

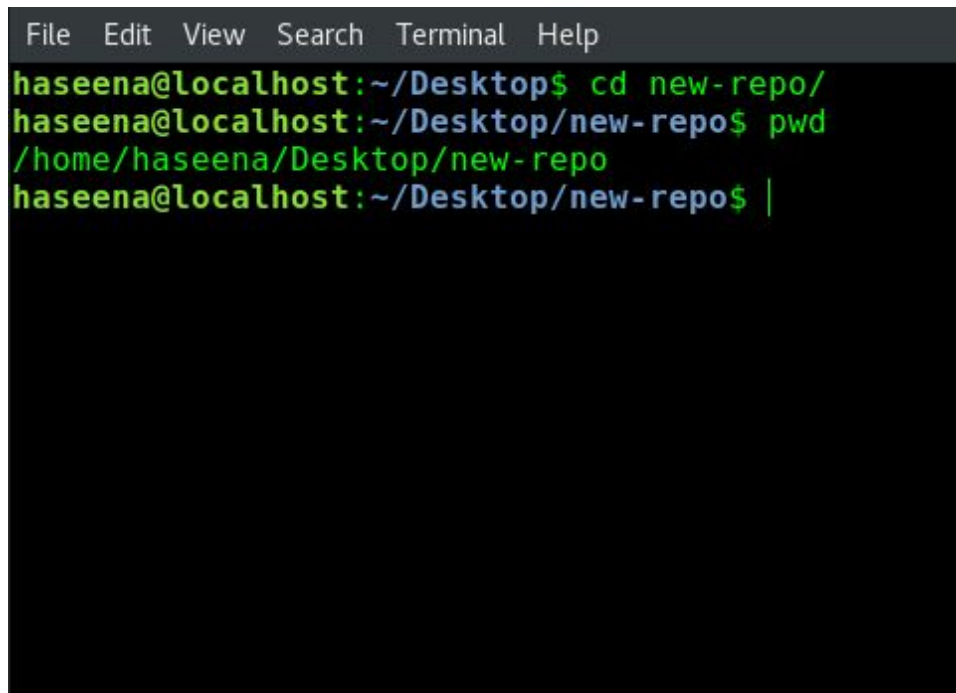
**EXPT NO : 4**

## **REPORT**

**DATE :22/02/2019**

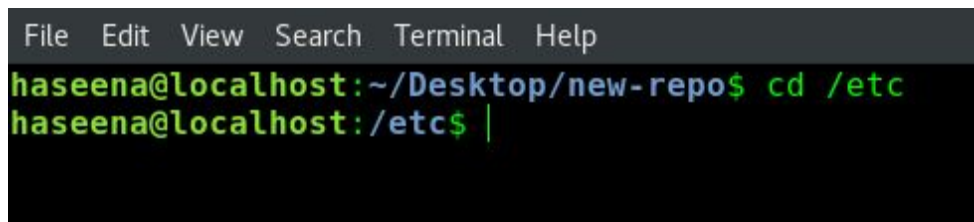
**AIM : To use the basic linux commands to do various operations as listed below.**

1. Display your current directory.

A terminal window with a dark background and a menu bar at the top containing 'File', 'Edit', 'View', 'Search', 'Terminal', and 'Help'. The terminal shows the following commands and output: 'haseena@localhost:~/Desktop\$ cd new-repo/' followed by 'haseena@localhost:~/Desktop/new-repo\$ pwd' which outputs '/home/haseena/Desktop/new-repo'. The prompt then changes to 'haseena@localhost:~/Desktop/new-repo\$ |' and a vertical cursor is visible.

```
File Edit View Search Terminal Help
haseena@localhost:~/Desktop$ cd new-repo/
haseena@localhost:~/Desktop/new-repo$ pwd
/home/haseena/Desktop/new-repo
haseena@localhost:~/Desktop/new-repo$ |
```

2. Change to the /etc directory.

A terminal window with a dark background and a menu bar at the top containing 'File', 'Edit', 'View', 'Search', 'Terminal', and 'Help'. The terminal shows the following commands and output: 'haseena@localhost:~/Desktop/new-repo\$ cd /etc' followed by 'haseena@localhost:/etc\$ |' and a vertical cursor is visible.

```
File Edit View Search Terminal Help
haseena@localhost:~/Desktop/new-repo$ cd /etc
haseena@localhost:/etc$ |
```

