

ASSIGNMENT-3

ANSWERS FOR PRACTICE QUESTIONS
CYCLE 1

ROLL NO:64

1.Display your current directory.

command: **pwd**

output:

```
ak@ak-Latitude-E4300:~$ pwd
/home/ak
```

2.Change to the /etc directory.

command: **cd /etc**

output:

```
ak@ak-Latitude-E4300:~$ cd /etc
ak@ak-Latitude-E4300:/etc$
```

3.Now,change to your home directory using single commamd.

command: **cd ~**

output:

```
ak@ak-Latitude-E4300:/etc$ cd ~
ak@ak-Latitude-E4300:~$
```

4.Change to the parent directory of the current directory.

command: **cd ..**

output:

```
ak@ak-Latitude-E4300:~$ cd ..
ak@ak-Latitude-E4300:/home$
```

5.Go to the root directory.

command: **cd /**

output:

```
ak@ak-Latitude-E4300:/home$ cd /
ak@ak-Latitude-E4300:/$
```

6. Give a long listing of the root directory.

command: **ls -l /**

output:

```
ak@ak-Latitude-E4300:~$ ls -l /
total 100
drwxr-xr-x  2 root root  4096 Jan 30 22:52 bin
drwxr-xr-x  3 root root  4096 Jan 30 22:54 boot
drwxr-xr-x  2 root root  4096 Jan 30 22:48 cdrom
drwxr-xr-x 20 root root  4300 Feb 21 13:24 dev
drwxr-xr-x 122 root root 12288 Jan 30 22:53 etc
drwxr-xr-x  3 root root  4096 Jan 30 22:48 home
lrwxrwxrwx  1 root root    33 Jan 30 22:49 initrd.img -> boot/initrd.img-4.15.0-29-generic
lrwxrwxrwx  1 root root    33 Jan 30 22:44 initrd.img.old -> boot/initrd.img-4.15.0-29-generic
drwxr-xr-x 21 root root  4096 Jan 30 22:52 lib
drwxr-xr-x  2 root root  4096 Jul 25 2018 lib64
drwx----- 2 root root 16384 Jan 30 22:44 lost+found
drwxr-xr-x  3 root root  4096 Jan 30 23:05 media
drwxr-xr-x  2 root root  4096 Jul 25 2018 mnt
drwxr-xr-x  2 root root  4096 Jul 25 2018 opt
dr-xr-xr-x 232 root root    0 Feb 21 12:57 proc
drwx----- 3 root root  4096 Jul 25 2018 root
drwxr-xr-x 26 root root   760 Feb 21 14:06 run
drwxr-xr-x  2 root root 12288 Jan 30 22:54 sbin
drwxr-xr-x 10 root root  4096 Jan 30 23:00 snap
drwxr-xr-x  2 root root  4096 Jul 25 2018 srv
dr-xr-xr-x  13 root root    0 Feb 21 12:57 sys
drwxrwxrwt 16 root root  4096 Feb 21 14:06 tmp
drwxr-xr-x 10 root root  4096 Jul 25 2018 usr
drwxr-xr-x 14 root root  4096 Jul 25 2018 var
lrwxrwxrwx  1 root root    30 Jan 30 22:49 vmlinuz -> boot/vmlinuz-4.15.0-29-generic
```

7. Give a listing of the last 10 files in the root directory.

command: **ls / | tail**

output:

```
ak@ak-Latitude-E4300:/$ ls / | tail
root
run
sbin
snap
srv
sys
tmp
usr
var
vmlinuz
```

