

# S\_LINUX\_05 Linux Admin

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**LINUX – DEVOPS**



# S\_LINUX\_05 Linux Admin:

Commands from the book Part 2: (unsorted – from practical exercises)

```
Activities Terminal Apr 7 20:34
kdawoud@localhost:~

File Edit View Search Terminal Help
34 directories, 33 files
[kdawoud@localhost ~]$ touch dir1/docs/mycv
touch: cannot touch 'dir1/docs/mycv': No such file or directory
[kdawoud@localhost ~]$ touch docs/mycv
[kdawoud@localhost ~]$ tree
.
├── Desktop
├── dir1
│   ├── dir11
│   └── dir12
│       └── file1
└── docs
    └── mycv

34 directories, 34 files
[kdawoud@localhost ~]$ rmdir dir1/dir11
[kdawoud@localhost ~]$ ls
Desktop dir1 docs Documents Downloads loda Music Pictures Public Study Templates test1 Videos
[kdawoud@localhost ~]$ ls dir1
dir12
[kdawoud@localhost ~]$ 
[kdawoud@localhost ~]$ cp /etc/passwd mypasswd
[kdawoud@localhost ~]$ ls
Desktop dir1 docs Documents Downloads loda Music mypasswd Pictures Public Study Templates test1 Videos
[kdawoud@localhost ~]$ 
[kdawoud@localhost ~]$ mv mypasswd oldpasswd
[kdawoud@localhost ~]$ ls
Desktop dir1 docs Documents Downloads loda Music oldpasswd Pictures Public Study Templates test1 Videos
[kdawoud@localhost ~]$ 
[kdawoud@localhost ~]$ ls /usr/bin/w*
/usr/bin/w      /usr/bin/watchgnupg  /usr/bin/wget      /usr/bin/whiptail  /usr/bin/wnck-urgency-monitor  /usr/bin/wvgain
/usr/bin/wait   /usr/bin/wavpack     /usr/bin/whatis    /usr/bin/who       /usr/bin/wodim                /usr/bin/wvtag
/usr/bin/wall   /usr/bin/wc          /usr/bin/whereis   /usr/bin/whoami    /usr/bin/word-list-compress    /usr/bin/wvunpack
/usr/bin/watch  /usr/bin/wdctl       /usr/bin/which     /usr/bin/withsctp  /usr/bin/write
[kdawoud@localhost ~]$ 
[kdawoud@localhost ~]$ head -n4 /etc/passwd
root:x:0:0:root:/root:/bin/bash
bin:x:1:1:bin:/bin:/sbin/nologin
daemon:x:2:2:daemon:/sbin:/sbin/nologin
adm:x:3:4:adm:/var/adm:/sbin/nologin
[kdawoud@localhost ~]$
```

```
[kdawoud@localhost ~]$ tail -n4 /etc/passwd
officeboy:x:1004:1004::/home/officeboy:/bin/bash
dataentry:x:1005:1005::/home/dataentry:/bin/bash
accountant:x:1007:1007::/home/accountant:/bin/bash
recruiter:x:1008:1011::/home/recruiter:/bin/bash
[kdawoud@localhost ~]$_
```

```
Activities Terminal Apr 7 22:10
kdawoud@localhost:/usr/bin

File Edit View Search Terminal Help
kdawoud@localhost bin]$ man 5 passwd
kdawoud@localhost bin]$
```

```
Activities Terminal Apr 7 22:09
kdawoud@localhost:/usr/bin

File Edit View Search Terminal Help
PASSWD(5) Linux Programmer's Manual PASSWD(5)

NAME
passwd - password file

DESCRIPTION
The /etc/passwd file is a text file that describes user login accounts for the system. It should have read permission allowed for all users (many utilities, like ls(1) use it to map user IDs to usernames), but write access only for the superuser.

In the good old days there was no great problem with this general read permission. Everybody could read the encrypted passwords, but the hardware was too slow to crack a well-chosen password, and moreover the basic assumption used to be that of a friendly user-community. These days many people run some version of the shadow password suite, where /etc/passwd has an 'x' character in the password field, and the encrypted passwords are in /etc/shadow, which is readable by the superuser only.

If the encrypted password, whether in /etc/passwd or in /etc/shadow, is an empty string, login is allowed without even asking for a password. Note that this functionality may be intentionally disabled in applications, or configurable (for example using the "nullok" or "nonull" arguments to pam_unix.so).

If the encrypted password in /etc/passwd is "*NP*" (without the quotes), the shadow record should be obtained from an NIS+ server.

Regardless of whether shadow passwords are used, many system administrators use an asterisk (*) in the encrypted password field to make sure that this user can not authenticate him- or herself using a password. (But see NOTES below.)

If you create a new login, first put an asterisk (*) in the password field, then use passwd(1) to set it.

Each line of the file describes a single user, and contains seven colon-separated fields:

    name:password:UID:GID:GECOS:directory:shell

The field are as follows:

    name      This is the user's login name. It should not contain capital letters.

