

USER AND GROUPS

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Assignment – 5

For User Information

Cmd- cat /etc/passwd

```
[09/02/23]seed@VM:~$ 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:/var/run/ircd:/usr/sbin/nologin
gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
nobody:x:65534:65534:nobody:/nonexistent:/usr/sbin/nologin
systemd-network:x:100:102:systemd Network Management,,,:/run/systemd:/usr/sbin/nologin
systemd-resolve:x:101:103:systemd Resolver,,,:/run/systemd:/usr/sbin/nologin
systemd-timesync:x:102:104:systemd Time Synchronization,,,:/run/systemd:/usr/sbin/nologin
messagebus:x:103:106:/:nonexistent:/usr/sbin/nologin
syslog:x:104:110:/:home/syslog:/usr/sbin/nologin
_apt:x:105:65534:/:nonexistent:/usr/sbin/nologin
tss:x:106:111:TPM software stack,,,:/var/lib/tpm:/bin/false
uidd:x:107:114:/:run/uidd:/usr/sbin/nologin
tcpdump:x:108:115:/:nonexistent:/usr/sbin/nologin
avahi-autoipd:x:109:116:Avahi autoip daemon,,,:/var/lib/avahi-autoipd:/usr/sbin/nologin
usbmux:x:110:46:usbmux daemon,,,:/var/lib/usbmux:/usr/sbin/nologin

cups-pk-helper:x:113:120:user for cups-pk-helper service,,,:/home/cups-pk-helper:/usr/sbin/nologin
speech-dispatcher:x:114:29:Speech Dispatcher,,,:/run/speech-dispatcher:/bin/false
avahi:x:115:121:Avahi mDNS daemon,,,:/var/run/avahi-daemon:/usr/sbin/nologin
kernoops:x:116:65534:Kernel Oops Tracking Daemon,,,:/usr/sbin/nologin
saned:x:117:123:/:/var/lib/saned:/usr/sbin/nologin
nm-openvpn:x:118:124:NetworkManager OpenVPN,,,:/var/lib/openvpn/chroot:/usr/sbin/nologin
hplip:x:119:7:HPLIP system user,,,:/run/hplip:/bin/false
whoopsie:x:120:125:/:nonexistent:/bin/false
colord:x:121:126:colord colour management daemon,,,:/var/lib/colord:/usr/sbin/nologin
geoclue:x:122:127:/:/var/lib/geoclue:/usr/sbin/nologin
pulse:x:123:128:PulseAudio daemon,,,:/var/run/pulse:/usr/sbin/nologin
gnome-initial-setup:x:124:65534:/:run/gnome-initial-setup:/bin/false
gdm:x:125:130:Gnome Display Manager:/var/lib/gdm3:/bin/false
seed:x:1000:1000:SEED,,,:/home/seed:/bin/bash
systemd-coredump:x:999:999:systemd Core Dumper:/:/usr/sbin/nologin
telnetd:x:126:134:/:nonexistent:/usr/sbin/nologin
ftp:x:127:135:ftp daemon,,,:/srv/ftp:/usr/sbin/nologin
sshd:x:128:65534:/:run/ssh:/usr/sbin/nologin
[09/02/23]seed@VM:~$
```

Every User information is listed here.

```
sudo cat /etc/shadow
```

Only root users can access the passwords, hence sudo must be used.

To list the files

```
[09/02/23] seed@VM:~$ ls -l
total 32
drwxr-xr-x 2 seed seed 4096 Aug 23 12:07 Desktop
drwxr-xr-x 2 seed seed 4096 Nov 24 2020 Documents
drwxr-xr-x 2 seed seed 4096 Nov 24 2020 Downloads
drwxr-xr-x 2 seed seed 4096 Nov 24 2020 Music
drwxr-xr-x 2 seed seed 4096 Nov 24 2020 Pictures
drwxr-xr-x 2 seed seed 4096 Nov 24 2020 Public
drwxr-xr-x 2 seed seed 4096 Nov 24 2020 Templates
drwxr-xr-x 2 seed seed 4096 Nov 24 2020 Videos
[09/03/23] seed@VM:~$ █
```

\$ls -l /etc/passwd /etc/shadow

```
[09/03/23] seed@VM:~$ ls -l /etc/passwd /etc/shadow
-rw-r--r-- 1 root root 2886 Nov 24 2020 /etc/passwd
-rw-r----- 1 root shadow 1514 Nov 24 2020 /etc/shadow
```

\$id – userid, groupid and group info

```
[09/03/23] seed@VM:~$ id
uid=1000(seed) gid=1000(seed) groups=1000(seed),4(adm),24(cdrom),27(sudo),30(dip),46(plugindev),120(lpadmin),131(lxd),132(sambashare),136(docke
r)
```