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

```
haseena@localhost:~/Desktop/new-repo$ cd ~
haseena@localhost:/home$ pwd
/home
haseena@localhost:/home$
```

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

```
haseena@localhost:~/Desktop/new-repo$ pwd
/home/haseena/Desktop/new-repo
haseena@localhost:~/Desktop/new-repo$ cd ..
haseena@localhost:~/Desktop$ pwd
/home/haseena/Desktop
haseena@localhost:~/Desktop$ |
```

5. Go to the root directory.

```
haseena@localhost:~/Desktop/new-repo$ cd /
haseena@localhost:/$ pwd
/
haseena@localhost:/$ |
```

6. Give a long listing of the root directory.

```
File Edit View Search Terminal Help
haseena@localhost:/$ ls -la
total 96
drwxr-xr-x 23 root root 4096 Feb 17 18:25 .
drwxr-xr-x 23 root root 4096 Feb 17 18:25 ..
drwxr-xr-x 2 root root 4096 Feb 20 12:53 bin
drwxr-xr-x 4 root root 4096 Feb 17 18:32 boot
drwx----- 2 root root 4096 Feb 17 18:25 .cache
drwxr-xr-x 19 root root 3200 Feb 22 19:45 dev
drwxr-xr-x 122 root root 12288 Feb 22 22:13 etc
drwxr-xr-x 4 root root 4096 Feb 17 18:33 home
lrwxrwxrwx 1 root root 29 Feb 17 17:32 initrd.img -> boot/initrd.img-4.9.0-8-amd64
lrwxrwxrwx 1 root root 29 Feb 17 17:32 initrd.img.old -> boot/initrd.img-4.9.0-8-amd64
drwxr-xr-x 16 root root 4096 Feb 17 18:23 lib
drwxr-xr-x 2 root root 4096 Feb 17 17:24 lib64
drwx----- 2 root root 16384 Feb 17 17:23 lost+found
drwxr-xr-x 4 root root 4096 Feb 17 18:37 media
drwxr-xr-x 2 root root 4096 Feb 17 17:23 mnt
drwxr-xr-x 2 root root 4096 Feb 17 17:23 opt
dr-xr-xr-x 222 root root 0 Feb 22 19:45 proc
drwx----- 6 root root 4096 Feb 20 14:38 root
drwxr-xr-x 22 root root 640 Feb 22 22:13 run
drwxr-xr-x 2 root root 4096 Feb 20 12:53 sbin
drwxr-xr-x 2 root root 4096 Feb 17 17:23 srv
dr-xr-xr-x 13 root root 0 Feb 22 23:14 sys
drwxrwxrwt 15 root root 4096 Feb 22 23:13 tmp
drwxr-xr-x 10 root root 4096 Feb 17 17:23 usr
drwxr-xr-x 11 root root 4096 Feb 17 17:23 var
lrwxrwxrwx 1 root root 26 Feb 17 17:32 vmlinuz -> boot/vmlinuz-4.9.0-8-amd64
lrwxrwxrwx 1 root root 26 Feb 17 17:32 vmlinuz.old -> boot/vmlinuz-4.9.0-8-amd64
haseena@localhost:/$ |
```

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

```
haseena@localhost:~/Desktop/new-repo$ ls / | tail -10
root
run
sbin
srv
sys
tmp
usr
var
vmlinuz
vmlinuz.old
haseena@localhost:~/Desktop/new-repo$ |
```

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

```

haseena@localhost:~/Desktop/new-repo$ ls ../etc
adduser.conf      default          hosts            logrotate.d
alternatives      deluser.conf    hosts.allow     machine-id
anacrontab        dhcp            hosts.deny      magic
apache2           dictionaries-common  hotplug        magic.mime
apg.conf          discover.conf.d hp              mailcap
apm               discover-modprobe.conf  icedtea-web    mailcap.ord
apparmor.d        dleyna-server-service.conf  ifplugd        manpath.conf
appstream.conf    dpkg            ImageMagick-6   mime.types
apt               drirc           init            mke2fs.conf
avahi             emacs           initramfs-tools  modprobe.d
bash.bashrc       environment     inputrc         modules
bash_completion   firefox-esr     insserv.conf.d  modules-lob
bash_completion.d fonts            iproute2        motd
bindresvport.blacklist  foomatic       java            mtab
binfmt.d          fstab           java-8-openjdk  nanorc
bluetooth         fuse.conf       kernel          netcsid.co
bogofilter.cf     gai.conf        kernel-img.conf network
ca-certificates   gdm3            ld.so.cache     NetworkMana
ca-certificates.conf geoclue         ld.so.conf      networks
calendar          ghostscript     ldap            newt
chatscripts       gimp            ld.so.conf      nsswitch.co
chromium          gnome           ld.so.conf      openal
console-setup     gnome-chess     ld.so.conf      opt