    password  This is either the encrypted user password, an asterisk (*), or the letter 'x'. (See pwconv(8) for an explanation of 'x'.)

    UID       The privileged root login account (superuser) has the user ID 0.

Manual page passwd(5) line 1 (press h for help or q to quit)
```

```
Activities Terminal Apr 7 22:15
kdawoud@localhost:/usr/bin

File Edit View Search Terminal Help

[kdawoud@localhost bin]$ apropos passwd
chpasswd (8) - update group passwords in batch mode
chpasswd (8) - update passwords in batch mode
fgetpwent_r (3) - get passwd file entry reentrantly
getpwent_r (3) - get passwd file entry reentrantly
gpasswd (1) - administer /etc/group and /etc/gshadow
grub2-mkpasswd-pbkdf2 (1) - Generate a PBKDF2 password hash.
ldappasswd (1) - change the password of an LDAP entry
lpasswd (1) - Change group or user password
openssl-passwd (1ssl) - compute password hashes
pam_localuser (8) - require users to be listed in /etc/passwd
passwd (1) - update user's authentication tokens
passwd (5) - password file
passwd2des (3) - RFS password encryption
pwhistory_helper (8) - Helper binary that transfers password hashes from passwd or shadow to opasswd
saslpasswd2 (8) - set a user's sasl password
smbpasswd (5) - The Samba encrypted password file
sslpaswd (1ssl) - compute password hashes
vncpasswd (1) - change the VNC password
[kdawoud@localhost bin]$
```

```
Activities Terminal Apr 7 22:20
kdawoud@localhost:/usr/bin

File Edit View Search Terminal Help

[kdawoud@localhost bin]$ apropos passwd
chpasswd (8) - update group passwords in batch mode
chpasswd (8) - update passwords in batch mode
fgetpwent_r (3) - get passwd file entry reentrantly
getpwent_r (3) - get passwd file entry reentrantly
gpasswd (1) - administer /etc/group and /etc/gshadow
grub2-mkpasswd-pbkdf2 (1) - Generate a PBKDF2 password hash.
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passwd (5) - password file
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smbpasswd (5) - The Samba encrypted password file
sslpaswd (1ssl) - compute password hashes
vncpasswd (1) - change the VNC password
[kdawoud@localhost bin]$ man passwd 5 passwd
--Man-- next: passwd(5) [ view (return) | skip (Ctrl-D) | quit (Ctrl-C) ]

[kdawoud@localhost bin]$
```

```
[kdawoud@localhost ~]$ tail -n5 /etc/passwd
secretary:x:1003:1003::/home/secretary:/bin/bash
officeboy:x:1004:1004::/home/officeboy:/bin/bash
dataentry:x:1005:1005::/home/dataentry:/bin/bash
accountant:x:1007:1007::/home/accountant:/bin/bash
recruiter:x:1008:1011::/home/recruiter:/bin/bash
[kdawoud@localhost ~]$ sudo useradd -p ahmed -c 'ahmed ali' ahmed
[sudo] password for kdawoud:
[kdawoud@localhost ~]$ tail -n3 /etc/passwd
accountant:x:1007:1007::/home/accountant:/bin/bash
recruiter:x:1008:1011::/home/recruiter:/bin/bash
ahmed:x:1009:1012:ahmed ali:/home/ahmed:/bin/bash
[kdawoud@localhost ~]$ sudo cat /etc/shadow | grep ahmed
ahmed:ahmed:19459:0:99999:7:::
```

```
[kdawoud@localhost ~]$ sudo adduser -c 'Bad User' -p baduser baduser
[kdawoud@localhost ~]$ tail -n3 /etc/passwd
recruiter:x:1008:1011::/home/recruiter:/bin/bash
ahmed:x:1009:1012:ahmed ali:/home/ahmed:/bin/bash
baduser:x:1010:1013:Bad User:/home/baduser:/bin/bash
[kdawoud@localhost ~]$
[kdawoud@localhost ~]$
[kdawoud@localhost ~]$ cat /etc/shadow | grep baduser
cat: /etc/shadow: Permission denied
[kdawoud@localhost ~]$ sudo cat /etc/shadow | grep baduser
baduser:baduser:19459:0:99999:7:::
```

```
[kdawoud@localhost ~]$ addgroup --help
bash: addgroup: command not found...
[kdawoud@localhost ~]$ groupadd -g 30000 pgroup
groupadd: Permission denied.
groupadd: cannot lock /etc/group; try again later.
[kdawoud@localhost ~]$ sudo groupadd -g 30000 pgroup
[kdawoud@localhost ~]$ tail -n2 /etc/group
baduser:x:1013:
pgroup:x:30000:
```

```
[kdawoud@localhost ~]$ sudo groupadd badgroup
[kdawoud@localhost ~]$ tail -n2 /etc/group
pgroup:x:30000:
badgroup:x:30001:
[kdawoud@localhost ~]$
```

```
[kdawoud@localhost ~]$ sudo usermod -aG pgroup ahmed
[kdawoud@localhost ~]$ tail -n2 /etc/passwd
ahmed:x:1009:1012:ahmed ali:/home/ahmed:/bin/bash
baduser:x:1010:1013:Bad User:/home/baduser:/bin/bash
[kdawoud@localhost ~]$ tail -n2 /etc/group
pgroup:x:30000:ahmed
badgroup:x:30001:
```



```
[kdawoud@localhost ~]$ sudo usermod -p password ahmed
[sudo] password for kdawoud:
[kdawoud@localhost ~]$ sudo cat /etc/shadow | grep ahmed
ahmed:password:19459:0:99999:7:::
[kdawoud@localhost ~]$
```

```
[kdawoud@localhost ~]$ chage --help
Usage: chage [options] LOGIN
```

