Name: K. Dinesh Vardhan   Date: 5th March 2022

Roll.no: 21027   Section: CSE-A

❖ **Read the instructions given on the OverTheWire website properly and then find whatever is needed to proceed to the next levels. You have to complete up to level 15. Submit us a PROPER PDF document of the passwords you found along with the screenshots of the passwords.**

❖ **The goal of this level is for you to log into the game using SSH. The host you need to connect to is bandit.labs.overthewire.org, on port 2220.**

Level 0 to Level 1:

The username is bandit0 and the password is bandit0 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.

```
dinesh@dinesh-VirtualBox:~$ ssh bandit0@bandit.labs.overthewire.org -p 2220
The authenticity of host '[bandit.labs.overthewire.org]:2220 ([176.9.9.172]:2220)' can't be established.
ECDSA key fingerprint is SHA256:98UL0ZWr85496EtCRkKlo20X3OPnyPSB5tB5RPbhczc.
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,[176.9.9.172]:2220' (ECDSA) to the list of known hosts.
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit0@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux
```

```
bandit0@bandit:~$ ls
readme
bandit0@bandit:~$ cat readme
boJ9jbbUNNfktd78OOpsqOltutMc3MY1
bandit0@bandit:~$ exit
logout
Connection to bandit.labs.overthewire.org closed.
```

Password: "boJ9jbbUNNfktd78OOpsqOltutMc3MY1".

Then we have to exit from bandit 0.

Level 1 to Level 2:

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

```
dinesh@dinesh-VirtualBox:~$ ssh bandit1@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit1@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux
```

```
Help
bandit1@bandit:~$ ls
-
bandit1@bandit:~$ ls -a
-  .  ..  .bash_logout  .bashrc  .profile
bandit1@bandit:~$ cat ./-
CV1DtqXWVFXTvM2F0k09SHz0YwRINYA9
bandit1@bandit:~$ exit
logout
Connection to bandit.labs.overthewire.org closed.
```

Password: "CV1DtqXWVFXTvM2F0k09SHz0YwRINYA9".

Level 2 to Level 3:

The password for the next level is stored in a file called spaces in this filename located in the home directory

```
dinesh@dinesh-VirtualBox:~$ ssh bandit2@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit2@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux
```

```
bandit2@bandit:~$ ls -a
.  ..  .bash_logout  .bashrc  .profile  spaces in this filename
bandit2@bandit:~$ cat spaces\ in\ this\ filename
UmHadQclWmgdLOKQ3YNgjWxGoRMb5luK
bandit2@bandit:~$ exit
logout
Connection to bandit.labs.overthewire.org closed.
```

Password: "UmHadQclWmgdLOKQ3YNgjWxGoRMb5luK".

Level 3 to Level 4:

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

```
dinesh@dinesh-VirtualBox:~$ ssh bandit3@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit3@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux

      ,-----..             ,----,           .----.
     /  /   \ \           ,'   .'\          /  ../|
```

```
bandit3@bandit:~$ ls
inhere
bandit3@bandit:~$ cd inhere
bandit3@bandit:~/inhere$ ls -a
.  ..  .hidden
bandit3@bandit:~/inhere$ cat .hidden
pIwrPrtPN36QITSp3EQaw936yaFoFgAB
bandit3@bandit:~/inhere$ exit
logout
Connection to bandit.labs.overthewire.org closed.
```

Password: "pIwrPrtPN36QITSp3EQaw936yaFoFgAB".

Level 4 to Level 5:

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

```
dinesh@dinesh-VirtualBox:~$ 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
```

```
bandit4@bandit:~$ ls -a
.   ..   .bash_logout   .bashrc   inhere   .profile
bandit4@bandit:~$ cd inhere
bandit4@bandit:~/inhere$ ls -a
.   ..   -file00  -file01  -file02  -file03  -file04  -file05  -file06  -file07  -file08  -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: data
bandit4@bandit:~/inhere$ cat ./-file07
koReBOKuIDDepwhWk7jZC0RTdopnAYKh
bandit4@bandit:~/inhere$ exit
logout
Connection to bandit.labs.overthewire.org closed.
```

Password: "koReBOKuIDDepwhWk7jZC0RTdopnAYKh".

