

Linux Commands

- chmod – used to change permissions of a file/directory.

```
vboxuser@Ubuntu:~/Klop$ ls
Mecha
vboxuser@Ubuntu:~/Klop$ ll
total 12
drwxrwxr-x  2 vboxuser vboxuser 4096 Dec  9 08:47 ./
drwxr-x--- 17 vboxuser vboxuser 4096 Dec  9 07:11 ../
-rw-rw-r--  1 vboxuser vboxuser   34 Dec  9 08:47 Mecha
vboxuser@Ubuntu:~/Klop$ chmod 766 Mecha
vboxuser@Ubuntu:~/Klop$ ll
total 12
drwxrwxr-x  2 vboxuser vboxuser 4096 Dec  9 08:47 ./
drwxr-x--- 17 vboxuser vboxuser 4096 Dec  9 07:11 ../
-rwxrw-rw-  1 vboxuser vboxuser   34 Dec  9 08:47 Mecha*
```

- cat /etc/passwd - get a complete list of users.

```
vboxuser@Ubuntu:~$ cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
proxy:x:13:13:proxy:/bin:/usr/sbin/nologin
www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
backup:x:34:34:backup:/var/backups:/usr/sbin/nologin
list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
irc:x:39:39:ircd:/run/ircd:/usr/sbin/nologin
_apt:x:42:65534::/nonexistent:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:998:998:systemd Network Management:/:/usr/sbin/nologin
systemd-timesync:x:996:996:systemd Time Synchronization:/:/usr/sbin/nologin
dhcpcd:x:100:65534:DHCP Client Daemon,,,:/usr/lib/dhcpcd:/bin/false
messagebus:x:101:101::/nonexistent:/usr/sbin/nologin
```

- chown – used to change ownership of the file.
- Id – used to check the current user.
- sudo - means super user do. It gives extra privileges to the user that is in sudoers files only.

```
vboxuser@Ubuntu:~/Klop$ ll
total 12
drwxrwxr-x  2 vboxuser vboxuser 4096 Dec  9 08:47 ./
drwxr-x--- 17 vboxuser vboxuser 4096 Dec  9 07:11 ../
-rwxrw-rw-  1 vboxuser vboxuser   34 Dec  9 08:47 Mecha*
vboxuser@Ubuntu:~/Klop$ chown Jack Mecha
chown: changing ownership of 'Mecha': Operation not permitted
vboxuser@Ubuntu:~/Klop$ sudo chown Jack Mecha
[sudo] password for vboxuser:
vboxuser@Ubuntu:~/Klop$ ll
total 12
drwxrwxr-x  2 vboxuser vboxuser 4096 Dec  9 08:47 ./
drwxr-x--- 17 vboxuser vboxuser 4096 Dec  9 07:11 ../
-rwxrw-rw-  1 Jack     vboxuser   34 Dec  9 08:47 Mecha*
```

Linux Commands

- useradd – used to add user.
- passwd – used to add password to the new user.
- exit – used to exit from shell

```
vboxuser@Ubuntu:~/Klop$ sudo su root
root@Ubuntu:/home/vboxuser/Klop# useradd Wolf
root@Ubuntu:/home/vboxuser/Klop# passwd Wolf
New password:
Retype new password:
passwd: password updated successfully
root@Ubuntu:/home/vboxuser/Klop# su Wolf
$ id
uid=1002(Wolf) gid=1002(Wolf) groups=1002(Wolf)
$
```

- find – used to find any file/directory.
- find / -name filename – used to find the file.
- find / -name *.extension - used to find files with a specific extension.

```
root@Ubuntu:/home/vboxuser# find / -name sudoers
find: '/run/user/1000/gvfs': Permission denied
find: '/run/user/1000/doc': Permission denied
/usr/share/doc/sudo/examples/sudoers
/snap/core22/2163/etc/sudoers
/snap/core22/2045/etc/sudoers
/etc/sudoers
root@Ubuntu:/home/vboxuser# vi /etc/sudoers
root@Ubuntu:/home/vboxuser# find / -name *.txt
find: '/run/user/1000/gvfs': Permission denied
find: '/run/user/1000/doc': Permission denied
/usr/lib/xorg/protocol.txt
/usr/lib/python3.12/LICENSE.txt
/usr/lib/python3/dist-packages/click-8.1.6.egg-info/top_level.txt
```

- echo text > filename - add the provided text to a file. It will also delete or overwrite the existing content.