Options:

-d, --lastday LAST_DAY	set date of last password change to LAST_DAY
-E, --expiredate EXPIRE_DATE	set account expiration date to EXPIRE_DATE
-h, --help	display this help message and exit
-I, --inactive INACTIVE	set password inactive after expiration to INACTIVE
-l, --list	show account aging information
-m, --mindays MIN_DAYS	set minimum number of days before password change to MIN_DAYS
-M, --maxdays MAX_DAYS	set maximum number of days before password change to MAX_DAYS
-R, --root CHROOT_DIR	directory to chroot into
-W, --warndays WARN_DAYS	set expiration warning days to WARN_DAYS

```
[kdawoud@localhost ~]$ sudo chage -M 30 ahmed
```

```
[sudo] password for kdawoud:
```

```
[kdawoud@localhost ~]$ sudo chage -l ahmed
```

```
Last password change           : Apr 12, 2023
Password expires                : May 12, 2023
Password inactive               : Jun 11, 2023
Account expires                 : never
Minimum number of days between password change : 0
Maximum number of days between password change : 30
Number of days of warning before password expires : 7
[kdawoud@localhost ~]$
```

```
[kdawoud@localhost ~]$ sudo usermod -L baduser
```

```
[sudo] password for kdawoud:
```

```
[kdawoud@localhost ~]$ sudo passwd -S baduser
```

```
baduser LK 2023-04-12 0 99999 7 -1 (Password locked.)
```

```
[kdawoud@localhost ~]$
```

```
[kdawoud@localhost ~]$ sudo userdel baduser
```

```
[kdawoud@localhost ~]$ tail -n3 /etc/passwd
```

```
accountant:x:1007:1007::/home/accountant:/bin/bash
```

```
recruiter:x:1008:1011::/home/recruiter:/bin/bash
```

```
ahmed:x:1009:1012:ahmed ali:/home/ahmed:/bin/bash
```

```
[kdawoud@localhost ~]$
```

```
[kdawoud@localhost ~]$ tail -n3 /etc/group
ahmed:x:1012:
pgroup:x:30000:ahmed
badgroup:x:30001:
[kdawoud@localhost ~]$ sudo groupdel badgroup
[kdawoud@localhost ~]$ tail -n3 /etc/group
recruiter:x:1011:
ahmed:x:1012:
pgroup:x:30000:ahmed
[kdawoud@localhost ~]$
```

```
[kdawoud@localhost ~]$ ls
Desktop  docs      Downloads  ls_output.txt  newPasswd  Pictures  Study  test1  Videos
dir1     Documents  lodaa      Music          oldpasswd  Public    Templates  test2
[kdawoud@localhost ~]$ pwd
/home/kdawoud
[kdawoud@localhost ~]$ mkdir myteam
[kdawoud@localhost ~]$ ls -dl myteam/
drwxrwxr-x. 2 kdawoud kdawoud 6 Apr 13 01:28 myteam/
[kdawoud@localhost ~]$ sudo chmod u-wx myteam/
[kdawoud@localhost ~]$ ls -dl myteam/
dr--rwxr-x. 2 kdawoud kdawoud 6 Apr 13 01:28 myteam/
[kdawoud@localhost ~]$
```

```
[kdawoud@localhost ~]$ su - ahmed
Password:
[ahmed@localhost ~]$ cd ../kdawoud/home/myteam
-bash: cd: ../kdawoud/home/myteam: Permission denied
[ahmed@localhost ~]$ sudo cd ../kdawoud/home/myteam
```

We trust you have received the usual lecture from the local System Administrator. It usually boils down to these three things:

- #1) Respect the privacy of others.
- #2) Think before you type.
- #3) With great power comes great responsibility.

```
[sudo] password for ahmed:
ahmed is not in the sudoers file. This incident will be reported.
[ahmed@localhost ~]$
```

```
[kdawoud@localhost ~]$ su - ahmed
Password:
[ahmed@localhost ~]$ cd ../kdawoud/home/myteam
-bash: cd: ../kdawoud/home/myteam: Permission denied
[ahmed@localhost ~]$ sudo cd ../kdawoud/home/myteam

We trust you have received the usual lecture from the local System
Administrator. It usually boils down to these three things:
```