Level 5 to Level 6:

The password for the next level is stored in a file somewhere under the inhere directory and has all of the following properties: human-readable,1033 bytes in size, not executable.

```
dinesh@dinesh-VirtualBox:~$ ssh bandit5@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit5@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux


        ,-----..            ,----,         .----.
```

```
bandit5@bandit:~$ ls -a
.   ..   .bash_logout   .bashrc   inhere   .profile
bandit5@bandit:~$ cd inhere
bandit5@bandit:~/inhere$ ls -a
.   maybehere00  maybehere02  maybehere04  maybehere06  maybehere08  maybehere10  maybehere12  maybehere14  maybehere16  maybehere18
..  maybehere01  maybehere03  maybehere05  maybehere07  maybehere09  maybehere11  maybehere13  maybehere15  maybehere17  maybehere19
bandit5@bandit:~/inhere$ find -type f -size 1033c
./maybehere07/.file2
bandit5@bandit:~/inhere$ cat ./maybehere07/.file2
DXjZPULLxYr17uwoI01bNLQbtFemEgo7



~/inhere$ exit
logout
Connection to bandit.labs.overthewire.org closed.
```

Password: "DXjZPULLxYr17uwoI01bNLQbtFemEgo7".

Level 6 to Level 7:

The password for the next level is stored somewhere on the server and has all of the following properties: owned by user bandit7, owned by group bandit6,33 bytes in size.

```
dinesh@dinesh-VirtualBox:~$ 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

find: 'bandit6' is not the name of an existing group
bandit6@bandit:~$ ls
bandit6@bandit:~$ ls -a
.  ..  .bash_logout  .bashrc  .profile
bandit6@bandit:~$ find / -type f -user bandit7 -group bandit6 -size 33c
find: '/root': Permission denied
find: '/home/bandit28-git': Permission denied
find: '/home/bandit30-git': Permission denied
find: '/home/bandit5/inhere': Permission denied
find: '/home/bandit27-git': Permission denied
find: '/home/bandit29-git': Permission denied
find: '/home/bandit31-git': Permission denied
find: '/lost+found': Permission denied
find: '/etc/ssl/private': Permission denied
find: '/etc/polkit-1/localauthority': Permission denied
find: '/etc/lvm/archive': Permission denied
find: '/etc/lvm/backup': Permission denied
find: '/sys/fs/pstore': Permission denied
find: '/proc/tty/driver': Permission denied
find: '/proc/13714/task/13714/fdinfo/6': No such file or directory
find: '/proc/13714/fdinfo/5': No such file or directory
find: '/cgroup2/csessions': Permission denied
find: '/boot/lost+found': Permission denied
find: '/tmp': Permission denied
find: '/run/lvm': Permission denied
find: '/run/screen/S-bandit1': Permission denied
find: '/run/screen/S-bandit10': Permission denied
find: '/run/screen/S-bandit29': Permission denied
find: '/run/screen/S-bandit25': Permission denied
find: '/run/screen/S-bandit30': Permission denied
find: '/run/screen/S-bandit9': Permission denied
find: '/run/screen/S-bandit28': Permission denied
find: '/run/screen/S-bandit18': Permission denied
find: '/run/screen/S-bandit20': Permission denied
find: '/run/screen/S-bandit12': Permission denied
find: '/run/screen/S-bandit5': Permission denied
find: '/run/screen/S-bandit7': Permission denied
find: '/run/screen/S-bandit16': Permission denied
find: '/run/screen/S-bandit26': Permission denied
find: '/run/screen/S-bandit8': Permission denied
find: '/run/screen/S-bandit15': Permission denied
find: '/run/screen/S-bandit4': Permission denied
find: '/run/screen/S-bandit3': Permission denied
find: '/run/screen/S-bandit19': Permission denied
find: '/run/screen/S-bandit31': Permission denied
find: '/run/screen/S-bandit31': Permission denied
find: '/run/screen/S-bandit17': Permission denied
find: '/run/screen/S-bandit2': Permission denied
find: '/run/screen/S-bandit22': Permission denied
find: '/run/screen/S-bandit21': Permission denied
find: '/run/screen/S-bandit14': Permission denied
find: '/run/screen/S-bandit13': Permission denied
find: '/run/screen/S-bandit24': Permission denied
find: '/run/screen/S-bandit23': Permission denied
find: '/run/shm': Permission denied
find: '/run/lock/lvm': Permission denied
find: '/var/spool/bandit24': Permission denied
find: '/var/spool/cron/crontabs': Permission denied
find: '/var/spool/rsyslog': Permission denied
find: '/var/tmp': Permission denied
find: '/var/lib/apt/lists/partial': Permission denied
find: '/var/lib/polkit-1': Permission denied
/var/lib/dpkg/info/bandit7.password
find: '/var/log': Permission denied
find: '/var/cache/apt/archives/partial': Permission denied
find: '/var/cache/ldconfig': Permission denied
bandit6@bandit:~$ cat /var/lib/dpkg/info/bandit7.password
HKBPTKQnIay4Fw76bEy8PVxKEDQRKTzs
bandit6@bandit:~$ exit
logout
Connection to bandit.labs.overthewire.org closed.
```

