnrb2rfNWOZOTa6ip5If`



Explanation

- The `ssh` command is used to connect to the Bandit server.
- `bandit1` is the username for Level 1.

- `bandit.labs.overthewire.org` is the server address.
- `-p 2220` specifies the port number.

2. List the Contents of the Home Directory

Command

```
ls
```

Explanation

- The `ls` command lists all files and directories in the current directory.
- In this case, it reveals a file named `-`.

3. Read the File Named `-`

Command

```
cat < -
```

Explanation

- The `cat` command is used to display the contents of a file.
- Using `<` redirects the file as input to the `cat` command.
- This approach avoids the shell interpreting as a command-line option.

4. Logout

Command

```
logout
```

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

The password you are looking for is: ZjLjTmM6FvvyRnrb2rfNWOZOTa6ip5If

bandit0@bandit:~$ logout
Connection to bandit.labs.overthewire.org closed.

┌──(llamafart㉿jaivanti)-[~]
└─$
```

Password

- The password for `bandit2` is: `263JGJPfgU6LtdEvgfWU1XP5yac29mFx`

Screenshot

```
┌──(llamafart㉿jaivanti)-[~]
└─$ ssh bandit1@bandit.labs.overthewire.org -p 2220
                         _                     _ _ _
                        | |__   __ _ _ __   __| (_) |_
                        | '_ \ / _` | '_ \ / _` | | __|
                        | |_) | (_| | | | | (_| | | |_
                        |_.__/ \__,_|_| |_|\__,_|_|\__|


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

bandit1@bandit.labs.overthewire.org's password:

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


Welcome to OverTheWire!
```

- The screenshot shows the terminal after logging into `bandit1`.
- The `ls` command lists the file named .
- The `cat < -` command is used to read the file, revealing the password for Level 2.

Conclusion

This level teaches how to handle filenames with special characters in Linux. By using `cat < -`, you can bypass the shell's interpretation of `-` as a command-line option and successfully read the file. This is a useful skill for working with unconventional filenames in real-world scenarios.

Level 2 → Level 3: Reading a File with Spaces in the Name

Level Goal

- The password for the next level is stored in a file named `spaces in this filename` located in the home directory.

Steps to Solve Level 2 → Level 3

1. Log into Bandit2

Command

`ssh bandit2@bandit.labs.overthewire.org -p 2220`

Password for SSH Login

- The password for `bandit2` is: `263JGJPfgU6LtdEvgfWU1XP5yac29mFx`

Explanation

- The `ssh` command is used to connect to the Bandit server.
- `bandit2` is the username for Level 2.
- `bandit.labs.overthewire.org` is the server address.
- `-p 2220` specifies the port number.

2. List the Contents of the Home Directory

Command

`ls`

Explanation

- The `ls` command lists all files and directories in the current directory.
- In this case, it reveals a file named `spaces in this filename`.

3. Read the File Named `spaces in this filename`

Command

`cat "spaces in this filename"`

Explanation

- The `cat` command is used to display the contents of a file.
- Since the filename contains spaces, you need to enclose it in quotes to avoid errors.

4. Logout

Command

`logout`

Password

- The password for `bandit3` is: `MNk8KNH3Usiio41PRUEoDFPqfxLPlSmx`

Screenshot

```
┌──(llamafart㉿jaivanti)-[~]
└─$ ssh bandit2@bandit.labs.overthewire.org -p 2220
                         _                     _ _ _
                        | |__   __ _ _ __   __| (_) |_
                        | '_ \ / _` | '_ \ / _` | | __|
                        | |_) | (_| | | | | (_| | | |_
                        |_.__/ \__,_|_| |_|\__,_|_|\__|


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

bandit2@bandit.labs.overthewire.org's password:

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


Welcome to OverTheWire!
```

```
bandit2@bandit:~$ ls
spaces in this filename
bandit2@bandit:~$ cat "spaces in this filename"
MNk8KNH3Usiio41PRUEoDFPqfxLPlSmx
bandit2@bandit:~$ logout
Connection to bandit.labs.overthewire.org closed.