- #1) Respect the privacy of others.
- #2) Think before you type.
- #3) With great power comes great responsibility.

```
[sudo] password for ahmed:
ahmed is not in the sudoers file. This incident will be reported.
[ahmed@localhost ~]$
```

```
[kdawoud@localhost ~]$ chmod u=rw, g=wx, o=x oldpasswd
chmod: invalid mode: 'u=rw,'
Try 'chmod --help' for more information.
[kdawoud@localhost ~]$ chmod u=rw,g=wx,o=x oldpasswd
[kdawoud@localhost ~]$ ls -al oldpasswd
-rw--wx--x. 1 kdawoud kdawoud 2880 Apr  7 20:55 oldpasswd
[kdawoud@localhost ~]$ chmod 000 oldpasswd
[kdawoud@localhost ~]$ ls -al oldpasswd
----- . 1 kdawoud kdawoud 2880 Apr  7 20:55 oldpasswd
[kdawoud@localhost ~]$ chmod 631 oldpasswd
[kdawoud@localhost ~]$ ls -al oldpasswd
-rw--wx--x. 1 kdawoud kdawoud 2880 Apr  7 20:55 oldpasswd
```

```
[kdawoud@localhost ~]$ umask 146
[kdawoud@localhost ~]$ mkdir test13
[kdawoud@localhost ~]$ ls -dl test13
drw--wx--x. 2 kdawoud kdawoud 6 Apr 13 02:26 test13
```

```
[kdawoud@localhost ~]$ umask 000
[kdawoud@localhost ~]$ touch test13.txt
[kdawoud@localhost ~]$ ls -al test
test1/      test13/      test13.txt  test2/
[kdawoud@localhost ~]$ ls -al test
test1/      test13/      test13.txt  test2/
[kdawoud@localhost ~]$ ls -al test13
test13/      test13.txt
[kdawoud@localhost ~]$ ls -al test13.txt
-rw-rw-rw-. 1 kdawoud kdawoud 0 Apr 13 02:28 test13.txt
[kdawoud@localhost ~]$ mkdir test14
[kdawoud@localhost ~]$ ls -dl test14
drwxrwxrwx. 2 kdawoud kdawoud 6 Apr 13 02:31 test14
```



```
[kdawoud@localhost ~]$ umask 0777
[kdawoud@localhost ~]$ mkdir dirNoPerm
[kdawoud@localhost ~]$ touch fileNoPerm
[kdawoud@localhost ~]$ ls -al *NoPerm
-----. 1 kdawoud kdawoud 0 Apr 13 22:15 fileNoPerm

ls: cannot open directory 'dirNoPerm': Permission denied
[kdawoud@localhost ~]$ ls -dl *NoPerm
d-----. 2 kdawoud kdawoud 6 Apr 13 22:15 dirNoPerm
-----. 1 kdawoud kdawoud 0 Apr 13 22:15 fileNoPerm
[kdawoud@localhost ~]$
```

```
[kdawoud@localhost ~]$ touch file444
[kdawoud@localhost ~]$ chmod 444 file444
[kdawoud@localhost ~]$ cp /etc/passwd file444
cp: cannot create regular file 'file444': Permission denied
[kdawoud@localhost ~]$ rm file444
rm: remove write-protected regular empty file 'file444'? y
[kdawoud@localhost ~]$ ls
```

Desktop docs Downloads ls\_output.txt myteam oldpasswd Public Templates test13 test14 Videos  
 dir1 Documents lodaa Music newPasswd Pictures Study test1 test13.txt test2

```
[kdawoud@localhost ~]$ tail -n5 /etc/passwd
secretary:x:1003:1003::/home/secretary:/bin/bash
officeboy:x:1004:1004::/home/officeboy:/bin/bash
dataentry:x:1005:1005::/home/dataentry:/bin/bash
accountant:x:1007:1007::/home/accountant:/bin/bash
recruiter:x:1008:1011::/home/recruiter:/bin/bash
[kdawoud@localhost ~]$ sudo useradd -p ahmed -c 'ahmed ali' ahmed
[sudo] password for kdawoud:
[kdawoud@localhost ~]$ tail -n3 /etc/passwd
accountant:x:1007:1007::/home/accountant:/bin/bash
recruiter:x:1008:1011::/home/recruiter:/bin/bash
ahmed:x:1009:1012:ahmed ali:/home/ahmed:/bin/bash
[kdawoud@localhost ~]$ sudo cat /etc/shadow | grep ahmed
ahmed:ahmed:19459:0:99999:7:::
```