Password: "HKBPTKQnIay4Fw76bEy8PVxKEDQRKTzs".

Level 7 to Level 8:

The password for the next level is stored in the file data.txt next to the word millionth.

```
dinesh@dinesh-VirtualBox:~$ ssh bandit7@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit7@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux
```

```
bandit7@bandit:~$ ls -a
.  ..  .bash_logout  .bashrc  data.txt  .profile
bandit7@bandit:~$ awk '/^millionth/ {print $2;}' data.txt
cvX2JJa4CFALtqS87jk27qwqGhBM9plV
bandit7@bandit:~$ exit
logout
Connection to bandit.labs.overthewire.org closed.
```

Password: "cvX2JJa4CFALtqS87jk27qwqGhBM9plV".

Level 8 to Level 9:

The password for the next level is stored in the file data.txt and is the only line of text that occurs only once

```
dinesh@dinesh-VirtualBox:~$ ssh bandit8@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit8@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux
```

```
bandit8@bandit:~$ ls -a
.  ..  .bash_logout  .bashrc  data.txt  .profile
bandit8@bandit:~$ cat data.txt | sort | uniq -u
UsvVyFSfZZWbi6wgC7dAFyFuR6jQQUhR
bandit8@bandit:~$ exit
logout
Connection to bandit.labs.overthewire.org closed.
```

Password: "UsvVyFSfZZWbi6wgC7dAFyFuR6jQQUhR".

Level 9 to Level 10:

The password for the next level is stored in the file data.txt in one of the few human-readable strings, preceded by several '=' characters.

```
dinesh@dinesh-VirtualBox:~$ ssh bandit9@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit9@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux
```

```
bandit9@bandit:~$ ls -a
.  ..  .bash_logout  .bashrc  data.txt  .profile
bandit9@bandit:~$ strings data.txt | grep "="
========== the*2i"4
=:G e
========== password
<I=zsGi
Z)========== is
A=|t&E
Zdb=
c^ LAh=3G
*SF=s
&========== truKLdjsbJ5g7yyJ2X2R0o3a5HQJFuLk
S=A.H&^
bandit9@bandit:~$ exit
logout
Connection to bandit.labs.overthewire.org closed.
```

Password: "truKLdjsbJ5g7yyJ2X2R0o3a5HQJFuLk"

Level 10 to Level 11:

The password for the next level is stored in the file data.txt, which contains base64 encoded data

```
dinesh@dinesh-VirtualBox:~$ ssh bandit10@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit10@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux
```

```
bandit10@bandit:~$ ls -a
.  ..  .bash_logout  .bashrc  data.txt  .profile
bandit10@bandit:~$ cat data.txt
VGhlIHBhc3N3b3JkIGlzIElGdWt3S0dzRlc4TU9xM0lSRnFyeEUxaHhUTkViVVBSCg==
bandit10@bandit:~$ echo VGhlIHBhc3N3b3JkIGlzIElGdWt3S0dzRlc4TU9xM0lSRnFyeEUxaHhUTkViVVBSCg== | base64 --decode
The password is IFukwKGsFW8MOq3IRFqrxE1hxTNEbUPR
bandit10@bandit:~$ exit
logout
Connection to bandit.labs.overthewire.org closed.
```

