

23 July, 24

**BYTEWISE FELLOWSHIP CYBERSECURITY**

## Bandit Level 31-34

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## Bandit Level 30 → Level 31

## Level Goal

There is a git repository at `ssh://bandit30-git@localhost/home/bandit30-git/repo` via the port 2220. The password for the user `bandit30-git` is the same as for the user `bandit30`.

Clone the repository and find the password for the next level.

### Commands you may need to solve this level

git

```
bandit30@bandit:~$ mkdir b30a
mkdir: cannot create directory 'b30a': Permission denied
bandit30@bandit:~$ mkdir /tmp/b30a
bandit30@bandit:~$ cd /tmp/b30a
bandit30@bandit:/tmp/b30a$ GIT_SSH_COMMAND='ssh -p 2220 -o UserKnownHostsFile=/dev/null -o StrictHostKeyChecking=no' git clone ssh://bandit30-git@localhost:2220/home/bandit30-git/repo
Cloning into 'repo'...
Warning: Permanently added '[localhost]:2220' (ED25519) to the list of known hosts.

      _____
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     |   |   |   |   |   |
     |___|___|___|___|___|
     |___|___|___|___|___|
     |___|___|___|___|___|

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

bandit30-git@localhost's password:
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (4/4), done.
bandit30@bandit:/tmp/b30a$ ls
repo
bandit30@bandit:/tmp/b30a$ cd repo
bandit30@bandit:/tmp/b30a/repo$ ls
README.md
bandit30@bandit:/tmp/b30a/repo$ cat README.md
just an empty file... muahaha
bandit30@bandit:/tmp/b30a/repo$ git log
commit 60410f42e05023128098dc1f6991c75e6ae02e47 (HEAD -> master, origin/master, origin/HEAD)
Author: Ben Dover <noone@overthewire.org>
Date: Wed Jul 17 15:57:34 2024 +0000

    initial commit of README.md
```

23 July, 24

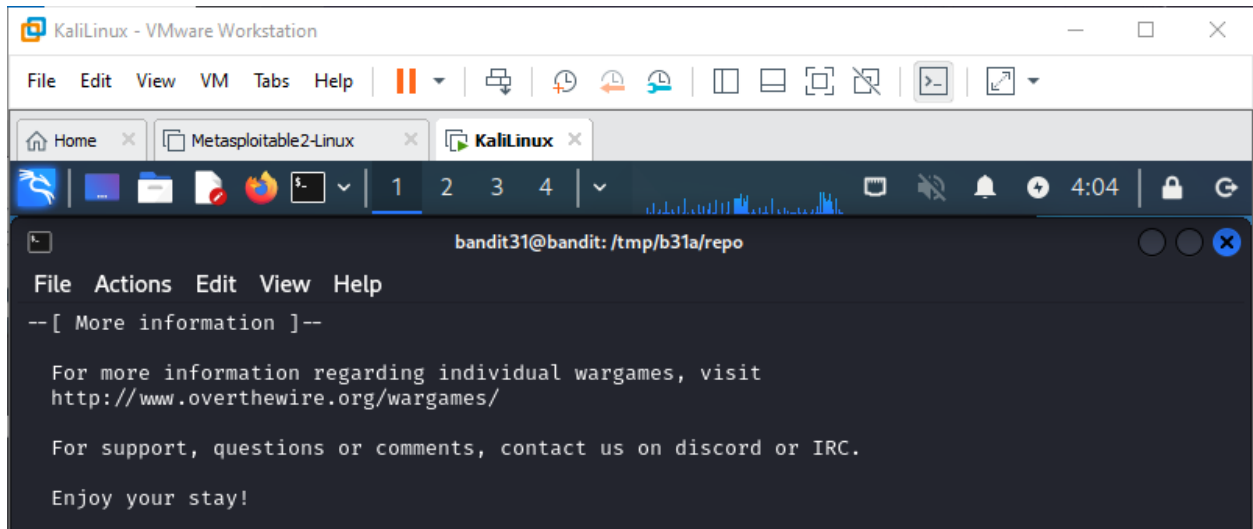
```
bandit30@bandit:/tmp/b30a/repo$ git log
commit 60410f42e05023128098dc1f6991c75e6ae02e47 (HEAD → master, origin/master, origin/HEAD)
Author: Ben Dover <noone@overthewire.org>
Date:   Wed Jul 17 15:57:34 2024 +0000

    initial commit of README.md
bandit30@bandit:/tmp/b30a/repo$ git branch
* master
bandit30@bandit:/tmp/b30a/repo$ git branch -a
* master
  remotes/origin/HEAD → origin/master
  remotes/origin/master
bandit30@bandit:/tmp/b30a/repo$ git tag
secret
bandit30@bandit:/tmp/b30a/repo$ git show secret
fb5S2xb7bRvFmAvQYQGEqsbhVvJahnDv
bandit30@bandit:/tmp/b30a/repo$
```

23 July, 24

[illegible]

23 July, 24



## Bandit Level 31 → Level 32

### Level Goal

There is a git repository at `ssh://bandit31-git@localhost/home/bandit31-git/repo` via the port 2220. The password for the user `bandit31-git` is the same as for the user `bandit31`.

