

Practical - Operating System

- Anshul Verma

- 19/78065

ls

```
anshul@linux-host:~$ ls
Desktop  Documents  Downloads  Music  Pictures  Public  Templates  Videos
anshul@linux-host:~$ ls -l
total 32
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Desktop
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Documents
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Downloads
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Music
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Pictures
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Public
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Templates
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Videos
anshul@linux-host:~$ ls -l -a
total 96
drwxr-xr-x 15 anshul anshul 4096 Aug 25 17:33 .
drwxr-xr-x  4 root  root   4096 Aug 24 22:31 ..
-rw-r--r--  1 anshul anshul   99 Aug 24 22:43 .bash_history
-rw-r--r--  1 anshul anshul  220 Aug 24 19:00 .bash_logout
-rw-r--r--  1 anshul anshul 3771 Aug 24 19:00 .bashrc
drwx----- 13 anshul anshul 4096 Aug 24 22:33 .cache
drwx----- 11 anshul anshul 4096 Aug 24 22:36 .config
drwxr-xr-x  2 anshul anshul 4096 Aug 24 19:04 Desktop
drwxr-xr-x  2 anshul anshul 4096 Aug 24 19:04 Documents
drwxr-xr-x  2 anshul anshul 4096 Aug 24 19:04 Downloads
drwx-----  3 anshul anshul 4096 Aug 24 22:45 .gnupg
-rw-r--r--  1 anshul anshul 1304 Aug 25 17:32 .ICEauthority
drwx-----  3 anshul anshul 4096 Aug 24 19:04 .local
drwxr-xr-x  2 anshul anshul 4096 Aug 24 19:04 Music
drwxr-xr-x  2 anshul anshul 4096 Aug 24 19:04 Pictures
-rw-r--r--  1 anshul anshul  807 Aug 24 19:00 .profile
drwxr-xr-x  2 anshul anshul 4096 Aug 24 19:04 Public
drwx-----  2 anshul anshul 4096 Aug 24 22:45 .ssh
-rw-r--r--  1 anshul anshul    0 Aug 24 22:24 .sudo_as_admin_successful
drwxr-xr-x  2 anshul anshul 4096 Aug 24 19:04 Templates
-rw-r--r--  1 anshul anshul    5 Aug 25 17:32 .vboxclient-clipboard.pid
-rw-r--r--  1 anshul anshul    5 Aug 25 17:32 .vboxclient-display-svga-x11.pid
-rw-r--r--  1 anshul anshul    5 Aug 25 17:32 .vboxclient-draganddrop.pid
-rw-r--r--  1 anshul anshul    5 Aug 25 17:32 .vboxclient-seamless.pid
drwxr-xr-x  2 anshul anshul 4096 Aug 24 19:04 Videos
anshul@linux-host:~$
```

```
anshul@linux-host:~$ ls -a
.          .bashrc  Documents  .local  Public          .vboxclient-clipboard.pid  Videos
..         .cache   Downloads  Music   .ssh            .vboxclient-display-svga-x11.pid
.bash_history .config  .gnupg     Pictures .sudo_as_admin_successful .vboxclient-draganddrop.pid
.bash_logout Desktop .ICEauthority .profile Templates      .vboxclient-seamless.pid
anshul@linux-host:~$ ls -lh -a
total 96K
drwxr-xr-x 15 anshul anshul 4.0K Aug 25 17:33 .
drwxr-xr-x  4 root  root   4.0K Aug 24 22:31 ..
-rw-r--r--  1 anshul anshul  99 Aug 24 22:43 .bash_history