Password: "IFukwKGsFW8MOq3IRFqrxE1hxTNEbUPR"

Level 11 to Level 12:

The password for the next level is stored in the file data.txt, where all lowercase (a-z) and uppercase (A-Z) letters have been rotated by 13 positions

```
dinesh@dinesh-VirtualBox:~$ ssh bandit11@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit11@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux
```

```
bandit11@bandit:~$ ls -a
.  ..  .bash_logout  .bashrc  data.txt  .profile
bandit11@bandit:~$ cat data.txt
Gur cnffjbeq vf 5Gr8L4qetPEsPk8htqjhRK8XSP6x2RHh
bandit11@bandit:~$ cat data.txt | tr "A-Za-z" "N-ZA-Mn-za-m"
The password is 5Te8Y4drgCRfCx8ugdwuEX8KFC6k2EUu
bandit11@bandit:~$ exit
logout
Connection to bandit.labs.overthewire.org closed.
```

Password: "5Te8Y4drgCRfCx8ugdwuEX8KFC6k2EUu".

Level 12 to Level 13:

The password for the next level is stored in the file data.txt, which is a hex dump of a file that has been repeatedly compressed. For this level, it may be useful to create a directory under /tmp in which you can work using mkdir.

Hint : mkdir /tmp/myname123. Then copy the datafile using cp, and rename it using mv

```
dinesh@dinesh-VirtualBox:~$ ssh bandit12@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit12@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux
```

```
bandit12@bandit:/tmp/dinesh$ ls -a
.  ..  data.txt
bandit12@bandit:/tmp/dinesh$ file data.txt
data.txt: ASCII text
bandit12@bandit:/tmp/dinesh$ cat data.txt
00000000: 1f8b 0808 0650 b45e 0203 6461 7461 322e  .....P.^..data2.
00000010: 6269 6e00 013d 02c2 fd42 5a68 3931 4159  bin..=...BZh91AY
00000020: 2653 598e 4f1c c800 001e 7fff fbf9 7fda  &SY.O...........
00000030: 9e7f 4f76 9fcf fe7d 3fff f67d abde 5e9f  ..Ov...}?..}..^.
00000040: f3fe 9fbf f6f1 feee bfdf a3ff b001 3b1b  ..............;.
00000050: 5481 a1a0 1ea0 1a34 d0d0 001a 68d3 4683  T......4....h.F.
00000060: 4680 0680 0034 1918 4c4d 190c 4000 0001  F....4..LM..@...
00000070: a000 c87a 81a3 464d a8d3 43c5 1068 0346  ...z..FM..C..h.F
00000080: 8343 40d0 3400 0340 66a6 8068 0cd4 f500  .C@.4..@f..h....
00000090: 69ea 6800 0f50 68f2 4d00 680d 06ca 0190  i.h..Ph.M.h.....
000000a0: 0000 69a1 a1a0 1ea0 194d 340d 1ea1 b280  ..i......M4.....
000000b0: f500 3406 2340 034d 3400 0000 3403 d400  ..4.#@.M4...4...
000000c0: 1a07 a832 3400 f51a 0003 43d4 0068 0d34  ..24.....C..h.4
000000d0: 6868 f51a 3d43 2580 3e58 061a 2c89 6bf3  hh..=C%.>X..,.k.
000000e0: 0163 08ab dc31 91cd 1747 599b e401 0b06  .c...1...GY.....
000000f0: a8b1 7255 a3b2 9cf9 75cc f106 941b 347a  ..rU....u.....4z
00000100: d616 55cc 2ef2 9d46 e7d1 3050 b5fb 76eb  ..U....F..0P..v.
00000110: 01f8 60c1 2201 33f0 0de0 4aa6 ec8c 914f  ..`.".3...J....O
00000120: cf8a aed5 7b52 4270 8d51 6978 c159 8b5a  ....{RBp.Qix.Y.Z
00000130: 2164 fb1f c26a 8d28 b414 e690 bfdd b3e1  !d...j.(........
00000140: f414 2f9e d041 c523 b641 ac08 0c0b 06f5  ../..A.#.A......
00000150: dd64 b862 1158 3f9e 897a 8cae 32b0 1fb7  .d.b.X?..z..2...
00000160: 3c82 af41 20fd 6e7d 0a35 2833 41bd de0c  <..A .n}.5(3A...
00000170: 774f ae52 a1ac 0fb2 8c36 ef58 537b f30a  wO.R.....6.XS{..
00000180: 1510 cab5 cb51 4231 95a4 d045 b95c ea09  .....QB1...E.\..
00000190: 9fa0 4d33 ba43 22c9 b5be d0ea eeb7 ec85  ..M3.C"........
000001a0: 59fc 8bf1 97a0 87a5 0df0 7acd d555 fc11  Y.........z..U..
000001b0: 223f fdc6 2be3 e809 c974 271a 920e acbc  "?..+....t'.....
000001c0: 0de1 f1a6 393f 4cf5 50eb 7942 86c3 3d7a  ....9?L.P.yB..=z
000001d0: fe6d 173f a84c bb4e 742a fc37 7b71 508a  .m.?.L.Nt*.7{qP.
000001e0: a2cc 9cf1 2522 8a77 39f2 716d 34f9 8620  ....%".w9.qm4..
000001f0: 4e33 ca36 eec0 cd4b b3e8 48e4 8b91 5bea  N3.6...K..H...[.
00000200: 01bf 7d21 0b64 82c0 3341 3424 e98b 4d7e  ..}!.d..3A4$..M~
00000210: c95c 1b1f cac9 a04a 1988 43b2 6b55 c6a6  .\.....J..C.kU..
00000220: 075c 1eb4 8ecf 5cdf 4653 064e 84da 263d  .\....\.FS.N..&=
00000230: b15b bcea 7109 5c29 c524 3afc d715 4894  .[..q.\).$:...H.
00000240: 7426 072f fc28 ab05 9603 b3fc 5dc9 14e1  t&./.(......]...
00000250: 4242 393c 7320 98f7 681d 3d02 0000       BB9<s ..h.=...
bandit12@bandit:/tmp/dinesh$ xxd -r data.txt dinesh
bandit12@bandit:/tmp/dinesh$ file dinesh
```

