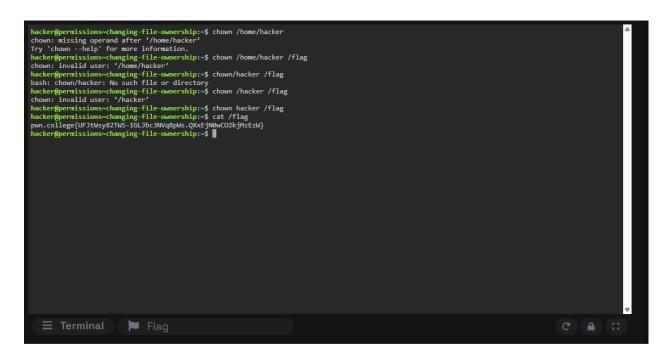
Jaleel Williamson jayw-713 CSCI 400 Lab 4 9/10/25

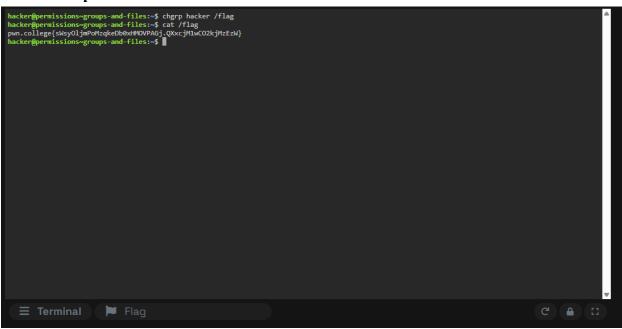
Linux Luminarium
Perceiving Permissions
https://pwn.college/linux-luminarium/permissions/

# • Changing File Ownership



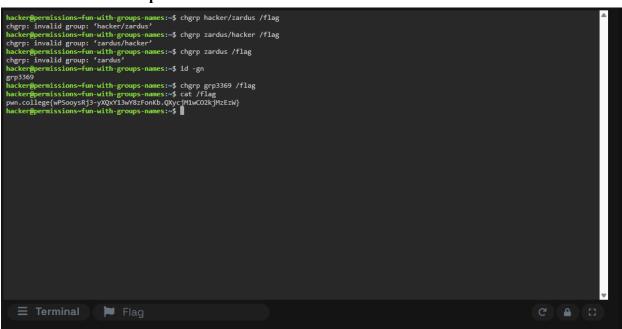
```
hacker@permissions-changing-file-ownership:-$ chown /home/hacker chown: missing operand after /home/hacker/
Try 'chown -help' for more information.
hacker@permissions-changing-file-ownership:-$ chown /home/hacker /flag chown: invalid user: '/home/hacker' hacker@permissions-changing-file-ownership:-$ chown /hacker /flag bash: chown/hacker: No such file or directory hacker@permissions-changing-file-ownership:-$ chown /hacker /flag hacker@permissions-changing-file-ownership:-$ chownership:-$ chownershi
```