-rw-r--r--  1 anshul anshul 220 Aug 24 19:00 .bash_logout
-rw-r--r--  1 anshul anshul 3.7K Aug 24 19:00 .bashrc
drwx----- 13 anshul anshul 4.0K Aug 24 22:33 .cache
drwx----- 11 anshul anshul 4.0K Aug 24 22:36 .config
drwxr-xr-x  2 anshul anshul 4.0K Aug 24 19:04 Desktop
drwxr-xr-x  2 anshul anshul 4.0K Aug 24 19:04 Documents
drwxr-xr-x  2 anshul anshul 4.0K Aug 24 19:04 Downloads
drwx-----  3 anshul anshul 4.0K Aug 24 22:45 .gnupg
-rw-r--r--  1 anshul anshul 1.3K Aug 25 17:32 .ICEauthority
drwx-----  3 anshul anshul 4.0K Aug 24 19:04 .local
drwxr-xr-x  2 anshul anshul 4.0K Aug 24 19:04 Music
drwxr-xr-x  2 anshul anshul 4.0K Aug 24 19:04 Pictures
-rw-r--r--  1 anshul anshul  807 Aug 24 19:00 .profile
drwxr-xr-x  2 anshul anshul 4.0K Aug 24 19:04 Public
drwx-----  2 anshul anshul 4.0K Aug 24 22:45 .ssh
-rw-r--r--  1 anshul anshul    0 Aug 24 22:24 .sudo_as_admin_successful
drwxr-xr-x  2 anshul anshul 4.0K Aug 24 19:04 Templates
-rw-r--r--  1 anshul anshul    5 Aug 25 17:32 .vboxclient-clipboard.pid
-rw-r--r--  1 anshul anshul    5 Aug 25 17:32 .vboxclient-display-svga-x11.pid
-rw-r--r--  1 anshul anshul    5 Aug 25 17:32 .vboxclient-draganddrop.pid
-rw-r--r--  1 anshul anshul    5 Aug 25 17:32 .vboxclient-seamless.pid
drwxr-xr-x  2 anshul anshul 4.0K Aug 24 19:04 Videos
anshul@linux-host:~$
```

```

anshul@linux-host:~$ ls -ltr
total 32
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Templates
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Public
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Downloads
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Documents
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Desktop
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Videos
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Pictures
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Music
anshul@linux-host:~$ ls -la -r
Videos                .vboxclient-clipboard.pid Public      .local      Documents  .bashrc      .
.vboxclient-seamless.pid Templates            .profile   .ICEauthority Desktop    .bash_logout
.vboxclient-draganddrop.pid .sudo_as_admin_successful Pictures    .gnupg      .config     .bash_history
.vboxclient-display-svg+xml1.pid .ssh               Music      Downloads   .cache     ..
anshul@linux-host:~$ ls -lS
total 32
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Desktop
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Documents
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Downloads
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Music
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Pictures
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Public
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Templates
drwxr-xr-x 2 anshul anshul 4096 Aug 24 19:04 Videos
anshul@linux-host:~$