To add new user:

Cmd: sudo adduser

```
[09/03/23]seed@VM:~$ sudo adduser nifal
Adding user `nifal' ...
Adding new group `nifal' (1001) ...
Adding new user `nifal' (1001) with group `nifal' ...
Creating home directory `/home/nifal' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for nifal
Enter the new value, or press ENTER for the default
    Full Name []: nifal
    Room Number []: 206
    Work Phone []:
    Home Phone []:
    Other []:
Is the information correct? [Y/n] y
[09/03/23]seed@VM:~$ █
```

To switch user:

Cmd: su

To change password

Cmd: passwd

```
[09/03/23]seed@VM:~$ su nifal
Password:
nifal@VM:/home/seed$ ls -l /etc/passwd /etc/shadow
-rw-r--r-- 1 root root  2938 Sep  3 00:14 /etc/passwd
-rw-r----- 1 root shadow 1646 Sep  3 00:14 /etc/shadow
nifal@VM:/home/seed$ passwd
Changing password for nifal.
Current password:
New password:
Retype new password:
You must choose a longer password
New password:
Retype new password:
passwd: password updated successfully
nifal@VM:/home/seed$ ls -l /etc/passwd /etc/shadow
-rw-r--r-- 1 root root  2938 Sep  3 00:14 /etc/passwd
-rw-r----- 1 root shadow 1646 Sep  3 00:18 /etc/shadow
nifal@VM:/home/seed$ █
```

```
nifal@VM:/home/seed$ sudo cat /etc/shadow
[sudo] password for nifal:
nifal is not in the sudoers file. This incident will be reported.
nifal@VM:/home/seed$ █
```

To add new user to sudo

**Cmd: sudo adduser nifal sudo
groups**

```
nifal@VM:/home/seed$ su seed
Password:
[09/03/23]seed@VM:~$ sudo adduser nifal sudo
Adding user `nifal' to group `sudo' ...
Adding user nifal to group sudo
Done.
[09/03/23]seed@VM:~$ groups nifal
nifal : nifal sudo
[09/03/23]seed@VM:~$ sudo cat /etc/shadow
root:!:18590:0:99999:7:::
daemon*:18474:0:99999:7:::
bin*:18474:0:99999:7:::
sys*:18474:0:99999:7:::
sync*:18474:0:99999:7:::
games*:18474:0:99999:7:::
man*:18474:0:99999:7:::
lp*:18474:0:99999:7:::
mail*:18474:0:99999:7:::
news*:18474:0:99999:7:::
uucp*:18474:0:99999:7:::
proxy*:18474:0:99999:7:::
www-data*:18474:0:99999:7:::
backup*:18474:0:99999:7:::
```

```
[09/03/23]seed@VM:~$ su nifal
Password:
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
```

```
nifal@VM:/home/seed$ sudo cat /etc/shadow
root:!:18590:0:99999:7:::
daemon*:18474:0:99999:7:::
nifal*:18474:0:99999:7:::
```

To display the items group

Cmd: cat /etc/group

```
nifal@VM:/home/seed$ su seed
Password:
[09/03/23]seed@VM:~$ cat /etc/group
root:x:0:
daemon:x:1:
bin:x:2:
sys:x:3:
adm:x:4:syslog,seed
tty:x:5:syslog
disk:x:6:
lp:x:7:
mail:x:8:
news:x:9:
uucp:x:10:
man:x:12:
proxy:x:13:
kmem:x:15:
dialout:x:20:
fax:x:21:
voice:x:22:
cdrom:x:24:seed
floppy:x:25:
tape:x:26:
sudo:x:27:seed,nifal
audio:x:29:pulse
dip:x:30:seed
www-data:x:33:
```

To list the files

Cmd: ls -l

```
[09/03/23]seed@VM:~$ ls -l
total 32
drwxr-xr-x 2 seed seed 4096 Aug 23 12:07 Desktop
drwxr-xr-x 2 seed seed 4096 Nov 24 2020 Documents
drwxr-xr-x 2 seed seed 4096 Nov 24 2020 Downloads
drwxr-xr-x 2 seed seed 4096 Nov 24 2020 Music
drwxr-xr-x 2 seed seed 4096 Nov 24 2020 Pictures
drwxr-xr-x 2 seed seed 4096 Nov 24 2020 Public
drwxr-xr-x 2 seed seed 4096 Nov 24 2020 Templates
drwxr-xr-x 2 seed seed 4096 Nov 24 2020 Videos
```

