

Islamic University of Technology

SWE 4504 Software Security Lab

Lab - 01 Assignment

Name : Mukit Mahdin
ID : 200042170
Department : CSE
Program : Software Engineering

Task-1

Command :

```
grep -oE '\b[A-Z][a-z]+ [a-z]+ [A-Z][a-z]+\b' 'The Witcher_Blood Of  
Elves_Summary.txt'
```

```
mahdin@asus-vivobook-s15:~/Software-Security-Lab/Lab-01$ ls  
'The Witcher_Blood Of Elves_Summary.txt'  
mahdin@asus-vivobook-s15:~/Software-Security-Lab/Lab-01$ grep -oE '\b[A-Z][a-z]+ [a-z]+ [A-Z][a-z]+\b' 'The Witcher_Blood Of Elves_Summary.txt'  
Empire of Nilfgaard  
Kingdom of Cintra  
Cub of Cintra  
Emhyr var Emreis  
Emperor of Nilfgaard  
Geralt of Rivia  
Eskel and Lambert  
Vennefer of Vengerberg  
Geralt leaves Kaer  
Triss and Ciri  
School in Ellander  
Dandelion and Shani
```

Explanation :

The grep utility with the -o flag to extract matching parts of text and the -E flag to enable extended regular expressions.

The enclosed regular expression pattern, '\b[A-Z][a-z]+ [a-z]+ [A-Z][a-z]+\b', is structured with word boundary anchors (\b), uppercase and lowercase letter specifications, and spaces. It can identify sequences of three words in the format of an initial capitalized word, followed by a lowercase word, and concluded with a final capitalized word.

Task-2

Level 0:

Password : bandit0

```
mahdin@asus-vivobook-s15:~/Software-Security-Lab/Lab-01$ ssh bandit0@bandit.labs.overthewire.org -p 2220  
The authenticity of host '[bandit.labs.overthewire.org]:2220 ([16.16.8.216]:2220)' can't be established.  
ED25519 key fingerprint is SHA256:C2ihUBV7ihhV1wUXRb4RrEclFXC5CXlhmAAM/urerLY.  
This key is not known by any other names  
Are you sure you want to continue connecting (yes/no/[fingerprint])? y  
Please type 'yes', 'no' or the fingerprint: yes  
Warning: Permanently added '[bandit.labs.overthewire.org]:2220' (ED25519) to the list of known hosts.
```

```
bandit0
```

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

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

```
04N3
```

www. ver he ire.org

Welcome to OverTheWire!

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

Level 0 - Level 1 :

```
bandit0@bandit:~$ ls
readme
bandit0@bandit:~$ cat readme
NH2SXQwcBdpmTEzi3bvBHMM9H66vVXjL
bandit0@bandit:~$
```

Level 1 Password :

NH2SXQwcBdpmTEzi3bvBHMM9H66vVXjL

Level 1 - Level 2 :

```
bandit1@bandit:~$ ls
-
bandit1@bandit:~$ cat ./-
rRGizSaX8Mk1RTb1CNQoXTcYZWU6lgzi
bandit1@bandit:~$
```

Level 2 Password :

rRGizSaX8Mk1RTb1CNQoXTcYZWU6lgzi

Level 2 - Level 3 :

```
mahdin@asus-vivobook-s15:~/Software-Security-Lab/Lab-01$ ssh bandit2@bandit.labs.overthewire.org -p 2220
[bandit2@bandit:~]
This is an OverTheWire game server.
More information on http://www.overthewire.org/wargames
bandit2@bandit.labs.overthewire.org's password:
0411
www. ver he " ire.org
Welcome to OverTheWire!
```

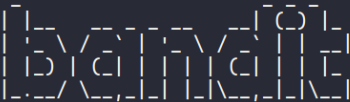
```
bandit2@bandit:~$ ls
spaces in this filename
bandit2@bandit:~$ cat "spaces in this filename"
aBZ0W5EmUfAf7kHTQeOwd8bauFJ2lAiG
bandit2@bandit:~$
```

Level 3 Password :

aBZ0W5EmUfAf7kHTQeOwd8bauFJ2lAiG


Level 3 - Level 4 :

```
mahdin@asus-vivobook-s15:~/Software-Security-Lab/Lab-01$ 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:



Welcome to OverTheWire!


```
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$
```

Level 4 Password :

2EW7BBsr6aMMoJ2HjW067dm8EgX26xNe


Level 4 - Level 5 :

```
mahdin@asus-vivobook-s15:~/Software-Security-Lab/Lab-01$ 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:



Welcome to OverTheWire!

```

bandit4@bandit:~$ ls
inhere
bandit4@bandit:~$ cd inhere/
bandit4@bandit:~/inhere$ ls
-file00 -file01 -file02 -file03 -file04 -file05 -file06 -file07 -file08 -file09
bandit4@bandit:~/inhere$ ls -la
total 48
drwxr-xr-x 2 root root 4096 Apr 23 18:04 .
drwxr-xr-x 3 root root 4096 Apr 23 18:04 ..
-rw-r----- 1 bandit5 bandit4 33 Apr 23 18:04 -file00
-rw-r----- 1 bandit5 bandit4 33 Apr 23 18:04 -file01
-rw-r----- 1 bandit5 bandit4 33 Apr 23 18:04 -file02
-rw-r----- 1 bandit5 bandit4 33 Apr 23 18:04 -file03
-rw-r----- 1 bandit5 bandit4 33 Apr 23 18:04 -file04
-rw-r----- 1 bandit5 bandit4 33 Apr 23 18:04 -file05
-rw-r----- 1 bandit5 bandit4 33 Apr 23 18:04 -file06
-rw-r----- 1 bandit5 bandit4 33 Apr 23 18:04 -file07
-rw-r----- 1 bandit5 bandit4 33 Apr 23 18:04 -file08
-rw-r----- 1 bandit5 bandit4 33 Apr 23 18:04 -file09
bandit4@bandit:~/inhere$ file /*
./-file00: data
./-file01: data
./-file02: data
./-file03: data
./-file04: data
./-file05: data
./-file06: data
./-file07: ASCII text
./-file08: data
./-file09: Non-ISO extended-ASCII text, with no line terminators
bandit4@bandit:~/inhere$ cat -file07
cat: invalid option -- 'f'
Try 'cat --help' for more information.
bandit4@bandit:~/inhere$ cat ./-file07
lrIWWI6bB37kxfiCQZqUd0IYfr6eEeqR
bandit4@bandit:~/inhere$

```

Level 5 Password :

lrIWWI6bB37kxfiCQZqUd0IYfr6eEeqR

Level 5 - Level 6 :

```

mahdin@asus-vivobook-s15:~/Software-Security-Lab/Lab-01$ ssh bandit5@bandit.labs.overthewire.org -p 2220
[bandit]

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

bandit5@bandit.labs.overthewire.org's password:

OverTheWire

www. ver he ire.org

Welcome to OverTheWire!