```

cp

```

anshul@linux-host:~/Documents/05$ ls
main.cpp test-dir1 test-dir2
anshul@linux-host:~/Documents/05$ ls test-dir1/
anshul@linux-host:~/Documents/05$ ls test-dir2/
anshul@linux-host:~/Documents/05$ cp main.cpp test-dir1/test.cpp
anshul@linux-host:~/Documents/05$ ls test-dir1/
test.cpp
anshul@linux-host:~/Documents/05$ cp -r test-dir1/ test-dir2/
anshul@linux-host:~/Documents/05$ ls test-dir2/
test-dir1
anshul@linux-host:~/Documents/05$

```

mv

```

anshul@linux-host:~/Documents/05$ mv test-dir1/test.cpp ..
anshul@linux-host:~/Documents/05$ ls ..
05 test.cpp
anshul@linux-host:~/Documents/05$ mv test-dir2/test-dir1 ..
anshul@linux-host:~/Documents/05$ ls ..
05 test.cpp test-dir1
anshul@linux-host:~/Documents/05$ mv ../test.cpp test-dir1/
anshul@linux-host:~/Documents/05$ ls ..
05 test-dir1
anshul@linux-host:~/Documents/05$

```

chmod

```

anshul@linux-host:~/Documents/05$ ls -l
total 12
-rw-r--r-- 1 anshul anshul 95 Aug 25 17:45 main.cpp
drwxr-xr-x 2 anshul anshul 4096 Aug 25 18:00 test-dir1
drwxr-xr-x 2 anshul anshul 4096 Aug 25 17:59 test-dir2
anshul@linux-host:~/Documents/05$ chmod u-r main.cpp
anshul@linux-host:~/Documents/05$ ls -l
total 12
--w-r--r-- 1 anshul anshul 95 Aug 25 17:45 main.cpp
drwxr-xr-x 2 anshul anshul 4096 Aug 25 18:00 test-dir1
drwxr-xr-x 2 anshul anshul 4096 Aug 25 17:59 test-dir2
anshul@linux-host:~/Documents/05$ chmod u-w main.cpp
anshul@linux-host:~/Documents/05$ ls -l
total 12
---r--r-- 1 anshul anshul 95 Aug 25 17:45 main.cpp
drwxr-xr-x 2 anshul anshul 4096 Aug 25 18:00 test-dir1
drwxr-xr-x 2 anshul anshul 4096 Aug 25 17:59 test-dir2
anshul@linux-host:~/Documents/05$ chmod u+r+w main.cpp
anshul@linux-host:~/Documents/05$ ls -l
total 12
-rw-r--r-- 1 anshul anshul 95 Aug 25 17:45 main.cpp
drwxr-xr-x 2 anshul anshul 4096 Aug 25 18:00 test-dir1
drwxr-xr-x 2 anshul anshul 4096 Aug 25 17:59 test-dir2
anshul@linux-host:~/Documents/05$

```

mkdir & rmdir

```

anshul@linux-host:~/Documents/05$ mkdir new-folder
anshul@linux-host:~/Documents/05$
anshul@linux-host:~/Documents/05$ ls
main.cpp new-folder test-dir1 test-dir2
anshul@linux-host:~/Documents/05$ rmdir new-folder
anshul@linux-host:~/Documents/05$ rmdir test-dir2
anshul@linux-host:~/Documents/05$ ls
main.cpp test-dir1
anshul@linux-host:~/Documents/05$

```

rm

```
anshul@linux-host:~/Documents/OS$ ls test-dir1
test.cpp
anshul@linux-host:~/Documents/OS$ rm test-dir1/test.cpp
anshul@linux-host:~/Documents/OS$ ls test-dir1
anshul@linux-host:~/Documents/OS$
```

cd

```
anshul@linux-host:~/Documents/OS$ cd ..
anshul@linux-host:~/Documents$ cd ..
anshul@linux-host:~$ ls
Desktop  Documents  Downloads  Music  Pictures  Public  Templates  Videos
anshul@linux-host:~$ cd Desktop
anshul@linux-host:~/Desktop$ ls
anshul@linux-host:~/Desktop$ cd ../Documents/OS
anshul@linux-host:~/Documents/OS$
```

pwd

```
anshul@linux-host:~/Documents/OS$ pwd
/home/anshul/Documents/OS
anshul@linux-host:~/Documents/OS$
```

cat & grep

```
anshul@linux-host:~/Documents/OS$ cat main.cpp
#include <iostream>

int main()
{
    std::cout << "Hello World, I m Anshul Verma";
    return 0;
}

anshul@linux-host:~/Documents/OS$ grep -i "anshul" main.cpp
    std::cout << "Hello World, I m Anshul Verma";
anshul@linux-host:~/Documents/OS$ grep -i -c "anshul" main.cpp
1
anshul@linux-host:~/Documents/OS$ grep -i -v "anshul" main.cpp
#include <iostream>

int main()
{
    return 0;
}

anshul@linux-host:~/Documents/OS$
```

passwd

```
anshul@linux-host:~/Documents/OS$ passwd
Changing password for anshul.
(current) UNIX password:
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
anshul@linux-host:~/Documents/OS$
```

who

```
anshul@linux-host:~/Documents/OS$ who
anshul  :0                2020-08-25 17:32 (:0)
anshul@linux-host:~/Documents/OS$ who -H
NAME     LINE     TIME           COMMENT
anshul   :0       2020-08-25 17:32 (:0)
anshul@linux-host:~/Documents/OS$ who -q
anshul
# users=1
anshul@linux-host:~/Documents/OS$ who -b
system boot  2020-08-25 17:32
anshul@linux-host:~/Documents/OS$ who -bu
system boot  2020-08-25 17:32
anshul   :0       2020-08-25 17:32 ?           1115 (:0)
anshul@linux-host:~/Documents/OS$ who -a
system boot  2020-08-25 17:32
run-level 5  2020-08-25 17:32
anshul   ? :0       2020-08-25 17:32 ?           1115 (:0)
anshul@linux-host:~/Documents/OS$
```