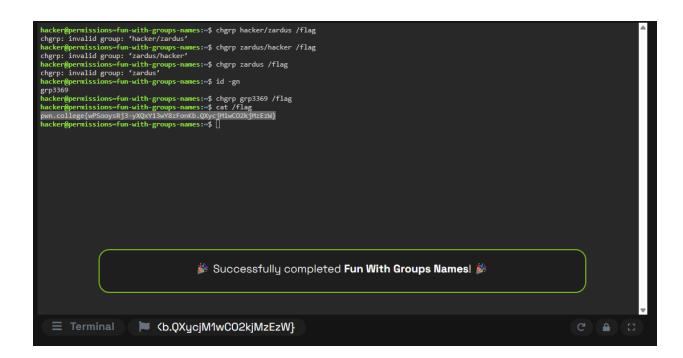
## • Groups and Files



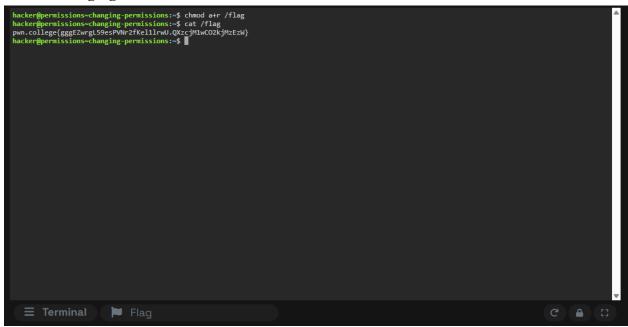


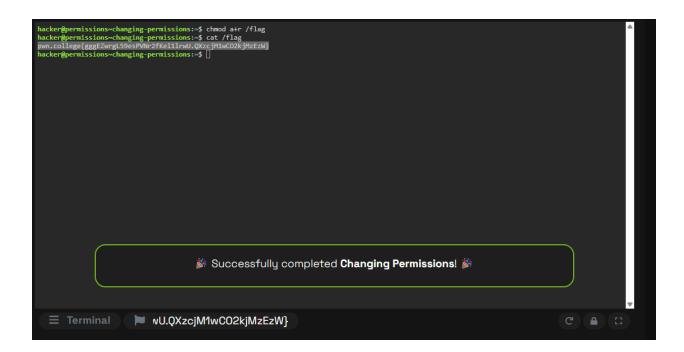
## • Fun with Group Names



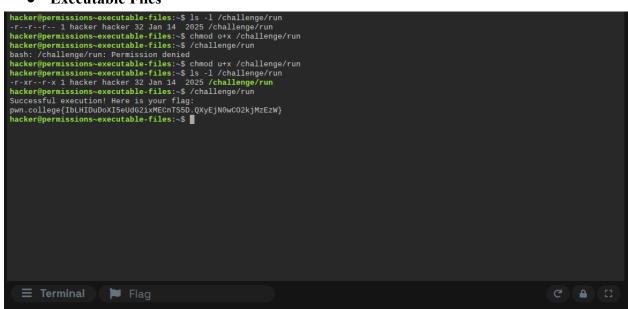


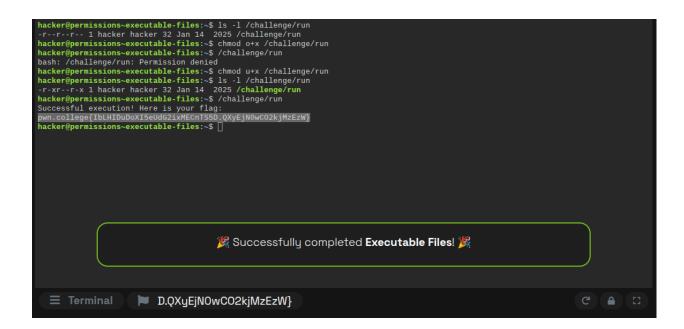
## • Changing Permissions



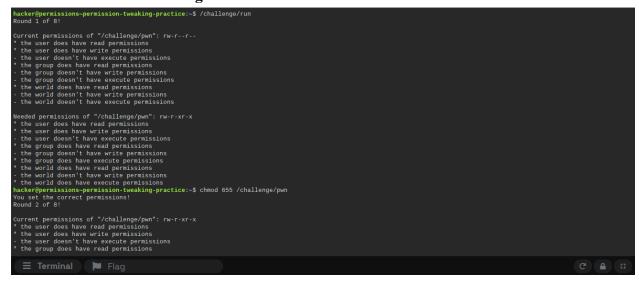


#### • Executable Files





## • Permission Tweaking Practice



```
hacker@permissions-permission-tweaking-practice:~$ chmod 655 /challenge/pwn
/ou set the correct permissions!
Round 2 of 8!
  Current permissions of "/challenge/pwn": rw-r-xr-x

the user does have read permissions
the user does have write permissions
the user doesn't have execute permissions
the group doesn't have write permissions
the group doesn't have write permissions
the group doesn't have write permissions
the world doesn't have write permissions
     **Reeded permissions of "/challenge/pwn": rw------

* the user does have read permissions

* the user does have write permissions

- the user doesn't have execute permissions

- the group doesn't have read permissions

- the group doesn't have write permissions

- the group doesn't have execute permissions

- the world doesn't have execute permissions

- the world doesn't have read permissions

- the world doesn't have write permissions

- the world doesn't have write permissions

- the world doesn't have write permissions

- the world doesn't have execute permissions

- the world considerate world permissions

- the world considerate world permissions

- the world of the world permissions

- the world of t
       Current permissions of "/challenge/pwn": rw------
the user does have read permissions
the user does have write permissions
the user doesn't have execute permissions
       nacker@permissions~permission-tweaking-practice;~$ chmod 600 /challenge/pwn
You set the correct permissions!
Round 3 of 8!
  Current permissions of "/challenge/pwn": rw-----

the user does have read permissions

the user does have write permissions

the user doesn't have execute permissions

the group doesn't have write permissions

the group doesn't have write permissions

the group doesn't have write permissions

the group doesn't have execute permissions

the world doesn't have read permissions

the world doesn't have write permissions

the world doesn't have write permissions
  Needed permissions of "/challenge/pwn": rw-rwx---

' the user does have read permissions

' the user does have write permissions

' the user doesn't have execute permissions

' the group does have write permissions

' the group does have write permissions

' the group does have write permissions

' the group does have execute permissions

' the world doesn't have read permissions

- the world doesn't have write permissions

- the world doesn't have write permissions

- the world doesn't have write permissions

- the world doesn't have execute permissions

- the world the correct permission-tweaking-practice:-$ chmod 670 /challenge/pwn
//ou set the correct permissions!

Round 4 of 8!
            the user does have read permissions
the user does have write permissions
the user doesn't have execute permissions
     hacker@permissions~permission-tweaking-practice:~$ chmod 670 /challenge/pwn
/ou set the correct permissions!
Round 4 of 8!
          urrent permissions of "/challenge/pwm": rw-i
the user does have read permissions