```

```

bandit5@bandit:~$ ls
inhere
bandit5@bandit:~$ cd inhere/
bandit5@bandit:~/inhere$
bandit5@bandit:~/inhere$ ls
maybehere00 maybehere02 maybehere04 maybehere06 maybehere07 maybehere08 maybehere10 maybehere12 maybehere14 maybehere16 maybehere18
maybehere01 maybehere03 maybehere05 maybehere09 maybehere11 maybehere13 maybehere15 maybehere17 maybehere19
bandit5@bandit:~/inhere$ file */{.,}* | grep "ASCII text"
maybehere00/.file1: ASCII text, with very long lines (550)
maybehere00/.file2: ASCII text, with very long lines (7835)
maybehere01/.file2: ASCII text, with very long lines (3069)
maybehere02/.file1: ASCII text, with very long lines (6350)
maybehere02/.file2: ASCII text, with very long lines (2576)
maybehere03/.file1: ASCII text, with very long lines (9768)
maybehere03/.file2: ASCII text, with very long lines (8879)
maybehere04/.file1: ASCII text, with very long lines (2439)
maybehere04/.file2: ASCII text, with very long lines (6143)
maybehere05/.file1: ASCII text, with very long lines (3200)
maybehere05/.file2: ASCII text, with very long lines (5916)
maybehere06/.file1: ASCII text, with very long lines (1270)
maybehere06/.file2: ASCII text, with very long lines (8975)
maybehere07/.file1: ASCII text, with very long lines (3064)
maybehere07/.file2: ASCII text, with very long lines (1000)
maybehere08/.file1: ASCII text, with very long lines (8168)
maybehere08/.file2: ASCII text, with very long lines (746)
maybehere09/.file1: ASCII text, with very long lines (6762)
maybehere09/.file2: ASCII text, with very long lines (8516)
maybehere10/.file1: ASCII text, with very long lines (7091)
maybehere10/.file2: ASCII text
maybehere11/.file1: ASCII text, with very long lines (451)
maybehere11/.file2: ASCII text, with very long lines (2500)
maybehere12/.file1: ASCII text, with very long lines (5814)

```

```

bandit5@bandit:~/inhere$ file */{.,}* | grep "ASCII text" | grep -v ', with very long lines'
maybehere10/.file2: ASCII text
maybehere15/.file2: ASCII text
maybehere01/~file2: ASCII text
maybehere08/spaces file1: ASCII text
maybehere12/~file2: ASCII text
maybehere15/spaces file2: ASCII text
maybehere18/~file2: ASCII text
bandit5@bandit:~/inhere$ du -b -a | grep 1033
1033      ./maybehere07/.file2
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
J67tSeFFKYcCAUuQmclCbDzpijgUE2VZeC2LHFikNP3IuTBERBw6CpeLRqDjSkysUvZwpeP6heLUwai750jaGVNpGJ94gorbwQLPwHfDwb2XLLzrC4jfmm8JLXT0jeVkiW4vFCQUse
xcKG6DR9CIRGAUWKeIBRUN8sxvxdNGvc8jhb3RIeGq05WLKpxGNPCwxYCu1hCGqdtfGbgGeyVaYIEDfetHS1siBU1IpM113A2Ysswv79cJ6S2ikv1Mpwg8gpwLFaCUCJnyhcLAe
57th0q13UnxCBgttgVrez1jmdD22AEV0AASf2BecXNcmZ08wdbx49AzyiOmrs2XGzfdKLRvOf09LzUA8XMP09B10fS0itGs0Npgy6PQANJNG0VIQoCU4yi4f51w77Kv3f9IGLx2
83sBWSsC9UbrHJF1HYCJfRLZ6uuNgcsZJ2I63H7zBPf3t64qEAXABSJcwti1Tm68pUuppbAppPsA5KjJtC11h103w4kdjnLY2CdLFU2Tse9ZHzwuoKZNeKL0khh0qFLDFCetfXLaaff3
esguhdmArICSQ0Mk86JJQaA79wqt9Eig2BzrSd2Fy5JbxWU7W3zJpNpXA3hCA3lvpei1vLPRIYuU9nnTWHtLLY0LRwuBEoswyFB9QaW0ufgNGL85e0JahzeXMLBh8suJLLiz7C4sta
xeQG0JfctB1qX7BBLzB5nJI1g791K6QBZ655vdMsevMOMj9187wQLWKIRCq8KEfRhs9Kii4aJ2L6xsBNxDLaa7Ec3CAfBrumMLIUT4uAHAOKpkoIMGzmmTWsVR1oF48cV8Js0Ub92
L3s2K1srwi1jpnDM4XLQ2PULvXxRBBrBQF4AFYtLiPSKraimoTST7sxeCrP50XUpCdFresPVRs7aDQZJz4JOMFdVKP6M4NAu4LomPMGQU84q7YLzIVCkFngt0nIGBe07VfwI6tJbq
Ro8QpZJYsJldvbI8L3Fc2onq6aJi6xDeYle8MQPyWqsIgmDmLA0pDbJYarVgKXyy73QQuvOHk5Fz7ks0KfMaQz94Y3CVemLfPSHPcRTcm0076suMpIFG0bUDaxGkfW9RCshPGmcNf
Oy18UW5X91Z65su5jP5K0mhJTQD71yw7E36FeL19mf5cS21K8vGWLbt5ggzeU1FkDLV9wIwGK4Ga4zCTFvI20uCX9mQjzqtMZ59p1S6fLG9D8zrrwSuxgQ0qTZuWeA660o3nKZu05
zaI1KayF09s1DyQ9d5v3mc6LXqFuZIOImewQZuLZ040BAYIQ477QRf6mEcSWGve7V4DdGneHg40s93UyhYBthWGFz6bj5nJQNwtgnTBEgyYaHuoatDw2VAdfxAwWLa1NkzLlVeeH
yWau8LsZ8jq31TBwxfkghghpLHakVeFCfStsayhBX4TuHjuVhX6AcL8GIBirk5rCkNUoLupRlqMnnCXDPD1AHLtpTaX03EYTSU1aUcG9hTG1B0tyBBvW7yQ0r349oLyczqqgyYpkgd
CZWEA4Ftj4J5b0LZRLt2MbeFmW33AFA0Y3XoASRLuPzllqE6yT1l1GCVUabVhJkdmP0oSybUURITnnCwtvYbbdeXbYbo9BVXMRafxBqZNo4V2lFQdy4WUTgBmhCq0bLYqn7Lb8B2E
RN59X6Ux4nn1dGj6A0vXJ58BqGKMLKPLFIGohyxmyLEnTNHbZxg841cLnI57KLQ20DLryXx2qar0X9KvZwoK3Mfm8yduVlfeAqlzpcfg3rxJAKEv4uIyQMUSiTFxSLTto3prbbdf
2gdo4FyykBUHZG2H18Fc3BQjVLuTJLGH7pfXubKqza6Q2NjrZ6yGkL1NA2v4XG1AbpL1nonn12u8WnTpNqagMnxbr3fZa1HW0XByt61c1SKMcwKo1PaoPsvbX0x9tt0CSwoshNS
SnJ4G6210RSLTNxpYfnMk5PJwL7KN83sw0BBWYSubE2Ewb2nphWADWZo6aeOnoxTcP6RfL79rCq9P28x1NnV83QG8MVDnEpih2YXQZ5yp66TfoIv3Jth5KRWApANFg6trS6UPHsV
aInxVTXKX1XOFKpmd10Z2Km9ModpTFJLcNePOQYKrvpuFmJFtBgYEFwSS52rzbpzTqZST7vmLEPI0i02PuCCBHwx1P14n1HPfwNdvDezkLlurmVodiE
bandit5@bandit:~/inhere/maybehere07$ cat ./file2
P4L4vucdmLnM8I7Vl7jG1ApGSfjYKqJU