Clone the repository and find the password for the next level.

### Commands you may need to solve this level

git

23 July, 24

```
bandit31@bandit:~$ mkdir /tmp/b31a
bandit31@bandit:~$ cd /tmp/b31a
bandit31@bandit:/tmp/b31a$ GIT_SSH_COMMAND='ssh -p 2220 -o UserKnownHostsFile=/dev/null -o StrictHostKeyChecking=no' git clone ssh://bandit31-git@localhost:2220/home/bandit31-git/repo
Cloning into 'repo' ...
Warning: Permanently added '[localhost]:2220' (ED25519) to the list of known hosts.
```

[illegible]

```

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

```

```
bandit31-git@localhost's password:
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (4/4), done.
```

```
bandit31@bandit:/tmp/b31a$ ls
```

repo

```
bandit31@bandit:/tmp/b31a$ cd /repo
-bash: cd: /repo: No such file or directory
```

```
bandit31@bandit:/tmp/b31a$ cd repo
```

```
bandit31@bandit:/tmp/b31a/repo$ ls
```

README.md

```
bandit31@bandit:/tmp/b31a/repo$ cat README.md
```

This time your task is to push a file to the remote repository.

```
bandit31@bandit:/tmp/b31a/repo$ cat README.md
```

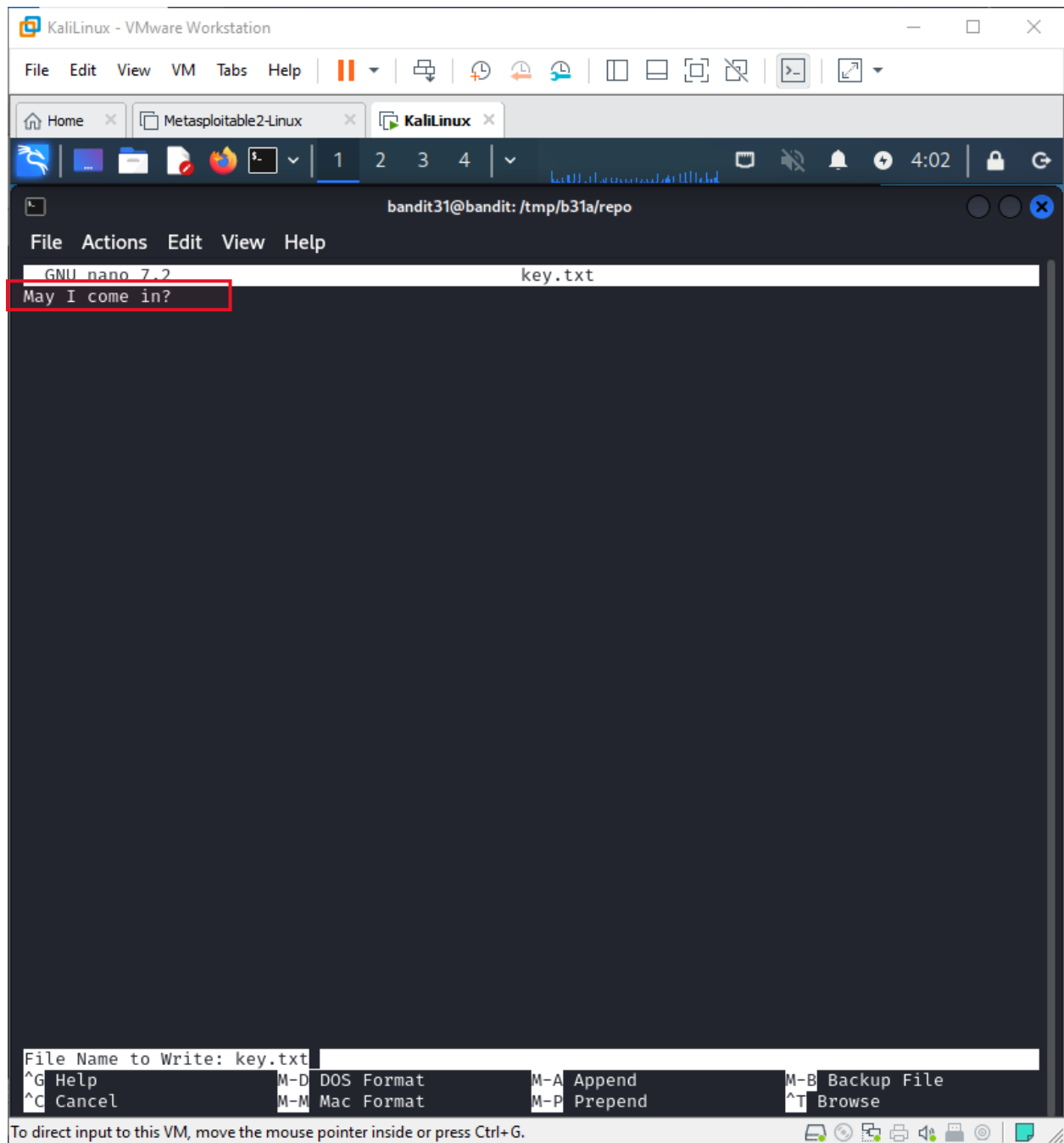
This time your task is to push a file to the remote repository.