the user doesn't have write permissions
the user doesn't have execute permissions
the group does have read permissions
the group does have write permissions
the group does have execute permissions
the world doesn't have read permissions
the world doesn't have write permissions
the world doesn't have write permissions
Needed permissions of "/challenge/pwn": -w-rwx---
- the user doesn't have read permissions
' the user does have write permissions
- the user does have write permissions
- the user doesn't have execute permissions
' the group does have read permissions
' the group does have write permissions
' the group does have execute permissions
- the world doesn't have read permissions
- the world doesn't have read permissions
- the world doesn't have write permissions
- the world doesn't have write permissions
- the world doesn't have execute permissions
- the world doesn't have execute permissions
- the world coesn't have write permissions
- the world coesn't have read perm
       current permissions of "/challenge/pwn": -w-rwx---
· the user doesn't have read permissions
' the user does have write permissions
· the user doesn't have execute permissions
```

```
hacker@permissions-permission-tweaking-practice:~$ chmod 270 /challenge/pwn
/ou set the correct permissions!
Round 5 of 8!
       Current permissions of "/challenge/pwn": -w-rwx---
- the user doesn't have read permissions
* the user doesn't have execute permissions
- the user doesn't have execute permissions
* the group does have write permissions
* the group does have write permissions
* the group does have write permissions
- the world doesn't have read permissions
- the world doesn't have write permissions
- the world doesn't have write permissions
- the world doesn't have write permissions
       Needed permissions of "/challenge/pwm": -w-rwx--x
- the user doesn't have read permissions

' the user does have write permissions
- the user does have write permissions
- the user doesn't have execute permissions
- the group does have read permissions
- the group does have write permissions
- the group does have write permissions
- the world doesn't have read permissions
- the world doesn't have read permissions
- the world doesn't have write permissions
- the world doesn't have write permissions
- the world doesn't have write permissions
- the world doesn't have included the write permissions
- the world doesn't have a write permissions
- the world doesn't have execute permissions
- the world doesn't have read perm
            current permissions of "/challenge/pwn": -w-rwx--x
· the user doesn't have read permissions
' the user does have write permissions
· the user doesn't have execute permissions
            nacker@permissions~permission-tweaking-practice;~$ chmod 271 /challenge/pwn
You set the correct permissions!
Round 6 of 8!
       Current permissions of "/challenge/pwn": -w-rwx--x
- the user doesn't have read permissions
' the user doesn't have verte permissions
- the user doesn't have execute permissions
' the group does have write permissions
' the group does have write permissions
' the group does have write permissions
- the world doesn't have read permissions
- the world doesn't have write permissions
- the world doesn't have write permissions
' the world does have execute permissions
       Needed permissions of "/challenge/pwn": ---rwx--x

- the user doesn't have read permissions