```

Level 6 Password :

P4L4vucdmLnM8I7Vl7jG1ApGSfjYKqJU

Level 6 - Level 7 :

```
mahdin@asus-vivobook-s15:~/Software-Security-Lab/Lab-01$ ssh bandit6@bandit.labs.overthewire.org -p 2220
```

bandit

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

bandit6@bandit.labs.overthewire.org's password:

OverTheWire

www. ver he ire.org

Welcome to OverTheWire!

```
bandit6@bandit:~$ ls
bandit6@bandit:~$ ls -la
total 20
drwxr-xr-x  2 root root 4096 Apr 23 18:04 .
drwxr-xr-x 70 root root 4096 Apr 23 18:05 ..
-rw-r--r--  1 root root  220 Jan  6  2022 .bash_logout
-rw-r--r--  1 root root 3771 Jan  6  2022 .bashrc
-rw-r--r--  1 root root  807 Jan  6  2022 .profile
bandit6@bandit:~$ find / -type f -user bandit7 -group bandit6 -size 33c 2>/dev/null
/var/lib/dpkg/info/bandit7.password
bandit6@bandit:~$ cat /var/lib/dpkg/info/bandit7.password
z7WtoNQU2XfjmMtWA8u5rN4vzqu4v99S
bandit6@bandit:~$
```

Level 7 Password :

z7WtoNQU2XfjmMtWA8u5rN4vzqu4v99S

Level 7 - Level 8 :

```
mahdin@asus-vivobook-s15:~/Software-Security-Lab/Lab-01$ ssh bandit7@bandit.labs.overthewire.org -p 2220
```

bandit

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

bandit7@bandit.labs.overthewire.org's password:

OverTheWire

www. ver he ire.org

Welcome to OverTheWire!

```
bandit7@bandit:~$ ls
data.txt
bandit7@bandit:~$ wc -w data.txt
197133 data.txt
bandit7@bandit:~$ cat data.txt | grep milllionth
millionth      TESKZC0XvTetK0S9xNwm25STk5iWrBvP
bandit7@bandit:~$
```

Level 8 Password :

TESKZC0XvTetK0S9xNwm25STk5iWrBvP

Level 8 - Level 9 :

```
mahdin@asus-vivobook-s15:~/Software-Security-Lab/Lab-01$ ssh bandit8@bandit.labs.overthewire.org -p 2220
```

CONCRETE

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

bandit8@bandit.labs.overthewire.org's password:

Welcome to OverTheWire!

```
bandit8@bandit:~$ ls
data.txt
bandit8@bandit:~$ sort data.txt | uniq -u
EN632PlfYiZbn3PhVK3XOGSLNInNE00t
bandit8@bandit:~$
```

Level 9 Password :

EN632PlfYiZbn3PhVK3X0GSlnInNE00t

Level 9 - Level 10 :

```
mahdin@asus-vivobook-s15:~/Software-Security-Lab/Lab-01$ ssh bandit9@bandit.labs.overthewire.org -p 2220
```

bandit9

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

bandit9@bandit.labs.overthewire.org's password:

OverTheWire

Welcome to OverTheWire!

```
bandit9@bandit:~$ ls
data.txt
bandit9@bandit:~$ strings data.txt
B4Qle
x<9s
f'      W0
?'Y0d45
Iiuv
|S5j
hZ0h|
Q~4    py
1Jec
EA      k
HZpEm
hI!
7wzP
4===== the#
~u#Cudf
pc65
<@af
$3_*
^,tN
h.(
```

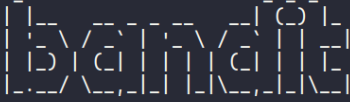
```
bandit9@bandit:~$ strings data.txt | grep ==
4===== the#
===== password
===== is
===== G7w8LIi6J3kTb8A7j9LgrywtEUlyyp6s
bandit9@bandit:~$
```

Level 10 Password :

G7w8LIi6J3kTb8A7j9LgrywtEUlyyp6s


Level 10 - Level 11 :

```
mahdin@asus-vivobook-s15:~/Software-Security-Lab/Lab-01$ ssh bandit10@bandit.labs.overthewire.org -p 2220
```