### Details:

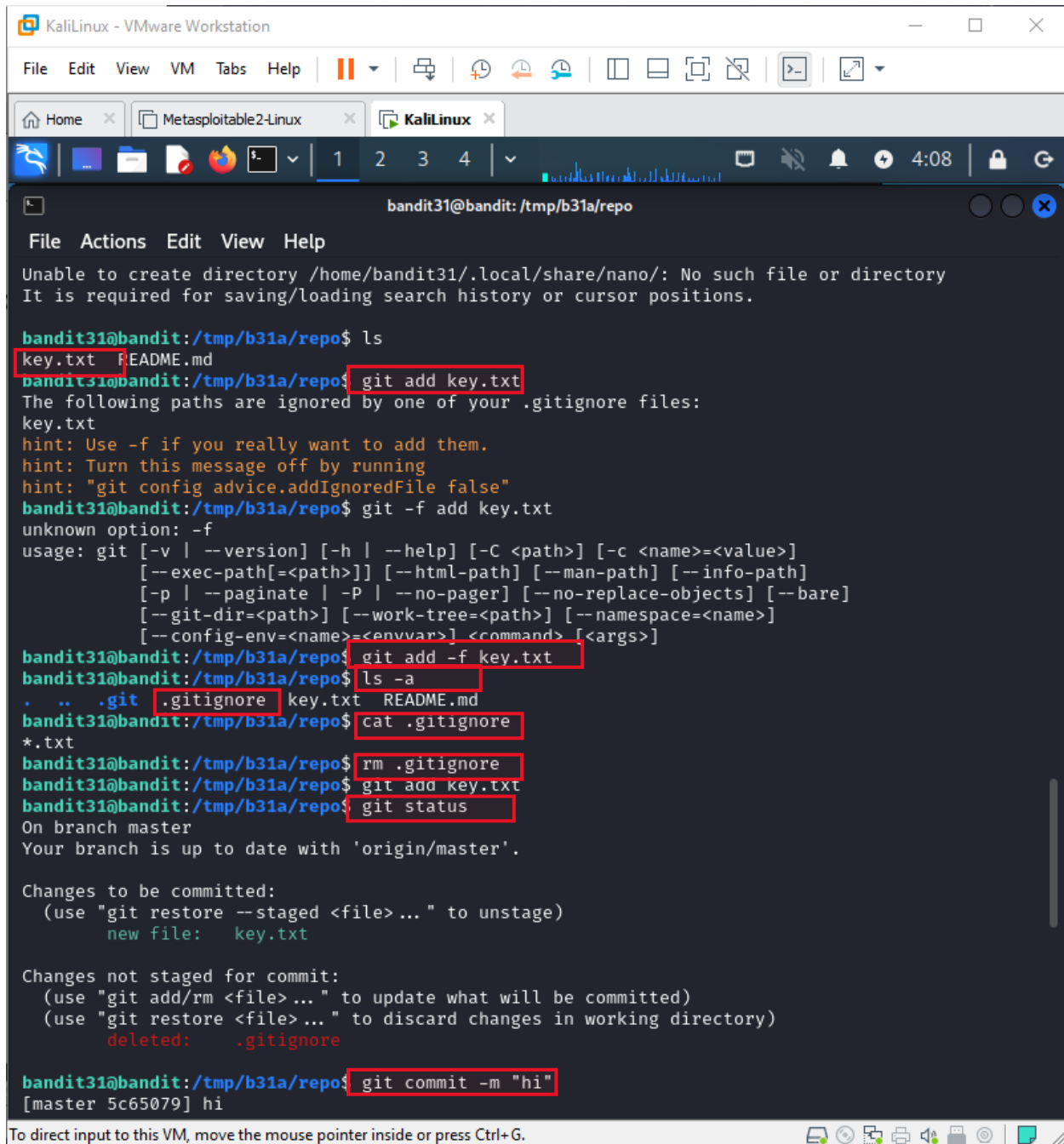
```
File name: key.txt
Content: 'May I come in?'
Branch: master
```

```
bandit31@bandit:/tmp/b31a/repo$ nano key.txt
```