- the user doesn't have write permissions
- the user doesn't have write permissions
- the user doesn't have execute permissions
- the group does have read permissions
- the group does have write permissions
- the group does have write permissions
- the world doesn't have read permissions
- the world doesn't have write permissions
- the world constitute was the world of the wo
            Current permissions of "/challenge/pwn": ---rwx--x
- the user doesn't have read permissions
- the user doesn't have write permissions
- the user doesn't have execute permissions
          nacker@permissions-permission-tweaking-practice:~$ chmod 071 /challenge/pwn
/ou set the correct permissions!
Round 7 of 8!
       Current permissions of "/challenge/pwn": ---rwx--x

- the user doesn't have read permissions
- the user doesn't have write permissions
- the user doesn't have execute permissions

* the group does have read permissions

* the group does have write permissions

* the group does have write permissions

* the world doesn't have read permissions
- the world doesn't have write permissions

* the world doesn't have write permissions

* the world doesn't have write permissions

* the world doesn't have write permissions
Needed permissions of "/challenge/pwn": ----w---
- the user doesn't have read permissions
- the user doesn't have write permissions
- the user doesn't have write permissions
- the user doesn't have read permissions
- the group doesn't have read permissions
- the group doesn't have read permissions
- the group doesn't have read permissions
- the world doesn't have read permissions
- the world doesn't have write permissions
- the world some missions- practice:-$ chmod 020 /challenge/pwn
You set the correct permissions!
Round 8 of 8!
            current permissions of "/challenge/pwn": ---w---

the user doesn't have read permissions

the user doesn't have write permissions

the user doesn't have execute permissions
```

```
hacker@permissions-permission-tweaking-practice:~$ chmod 020 /challenge/pwn
/ou set the correct permissions!
Round 8 of 8!
  Current permissions of "/challenge/pwn": ---w---
- the user doesn't have read permissions
- the user doesn't have write permissions
- the user doesn't have execute permissions
- the group doesn't have read permissions
- the group does have write permissions
- the group does have write permissions
- the world doesn't have read permissions
- the world doesn't have write permissions
     * Che world doesn't have execute permissions

* the user does have read permissions

* the user does have read permissions

* the user does have write permissions

* the group doesn't have write permissions

* the group does have write permissions

* the group does have write permissions

* the group does have write permissions

- the world doesn't have execute permissions

- the world doesn't have execute permissions

- the world doesn't have write permissions

- the world doesn't have write permissions

- the world doesn't have execute permissions

- the world doesn't have execute permissions

* the world doesn't have execute permissions

* vour'the solved all 8 rounds'I have changed the ownership

of the /flag file so that you can 'chmod' it. You won't be able to read it until you make it readable with chmod!
        Current permissions of "/flag": ------
the user doesn't have read permissions