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

bandit10@bandit.labs.overthewire.org's password:



Welcome to OverTheWire!

```
bandit10@bandit:~$ ls
data.txt
bandit10@bandit:~$ file data.txt
data.txt: ASCII text
bandit10@bandit:~$ cat data.txt
VGhlIHBhc3N3b3JkIGlzIDZ6UGV6aUxkUjJSS05kTlIGTmI2bLZDS3pwaGxYSEJNCg==
bandit10@bandit:~$ base64 -d data.txt
The password is 6zPezilDr2RKNdNYFNb6nVCKzphlXHBM
bandit10@bandit:~$
```

Level 11 Password :

6zPezilDr2RKNdNYFNb6nVCKzphlXHBM


Level 11 - Level 12 :

```
mahdin@asus-vivobook-s15:~/Software-Security-Lab/Lab-01$ ssh bandit11@bandit.labs.overthewire.org -p 2220
```



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

bandit11@bandit.labs.overthewire.org's password:



Welcome to OverTheWire!

```
bandit11@bandit:~$ ls
data.txt
bandit11@bandit:~$ cat data.txt
Gur cnffjbeq vf WIA00SFzMjXXBC0KoSKBbJ8puQm5lIEi
bandit11@bandit:~$ cat data.txt | tr 'A-Za-z' 'N-ZA-Mn-za-m'
The password is JVNBBFSmZwKKOP0XbFX0oW8chDz5yVRv
bandit11@bandit:~$
```

Level 12 Password :

JVNBBFSmZwKKOP0XbFX0oW8chDz5yVRv

Level 12 - Level 13 :

```

mahdin@asus-vivobook-s15:~/Software-Security-Lab/Lab-01$ ssh bandit12@bandit.labs.overthewire.org -p 2220
bandit.labs.overthewire.org
bandit12@bandit.labs.overthewire.org:~$

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

bandit12@bandit.labs.overthewire.org's password:

www.OverTheWire.org

Welcome to OverTheWire!

```



```

bandit12@bandit:/tmp/tmp.n5GXAHLbm$ mv compressed_data compressed_data.bz2
bandit12@bandit:/tmp/tmp.n5GXAHLbm$ bzip2 -d compressed_data.bz2
bandit12@bandit:/tmp/tmp.n5GXAHLbm$ ls
compressed_data  hex_data
bandit12@bandit:/tmp/tmp.n5GXAHLbm$ mv compressed_data compressed_data.gz
bandit12@bandit:/tmp/tmp.n5GXAHLbm$ gzip -d compressed_data.gz
bandit12@bandit:/tmp/tmp.n5GXAHLbm$ xxd compressed_data | head
00000000: 6461 7461 352e 6269 6e00 0000 0000 0000  data5.bin.....
00000010: 0000 0000 0000 0000 0000 0000 0000 0000  ....
00000020: 0000 0000 0000 0000 0000 0000 0000 0000  ....
00000030: 0000 0000 0000 0000 0000 0000 0000 0000  ....
00000040: 0000 0000 0000 0000 0000 0000 0000 0000  ....
00000050: 0000 0000 0000 0000 0000 0000 0000 0000  ....
00000060: 0000 0000 3030 3030 3634 3400 3030 3030  ....0000644.0000
00000070: 3030 3000 3030 3030 3030 3000 3030 3030  000.0000000.0000
00000080: 3030 3234 3030 3000 3134 3432 3132 3731  0024000.14421271
00000090: 3434 3700 3031 3132 3436 0020 3000 0000  447.011246. 0...
bandit12@bandit:/tmp/tmp.n5GXAHLbm$ mv compressed_data compressed_data.tar
bandit12@bandit:/tmp/tmp.n5GXAHLbm$ tar -xf compressed_data.tar
bandit12@bandit:/tmp/tmp.n5GXAHLbm$ ls
compressed_data.tar  data5.bin  hex_data
bandit12@bandit:/tmp/tmp.n5GXAHLbm$ tar -xf data5.bin
bandit12@bandit:/tmp/tmp.n5GXAHLbm$ ls
compressed_data.tar  data5.bin  data6.bin  hex_data
bandit12@bandit:/tmp/tmp.n5GXAHLbm$ bzip2 -d data6.bin
bzip2: Can't guess original name for data6.bin -- using data6.bin.out
bandit12@bandit:/tmp/tmp.n5GXAHLbm$ ls
compressed_data.tar  data5.bin  data6.bin.out  hex_data
bandit12@bandit:/tmp/tmp.n5GXAHLbm$ tar -xf data6.bin.out
bandit12@bandit:/tmp/tmp.n5GXAHLbm$ ls
compressed_data.tar  data5.bin  data6.bin.out  data8.bin  hex_data
bandit12@bandit:/tmp/tmp.n5GXAHLbm$

```

```

bandit12@bandit:/tmp/tmp.n5GXAHLbm$ mv data8.bin data8.gz
bandit12@bandit:/tmp/tmp.n5GXAHLbm$ gzip -d data8.gz
bandit12@bandit:/tmp/tmp.n5GXAHLbm$ ls
compressed_data.tar  data5.bin  data6.bin.out  data8  hex_data
bandit12@bandit:/tmp/tmp.n5GXAHLbm$ cat data8
The password is wbWdLBxEir4CaE8LaPhauu0o6pwRmrDw
bandit12@bandit:/tmp/tmp.n5GXAHLbm$

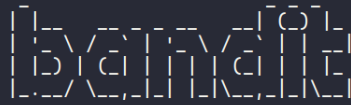
```

Level 13 Password :

wbWdLBxEir4CaE8LaPhauu0o6pwRmrDw

Level 13 - Level 14 :

```
mahdin@asus-vivobook-s15:~/Software-Security-Lab/Lab-01$ ssh bandit13@bandit.labs.overthewire.org -p 2220
```

The logo for OverTheWire, featuring the words "OverTheWire" in a stylized, blocky font made of dashed lines.

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

bandit13@bandit.labs.overthewire.org's password:

The logo for OverTheWire, featuring the words "OverTheWire" in a stylized, blocky font made of dashed lines. Below the logo, the text "www. over the wire.org" is displayed.