┌──(llamafart㉿jaivanti)-[~]
└─$
```

- The screenshot shows the terminal after logging into `bandit2`.
- The `ls` command lists the file named `spaces in this filename`.
- The `cat "spaces in this filename"` command is used to read the file, revealing the password for Level 3.

Conclusion

This level teaches how to handle filenames with spaces in Linux. By enclosing the filename in quotes, you can successfully read the file without encountering errors.

This is a useful skill for working with filenames that contain spaces or special characters in real-world scenarios.

Level 3 → Level 4: Finding a Hidden File

Level Goal

- The password for the next level is stored in a hidden file in the `inhere` directory.

Steps to Solve Level 3 → Level 4

1. Log into Bandit3

Command

`ssh bandit3@bandit.labs.overthewire.org -p 2220`

Password for SSH Login

- The password for `bandit3` is: `MNk8KNH3Usiio41PRUEoDFPqfxLPlSmx`

Explanation

- The `ssh` command is used to connect to the Bandit server.
- `bandit3` is the username for Level 3.
- `bandit.labs.overthewire.org` is the server address.
- `-p 2220` specifies the port number.

2. Navigate to the `inhere` Directory

Command

`cd inhere`

Explanation

- The `cd` command is used to change the current directory.
- `inhere` is the directory where the hidden file is located.

3. List All Files (Including Hidden Files)

Command

`ls -la`

Explanation

- The `ls -la` command lists all files and directories in the current directory, including hidden files (those starting with a dot).
- This reveals a hidden file named `.Hiding-From-You`.

5. Logout

Command

`logout`

```
bandit3@bandit:~$ ls
inhere
bandit3@bandit:~$ cd inhere
bandit3@bandit:~/inhere$ ls
bandit3@bandit:~/inhere$ ls -la
total 12
drwxr-xr-x 2 root    root    4096 Sep 19 07:08 .
drwxr-xr-x 3 root    root    4096 Sep 19 07:08 ..
-rw-r----- 1 bandit4 bandit3   33 Sep 19 07:08 ...Hiding-From-You
bandit3@bandit:~/inhere$ cat "...Hiding-From-You"
2WmrDFRmJIq3IPxneAaMGhap0pFhF3NJ
bandit3@bandit:~/inhere$ logout
Connection to bandit.labs.overthewire.org closed.

┌──(llamafart㉿jaivanti)-[~]
└─$
```

Password

- The password for `bandit4` is: `2WmrDFRmJIq3IPxneAaMGhap0pFhF3NJ`

Screenshot

```
┌──(llamafart㉿jaivanti)-[~]
└─$ ssh bandit3@bandit.labs.overthewire.org -p 2220
                         _                     _ _ _
                        | |__   __ _ _ __   __| (_) |_
                        | '_ \ / _` | '_ \ / _` | | __|
                        | |_) | (_| | | | | (_| | | |_
                        |_.__/ \__,_|_| |_|\__,_|_|\__|


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

bandit3@bandit.labs.overthewire.org's password:

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


Welcome to OverTheWire!
```

```
bandit3@bandit:~$ ls
inhere
bandit3@bandit:~$ cd inhere
bandit3@bandit:~/inhere$ ls
bandit3@bandit:~/inhere$ ls -la
total 12
drwxr-xr-x 2 root    root    4096 Sep 19 07:08 .
drwxr-xr-x 3 root    root    4096 Sep 19 07:08 ..
-rw-r----- 1 bandit4 bandit3   33 Sep 19 07:08 ...Hiding-From-You
bandit3@bandit:~/inhere$ cat "...Hiding-From-You"
2WmrDFRmJIq3IPxneAaMGhap0pFhF3NJ
bandit3@bandit:~/inhere$ logout
Connection to bandit.labs.overthewire.org closed.