23 July, 24



23 July, 24



```
KaliLinux - VMware Workstation
File Edit View VM Tabs Help
Metasploitable2-Linux KaliLinux
bandit31@bandit: /tmp/b31a/repo
File Actions Edit View Help
Unable to create directory /home/bandit31/.local/share/nano/: No such file or directory
It is required for saving/loading search history or cursor positions.

bandit31@bandit:/tmp/b31a/repo$ ls
key.txt README.md
bandit31@bandit:/tmp/b31a/repo$ git add key.txt
The following paths are ignored by one of your .gitignore files:
key.txt
hint: Use -f if you really want to add them.
hint: Turn this message off by running
hint: "git config advice.addIgnoredFile false"
bandit31@bandit:/tmp/b31a/repo$ git -f add key.txt
unknown option: -f
usage: git [-v | --version] [-h | --help] [-C <path>] [-c <name>=<value>]
      [--exec-path[=<path>]] [--html-path] [--man-path] [--info-path]
      [-p | --paginate | -P | --no-pager] [--no-replace-objects] [--bare]
      [--git-dir=<path>] [--work-tree=<path>] [--namespace=<name>]
      [--config-env=<name>=<envvar>] <command> [<args>]

bandit31@bandit:/tmp/b31a/repo$ git add -f key.txt
bandit31@bandit:/tmp/b31a/repo$ ls -a
. .. .git .gitignore key.txt README.md
bandit31@bandit:/tmp/b31a/repo$ cat .gitignore
*.txt
bandit31@bandit:/tmp/b31a/repo$ rm .gitignore
bandit31@bandit:/tmp/b31a/repo$ git add key.txt
bandit31@bandit:/tmp/b31a/repo$ git status
On branch master
Your branch is up to date with 'origin/master'.

Changes to be committed:
  (use "git restore --staged <file> ..." to unstage)
    new file:   key.txt

Changes not staged for commit:
  (use "git add/rm <file> ..." to update what will be committed)
  (use "git restore <file> ..." to discard changes in working directory)
    deleted:    .gitignore

bandit31@bandit:/tmp/b31a/repo$ git commit -m "hi"
[master 5c65079] hi

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.
```

23 July, 24

[illegible]



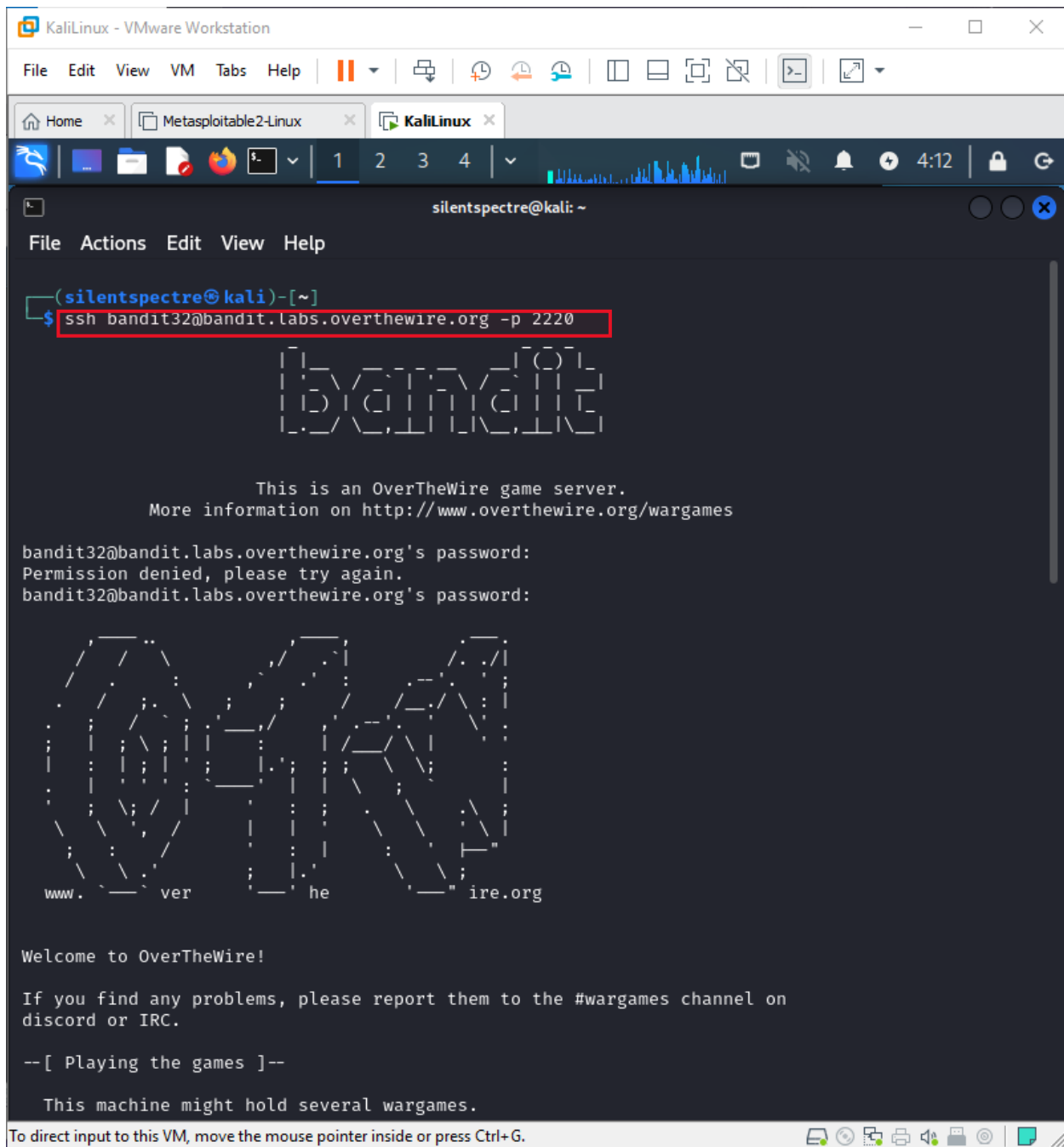
23 July, 24

```
More information on http://www.overthewire.org/wargames

bandit31-git@localhost's password:
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 2 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 317 bytes | 158.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
remote: ### Attempting to validate files... ####
remote:
remote: .oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.
remote:
remote: Well done! Here is the password for the next level:
remote: 309RfhqyAlVBEZpVb6LYStshZoqoSx5K
remote:
remote: .oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.oOo.
remote:
To ssh://localhost:2220/home/bandit31-git/repo
! [remote rejected] master -> master (pre-receive hook declined)
error: failed to push some refs to 'ssh://localhost:2220/home/bandit31-git/repo'
bandit31@bandit:/tmp/b31a/repo$
```