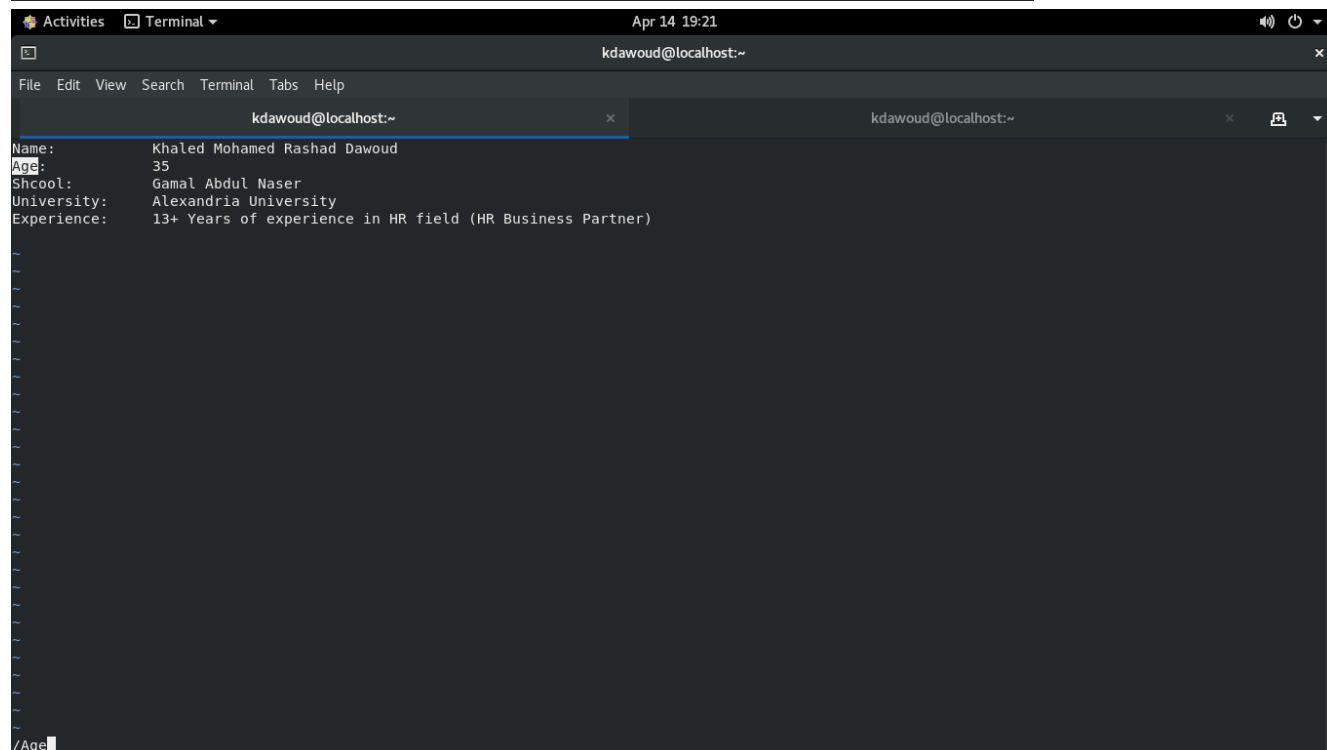
```
[kdawoud@localhost ~]$ vi mycv
[kdawoud@localhost ~]$ cat mycv
Name:      Khaled Mohamed Rashad Dawoud
Age:       35
University: Alexandria University
Experience: 13+ Years of experience in HR field (HR Business Partner)
```

```
[kdawoud@localhost ~]$
```

```
[kdawoud@localhost ~]$ compgen -c > /tmp/commands.list
```

```
[kdawoud@localhost ~]$ cat /tmp/commands.list
```

```
egrep
fgrep
grep
l.
ll
ls
vi
xzegrep
xzfgrep
xzgrep
zegrep
zfgrep
```



```
[kdawoud@localhost ~]$ wc -w /tmp/commands.list
2471 /tmp/commands.list
[kdawoud@localhost ~]$
```

```
[kdawoud@localhost ~]$ cat /etc/shells
/bin/sh
/bin/bash
/usr/bin/sh
/usr/bin/bash
/usr/bin/tmux
/bin/tmux
/usr/bin/zsh
/bin/zsh
[kdawoud@localhost ~]$
```

```
[kdawoud@localhost ~]$ cut -f1 -d : /etc/passwd | grep "^g"
games
geoclue
gluster
gdm
gnome-initial-setup
```

```
[kdawoud@localhost ~]$ cut -f1,5 -d : /etc/passwd | grep "^g"
games:games
geoclue:User for geoclue
gluster:GlusterFS daemons
gdm:
gnome-initial-setup:
```

```
[kdawoud@localhost ~]$ cut -f1,5 -d : /etc/passwd | grep "^g" | sort -k2 -t : -o log_names.txt
[kdawoud@localhost ~]$ cat log_names.txt
gdm:
gnome-initial-setup:
games:games
gluster:GlusterFS daemons
geoclue:User for geoclue
[kdawoud@localhost ~]$
```

```
[kdawoud@localhost ~]$ find / -name .bash_profile
find: '/boot/efi/EFI/centos': Permission denied
find: '/boot/grub2': Permission denied
find: '/boot/loader/entries': Permission denied
find: '/proc/tty/driver': Permission denied
find: '/proc/1/task/1/fd': Permission denied
find: '/proc/1/task/1/fdinfo': Permission denied
find: '/proc/1/task/1/ns': Permission denied
find: '/proc/1/fd': Permission denied
find: '/proc/1/map_files': Permission denied
find: '/proc/1/fdinfo': Permission denied
find: '/proc/1/ns': Permission denied
find: '/proc/2/task/2/fd': Permission denied
find: '/proc/2/task/2/fdinfo': Permission denied
find: '/proc/2/task/2/ns': Permission denied
find: '/proc/2/fd': Permission denied
find: '/proc/2/map_files': Permission denied
```

```
[kdawoud@localhost ~]$ ls -R / > output.txt 2> error.txt &
[1] 140103
[kdawoud@localhost ~]$ jobs
[1]+  Exit 1                  ls --color=auto -R / > output.txt 2> error.txt
[kdawoud@localhost ~]$
```

```
[kdawoud@localhost ~]$ echo $SHELL
/bin/bash
```

```
[kdawoud@localhost ~]$ who -q
kdawoud
# users=1
[kdawoud@localhost ~]$ who | wc -l
1
[kdawoud@localhost ~]$
```

```
[kdawoud@localhost ~]$ sed -n '7,10p' /etc/passwd
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
operator:x:11:0:operator:/root:/sbin/nologin
[kdawoud@localhost ~]$
```

```

[kdawoud@localhost ~]$ sleep 100
^Z
[1]+  Stopped                  sleep 100
[kdawoud@localhost ~]$ bg %1
[1]+  sleep 100 &
[kdawoud@localhost ~]$ jobs
[1]+  Running                  sleep 100 &
[kdawoud@localhost ~]$ fg %1
sleep 100
^Z
[1]+  Stopped                  sleep 100
[kdawoud@localhost ~]$ bg %1
[1]+  sleep 100 &
[kdawoud@localhost ~]$ sleep 100 &
[2] 141582
[kdawoud@localhost ~]$ kill 141582
[1]-  Done                     sleep 100
[kdawoud@localhost ~]$ jobs
[2]+  Terminated             sleep 100
[kdawoud@localhost ~]$ ps -u kdawoud
  PID TTY          TIME CMD
 22831 ?           00:00:02 systemd
 22835 ?           00:00:00 (sd-pam)
 22847 ?           00:00:31 pulseaudio
 22851 ?           00:00:00 gnome-keyring-d
 22859 tty2        00:00:00 gdm-wayland-ses
 22861 ?           00:00:05 dbus-daemon
 22866 tty2        00:00:00 gnome-session-b
 22935 tty2        00:17:43 gnome-shell
 22961 ?           00:00:00 gvfsd
 22970 ?           00:00:00 gvfsd-fuse
 22983 tty2        00:00:04 Xwayland
 22993 ?           00:00:00 at-spi-bus-laun
 22998 ?           00:00:00 dbus-daemon
 23001 ?           00:00:00 at-spi2-registr

