

PRACTICE QUESTIONS -CYCLE 1

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DRISHYA M

ROLL NO:66

S4 CS

Write necessary linux commands for the following. Prepare a report including the question, and screenshot of the command along with the output for each command.

1. Display your current directory.

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ mkdir new_dir1
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ cd new_dir1
jilsha@jilsha-HP-Laptop-15-bs0xx:~/new_dir1$ pwd
/home/jilsha/new_dir1
jilsha@jilsha-HP-Laptop-15-bs0xx:~/new_dir1$ mkdir new_dir1
```

2. Change to the /etc directory.

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~/new_dir1$ cd /etc
jilsha@jilsha-HP-Laptop-15-bs0xx:/etc$ cd ~
```

3. Now, change to your home directory using a single command.

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ cd ~
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ pwd
/home/jilsha
jilsha@jilsha-HP-Laptop-15-bs0xx:~$
```

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

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ cd new_dir1
jilsha@jilsha-HP-Laptop-15-bs0xx:~/new_dir1$ cd ..
jilsha@jilsha-HP-Laptop-15-bs0xx:~$
```

5. Go to the root directory.

```
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ cd /
jilsha@jilsha-HP-Laptop-15-bs0xx:/$ pwd
/
jilsha@jilsha-HP-Laptop-15-bs0xx:/$
```

6. Give a long listing of the root directory.

```
jilsha@jilsha-HP-Laptop-15-bs0xx:/$ ls -la
total 2097264
drwxr-xr-x 24 root root      4096 Sep 15 00:16 .
drwxr-xr-x 24 root root      4096 Sep 15 00:16 ..
drwxr-xr-x  2 root root      4096 Sep 15 00:25 bin
drwxr-xr-x  4 root root      4096 Sep 15 00:27 boot
drwxr-xr-x  2 root root      4096 Sep 15 00:14 cdrom
drwxr-xr-x 20 root root     4560 Feb 20 18:43 dev
drwxr-xr-x 126 root root    12288 Feb 13 22:05 etc
drwxr-xr-x  3 root root      4096 Sep 15 00:15 home
lrwxrwxrwx  1 root root           33 Sep 15 00:16 initrd.img -> boot/initrd.img-4.15.0-29-generic
lrwxrwxrwx  1 root root           33 Sep 15 00:12 initrd.img.old -> boot/initrd.img-4.15.0-29-generic
drwxr-xr-x 21 root root      4096 Sep 15 00:25 lib
drwxr-xr-x  2 root root      4096 Jul 25 2018 lib64
drwx----- 2 root root    16384 Sep 15 00:12 lost+found
drwxr-xr-x  3 root root      4096 Sep 15 06:15 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 257 root root         0 Feb 20 18:43 proc
drwx----- 4 root root      4096 Sep 17 21:24 root
drwxr-xr-x 28 root root       780 Feb 20 19:55 run
drwxr-xr-x  2 root root    12288 Sep 15 00:27 sbin
drwxr-xr-x 12 root root      4096 Feb 18 14:40 snap
drwxr-xr-x  2 root root      4096 Jul 25 2018 srv
-rw----- 1 root root 2147483648 Sep 15 00:12 swapfile
dr-xr-xr-x 13 root root         0 Feb 20 18:43 sys
drwxrwxrwt 17 root root      4096 Feb 20 19:57 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 Sep 15 00:16 vmlinuz -> boot/vmlinuz-4.15.0-29-generic
```

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

```
jilsha@jilsha-HP-Laptop-15-bs0xx:/$ ls | tail
run
sbin
snap
srv
swapfile
sys
tmp
usr
var
vmlinuz
jilsha@jilsha-HP-Laptop-15-bs0xx:/$ ls /etc
```