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

23 July, 24



The screenshot shows a Kali Linux terminal window titled "KaliLinux - VMware Workstation". The terminal displays the command `ssh bandit32@bandit.labs.overthewire.org -p 2220` being executed. The output shows a connection to a game server, displaying ASCII art for "OverTheWire" and a welcome message. The terminal also shows the password prompt and the message "Permission denied, please try again." followed by another password prompt. The terminal window has a menu bar with "File", "Actions", "Edit", "View", and "Help". The status bar at the bottom indicates "To direct input to this VM, move the mouse pointer inside or press Ctrl+G."

```
KaliLinux - VMware Workstation
File Edit View VM Tabs Help
Home x Metasploitable2-Linux x KaliLinux x
1 2 3 4
silentspectre@kali: ~
File Actions Edit View Help
(silentspectre@kali)-[~]
$ ssh bandit32@bandit.labs.overthewire.org -p 2220
OverTheWire

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

bandit32@bandit.labs.overthewire.org's password:
Permission denied, please try again.
bandit32@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 ]--

This machine might hold several wargames.
```

## Bandit Level 32 → Level 33

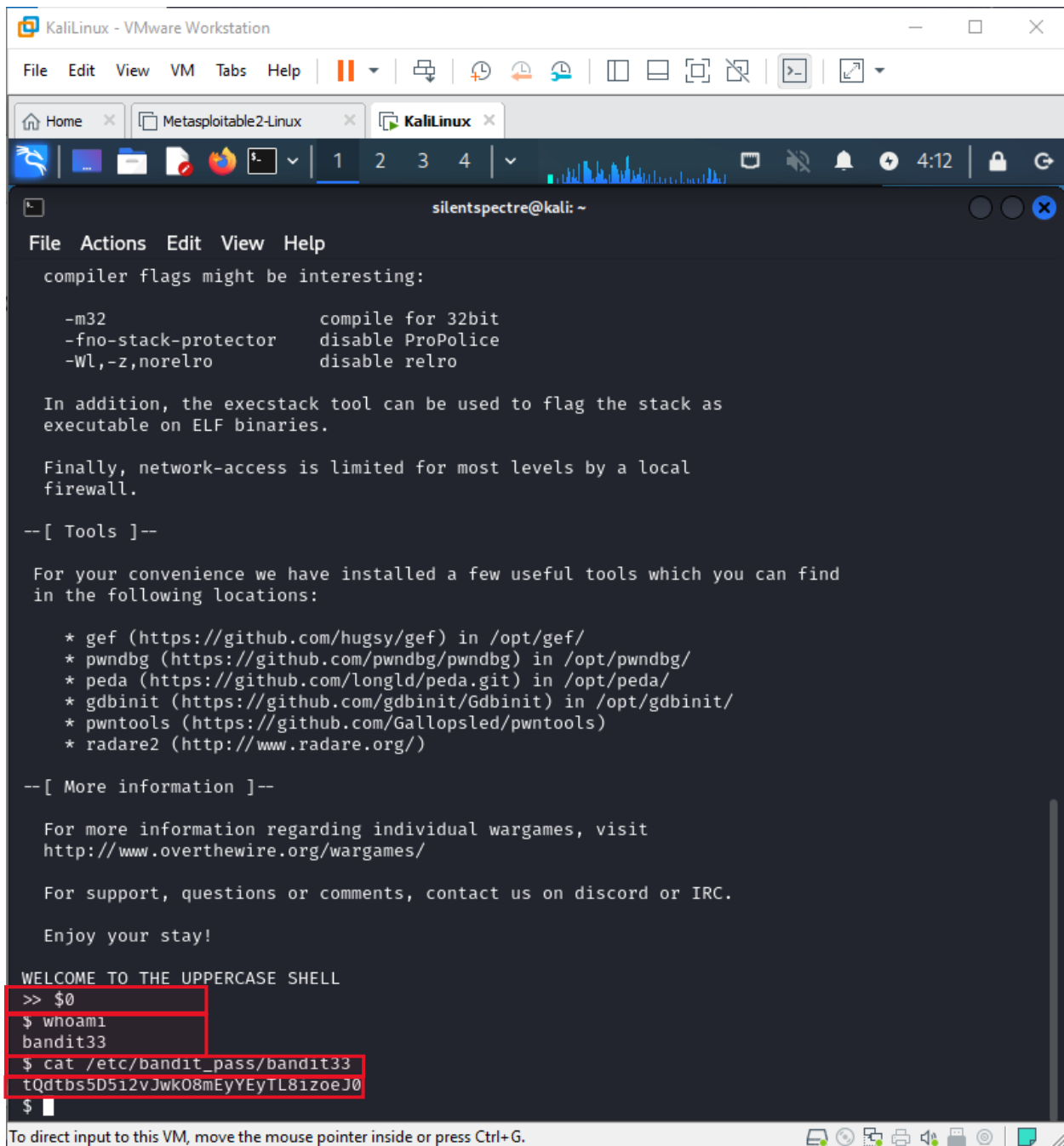
### Level Goal

After all this git stuff, it's time for another escape. Good luck!