Welcome to OverTheWire!

```
bandit13@bandit:~$ ls
```

```
sshkey.private
```

```
bandit13@bandit:~$ ssh bandit14@localhost -p 2220 -i sshkey.private
```

The authenticity of host '[localhost]:2220 ([127.0.0.1]:2220)' can't be established.

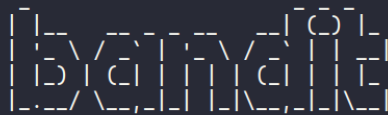
ED25519 key fingerprint is SHA256:C2ihUBV7ihnv1wUXRb4RrEcLfXC5CXlhmAAM/urerLY.

This key is not known by any other names

Are you sure you want to continue connecting (yes/no/[fingerprint])? yes

Could not create directory '/home/bandit13/.ssh' (Permission denied).

Failed to add the host to the list of known hosts (/home/bandit13/.ssh/known_hosts).

The logo for OverTheWire, featuring the words "OverTheWire" in a stylized, blocky font made of dashed lines.

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

Level 14 - Level 15 :

```
bandit14@bandit:~$ ls
```

```
bandit14@bandit:~$ cat /etc/bandit_pass/bandit14
```

```
fGrHPx402xGC7U7rXKDaxiWFT0iF0ENq
```

```
bandit14@bandit:~$ nc localhost 30000
```

```
fGrHPx402xGC7U7rXKDaxiWFT0iF0ENq
```

```
Correct!
```

```
jN2kgmIXJ6fShzhT2avhotn4Zcka6tnt
```

Level 15 Password :

jN2kgmIXJ6fShzhT2avhotn4Zcka6tnt

```
mahdin@asus-vivobook-s15:~/Software-Security-Lab/Lab-01$ ssh bandit15@bandit.labs.overthewire.org -p 2220
```

```

      _--_
     /    \
    /  _  \
   /__  __\
  /  _  _  \
 /__  _  _  \
/_  _  _  _  \
 \  _  _  _  /
  \  _  _  / 
   \  _  /  
    \  _/   
     \_/     

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

bandit15@bandit.labs.overthewire.org's password:
```

```

      _--_
     /    \
    /  _  \
   /__  __\
  /  _  _  \
 /__  _  _  \
/_  _  _  _  \
 \  _  _  _  /
  \  _  _  / 
   \  _  /  
    \  _/   
     \_/     

www.verheire.org

Welcome to OverTheWire!
```

```
bandit15@bandit:~$ openssl s_client -connect localhost:30001
CONNECTED(00000003)
Can't use SSL_get_servername
depth=0 CN = localhost
verify error:num=18:self-signed certificate
verify return:1
depth=0 CN = localhost
verify error:num=10:certificate has expired
notAfter=Aug 24 10:24:38 2023 GMT
verify return:1
depth=0 CN = localhost
notAfter=Aug 24 10:24:38 2023 GMT
verify return:1
---
Certificate chain
 0 s:CN = localhost
  i:CN = localhost
  a:PKKEY: rsaEncryption, 2048 (bit); sigalg: RSA-SHA1
  v:NotBefore: Aug 24 10:23:38 2023 GMT; NotAfter: Aug 24 10:24:38 2023 GMT
---
Server certificate
-----BEGIN CERTIFICATE-----
MIIDCzCCAfoGAwIBAgIENDM2CzANBgkqhkiG9w0BAQUFADAUMRIwEAYDVQQDDAls
b2NhbgGhvc3QwHhcnMjMwODI0MTAyMzM4WhcnMjMwODI0MTAyNDM4WjAUMRIwEAYD
VQDDAlsb2NhbgGhvc3QwggEiEAA0GCSqGSIb3DQEBAQUAA4IBDwAwggEKAAoIBAQC8
tsFynIwW0A3/9sYlv/DLII3PoY7n06w4oA9jXWbUvS2EkYitIU7oPzBmKHIUr4
ROYiGdtj0YxjZfamW0kPgYmiIJFzy0rhqwYjKH+Dcod5nh4MJehZ8F0JeedByWKL
turSTPPJh98q1xB2KQ4Bwk7wA5hpkXzIGg40KN1Vicub7CIw3JMnua63a0KxSOLt
ERvX15kPa4Ad2rMwT9ZLYCoPr91RZ8qmutsfurnTG7dTOuVfz40pqvTxQL8FkVwt
iPbmBiigsJux1jFIZeX3NWYPZcpYwTY20oOdq+T+OK1u0irykopfpWIVck7sQBon
oI23/7iyASdsPkQd7x4jAgMBAAGjZTBjMBQGA1UdEQQNMauCCWxvY2FsaG9zdDBL
BglghkgBhvhCAQ0EPhY8QV0b21hdGJjYXN5c2BnZW5lcmlF0ZWQgYnkGtmNhdC4g
U2VLIGh0dHBzOisvbm1hcC5vcmevbmNhdC8uMA0GCSqGSIb3DQEBAQUAA4IBAQCp
sK5Xp9yJA8QmkGAod+FxDYwEDZjhX5b1P4AprtOjtaLM6Ms5BbmE417ya/5Awijc
xhtlgHRRH4r3ViBT4BrVeNiM24ISiUqQppBr9Y4GRfcb5ZRjHYL6XadwPjmmnlr
LZ2II5QS0rdsCoH5Jsiovr2WiuD+oc2XoYMQqAMGZxsZw+Z1do8t0nSr4qA7bjxe
v869epRoDfBuGuQTUv5kkyxi+oJ2Xpx43ZRcBUpuXT4CiSBENXaaZUEQpelSpP3w
5HjLbvUuKc/KV4GA04irrxFcjXKcpukznmgpUgkJONFLn2XPJvtf0110G9eJWYNA
tuBsXMB83BxPi5MWKpCed
-----END CERTIFICATE-----
```



```
read R BLOCK
jN2kgmIXJ6fShzhT2avhotn4Zcka6tnt
Correct!
JQttfApK4SeyHwDlI9SXGR50qcl0Ail1

closed
bandit15@bandit:~$ █
```

Level 16 Password :