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

```
jilsha@jilsha-HP-Laptop-15-bs0xx:/$ ls /etc
acpi                  ca-certificates.conf  dkms                  gshadow-             java-11-oracle         logrotate.d           nsswitch.conf         python3               services              ucf.conf
adduser.conf          calendar               dpkg                  gss                   kernel                 lsb-release           opt                   python3.6             shadow               udev
alternatives          chatscripts            drirc                 gtk-2.0               kernel-img.conf        ltrace.conf           os-release            rc0.d                 shadow-udisks2
anacrontab            console-setup          emacsv                gtk-3.0               kernel-loops.conf      machine-id             PackageKit            rc1.d                 shells                ufw
app.conf              crackmapexec           environment           hdparm.conf           ld.so.cache            magic                  pan.conf              rc2.d                 skel                  updatedb.conf
apm                   cron.d                 Firefox              host.conf              ld.so.conf              magic.mime             pan.d                 rc3.d                 speech-dispatcher    update-manager
apparmor              cron.daily             fonts                 hostname               ld.so.conf.d            mailcap                papersize             rc4.d                 ssh                   update-notifier
apparmor.d            cron.hourly            fstab                 hosts                  ld.so.conf.d            manpath.conf          passwd                rc5.d                 ssl                   update-notifier
appstream.conf        cron.monthly           fuse.conf             hosts.allow            legal                   mangle.types          pcnctia               rc6.d                 subgid               UPower
apt                   cron.weekly            gdm.conf             hosts.deny             libao.conf              mime.types             pcnctia               rcS.d                 subuid               usb_modeswitch.conf
avahi                  cups                   gdm.conf             hp                      libaudit.conf           mke2fs.conf           perl                  resolvconf            subuid               usb_modeswitch.d
bash.bashrc           dbus-1                 gdm.conf             ifplugd                libblockdev             modprobe.d             pkg                    resolv.conf           subuid               vdpau_wrapper.cfg
bash_completion       dbus-1                 gdm.conf             ImageMagick-6          libl-3                  modules                pm                     rmt                   sudoers              vlm
bash_completion.d     dconf                  gdm.conf             init                    libpaper.d              modules-load.d         pnm2ppa.conf          rpc                    sudoers.d            vtrgb
bindresvport.blacklist debconf.conf           gdm.conf             initranfs-tools        libtiff                  nttools.conf           polkit-1              rsyslog.conf          sysctl.conf          wgetrc
bluetooth             default                gdm.conf             initscripts            libtiff                  nttools.conf           popularity-contest.conf rsyslog.d             sysctl.d             whoopsie
brlapi.key            deluser.conf           gdm.conf             inserv.conf.d          libtiff                  nttools.conf           profile               sane.d               systemd             wpasupplicant
brltty                dhcpcd                 gdm.conf             issue                  libtiff                  nttools.conf           profile.d             security             termInfo            xdg
brltty.conf           dhcp                   gdm.conf             issue.net               libtiff                  nttools.conf           protocols             selinux              thunderbird         zsh_command_not_found
ca-certificates       dictionaries-common    gdm.conf             java-11-openjdk        logrotate.conf           newt                    python2.7             sensors3.conf         tmpfiles.d
jilsha@jilsha-HP-Laptop-15-bs0xx:/$
```

9. Create a directory testdir in your home directory.

Command: mkdir testdir

```
jilsha@jilsha-HP-Laptop-15-bs0xx:/$ cd -
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ mkdir testdir
jilsha@jilsha-HP-Laptop-15-bs0xx:~$ ls
Android  AndroidStudioProjects  a.out  appu.sh  carray.c  creat.c  Desktop  Downloads  etc  examples.desktop  file123  file34.sh  file456  firstinsarray.c  index.html  infixtopostfix.c  insarray.c  ins.c  insertion.c  linkcreat.c  linkedcreat.c  linkedcreat.c.save  linkedlist.c  merg.c  multiple_stack.c  Music  nano.save  new  new13  new33  new_dir  new_file1.sh  new_file.sh  new_repo  new_repo  pgm1.c  pgm2.c  pgm3.c  pgm4.c  pgm.c  Pictures  Public  restricted_deque.c  restricted_dequeue.c  reverse.c  reverse_double.c  snap  springcopy.c  stack.c  stackwithoutpointer.c  stringcompare.c  struct.c  tast13  templates  Videos  test10  test12  test13  test3  testdir
```

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

```
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ cd /etc
ubuntu@ubuntu-HP-Laptop-15-bs1xx:/etc$ mkdir ~/newdir
ubuntu@ubuntu-HP-Laptop-15-bs1xx:/etc$ cd ~
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ ls
a.out  Documents  Desktop  Downloads  examples.desktop  foss  graph1.c  graph1.c.save  Music  new  newdir  one  Pictures  Public  symlink  string.c  testing  testdir  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).

```
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ mkdir -p ~/dir1/dir2/dir3
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ ls dir1
dir2
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ ls dir1/dir2
dir3
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$
```

12. Display the calendar for April 2019.