Password: "8ZjyCRiBWFYkneahHwxCv3wb2a1ORpYL"

Level 13 to Level 14:

The password for the next level is stored in /etc/bandit_pass/bandit14 and can only be read by user bandit14. For this level, you don't get the next password, but you get a private SSH key that can be used to log into the next level. Note: localhost is a hostname that refers to the machine you are working on.

```
bandit14@bandit:~$ cat /etc/bandit_pass/bandit14
4wcYUJFw0k0XLShlDzztnTBHiqxU3b3e
bandit14@bandit:~$ exit
logout
Connection to localhost closed.
bandit13@bandit:~$ exit
logout
Connection to bandit.labs.overthewire.org closed.
```

Password: "4wcYUJFw0k0XLShlDzztnTBHiqxU3b3e".

Level 14 to Level 15:

The password for the next level can be retrieved by submitting the password of the current level to port 30000 on localhost.

```
dinesh@dinesh-VirtualBox:~$ ssh bandit14@bandit.labs.overthewire.org -p 2220
This is a OverTheWire game server. More information on http://www.overthewire.org/wargames

bandit14@bandit.labs.overthewire.org's password:
Linux bandit.otw.local 5.4.8 x86_64 GNU/Linux
```

```
bandit14@bandit:~$ telnet localhost 30000
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
4wcYUJFw0k0XLShlDzztnTBHiqxU3b3e
Correct!
BfMYroe26WYalil77FoDi9qh59eK5xNr

Connection closed by foreign host.
bandit14@bandit:~$ exit
logout
Connection to bandit.labs.overthewire.org closed.
```

Password: "BfMYroe26WYalil77FoDi9qh59eK5xNr".

Level 15 to Level 16:

```
dinesh@dinesh-VirtualBox:~$ 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
irc.overthewire.org.

--[ Playing the games ]--

  This machine might hold several wargames.
  If you are playing "somegame", then:

    * USERNAMES are somegame0, somegame1, ...
```