### Commands you may need to solve this level

sh, man

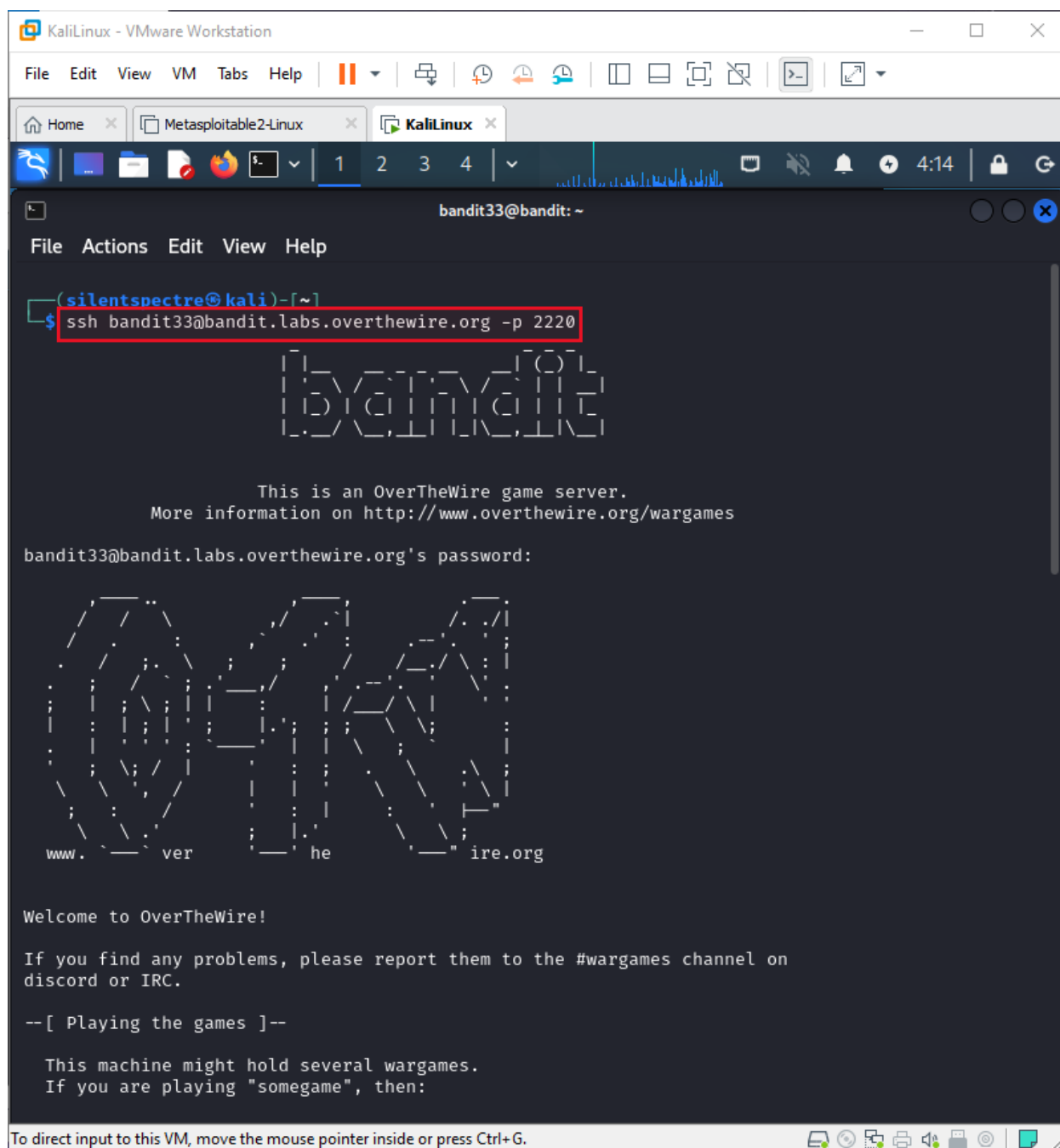
23 July, 24



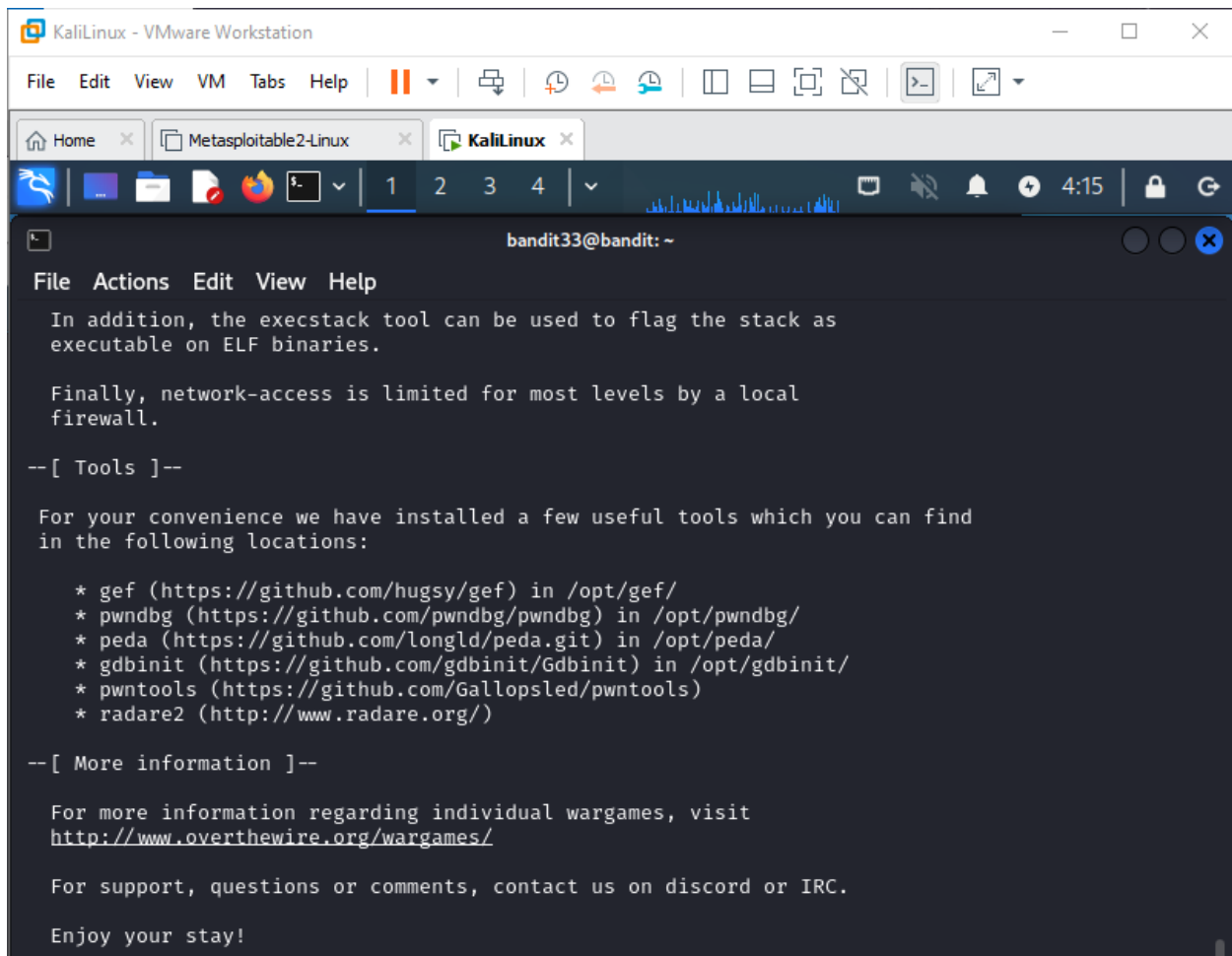
```
KaliLinux - VMware Workstation
File Edit View VM Tabs Help
Home x Metasploitable2-Linux x KaliLinux x
1 2 3 4
silentspectre@kali: ~
File Actions Edit View Help
compiler flags might be interesting:
-m32          compile for 32bit
-fno-stack-protector  disable ProPolice
-Wl,-z,norelro  disable relro
In addition, the execstack tool can be used to flag the stack as
executable on ELF binaries.
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/)
--[ 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!
WELCOME TO THE UPPERCASE SHELL
>> $0
$ whoami
bandit33
$ cat /etc/bandit_pass/bandit33
tQdtbs5D5i2vJwk08mEyEYTL81zoeJ0
$
```

To direct input to this VM, move the mouse pointer inside or press Ctrl+G.