```



```

[kdawoud@localhost ~]$ ps ux | grep -v kdawoud
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
[kdawoud@localhost ~]$ ps aux | grep -v kdawoud
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root         1  0.0  0.2 241184 14016 ?        Ss   Apr14   2:20 /usr/lib/systemd/systemd --switched-root --system
root         2  0.0  0.0      0     0 ?        S    Apr14   0:00 [kthreadd]
root         3  0.0  0.0      0     0 ?        I<   Apr14   0:00 [rcu_gp]
root         4  0.0  0.0      0     0 ?        I<   Apr14   0:00 [rcu_par_gp]
root         6  0.0  0.0      0     0 ?        I<   Apr14   0:00 [kworker/0:0H-events_highpri]
root         9  0.0  0.0      0     0 ?        I<   Apr14   0:00 [mm_percpu_wq]
root        10  0.0  0.0      0     0 ?        S    Apr14   0:00 [rcu_tasks_rude_]
root        11  0.0  0.0      0     0 ?        S    Apr14   0:00 [rcu_tasks_trace]
root        12  0.0  0.0      0     0 ?        S    Apr14   0:17 [ksoftirqd/0]
root        13  0.0  0.0      0     0 ?        R    Apr14   1:33 [rcu_sched]
root        14  0.0  0.0      0     0 ?        S    Apr14   0:00 [migration/0]
root        15  0.0  0.0      0     0 ?        S    Apr14   0:00 [watchdog/0]
root        16  0.0  0.0      0     0 ?        S    Apr14   0:00 [cpuhp/0]
root        17  0.0  0.0      0     0 ?        S    Apr14   0:00 [cpuhp/1]
root        18  0.0  0.0      0     0 ?        S    Apr14   0:00 [watchdog/1]
root        19  0.0  0.0      0     0 ?        S    Apr14   0:00 [migration/1]
root        20  0.0  0.0      0     0 ?        S    Apr14   0:07 [ksoftirqd/1]
root        22  0.0  0.0      0     0 ?        I<   Apr14   0:00 [kworker/1:0H-events_highpri]
root        25  0.0  0.0      0     0 ?        S    Apr14   0:00 [kdevtmpfs]
root        26  0.0  0.0      0     0 ?        I<   Apr14   0:00 [netns]
root        27  0.0  0.0      0     0 ?        S    Apr14   0:01 [kauditd]
root        29  0.0  0.0      0     0 ?        S    Apr14   0:00 [khungtaskd]
root        30  0.0  0.0      0     0 ?        S    Apr14   0:00 [oom_reaper]
root        31  0.0  0.0      0     0 ?        I<   Apr14   0:00 [writeback]

[kdawoud@localhost ~]$ pgrep -au kdawoud
22831 /usr/lib/systemd/systemd --user
22835 (sd-pam)
22847 /usr/bin/pulseaudio --daemonize=no --log-target=journal
22851 /usr/bin/gnome-keyring-daemon --daemonize --login
22859 /usr/libexec/gdm-wayland-session --register-session gnome-session
22861 /usr/bin/dbus-daemon --session --address=systemd: --nofork --nopidfile --systemd-activation --syslog-only
22866 /usr/libexec/gnome-session-binary
22935 /usr/bin/gnome-shell
22961 /usr/libexec/gvfsd
22970 /usr/libexec/gvfsd-fuse /run/user/1000/gvfs -f -o big_writes
22983 /usr/bin/Xwayland :0 -rootless -terminate -accessx -core -auth /run/user/1000/.mutter-Xwaylandauth.8KBC31 -listen 4 -listen 5 -displayfd 6
22993 /usr/libexec/at-spi-bus-launcher
22998 /usr/bin/dbus-daemon --config-file=/usr/share/defaults/at-spi2/accessibility.conf --nofork --print-address 3
23001 /usr/libexec/at-spi2-registryd --use-gnome-session
23010 ibus-daemon --xim --panel disable
23013 /usr/libexec/xdg-permission-store
23018 /usr/libexec/ibus-dconf
23019 /usr/libexec/ibus-extension-gtk3
23023 /usr/libexec/ibus-x11 --kill-daemon
23026 /usr/libexec/ibus-portal
23035 /usr/libexec/gnome-shell-calendar-server
23041 /usr/libexec/evolution-source-registry