8. Stay where you are, and list the contents of /etc.

command: **ls /etc**

output:

```
ak@ak-Latitude-E4300:/$ ls /etc
acpi                  dconf                hosts                lsb-release          popularity-contest.conf  ssl
adduser.conf          debconf.conf         hosts.allow          ltrace.conf          ppp                   subgid
alternatives          debian_version       hosts.deny           machine-id            profile               subgid-
anacrontab            default              hp                   magic                 profile.d             subuid
apg.conf              deluser.conf         ifplugd             magic.mime            protocols             sudoers
apm                   depmod.d             ImageMagick-6        mailcap               pulse                 sudoers.d
apparmor              dhcp                 init                 mailcap.order         python2.7             sysctl.conf
apparmor.d            dictionaries-common init.d                manpath.config       python3                sysctl.d
appport               dpkg                 initramfs-tools     mime.types            python3.6             systemd
appstream.conf        drirc                inputrc              mke2fs.conf          rc0.d                 terminfo
apt                   emacs                inserv.conf.d       modprobe.d            rc1.d                 thermald
avahi                  environment          iproute2             modules               rc2.d                 thunderbird
bash.bashrc           firefox              issue                modules-load.d        rc3.d                 timezone
bash_completion       fonts                issue.net            mtab                  rc4.d                 tmpfiles.d
bash_completion.d     fstab                kernel               mttools.conf          rc5.d                 ucf.conf
bindresvport.blacklist fuse.conf             kernel-img.conf      nanorc                rc6.d                 udev
binfmt.d              fwupd               kerneloops.conf      netplan               rcS.d                 udisks2
bluetooth             gal.conf            ld.so.cache          NetworkManager        resolvconf            ufw
brlapi.key            gdb                 ld.so.conf           networks               resolv.conf            updatedb.conf
brltty               geoclue              ghostscript          newt                   sane.d                update-manager
brltty.conf           glvnd               gnome                nsswitch.conf         security               update-motd.d
ca-certificates       groff                group                opt                    selinux               update-notifier
ca-certificates.conf groff                grub.d               os-release            sensors3.conf          UPower
calendar              group               gshadow              PackageKit            sensors.d              usb_modeswitch.conf
chatscripts           group               gshadow-             pam.conf              services               usb_modeswitch.d
console-setup          group               gss                  pam.d                 shadow                 vim
cracklib              grub.d              gtk-2.0              passwd                sensors3.conf          vtrgb
cron.d                gshadow             gtk-3.0              passw                 services               wgetrc
cron.daily             gss                 hdpam.conf           pcmcia                 shadow                 wpasupplicant
cron.hourly            gss                 host.conf             logrotate.conf        shells                 xdg
cron.monthly           gss                 hostname              logrotate.d           skel                   zsh_command_not_found
cron.weekly            gss                 hosts                 logrotate.d           speech-dispatcher     ssh
cups                   gss                 hosts                 logrotate.d           speech-dispatcher     ssh
cupsfilters            gss                 hosts                 logrotate.d           speech-dispatcher     ssh
dbus-1                 gss                 hosts                 logrotate.d           speech-dispatcher     ssh
```

9. Create a directory testdir in your home directory.

Command: **mkdir ~/testdir**

output:

```
ak@ak-Latitude-E4300:/$ mkdir ~/testdir
ak@ak-Latitude-E4300:/$ ls ~
Desktop    Downloads    Music    Public    Templates  Videos
Documents  examples.desktop  Pictures  sample.txt  testdir
```

10. Change to the /etc directory, stay there and create a directory newdir in your home directory (using a single command).

Command: **cd etc | mkdir ~/newdir**

output:

```
ak@ak-Latitude-E4300:/$ cd etc | mkdir ~/newdir
ak@ak-Latitude-E4300:/$ ls ~
Desktop    Downloads    Music    Pictures  sample.txt  testdir
Documents  examples.desktop  newdir   Public    Templates  Videos
```

11. Create in one command the directories ~/dir1/dir2/dir3 (dir3 is a subdirectory from dir2, and dir2 is a subdirectory from dir1).