┌──(llamafart㉿jaivanti)-[~]
└─$
```

- The screenshot shows the terminal after logging into `bandit3`.
- The `cd inhere` command is used to navigate to the `inhere` directory.
- The `ls -la` command lists all files, including the hidden file `.Hiding-From-You`.

- The `cat .Hiding-From-You` command is used to read the file, revealing the password for Level 4.

Conclusion

This level teaches how to find and read hidden files in Linux. By using `ls -la`, you can reveal hidden files (those starting with a dot) and access their contents. This is a useful skill for working with hidden files in real-world scenarios.

Level 4 → Level 5: Finding the Human-Readable File

Level Goal

- The password for the next level is stored in the only human-readable file in the `inhere` directory.

Steps to Solve Level 4 → Level 5

1. Log into Bandit4

Command

`ssh bandit4@bandit.labs.overthewire.org -p 2220`

Password for SSH Login

- The password for `bandit4` is: `2WmrDFRmJIq3IPxneAaMGhap0pFhF3NJ`

Explanation

- The `ssh` command is used to connect to the Bandit server.
- `bandit4` is the username for Level 4.
- `bandit.labs.overthewire.org` is the server address.
- `-p 2220` specifies the port number.

2. Navigate to the `inhere` Directory

Command

`cd inhere`

Explanation

- The `cd` command is used to change the current directory.
- `inhere` is the directory where the human-readable file is located.

3. List the Contents of the `inhere` Directory

Command

`ls`

Explanation

- The `ls` command lists all files and directories in the current directory.
- This reveals multiple files named `file00` to `file09`.

4. Identify the Human-Readable File

Command

`file -- -file{00..09}`

Explanation

- The `file` command is used to determine the type of each file.
- The `-` ensures that filenames starting with are treated as filenames and not as command-line options.
- The output shows that `file07` is an ASCII text file, which is human-readable.

5. Read the Human-Readable File

Command

`cat -- -file07`

Explanation

- The `cat` command is used to display the contents of a file.
- The `--` ensures that the filename starting with is treated as a filename and not as a command-line option.
- The file `-file07` contains the password for Level 5.

6. Logout

Command

`logout`

```
bandit4@bandit:~$ ls
inhere
bandit4@bandit:~$ cd inhere
bandit4@bandit:~/inhere$ ls
-file00  -file02  -file04  -file06  -file08
-file01  -file03  -file05  -file07  -file09
bandit4@bandit:~/inhere$ file -- -file{00..09}
-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
4oQYVPkxZOOEOO5pTW81FB8j8lxXGUQw
bandit4@bandit:~/inhere$ logout
Connection to bandit.labs.overthewire.org closed.
```

Password for Level 5

- The password for `bandit5` is: `4oQYVPkxZOOEOO5pTW81FB8j8lxXGUQw`

Screenshot

```
┌──(llamafart㉿jaivanti)-[~]
└─$ ssh bandit4@bandit.labs.overthewire.org -p 2220
                         _                     _ _ _
                        | |__   __ _ _ __   __| (_) |_
                        | '_ \ / _` | '_ \ / _` | | __|
                        | |_) | (_| | | | | (_| | | |_
                        |_.__/ \__,_|_| |_|\__,_|_|\__|


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

bandit4@bandit.labs.overthewire.org's password:

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


Welcome to OverTheWire!
```

```
bandit4@bandit:~$ ls
inhere
bandit4@bandit:~$ cd inhere
bandit4@bandit:~/inhere$ ls
-file00  -file02  -file04  -file06  -file08
-file01  -file03  -file05  -file07  -file09
bandit4@bandit:~/inhere$ file -- -file{00..09}
-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
4oQYVPkxZOOEOO5pTW81FB8j8lxXGUQw
bandit4@bandit:~/inhere$ logout
Connection to bandit.labs.overthewire.org closed.
```

- The screenshot shows the terminal after logging into `bandit4`.
- The `cd inhere` command is used to navigate to the `inhere` directory.

- The `ls` command lists the files in the directory.
- The `file -- -file[00..09]` command identifies `file07` as the human-readable file.
- The `cat -- -file07` command is used to read the file, revealing the password for Level 5.

Conclusion

This level teaches how to identify and read human-readable files in a directory containing multiple files. By using the `file` command, you can determine the type of each file and locate the one that contains the password. This is a useful skill for working with files in real-world scenarios.