JQttfApK4SeyHwDlI9SXGR50qcl0Ail1

Level 16 - Level 17 :

```
bandit16@bandit:~$ nmap -sV localhost -p 31000-32000
Starting Nmap 7.80 ( https://nmap.org ) at 2023-08-26 17:40 UTC
Stats: 0:00:16 elapsed; 0 hosts completed (1 up), 1 undergoing Service Scan
Service scan Timing: About 0.00% done
Nmap scan report for localhost (127.0.0.1)
Host is up (0.00014s latency).
Not shown: 996 closed ports
PORT      STATE SERVICE      VERSION
31046/tcp open  echo
31518/tcp open  ssl/echo
31691/tcp open  echo
31790/tcp open  ssl/unknown
31960/tcp open  echo
```

```
bandit16@bandit:~$ openssl s_client -connect localhost:31790
CONNECTED(000000003)
Can't use SSL_get_servername
depth=0 CN = localhost
verify error:num=18:self-signed certificate
verify return:1
depth=0 CN = localhost
verify error:num=10:certificate has expired
notAfter=Aug 24 10:24:38 2023 GMT
verify return:1
depth=0 CN = localhost
notAfter=Aug 24 10:24:38 2023 GMT
verify return:1
---
Certificate chain
 0 s:CN = localhost
  i:CN = localhost
  a:PKKEY: rsaEncryption, 2048 (bit); sigalg: RSA-SHA1
  v:NotBefore: Aug 24 10:23:38 2023 GMT; NotAfter: Aug 24 10:24:38 2023 GMT
---
```



```
read R BLOCK
JQttfApK4SeyHwDlI9SXGR50qc10Ail1
Correct!
-----BEGIN RSA PRIVATE KEY-----
MIIeogIBAAKCAQEAvm0kuifmMg6HL2YPIOjon6iWfbp7c3jx34YkYWqUH57SudyJ
imZzeyGC0gtZPGUjUSxiJSWI/oTqexh+cAMTSMlOJf7+BrJObArnxd9Y7YT2bRPQ
Ja6Lzb558YW3FZl87ORiO+rW4LDCdNd2lUvLE/GL2GWyuKN0K5iCd5TbtJzEkQTu
DSt2mcNn4rhAL+JFr56o4T6z8WWAW18BR6yGrMq7Q/kALHYW3OekePQAzL0VUYbW
JGTi65CxbCnzc/w4+mqQyvmzpWtMAzJTzAzQxNbkR2MBGySxDLrjg0LWN6sK7wNX
x0YVztz/zblKpJfKUl1jHS+9EbVNj+D1XFOJuaQIDAQABAoIBABagpxpM1aoLWfvD
KHcj10nqcoBc4oE1laFYQwik7xfW+24pRNUDE6SFthOar69jp5RlLwD1NhPx3iBl
J9nOM8OJ0VToum43UOS8YxF8WwhXriYGnc1sskbwpXOUDc9uX4+UESzH22P29ovd
d8WErY0gPxun8pbJLmxkAtWNhpMvfe0050vk9TL5wqbu9AlbssgTcCXkMQnPw9nC
YNN6DDP2lbcBrvgT9YCNL6C+ZKufD52yOQ9qOkwFTEQpjtf4uNtJom+asvlpms8A
vLY9r60wYSvmZhNqBURj7lyCtXMIu1kkd4w7F77k+DjHoAXyxcUp1DGL51sOmama
+TOWWgECgYEA8JtPxP0GRJ+IQkX262jM3dElkza8ky5moIwUqYdsx0NxHgRRhORT
8c8hAuRBb2G82so8vUHk/fur85OEfc9TncnCY2crpoqsgghifKLxrLgtT+qDpfZnx
SatLdt8GfQ85yA7hnWWJ2MxF3NaeSDm75Lsm+tBbAiyC9P2jGRNtMSkCgYEAypHd
HCctNi/FwjulhttFx/rHYKhLidZDFYeiE/v45bN4yFm8x7R/b0iE7KaszX+Exdvt
SghaTdcG0Knyw1bpJVyusavPzpaJMjdJ6tcFhVAbAjm7enCIvGCSx+X3l5SiWg0A
R57hJglezIiVjv3aGwHwvLZvtszK6zV6oXFAu0ECgYAbjo46T4hyP5tJi93V5Hdi
TtieK7xRVxUl+iU7rWkGAXFpMLFteQEsRr7PJ/lemmEY5eTDAFmLy9FL2m9oQWCg
R8VdwSk8r9FGLS+9aKcV5PI/WEKlwgXinB30hYimtiG2Cg5JCqIZFHxD6MjEG0iu
L8ktHMPvodBwNsSBULpG0QKBgBApLTfC1HOnWiMGOU3KPwYWt006CdTkmJomL8Ni
blh9elyZ9FsGxsgtRBRsqXuz7wtsQAgLHxbdlq/ZJQ7Yfz0KU4ZxEnabvXnvWkU
Y0djHdS0oKvDQNWu6ucyLRAWFuISeXw9a/9p7ftpxm0TSgyvmfLF2MIAEwyZRqaM
77pBAoGAMmjmIIdjp+Ez8duyn3ieo36yrTtF5NsJLABxPpdlc1gvtGCWW+9Cq0b
dxviW8+TFVEBl104f7Hvm6EpTscdXU+bCXWkfjuRb7Dy9G0tt9JPx8MBTakzh3
vBgysi/sN3RqRBcGU40f0oZyFAMT8s1m/uYv5206IgeuZ/ujbjY=
-----END RSA PRIVATE KEY-----
```