Needed permissions of "/challenge/pwn": r-x-w----

' the user does have read permissions

- the user does have vecute permissions

' the user does have execute permissions

- the group doesn't have read permissions

- the group doesn't have read permissions

- the group does have write permissions

- the world doesn't have execute permissions

- the world doesn't have read permissions

- the world doesn't have write permissions

- the world doesn't have write permissions

- the world doesn't have execute permissions

- the world germission-twentistions

- the world doesn't have execute permissions

- the world doesn't have execute permissions

- the world doesn't have execute permissions

- the world doesn't have write permissions

- the world doesn't have execute permissions

- the world doesn't have read permissions

- the world doesn'
Current permissions of "/flag": ------

the user doesn't have read permissions

the user doesn't have write permissions

the user doesn't have read permissions

the group doesn't have read permissions

the group doesn't have read permissions

the group doesn't have write permissions

the group doesn't have write permissions

the world doesn't have read permissions

the world doesn't have read permissions

the world doesn't have write permissions

the world doesn't have write permissions

hacker@permissions-permission-tweaking-practice:-$ cat /flag
pun.college(cOSSECTVGIDSOWOPRELSKFN.w. X,OWEJNOWOCZK)MZEZW)

hacker@permissions-permission-tweaking-practice:-$ s
                  the world doesn't have write permissions the world doesn't have execute permissions
Needed permissions of "/challenge/pwn": r-x-w----

' the user does have read permissions

- the user does have write permissions

' the user does have wexeute permissions

- the group doesn't have read permissions

- the group doesn't have read permissions

- the group doesn't have execute permissions

- the world doesn't have execute permissions

- the world doesn't have execute permissions

- the world doesn't have write permissions

- the world doesn't have secute permissions

- the world doesn't have execute permissions

- the world doesn't have write permissions

- the world doesn't have write permissions

- the world doesn't have becaute permissions

- the world doesn't have write permissions

- the world doesn't have becaute permissions

- the world doesn't have write permissions

- the world doesn't have execute permissions

- the world doesn't have write permissions

- the world doesn't have execute permissions

- the world doesn't have write permissions

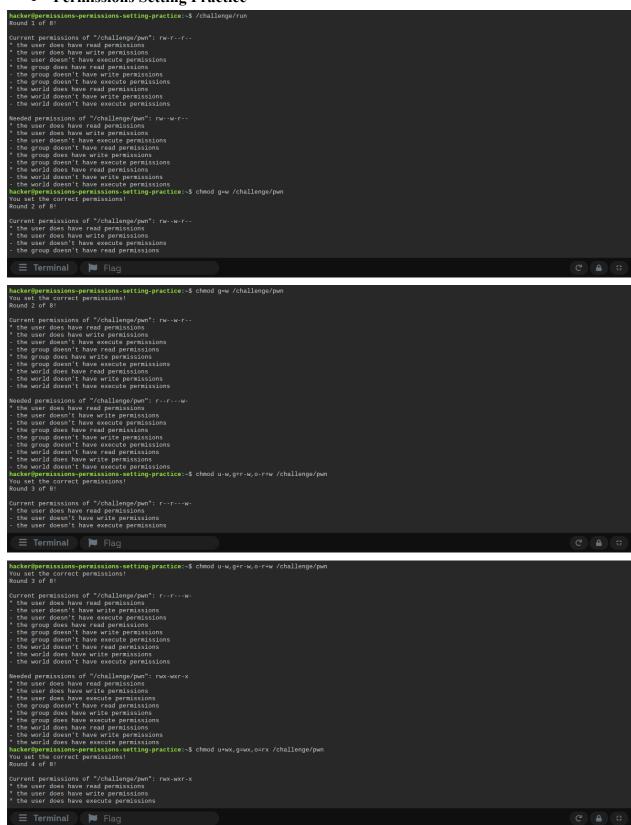
- the world doesn't have write permissions

- the world doesn't have read permissions

- the world doesn't have re
  Current permissions of "/flag":

- the user doesn't have read permissions
- the user doesn't have write permissions
- the user doesn't have execute permissions
- the group doesn't have read permissions
- the group doesn't have write permissions
- the group doesn't have write permissions
- the world doesn't have execute permissions
- the world doesn't have account permissions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          🎉 Successfully completed Permission Tweaking Practice! 🎉
     hacker@permission
hacker@permission
pun.college{c653EttYd1lo8xoWPR6L5kFN_wx.QXwEjN6w602kjMzEzW}
hacker@permissions-permission-tweaking-practice;-$ [
```