```

```

-rw-rwxr-x. 1 kdawoud kdawoud 2880 Apr  7 20:55 oldpasswd
[kdawoud@localhost ~]$ compress oldpasswd
[kdawoud@localhost ~]$ ls -l oldpasswd.Z
-rw-rwxr-x. 1 kdawoud kdawoud 1585 Apr  7 20:55 oldpasswd.Z
[kdawoud@localhost ~]$ uncompress oldpasswd.Z
[kdawoud@localhost ~]$ ls -l oldpasswd
-rw-rwxr-x. 1 kdawoud kdawoud 2880 Apr  7 20:55 oldpasswd
[kdawoud@localhost ~]$ gzip oldpasswd
[kdawoud@localhost ~]$ ls -l oldpasswd.gz
-rw-rwxr-x. 1 kdawoud kdawoud 1110 Apr  7 20:55 oldpasswd.gz
[kdawoud@localhost ~]$ gunzip oldpasswd.gz
[kdawoud@localhost ~]$ ls -l oldpasswd
-rw-rwxr-x. 1 kdawoud kdawoud 2880 Apr  7 20:55 oldpasswd
[kdawoud@localhost ~]$ zip oldpasswd

zip error: Nothing to do! (oldpasswd.zip)
[kdawoud@localhost ~]$ zip oldpasswd.zip oldpasswd
  adding: oldpasswd (deflated 62%)
[kdawoud@localhost ~]$ ls -l oldpasswd
-rw-rwxr-x. 1 kdawoud kdawoud 2880 Apr  7 20:55 oldpasswd
[kdawoud@localhost ~]$ ls -l
total 5864
drwxr-xr-x. 5 kdawoud kdawoud    155 Apr 18 22:12 Desktop
d----- 3 kdawoud kdawoud      19 Apr  7 20:39 dir1
drwxrwxrwx. 3 kdawoud kdawoud    18 Apr 13 03:27 dir2
d----- 2 kdawoud kdawoud       6 Apr 13 22:15 dirNoPerm
drwxrwxr-x. 2 kdawoud kdawoud    18 Apr  7 20:28 docs
drwxr-xr-x. 3 kdawoud kdawoud   118 Nov  5 14:07 Documents
drwxr-xr-x. 2 kdawoud kdawoud    33 Oct 27 17:58 Downloads
-rw-rw-r--. 1 kdawoud kdawoud 122473 Apr 16 22:18 error.txt
d----- 1 kdawoud kdawoud       0 Apr 13 22:15 fileNoPerm
drwxrwxr-x. 3 kdawoud kdawoud    20 Nov  2 20:46 lodaa
-rw-rw-r--. 1 kdawoud kdawoud    89 Apr 16 22:11 log_names.txt
-rw-rw-r--. 1 kdawoud kdawoud 99606 Apr 10 19:02 ls_output.txt
drwxr-xr-x. 2 kdawoud kdawoud     6 Oct 26 06:38 Music
-rwxrwxrwx. 1 kdawoud kdawoud   182 Apr 14 19:26 mycv
dr--rwxr-x. 2 kdawoud kdawoud     6 Apr 13 01:28 myteam
-rw-r--r--. 1 kdawoud kdawoud   2880 Apr  8 22:23 newPasswd
-rw-rwxr-x. 1 kdawoud kdawoud   2880 Apr  7 20:55 oldpasswd
-rw-rw-r--. 1 kdawoud kdawoud   1250 Apr 18 22:16 oldpasswd.zip
-rw-rw-r--. 1 kdawoud kdawoud 5752515 Apr 16 22:18 output.txt
drwxr-xr-x. 2 kdawoud kdawoud    53 Oct 27 18:20 Pictures
drwxr-xr-x. 2 kdawoud kdawoud     6 Oct 26 06:38 Public
drwxrwxr-x. 3 kdawoud kdawoud    16 Oct 27 18:07 Study
drwxr-xr-x. 2 kdawoud kdawoud     6 Oct 26 06:38 Templates
drwxrwxr-x. 4 kdawoud kdawoud    52 Apr  7 17:42 test1
drw-rwxr-x. 2 kdawoud kdawoud     6 Apr 13 02:26 test13
-rw-rw-rw-. 1 kdawoud kdawoud   3062 Apr 13 02:39 test13.txt
drwxrwxrwx. 2 kdawoud kdawoud     6 Apr 13 02:31 test14
drwxrwxr-x. 5 kdawoud kdawoud    64 Apr  8 22:43 test2
drwxr-xr-x. 2 kdawoud kdawoud     6 Oct 26 06:38 Videos