```
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ 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.

```
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ echo There are $(ls | wc -l) files in my current directory
There are 37 files in my current directory
```

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

```
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ ls -a ~
.          dirl          ls.doc          string.c
..         .dmrc          mult_stack.c    s.txt
a.out      Documents      Music           .sudo_as_admin_successful
.bash_history Downloads      .nano          symlink
.bash_logout examples.desktop new            Templates
.bashrc    FileList.txt  newdir         testdir
bst.c      foss         one            testing
.cache     .gconf       Pictures       test.txt
Capstory.txt .gnupg       .profile      tet.txt
.compiz    graph1.c     Public         Togglestory.txt
.config    graph1.c.save set            Videos
CountFile.txt graph.c      show          .Xauthority
Countries.txt .ICEauthority SortCountry.txt .xsession-errors
Desktop    .local      Story.txt     .xsession-errors.old
```

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

```
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ ls -a ~ > Filelist.txt
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ cat Filelist.txt
.
..
allu
anju
anu
a.out
appu
.bash_history
.bash_logout
.bashrc
bst.c
.cache
capstory.txt
Capstory.txt
.compiz
.config
countfile.txt
CountFile.txt
countries.txt
Countries.txt
Desktop
dirl
.dmrc
Documents
Downloads
dr1
```

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

```
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ (wc -l < Filelist.txt) > Countfile.txt
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ cat Countfile.txt
72
```

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

```
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ ls s*
set  show  string.c  s.txt  symlink
```

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

```
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ ls [abs]*
a.out  bst.c  set  show  string.c  s.txt  symlink
```

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

```
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ nano Countries.txt
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ cat Countries.txt
Albania Tirana
Bahrain Manama
France Paris
India NewDelhi
Cuba Havana
Peru Lima
Serbia Belgrade
Mexico Mexico City
Kuwait Kuwait City
Denmark Copenhagen
Nepal Kathmandu
Uruguay Montevideo

ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ nano Story.txt
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ cat Story.txt
Once upon a time there was a rose who was very proud of her beautiful looks.
Her only dissappointment was that she grew next to an ugly cactus.
One summer ,the well present in the garden grew dry and there was no water for the plants.
The rose began to wilt.
```

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

```
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ (tr a-z A-Z < Story.txt) > Capstory.txt
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ cat Capstory.txt
ONCE UPON A TIME THERE WAS A ROSE WHO WAS VERY PROUD OF HER BEAUTIFUL LOOKS.
HER ONLY DISSAPPOINTMENT WAS THAT SHE GREW NEXT TO AN UGLY CACTUS.
ONE SUMMER ,THE WELL PRESENT IN THE GARDEN GREW DRY AND THERE WAS NO WATER FOR T
HE PLANTS.
THE ROSE BEGAN TO WILT.
```

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

```
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ (tr 'a-zA-Z' 'A-Za-z' < Story.txt) > Togglestory.txt
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ cat Togglestory.txt
ONCE UPON A TIME THERE WAS A ROSE WHO WAS VERY PROUD OF HER BEAUTIFUL LOOKS.
hER ONLY DISSAPPOINTMENT WAS THAT SHE GREW NEXT TO AN UGLY CACTUS.
ONE SUMMER ,THE WELL PRESENT IN THE GARDEN GREW DRY AND THERE WAS NO WATER FOR THE PLANTS.
tHE ROSE BEGAN TO WILT.
```

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

```
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ (sort -k2 Countries.txt) > SortCountry.txt
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ cat SortCountry.txt

Serbia    Belgrade
Denmark   Copenhagen
Cuba      Havana
Nepal     Kathmandu
Kuwait    Kuwait City
Peru      Lima
Bahrain   Manama
Mexico    Mexico City
Uruguay   Montevideo
India     NewDelhi
France    Paris
Albania   Tirana
```

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

```
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ awk '{print $2}' Countries.txt
Tirana
Manama
Paris
NewDelhi
Havana
Lima
Belgrade
Mexico
Kuwait
Copenhagen
Kathmandu
Montevideo
```

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

```
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ find . type f \( -name "*.txt" -o -name "*.doc" \)
./Capstory.txt
./.config/libreoffice/4/user/uno_packages/cache/log.txt
./FileList.txt
./CountFile.txt
./Togglestory.txt
./tet.txt
./SortCountry.txt
./ls.doc
./Countries.txt
./Story.txt
./s.txt
./test.txt
find: 'type': No such file or directory
find: 'f': No such file or directory
```

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

```
ubuntu@ubuntu-HP-Laptop-15-bs1xx:~$ grep -o the Story.txt | wc -l
5
```

CONCLUSION:

Practical cycle1 have been completed using ubuntu 16.04 and output obtained.