Permissions on the Directory

Cmd: ls -l directoryname

```
[09/03/23]seed@VM:~$ ls -l Desktop
total 80
-rwxrwxr-x 1 seed seed 19608 Aug 23 12:07 a.out
-rw-rw-r-- 1 seed seed 273 Aug 23 12:02 exec.c
-rwxrwxr-x 1 seed seed 19504 Aug 23 11:47 fork
-rw-rw-r-- 1 seed seed 284 Aug 23 11:47 fork.c
-rw-rw-r-- 1 seed seed 398 Aug 23 11:58 forkelse.c
-rwxrwxr-x 1 seed seed 19480 Aug 23 12:07 hello
-rw-rw-r-- 1 seed seed 180 Aug 23 12:06 hello.c
-rw-rw-r-- 1 seed seed 371 Aug 23 11:38 syscall.c
[09/03/23]seed@VM:~$ █
```


For Default permissions

Cmd: umask

```
[09/03/23]seed@VM:~$ cd Desktop
[09/03/23]seed@VM:~/Desktop$ nano study.c
[09/03/23]seed@VM:~/Desktop$ ls -l study.c
-rw-rw-r-- 1 seed seed 7 Sep  3 00:47 study.c
[09/03/23]seed@VM:~/Desktop$ umask
002
[09/03/23]seed@VM:~/Desktop$ umask 0077
[09/03/23]seed@VM:~/Desktop$ nano study1.c
[09/03/23]seed@VM:~/Desktop$ ls -l study1.c
-rw----- 1 seed seed 6 Sep  3 00:50 study1.c
[09/03/23]seed@VM:~/Desktop$ umask 0002
[09/03/23]seed@VM:~/Desktop$ █
```

To Change Ownerships:

Cmd: chown

```
[09/03/23]seed@VM:~/Desktop$ ls -l study.c
-rw-rw-r-- 1 seed seed 7 Sep  3 00:47 study.c
[09/03/23]seed@VM:~/Desktop$ chown nifal study.c
chown: changing ownership of 'study.c': Operation not permitted
[09/03/23]seed@VM:~/Desktop$ sudo chown nifal study.c
[09/03/23]seed@VM:~/Desktop$ ls -l study.c
-rw-rw-r-- 1 nifal seed 7 Sep  3 00:47 study.c
[09/03/23]seed@VM:~/Desktop$ ls -l study1.c
-rw----- 1 seed seed 6 Sep  3 00:50 study1.c
[09/03/23]seed@VM:~/Desktop$ █
```

To display access control list:

Cmd: getfacl filename

```
[09/03/23]seed@VM:~/Desktop$ getfacl study.c
# file: study.c
# owner: nifal
# group: seed
user::rw-
group::rw-
other::r--
```


To set access control lists of files and directories

Cmd: setfacl -m user:name:r filename

```
[09/03/23]seed@VM:~/Desktop$ sudo setfacl -m user:nifal:r study.c
[09/03/23]seed@VM:~/Desktop$ getfacl study.c
# file: study.c
# owner: nifal
# group: seed
user::rw-
user:nifal:r--
group::rw-
mask::rw-
other::r--
```

To run command as another user

Cmd: whoami

```
[09/03/23]seed@VM:~/Desktop$ cd
[09/03/23]seed@VM:~$ whoami
seed
[09/03/23]seed@VM:~$ sudo -u nifal whoami
nifal
[09/03/23]seed@VM:~$ █
```

For user to superuser privileges

Cmd: sudo head /etc/shadow

```
[09/03/23]seed@VM:~$ head /etc/shadow
head: cannot open '/etc/shadow' for reading: Permission denied
[09/03/23]seed@VM:~$ sudo head /etc/shadow
root!:18590:0:99999:7:::
daemon*:18474:0:99999:7:::
bin*:18474:0:99999:7:::
sys*:18474:0:99999:7:::
sync*:18474:0:99999:7:::
games*:18474:0:99999:7:::
nan*:18474:0:99999:7:::
lp*:18474:0:99999:7:::
nail*:18474:0:99999:7:::
news*:18474:0:99999:7:::
[09/03/23]seed@VM:~$ █
```

For Sudo Configuration File

Cmd: cat /etc/group | grep seed

```
[09/03/23]seed@VM:~$ cat /etc/group | grep seed
adm:x:4:syslog,seed
cdrom:x:24:seed
sudo:x:27:seed,nifal
dip:x:30:seed
plugdev:x:46:seed
lpadmin:x:120:seed
lxd:x:131:seed
seed:x:1000:
sambashare:x:132:seed
docker:x:136:seed
[09/03/23]seed@VM:~$ su nifal
Password:
nifal@VM:/home/seed$
```