Linux Commands

- echo text >> filename - add the text to a file without overwriting the existing content.

```
vboxuser@Ubuntu:~/Klop$ cd Klop/
vboxuser@Ubuntu:~/Klop$ ls
Mecha
vboxuser@Ubuntu:~/Klop$ vi GOT
vboxuser@Ubuntu:~/Klop$ cat GOT
Winter is
coming
vboxuser@Ubuntu:~/Klop$ echo Power is  Power > GOT
vboxuser@Ubuntu:~/Klop$ cat GOT
Power is Power
vboxuser@Ubuntu:~/Klop$ echo Winter is Coming >> GOT
vboxuser@Ubuntu:~/Klop$ cat GOT
Power is Power
Winter is Coming
```

- head -3 filename - read the top three lines of a file.
- tail -3 filename - read the bottom three lines of a file.
- tail -f filename - It is to continuously monitor a given file.

```
vboxuser@Ubuntu:~/Klop$ head -3 Mecha
a
a
a
vboxuser@Ubuntu:~/Klop$ tail -2 Mecha
asd
a
vboxuser@Ubuntu:~/Klop$ tail -f Mecha
s
f
e
q
w
eq
wr
s
asd
a
^C
```

- grep -i keyword alphabet - shows whether the given keyword exists in the given file irrespective of its case, upper or lower.

Linux Commands

- grep keyword alphabet - shows whether the given keyword exists in the given file.

```
vboxuser@Ubuntu:~/Klop$ grep s Mecha
s
s
s
asd
vboxuser@Ubuntu:~/Klop$ grep S Mecha
vboxuser@Ubuntu:~/Klop$ grep -i S Mecha
s
s
s
asd
```

- chgrp – change group ownership.

```
vboxuser@Ubuntu:~$ sudo chgrp Jack Klop
vboxuser@Ubuntu:~$ ll
total 84
drwxr-x--- 17 vboxuser vboxuser 4096 Dec  9 07:11 .
drwxr-xr-x  3 root      root    4096 Dec  4 07:12 ..
-rw-------  1 vboxuser vboxuser 2893 Dec  9 09:02 .bash_history
-rw-r--r--  1 vboxuser vboxuser  220 Mar 31 2024 .bash_logout
-rw-r--r--  1 vboxuser vboxuser 3771 Mar 31 2024 .bashrc
drwx----- 12 vboxuser vboxuser 4096 Dec  9 05:35 .cache/
drwx----- 14 vboxuser vboxuser 4096 Dec  9 05:33 .config/
drwxr-xr-x  2 vboxuser vboxuser 4096 Dec  9 05:46 Desktop/
drwxr-xr-x  2 vboxuser vboxuser 4096 Dec  4 07:17 Documents/
drwxr-xr-x  2 vboxuser vboxuser 4096 Dec  9 06:02 Downloads/
drwx-----  2 vboxuser vboxuser 4096 Dec  8 08:52 .gnupg/
drwxrwxr-x  2 vboxuser Jack     4096 Dec  9 09:11 Klop/
```

- stat – used to display stats of file/directory.

```
vboxuser@Ubuntu:~$ stat Klop
  File: Klop
  Size: 4096          Blocks: 8          IO Block: 4096   directory
Device: 8,2      Inode: 1576301      Links: 2
Access: (0775/drwxrwxr-x) Uid: ( 1000/vboxuser)  Gid: ( 1001/      Jack)
Access: 2025-12-09 08:47:15.007437878 +0000
Modify: 2025-12-09 09:11:46.101302109 +0000
Change: 2025-12-09 09:18:43.097645775 +0000
 Birth: 2025-12-09 06:45:53.236532765 +0000
```