23 July, 24



23 July, 24

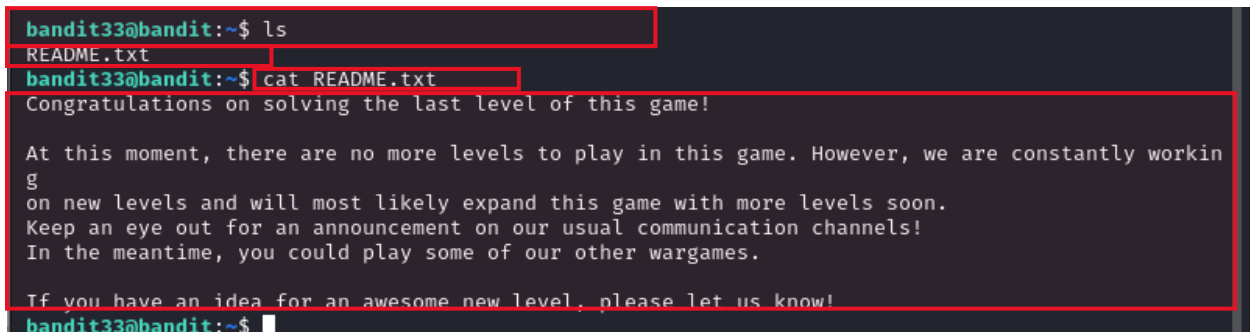


The screenshot shows a Kali Linux terminal window titled "KaliLinux - VMware Workstation". The terminal displays the contents of a README file. The text in the terminal is as follows:

```
bandit33@bandit: ~  
File Actions Edit View Help  
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/)  
  
--[ 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!
```

## Bandit Level 33 → Level 34

At this moment, level 34 does not exist yet.



The screenshot shows a terminal window with the following content:

```
bandit33@bandit:~$ ls  
README.txt  
bandit33@bandit:~$ cat README.txt  
Congratulations on solving the last level of this game!  
  
At this moment, there are no more levels to play in this game. However, we are constantly working  
on new levels and will most likely expand this game with more levels soon.  
Keep an eye out for an announcement on our usual communication channels!  
In the meantime, you could play some of our other wargames.  
  
If you have an idea for an awesome new level, please let us know!  
bandit33@bandit:~$
```

All levels passwords:

23 July, 24

```

1 level0: bandit0
2 level1: ZjLjTmM6FvvyRnrb2rfNWOZ0Ta6ip5If
3 level2: 263JGJPfgU6LtdEvgfWU1XP5yac29mFx
4 level3: MNk8KNH3Usiio41PRUEoDFPqfxLPLSmx
5 level4: 2WmrDFRmJIq3IPxneAaMGhap0pFhF3NJ
6 level5: 4oQYVPkxZ00E005pTW81FB8j8LxXGUQw
7 level6: HWasnPhtq9AVKe0dmk45nxy20cvUa6EG
8 level7: morbNTDkSW6jIlUc0ymOdMaLn0lFVAaj
9 level8: dfwvzFQj4mU0wfnNbFOe9R0wskMLg7eEc
10 level9: 4CKMh1JI91bUIZZPXQdGanal4xvAg0JM
11 level10: FGUW5ilLVJrxX9kMYMmlN4MgbpFmiqey
12 level11: dtR173fZKb0RRsDFSgsg2RWnpNVj3qRr
13 level12: 7*16WNeHiI5YkIhWsfFIqoognUTy9j9Q4
14 level13: F05dwFsc0cbaIiH0h8J2eUks2vdTDwAn
15 level14: MU4VWeTyJk8R0of1qqmcBPALh7LDCPvS
16 level15: 8xCjnmgoKbGLHFAZ1GE5Tmu4M2tKJQo
17 level16: kSkvUpMQ7lBYyCM4GBPvCvT1BfWRy0Dx
18 level17: EReVavePLFHTfLFsjn3hyzMlvSuSAcRD
19 level18: x2gLTtjFwMOhQ8oWNBmN362QKxfRqGL0
20 level19: cGWpMaKXVwDUNGPAVJbWYuGHVn9z13j8
21 level20: 0qXahG8Zj0VMN9Ghs7iOWsCfZyXOUbY0
22 level21: EeoULMCra2q0dSkYj561DX7s1CpBu0Bt
23 level22: tRae0UfB9v0UzbCdn9cY0gQnds9GF58Q
24 level23: 0Zf11ioIjMVN551jX3CmStKLyQjk54Ga
25 level24: gb8KRRcSshuZXI0tUuR6yp0Fjizbf3G8
26 level25: iCi86ttT4KSNe1armKiwbQNmB3YJP3q4
27 level26: s0773xxkk0MXfdq0fPRVr9L3jJBu0gCZ
28 level27: upsNcc7vzaRDx6oZC6GiR6Rwe1MowGB
29 level28: Yz9IpL0sBcCeug7m9uQfT8ZnpS4HZRcN
30 level29: 4pT1t5DENaYuqnqvadYs1oE4QLCdjmJ7
31 level30: qp30ex3VLz5MDG1n91YowTv4Q8l7CDZL
32 level31: fb5S2xb7bRyFmAvQYQGEqsbbVYJqhndy
33 level32: 309RfhqyAlVBEZpVb6LYstshZoqoSx5K
34 level33: tQdtbs5D5i2vJwk08mEyEYTL8izoeJ0
35 level34:

```