### • Permissions Setting Practice



```
hacker@permissions-permissions-setting-practice:~$ chmod u+wx,g=wx,o=rx /challenge/pwn
fou set the correct permissions!
Kound 4 of §!
Current permissions of "/challenge/pwn": rwx-wxr-x

the user does have read permissions

the user does have write permissions

the user does have execute permissions

the group doesn't have read permissions

the group does have write permissions

the group does have write permissions

the world does have read permissions

the world doesn't have write permissions
Needed permissions of "/challenge/pwn": r---wxr--

* the user does have read permissions

- the user doesn't have write permissions

- the user doesn't have execute permissions

- the group doesn't have read permissions

* the group does have write permissions

* the group does have execute permissions

* the world does have execute permissions

* the world doesn't have many permissions

- the world doesn't have write permissions

- the world toesn't have secute permissions

- the world toesn't have execute permissions

- the world open't have write permissi
      Current permissions of "/challenge/pwn": r---wxr--
'the user does have read permissions
'the user doesn't have write permissions
'the user doesn't have execute permissions
    hacker@permissions~permissions-setting-practice:~$ chmod u-wx,o-x /challenge/pwn
You set the correct permissions!
Round 5 of 8!
  Current permissions of "/challenge/pwn": r---wxr--

the user does have read permissions

the user doesn't have write permissions

the user doesn't have execute permissions

the group doesn't have read permissions

the group does have write permissions

the group does have execute permissions

the world does have read permissions

the world doesn't have write permissions

the world doesn't have write permissions

the world doesn't have write permissions
Needed permissions of "/challenge/pwn": r---wx-w-

* the user does have read permissions
- the user doesn't have write permissions
- the user doesn't have execute permissions
- the group doesn't have read permissions
- the group doesn't have read permissions
* the group doesn't have read permissions
* the group does have write permissions
- the world doesn't have read permissions
- the world doesn't have read permissions
- the world does have write permissions
- the world does have write permissions
- the world doesn't have execute permissions
- the world doesn't have execute permissions
- the world of the write permissions
- the wo
      Current permissions of "/challenge/pwn": r---wx-w-
' the user does have read permissions
the user doesn't have write permissions
the user doesn't have execute permissions
                  hacker@permissions-permissions-setting-practice:~$ chmod o=w /challenge/pwn
You set the correct permissions!
Round 6 of 8!
  Current permissions of "/challenge/pwn": r---wx-w-
the user does have read permissions
the user doesn't have write permissions
the user doesn't have execute permissions
the group doesn't have read permissions
the group does have write permissions
the group does have write permissions
the group does have execute permissions
the world doesn't have read permissions
the world doesn't have read permissions
the world doesn't have execute permissions
Needed permissions of "/challenge/pwn": rw--w-rw-
* the user does have read permissions
* the user does have write permissions
* the user does have write permissions
- the user doesn't have execute permissions
- the group doesn't have read permissions
* the group doesn't have read permissions
* the group doesn't have execute permissions
* the world doesn't have execute permissions
* the world does have write permissions
* the world doesn't have execute permissions
* the world doesn't have execute permissions
* the world doesn't have execute permissions
* hacker@permissions-permissions-setting-practice:-$ chmod u+w,g-x,o+r /challenge/pwn
* You set the correct permissions!
* Round 7 of 8!
      Current permissions of "/challenge/pwn": rw--w-rw-
' the user does have read permissions
' the user does have write permissions
' the user doesn't have execute permissions
                  ≡ Terminal ▶ Flag
```

```
hacker@permissions~permissions-setting-practice:~$ chmod u+w,g-x,o+r /challenge/pwn
You set the correct permissions!
Round 7 of Bu
     Current permissions of "/challenge/pwn": rw--w-rw-