RSA Private Key :

```
-----BEGIN RSA PRIVATE KEY-----
MIIeogIBAAKCAQEAvm0kuifmMg6HL2YPIOjon6iWfbp7c3jx34YkYWqUH57SudyJ
imZzeyGC0gtZPGUjUSxiJSWI/oTqexh+cAMTSMlOJf7+BrJObArnxd9Y7YT2bRPQ
Ja6Lzb558YW3FZl87ORiO+rW4LDCdNd2lUvLE/GL2GWyuKN0K5iCd5TbtJzEkQTu
DSt2mcNn4rhAL+JFr56o4T6z8WWAW18BR6yGrMq7Q/kALHYW3OekePQAzL0VUYbW
JGTi65CxbCnzc/w4+mqQyvmzpWtMAzJTzAzQxNbkR2MBGySxDLrjg0LWN6sK7wNX
x0YVztz/zblKpJfKUl1jHS+9EbVNj+D1XFOJuaQIDAQABAoIBABagpxpM1aoLWfvD
KHcj10nqcoBc4oE1laFYQwik7xfW+24pRNUDE6SFthOar69jp5RlLwD1NhPx3iBl
J9nOM8OJ0VToum43UOS8YxF8WwhXriYGnc1sskbwpXOUDc9uX4+UESzH22P29ovd
d8WErY0gPxun8pbJLmxkAtWNhpMvfe0050vk9TL5wqbu9AlbssgTcCXkMQnPw9nC
YNN6DDP2lbcBrvgT9YCNL6C+ZKufD52yOQ9qOkwFTEQpjtf4uNtJom+asvlpms8A
vLY9r60wYSvmZhNqBURj7lyCtXMIu1kkd4w7F77k+DjHoAXyxcUp1DGL51sOmama
+TOWWgECgYEA8JtPxP0GRJ+IQkX262jM3dElkza8ky5moIwUqYdsx0NxHgRRhORT
8c8hAuRBb2G82so8vUHk/fur85OEfc9TncnCY2crpoqsgghifKLxrLgtT+qDpfZnx
SatLdt8GfQ85yA7hnWWJ2MxF3NaeSDm75Lsm+tBbAiyC9P2jGRNtMSkCgYEAypHd
HCctNi/FwjulhttFx/rHYKhLidZDFYeiE/v45bN4yFm8x7R/b0iE7KaszX+Exdvt
SghaTdcG0Knyw1bpJVyusavPzpaJMjdJ6tcFhVAbAjm7enCIvGCSx+X3l5SiWg0A
R57hJglezIiVjv3aGwHwvLZvtszK6zV6oXFAu0ECgYAbjo46T4hyP5tJi93V5Hdi
TtieK7xRVxUl+iU7rWkGAXFpMLFteQEsRr7PJ/lemmEY5eTDAFmLy9FL2m9oQWCg
R8VdwSk8r9FGLS+9aKcV5PI/WEKlwgXinB30hYimtiG2Cg5JCqIZFHxD6MjEG0iu
L8ktHMPvodBwNsSBULpG0QKBgBApLTfC1HOnWiMGOU3KPwYWt006CdTkmJomL8Ni
```

```
blh9elyZ9FsGxsgtRBXRsqXuz7wtsQAgLHxbdLq/ZJQ7YfzOKU4ZxEnabvXnvWkU
Y0djHdSOoKvDQNWu6ucyLRAWFuISeXw9a/9p7ftpxm0TSgyvmfLF2MIAEwyzRqaM
77pBAoGAMmjmIJdp+Ez8duyn3ieo36yrttF5NsJLAbxFpdlc1gvtGCWW+9Cq0b
dxviW8+TFVEBlO4f7HVM6EpTscdDxU+bCXWkfjuRb7Dy9GOtt9JPsx8MBTakzh3
vBgysi/sN3RqRBcGU40fOoZyfAMT8s1m/uYv52O6IgeuZ/ujbjY=
-----END RSA PRIVATE KEY-----
```

```
bandit16@bandit:/tmp$ mkdir gameban
bandit16@bandit:/tmp$ cd gameban
bandit16@bandit:/tmp/gameban$ nano rsafile
Unable to create directory /home/bandit16/.local/share/nano/: No such file or directory
It is required for saving/loading search history or cursor positions.
```

```
bandit16@bandit:/tmp/gameban$ cat rsafile
-----BEGIN RSA PRIVATE KEY-----
MIIEogIBAAKCAQEAvmOkuifmMg6HL2YPI0jon6iWfbp7c3jx34YkYwQUH57SudyJ
imZzeyGC0gtZPGujUSxiJSWI/oTqexh+cAMTSMLOJf7+BrJObArnxd9Y7YT2bRPQ
Ja6Lzb558YW3FZL870RiO+rW4LDCdNd2LuvLE/GL2GwyuKN0K5iCd5TbtJzEkQTu
DSt2mcNn4rhAL+JFr56o4T6z8WWAW18BR6yGrMq7Q/kALHYW30ekePQAZL0VUYbW
JGTi65CxbCnzc/w4+mqQyvmzpwTMAzJTzAzQxNbK2MBGySxDLrjg0LWN6sK7wNX
x0YVztz/zbIkPjfkU1jHS+9EbVNj+D1XF0JuaQIDAQABAoIBABagpXPm1aoLWfVD
KHcj10nqcoBc4oE11aFYQwik7xfW+24pRNUDE6SFth0ar69jp5RLLwD1NhPx3iBl
J9nOM80J0VToum43UOS8YxF8WwhXriYGnc1sskbwpXOUDc9uX4+UESzH22P29ovd
d8WErY0gPxun8pbJLmxkAtWNhpMvfe0050vk9TL5wqbu9AlbssgTcCXkMQnPw9nC
YNN6DDP2lbcBrvgT9YCNL6C+ZKuFD52y0Q9q0kwFTEQpjTf4uNtJom+asvlpms8A
vLY9r60wYSvmZhNqBURj7lyCtXMIu1kkd4w7F77k+DjHoAXyxcUp1DGL51s0mama
+TOWWgECgYEA8JtPxP0GRJ+IQkX262jM3dEIkza8ky5moIwUqYdsx0NxHgRRhORT
8c8hAuRBb2G82so8vUHK/fur850Efc9TncnCY2crpoqsgihfKLxrlgtT+qDpfZnx
SatLdt8GfQ85yA7hnWWJ2MxF3NaeSDm75Lsm+tBbAiyC9P2jGRNtMSKcGyEAYpHd
HCctNi/FwjulhtTfX/rHYKhLidZDFYeiE/v45bN4yFm8x7R/b0iE7KasZX+Exdvt
SghaTdcG0Knyw1bpJVyusavPzpaJMjdJ6tcFhVAbAjm7enCivGCSx+X3L5SiWg0A
R57hJglezIiVjv3aGwHwvLZvtSZK6zV6oXFau0ECgYAbjo46T4hyP5tJi93V5Hdi
TtieK7xRVxUL+iU7rWkGAXFpMLFteQEsRr7PJ/lemmEY5eTDAFMLy9FL2m9oQWcg
R8VdWsk8r9FGLS+9aKcV5PI/WEKlwgXinB30hYimtIG2Cg5JCqIZFHxD6MjEG0iu
L8ktHMPvodBwNsSBULpG0QKBgBAPLTfC1H0nWiMGOU3KPwYwT006CdTkml8Ni
blh9elyZ9FsGxsgtRBXRsqXuz7wtsQAgLHxbdLq/ZJQ7YfzOKU4ZxEnabvXnvWkU
Y0djHdSOoKvDQNWu6ucyLRAWFuISeXw9a/9p7ftpxm0TSgyvmfLF2MIAEwyzRqaM
77pBAoGAMmjmIJdp+Ez8duyn3ieo36yrttF5NsJLAbxFpdlc1gvtGCWW+9Cq0b
dxviW8+TFVEBlO4f7HVM6EpTscdDxU+bCXWkfjuRb7Dy9GOtt9JPsx8MBTakzh3
vBgysi/sN3RqRBcGU40fOoZyfAMT8s1m/uYv52O6IgeuZ/ujbjY=
-----END RSA PRIVATE KEY-----
```

```
bandit16@bandit:/tmp/gameban$ chmod 600 rsafile
bandit16@bandit:/tmp/gameban$ ls -la
total 10564
drwxrwxr-x  2 bandit16 bandit16   4096 Aug 26 17:51 .
drwxrwx-wt 1948 root    root      10801152 Aug 26 17:53 ..
-rw-----  1 bandit16 bandit16   1675 Aug 26 17:51 rsafile
bandit16@bandit:/tmp/gameban$ ssh -i rsafile bandit17@localhost -p 2220
The authenticity of host '[localhost]:2220 ([127.0.0.1]:2220)' can't be established.
ED25519 key fingerprint is SHA256:C2ihUBV7ihnv1wUXRb4RrEcLFXC5CXlhmAAM/urerLY.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Could not create directory '/home/bandit16/.ssh' (Permission denied).
Failed to add the host to the list of known hosts (/home/bandit16/.ssh/known_hosts).
```

```
[ _ _ _ _ _ ] [ _ _ _ _ _ ] [ _ _ _ _ _ ] [ _ _ _ _ _ ]
[ _ _ _ _ _ ] [ _ _ _ _ _ ] [ _ _ _ _ _ ] [ _ _ _ _ _ ]
[ _ _ _ _ _ ] [ _ _ _ _ _ ] [ _ _ _ _ _ ] [ _ _ _ _ _ ]
```