Command: **mkdir -p ~/dir1/dir2/dir3**

output:

```
ak@ak-Latitude-E4300:~$ mkdir -p dir1/dir2/dir3
ak@ak-Latitude-E4300:~$ find dir1
dir1
dir1/dir2
dir1/dir2/dir3
```

12.Display the calendar for April 2019.

command: **cal april 2019**

output:

```
ak@ak-Latitude-E4300:~$ cal april 2019
    April 2019
Su Mo Tu We Th Fr Sa
      1  2  3  4  5  6
 7  8  9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 30
```

13.Display that 'There are files in my current directory'. The should be filled with the count of the files.

Command: **echo "There are `ls | wc -w` in my current directory"**

output:

```
ak@ak-Latitude-E4300:~$ echo "There are `ls | wc -w` in my current directory"
There are 13 in my current directory
ak@ak-Latitude-E4300:~$
```

14.List all the files (including hidden files) in your home directory.

Command: **ls -a ~**

output:

```
ak@ak-Latitude-E4300:~$ ls -a ~
.          .bash_logout  .config  Documents  .gnupg      .mozilla
Pictures  sample.txt    Templates
..         .bashrc       Desktop  Downloads  .ICEauthority Music
.profile  .ssh          testdir
.bash_history .cache        dir1     examples.desktop .local      newdir
Public    .sudo_as_admin_successful  Videos
```

15.Redirect the output of the above command to a new file FileList.txt.

Command: **ls -a ~ >>FileList.txt**

output:

```
ak@ak-Latitude-E4300:~$ ls -a ~ >>FileList.txt
ak@ak-Latitude-E4300:~$ cat FileList.txt
.
..
.bash_history
.bash_logout
.bashrc
.cache
.config
Desktop
dir1
Documents
Downloads
examples.desktop
FileList.txt
.gnupg
.ICEauthority
.local
.mozilla
Music
newdir
Pictures
.profile
Public
sample.txt
.ssh
.sudo_as_admin_successful
Templates
testdir
Videos
```

16.Redirect the number of lines of FileList.txt to CountFile.txt.

Command: **wc -l Filelist.txt >> countfile.txt**

output:

```
ak@ak-Latitude-E4300:~$ wc -l FileList.txt >> countfile.txt
ak@ak-Latitude-E4300:~$ cat countfile.txt
28 FileList.txt
```

17.List all the files in your home directory starting with 's' .

command: **ls | grep s***

output:

```
ak@ak-Latitude-E4300:~$ ls | grep s*
sample.txt
```

18.List all the file-names starting with "a", "b" or "s" .

command: **ls [abs]***

output:

```
abc.txt  bag.txt  sample.txt
ak@ak-Latitude-E4300:~$ ls [abs]*
abc.txt  bag.txt  sample.txt
```

19. Create two files 'Countries.txt', containing country names and their corresponding capital cities and 'Story.txt' contains some arbitrary lines of text.

Command: **nano countries.txt**

nano story.txt

output:

```
ak@ak-Latitude-E4300:~$ nano countries.txt
ak@ak-Latitude-E4300:~$ nano story.txt
ak@ak-Latitude-E4300:~$ cat countries.txt
country      capital
australia    vienna
bangladesh   dhaka
china        beiging
france       paris
india        new delhi
italy        rome
japan        tokyo
pakistan     islamabad
russia       moskow
spain        madrid

ak@ak-Latitude-E4300:~$ cat story.txt
It is the year 1975, when Charlotte Von Sledvin, a 19-year-old student of a Swedish
royal family, travels to India to get a portrait made by a gifted artist. The artist was
born into a poor Indian family of the lowest caste, also known as the
"untouchables." Despite the incredibly difficult circumstances, the artist named
Pradyumna Kumar Mahanandia had gained an outstanding reputation for being a
gifted painter. His reputation led Charlotte Von Sledvin to travel all the way to India to get her portrait done.
```