```

9. Create a directory testdir in your home directory.

```

File Edit View Search Terminal Help
haseena@localhost:~/Desktop/new-repo$ mkdir ~/testdir
haseena@localhost:~/Desktop/new-repo$ ls ~/
Desktop  Downloads  Pictures  script1.sh  testdir
Documents Music      Public    Templates  Videos
haseena@localhost:~/Desktop/new-repo$ |

```

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

```
File Edit View Search Terminal Help
haseena@localhost:~$ cd /etc
haseena@localhost:/etc$ mkdir ~/newdir
haseena@localhost:/etc$ cd ~
haseena@localhost:~$ ls
Desktop    Downloads  newdir     Public     Templates  Videos
Documents  Music      Pictures   script1.sh testdir
haseena@localhost:~$ |
```

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

```
File Edit View Search Terminal Help
haseena@localhost:~$ mkdir -p ~/dir1/dir2/dir3
haseena@localhost:~$ ls dir1
dir2
haseena@localhost:~$ ls dir1/dir2
dir3
haseena@localhost:~$ |
```

12. Display the calendar for April 2019.



```
File Edit View Search Terminal Help
haseena@localhost:~$ cal 4 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

haseena@localhost:~$ |
```

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

```
File Edit View Search Terminal Help
haseena@localhost:~$ echo There are $(ls | wc -l) files in my current directory
There are 12 files in my current directory
haseena@localhost:~$ ls
Desktop  Documents  Music      Pictures  script1.sh  testdir
dir1     Downloads  newdir     Public    Templates   Videos
haseena@localhost:~$ |
```

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

```
File Edit View Search Terminal Help
haseena@localhost:~$ ls -a
.      .bashrc  dir1      .ICEauthority  .nano      Public      testdir
..     .cache   Documents .local          newdir     script1.sh  Videos
.bash_history  .config  Downloads .mozilla        Pictures   .ssh
.bash_logout   Desktop  .gnupg    Music           .profile  Templates
haseena@localhost:~$ |
```

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

```
File Edit View Search Terminal Help
haseena@localhost:~$ nano FileList.txt
haseena@localhost:~$ ls -a > FileList.txt
haseena@localhost:~$ |
```

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

```
File Edit View Search Terminal Help
haseena@localhost:~$ nano FileList.txt
haseena@localhost:~$ ls -a > FileList.txt
haseena@localhost:~$ touch CountFiles.txt
haseena@localhost:~$ wc -l FileList.txt > CountFiles.txt
haseena@localhost:~$ cat CountFiles.txt
34 FileList.txt
haseena@localhost:~$ |
```

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

```
File Edit View Search Terminal Help
haseena@localhost:~$ ls s*
script1.sh script.ssh setvalue symlink
haseena@localhost:~$ |
```

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

```
File Edit View Search Terminal Help
haseena@localhost:~$ ls
absolute_path.c  Countries.txt  Documents      newdir         script.ssh     Templates
bash-script.c    Count.txt     Downloads      Pictures       setvalue       testdir
CountFiles.txt   Desktop       FileList.txt   Public         Story.txt      Videos
CountFile.txt    dir1          Music          script1.sh     symlink
haseena@localhost:~$ ls [abs]*
absolute_path.c  bash-script.c  script1.sh     script.ssh     setvalue       symlink
haseena@localhost:~$ |
```

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

```
File Edit View Search Terminal Help
haseena@localhost:~$ nano Countries.txt
haseena@localhost:~$ cat Countries.txt
India           NewDelhi
Argentina       BuenosAires
Armenia         Yerevan
Australia       Canberra
Austria         Vienna
Azerbaijan      Baku
The Bahamas     Nassau
Bahrain         Manama
Bangladesh      Dhaka
Barbados        Bridgetown
Belarus         Minsk
Belgium         Brussels
haseena@localhost:~$ nano Story.txt
haseena@localhost:~$ cat Story.txt
There was once two brothers who lived on the edge of a forest. The elder
brother was very mean to his younger brother and ate up all the food and took
all his good clothes. One day, the elder brother went into the forest to find
some firewood to sell in the market. As he went around chopping the branches
of a tree after tree, he came upon a magical tree.
haseena@localhost:~$ |
```