Level 17 - Level 18 :

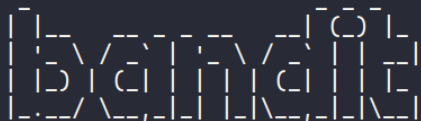
```
bandit17@bandit:~$ ls
passwords.new passwords.old
bandit17@bandit:~$ diff passwords.old passwords.new
42c42
< glZreTEH1V3cGKL6g4conYqZqaEj0mte
---
> hga5tuuCLF6fFzUpnagiMN8ssu9LFrdg
bandit17@bandit:~$ sort passwords.old passwords.new | uniq -u
glZreTEH1V3cGKL6g4conYqZqaEj0mte
hga5tuuCLF6fFzUpnagiMN8ssu9LFrdg
bandit17@bandit:~$ cat passwords.new | grep glZreTEH1V3cGKL6g4conYqZqaEj0mte
bandit17@bandit:~$ cat passwords.new | grep hga5tuuCLF6fFzUpnagiMN8ssu9LFrdg
hga5tuuCLF6fFzUpnagiMN8ssu9LFrdg
bandit17@bandit:~$
```

Level 18 Password :

hga5tuuCLF6fFzUpnagiMN8ssu9LFrdg

Level 18 - 19 :

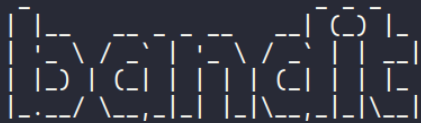
```
mahdin@asus-vivobook-s15:~$ ssh bandit18@bandit.labs.overthewire.org -p 2220 ls
```



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

```
bandit18@bandit.labs.overthewire.org's password:  
readme
```

```
mahdin@asus-vivobook-s15:~$ ssh bandit18@bandit.labs.overthewire.org -p 2220 cat readme
```



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

```
bandit18@bandit.labs.overthewire.org's password:  
awhqfNnAbc1naukrpqDYcf95h7HoMTrC
```

```
mahdin@asus-vivobook-s15:~$
```

Level 19 Password :

awhqfNnAbc1naukrpgDYcF95h7HoMTrC

Level 19 - Level 20 :

```
mahdin@asus-vivobook-s15:~$ ssh bandit19@bandit.labs.overthewire.org -p 2220
```

bandit

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

bandit19@bandit.labs.overthewire.org's password:

OverTheWire

www.OverTheWire.org

Welcome to OverTheWire!

```
bandit19@bandit:~$ ls -la
total 36
drwxr-xr-x  2 root    root      4096 Apr 23 18:04 .
drwxr-xr-x 70 root    root      4096 Apr 23 18:05 ..
-rwsr-x---  1 bandit20 bandit19 14876 Apr 23 18:04 bandit20-do
-rw-r--r--  1 root     root       220 Jan  6 2022 .bash_logout
-rw-r--r--  1 root     root      3771 Jan  6 2022 .bashrc
-rw-r--r--  1 root     root       807 Jan  6 2022 .profile
bandit19@bandit:~$ ./bandit20-do
Run a command as another user.
Example: ./bandit20-do id
bandit19@bandit:~$ ./bandit20-do ls /etc/bandit_pass
bandit0  bandit11  bandit14  bandit17  bandit2  bandit22  bandit25  bandit28  bandit30  bandit33  bandit6  bandit9
bandit1  bandit12  bandit15  bandit18  bandit20  bandit23  bandit26  bandit29  bandit31  bandit4  bandit7
bandit10 bandit13  bandit16  bandit19  bandit21  bandit24  bandit27  bandit3  bandit32  bandit5  bandit8
bandit19@bandit:~$ ./bandit20-do cat /etc/bandit_pass/bandit20
VxCazJaVyki6W36BkBU0mJTCM8rR95XT
bandit19@bandit:~$
```

Level 20 Password :

VxCazJaVyki6W36BkBU0mJTCM8rR95XT