the user does have read permissions
the user does have write permissions
the user doesn't have execute permissions
the group doesn't have read permissions
the group does have write permissions
the group doesn't have execute permissions
the world doesn't have execute permissions
the world does have read permissions
the world does have read permissions
the world doesn't have execute permissions
Needed permissions of "/challenge/pwn": rwx-----

* the user does have read permissions

* the user does have write permissions

* the user does have write permissions

* the group doesn't have read permissions

- the group doesn't have read permissions

- the group doesn't have write permissions

- the world doesn't have execute permissions

- the world doesn't have read permissions

- the world doesn't have write permissions

- the world doesn't have execute permissions

- the world doesn't have write permissions

- the world 
           Current permissions of "/challenge/pwn": rwx-----
' the user does have read permissions
' the user does have write permissions
' the user does have execute permissions
           hacker@permissions~permissions-setting-practice:~$ chmod u+x,go= /challenge/pwn
You set the correct permissions!
Round 8 of 8!
        Current permissions of "/challenge/pwn": rwx-----

the user does have read permissions
the user does have write permissions
the user does have execute permissions
the group doesn't have read permissions
the group doesn't have write permissions
the group doesn't have execute permissions
the world doesn't have read permissions
the world doesn't have write permissions
the world doesn't have write permissions
the world doesn't have execute permissions
        Needed permissions of "/challenge/pwn": ----wx-wx

- the user doesn't have read permissions
- the user doesn't have write permissions
- the user doesn't have read permissions
- the group doesn't have read permissions
- the group doesn't have read permissions
- the group does have write permissions
- the group does have execute permissions
- the world doesn't have read permissions
- the world does have write permissions
- the world does have w
             Current permissions of "/flag": ------
the user doesn't have read permissions
                         ≡ Terminal Flag
                      the world doesn't have write permissions the world doesn't have execute permissions
        * Che world doesn't have execute permissions

Needed permissions of "/challenge/pwn": ----wx-wx
- the user doesn't have read permissions
- the user doesn't have write permissions
- the user doesn't have execute permissions
- the group doesn't have read permissions
- the group does have write permissions
- the world does have write permissions
- the world doesn't have read permissions
- the world does have write permissions
- the world does have write permissions
- the world does have write permissions
- the world does have execute permissions
- the world does have write permissions
- the world does have wrote permissions
- the world does have write permissions
- the world does
```

```
the world doesn't have write permissions

the world doesn't have execute permissions

Needda permissions of "Challenge/pm": ---wx-wx

the user doesn't have verite permissions

the user doesn't have verite permissions

the user doesn't have execute permissions

the group doesn't have read permissions

the group doesn't have verite permissions

the world doesn't have read permissions

the world doesn't have read permissions

the world does have write permissions

the world does have write permissions

the world does have verite permissions

the world does have verite permissions

the world does have verite permissions

the world soes have write permissions

the world soes have write permissions

the world soes have write permissions

the world soes have verite permissions

the world soes have write permissions

the world soes have write permissions

the world soes have write permissions

the user doesn't have verite permissions

the user doesn't have write permissions

the group doesn't have write permissions

the group doesn't have write permissions

the world doesn'

the world doesn'

write permissions

hacker@permissions

hacker@permissions-permissions-setting-practice:-$

Terminal

AQXZETOOWCO2kjMzEZW}
```

#### • The SUID Bit