```

```

[kdawoud@localhost ~]$ zcat oldpasswd.Z
root:x:0:0:root:/root:/bin/bash
bin:x:1:1:bin:/bin:/sbin/nologin
daemon:x:2:2:daemon:/sbin:/sbin/nologin
adm:x:3:4:adm:/var/adm:/sbin/nologin
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
sync:x:5:0:sync:/sbin:/bin/sync

```

```
[kdawoud@localhost ~]$ zcat oldpasswd.Z
root:x:0:0:root:/root:/bin/bash
bin:x:1:1:bin:/bin:/sbin/nologin
daemon:x:2:2:daemon:/sbin:/sbin/nologin
adm:x:3:4:adm:/var/adm:/sbin/nologin
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
sync:x:5:0:sync:/sbin:/bin/sync
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
```

```
[kdawoud@localhost ~]$ find /home -mtime -2
/home/kdawoud
/home/kdawoud/.config/dconf
/home/kdawoud/.config/dconf/user
/home/kdawoud/.local/share
/home/kdawoud/.local/share/gnome-shell
```

```
[kdawoud@localhost ~]$ find /etc/ -user root
/etc/
/etc/mtab
/etc/fstab
/etc/crypttab
/etc/dnf
/etc/dnf/modules.d
/etc/dnf/modules.d/javapackages-runtime.module
/etc/dnf/modules.d/llvm-toolset.module
/etc/dnf/modules.d/perl.module
/etc/dnf/modules.d/perl-IO-Socket-SSL.module
/etc/dnf/modules.d/perl-libwww-perl.module
```

```
[kdawoud@localhost ~]$ find /home/ -type d
/home/
/home/kdawoud
/home/kdawoud/.mozilla
/home/kdawoud/.mozilla/extensions
/home/kdawoud/.mozilla/plugins
/home/kdawoud/.config
/home/kdawoud/.config/pulse
/home/kdawoud/.config/gnome-session
/home/kdawoud/.config/gnome-session/saved-session
/home/kdawoud/.config/ibus
```

```
[kdawoud@localhost ~]$ file /etc/passwd /dev/pts/0 /etc/ /dev/sda
/etc/passwd: ASCII text
/dev/pts/0: character special (136/0)
/etc/: directory
/dev/sda: cannot open `/dev/sda' (No such file or directory)
[kdawoud@localhost ~]$
```

```
[kdawoud@localhost ~]$ cp /etc/passwd Q_10
[kdawoud@localhost ~]$ diff /etc/passwd Q_10
[kdawoud@localhost ~]$ cmp /etc/passwd Q_10
[kdawoud@localhost ~]$ vim Q_10
[kdawoud@localhost ~]$ diff /etc/passwd Q_10
56a57,58
>
> Test
[kdawoud@localhost ~]$ cmp /etc/passwd Q_10
cmp: EOF on /etc/passwd after byte 3062, line 56
[kdawoud@localhost ~]$
```