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



```
File Edit View Search Terminal Help
haseena@localhost:~$ (tr a-z A-Z < Story.txt) > Capstory.txt
haseena@localhost:~$ cat Capstory.txt
THERE WAS ONCE TWO BROTHERS WHO LIVED ON THE EDGE OF A FOREST. THE ELDER
BROTHER WAS VERY MEAN TO HIS YOUNGER BROTHER AND ATE UP ALL THE FOOD AND TOOK
ALL HIS GOOD CLOTHES. ONE DAY, THE ELDER BROTHER WENT INTO THE FOREST TO FIND
SOME FIREWOOD TO SELL IN THE MARKET. AS HE WENT AROUND CHOPPING THE BRANCHES
OF A TREE AFTER TREE, HE CAME UPON A MAGICAL TREE.
haseena@localhost:~$ |
```

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

```
File Edit View Search Terminal Help
haseena@localhost:~$ (tr 'a-zA-Z' 'A-Za-z' < Story.txt) > Togglestory.txt
haseena@localhost:~$ cat Togglestory.txt
tHERE WAS ONCE TWO BROTHERS WHO LIVED ON THE EDGE OF A FOREST. tHE ELDER
BROTHER WAS VERY MEAN TO HIS YOUNGER BROTHER AND ATE UP ALL THE FOOD AND TOOK
ALL HIS GOOD CLOTHES. oNE DAY, THE ELDER BROTHER WENT INTO THE FOREST TO FIND
SOME FIREWOOD TO SELL IN THE MARKET. aS HE WENT AROUND CHOPPING THE BRANCHES
OF A TREE AFTER TREE, HE CAME UPON A MAGICAL TREE.
haseena@localhost:~$ |
```

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

```
File Edit View Search Terminal Help
haseena@localhost:~$ nano Countries.txt
haseena@localhost:~$ (sort -k2 Countries.txt) > SortCountry.txt
haseena@localhost:~$ 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
haseena@localhost:~$ |
```

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

```
File Edit View Search Terminal Help
haseena@localhost:~$ awk '{print $2}' Countries.txt
NewDelhi
BuenosAires
Yerevan
Canberra
Vienna
Baku
Bahamas
Manama
Dhaka
Bridgetown
Minsk
Brussels
haseena@localhost:~$ |
```

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

```
File Edit View Search Terminal Help
haseena@localhost:~$ find . type f \( -name "*.txt" -o -name "*.doc" \)
./Desktop/new-repo/features.txt
./config/libreoffice/4/user/uno_packages/cache/log.txt
./Story.txt
./SortCountry.txt
./FileList.txt
./Countries.txt
./Count.txt
./mozilla/firefox/sbtk0n7a.default/SiteSecurityServiceState.txt
./mozilla/firefox/sbtk0n7a.default/TRRBlacklist.txt
./mozilla/firefox/sbtk0n7a.default/pkcs11.txt
./mozilla/firefox/sbtk0n7a.default/SecurityPreloadState.txt
./mozilla/firefox/sbtk0n7a.default/AlternateServices.txt
./mozilla/firefox/sbtk0n7a.default/revocations.txt
./CountFiles.txt
./CountFile.txt
./Capstory.txt
./Togglestory.txt
./cache/tracker/db-version.txt
./cache/tracker/first-index.txt
./cache/tracker/locale-for-miner-apps.txt
./cache/tracker/last-crawl.txt
./cache/tracker/locale-for-miner-user-guides.txt
./cache/tracker/db-locale.txt
./cache/tracker/parser-sha1.txt
find: 'type': No such file or directory
find: 'f': No such file or directory
haseena@localhost:~$ |
```

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

```
File Edit View Search Terminal Help
haseena@localhost:~$ grep -o the Story.txt | wc -l
11
haseena@localhost:~$ |
```

## CONCLUSION

Basic regular expression commands were used to manipulate string operations within files using grep, awk etc. Also familiarised with the basic directory commands with shortcuts.