20. Convert all lowercase characters from 'Story.txt' to uppercase and store it in a file 'Capstory.txt'.

Command: **tr [:lower:] [:upper:] < story.txt >> capstory.txt**

output:

```
ak@ak-Latitude-E4300:~$ tr [:lower:] [:upper:] < story.txt >> capstory.txt
ak@ak-Latitude-E4300:~$ cat capstory.txt
IT IS THE YEAR 1975, WHEN CHARLOTTE VON SLEDVIN, A 19-YEAR-OLD STUDENT OF A SWED
ISH
ROYAL FAMILY, TRAVELS TO INDIA TO GET A PORTRAIT MADE BY A GIFTED ARTIST. THE AR
TIST WAS
BORN INTO A POOR INDIAN FAMILY OF THE LOWEST CASTE, ALSO KNOWN AS THE
"UNTOUCHABLES." DESPITE THE INCREDIBLY DIFFICULT CIRCUMSTANCES, THE ARTIST NAMED
PRADYUMNA KUMAR MAHANANDIA HAD GAINED AN OUTSTANDING REPUTATION FOR BEING A
GIFTED PAINTER. HIS REPUTATION LED CHARLOTTE VON SLEDVIN TO TRAVEL ALL THE WAY T
O INDIA TO GET HER PORTRAIT DONE.
```

21. Toggle the cases in 'Story.txt' and store it in a file 'Togglestory.txt'.

Command: **tr 'A-Za-z' 'a-zA-z' < story.txt >> togglestory.txt**

output:

```
ak@ak-Latitude-E4300:~$ tr 'A-Za-z' 'a-zA-z' < story.txt >> togglestory.txt
ak@ak-Latitude-E4300:~$ cat togglestory.txt
it IS THE year 1975, WHEN charlotte von sledvin, A 19-YEAR-OLD STUDENT OF A swe
dish
ROYAL FAMILY, TRAVELS TO india TO GET A PORTRAIT MADE BY A GIFTED ARTIST. THE AR
TIST WAS
BORN INTO A POOR indian FAMILY OF THE LOWEST CASTE, ALSO KNOWN AS THE
"UNTOUCHABLES." DESPITE THE INCREDIBLY DIFFICULT CIRCUMSTANCES, THE ARTIST NAMED
pRADYUMNA KUMAR mAHANANDIA HAD GAINED AN OUTSTANDING REPUTATION FOR BEING A
GIFTED PAINTER. HIS REPUTATION LED charlotte von sledvin TO TRAVEL ALL THE WAY T
O india TO GET HER PORTRAIT DONE.
```

22.Sort the contents of 'Countries.txt' with Capital as the primary sort key and write the sorted output to 'SortCountry.txt'.

Command: **sort -k2 countries.txt >> sortCountries.txt**

output:

```
ak@ak-Latitude-E4300:~$ sort -k2 countries.txt >> sortCountries.txt
ak@ak-Latitude-E4300:~$ cat sortCountries.txt

china beijing
bangladesh dhaka
pakistan islamabad
spain madrid
russia moskow
india new delhi
france paris
italy rome
japan tokyo
australia vienna
```

23.Display only the capital cities from 'Countries.txt'.

Command: **awk '{print \$2}' countries.txt**

output:

```
ak@ak-Latitude-E4300:~$ awk '{print $2}' countries.txt

vienna
dhaka
beijing
paris
new
rome
tokyo
islamabad
moskow
madrid
```

24.Locate all '.txt' and '.doc' files in the current directory .

Command: **ls *.txt *.doc**

output:

```
ak@ak-Latitude-E4300:~$ ls *.txt *.doc
abc.doc  bag.txt      countries.txt  sortCountries.txt  togglestory.txt
abc.txt  capstory.txt  FileList.txt  sortcountry.txt
a.txt    countfile.txt sample.txt     story.txt
```

25.Count the number of occurrence of 'the' in 'Story.txt'.

Command: **grep -o the countries.txt**

output:

```
ak@ak-Latitude-E4300:~$ grep -o the story.txt | wc -w
6
```

RESULT:

commands for different tasks in the assignment are identified and the output of each command is obtained.