

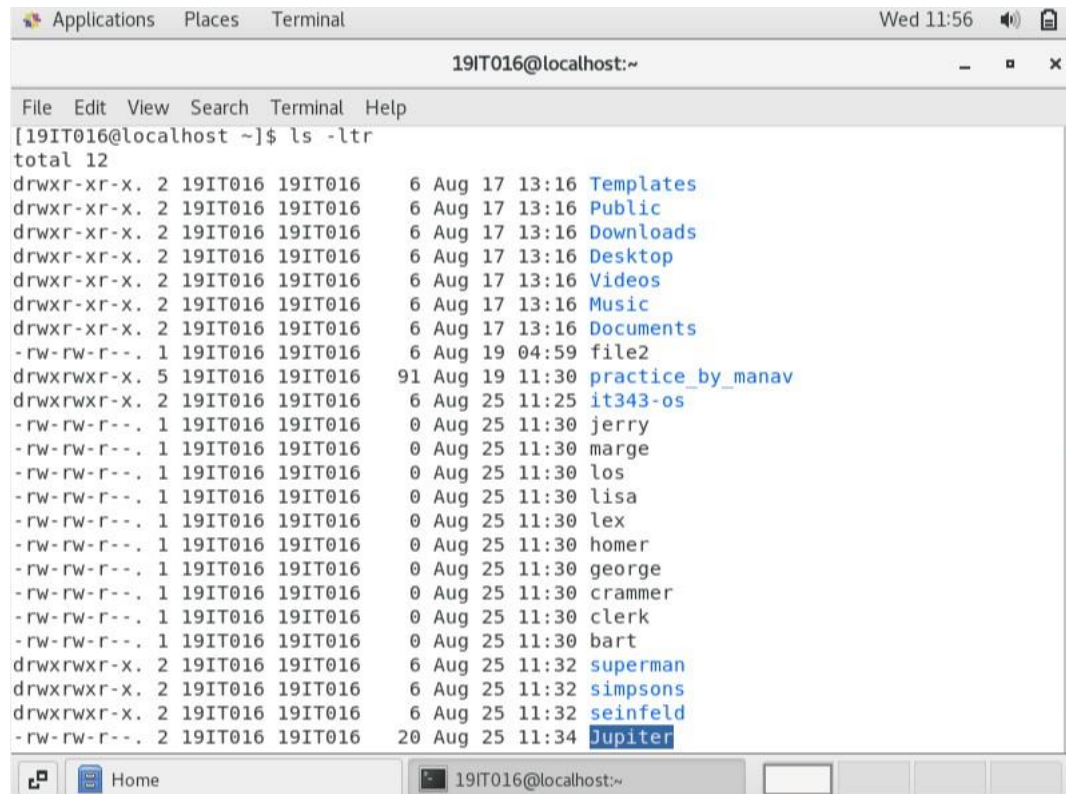
## PRACTICAL-3

**Aim:** To perform various operations using linux terminal commands.

1. List files in your home directory by the last time they were modified

**COMMAND:** ls -ltr

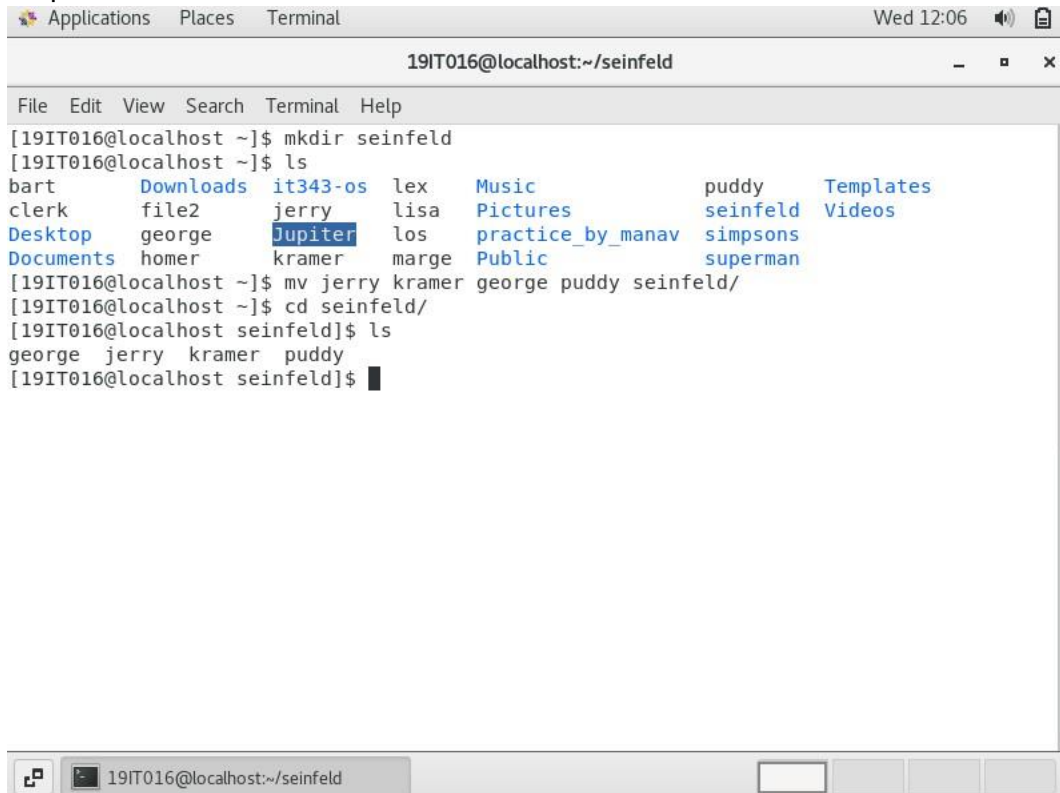
**OUTPUT:**



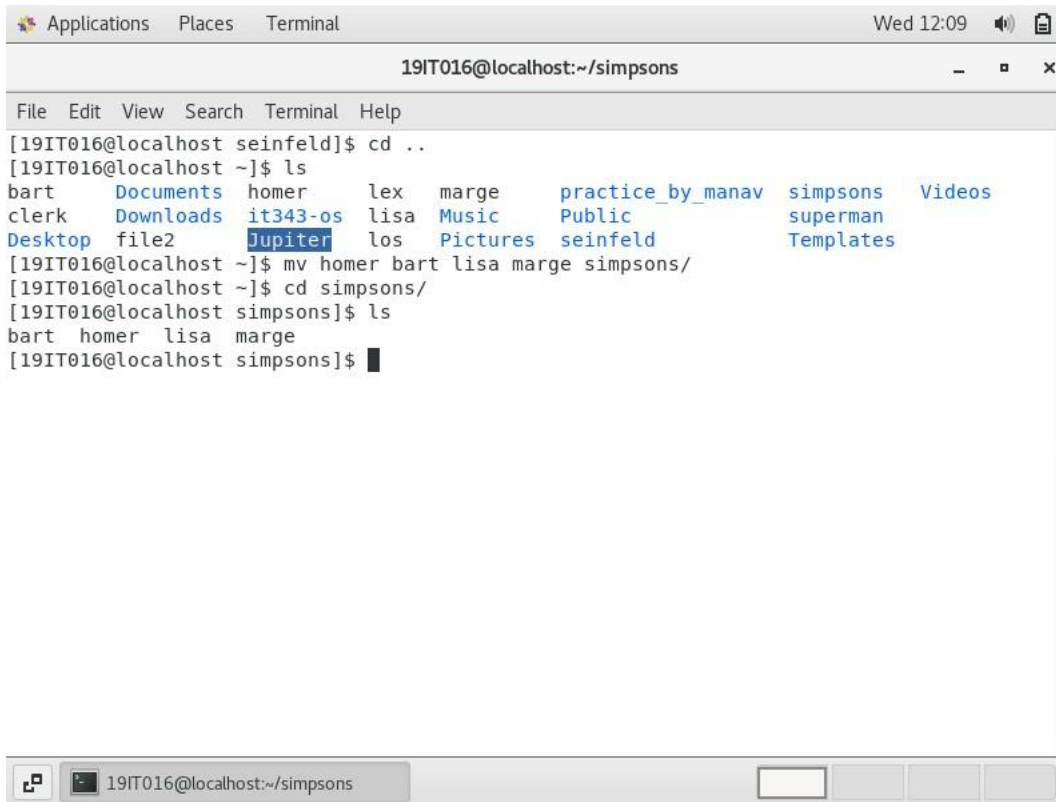
```
19IT016@localhost:~  
[19IT016@localhost ~]$ ls -ltr  
total 12  
drwxr-xr-x. 2 19IT016 19IT016  6 Aug 17 13:16 Templates  
drwxr-xr-x. 2 19IT016 19IT016  6 Aug 17 13:16 Public  
drwxr-xr-x. 2 19IT016 19IT016  6 Aug 17 13:16 Downloads  
drwxr-xr-x. 2 19IT016 19IT016  6 Aug 17 13:16 Desktop  
drwxr-xr-x. 2 19IT016 19IT016  6 Aug 17 13:16 Videos  
drwxr-xr-x. 2 19IT016 19IT016  6 Aug 17 13:16 Music  
drwxr-xr-x. 2 19IT016 19IT016  6 Aug 17 13:16 Documents  
-rw-rw-r--. 1 19IT016 19IT016  6 Aug 19 04:59 file2  
drwxrwxr-x. 5 19IT016 19IT016 91 Aug 19 11:30 practice_by_manav  
drwxrwxr-x. 2 19IT016 19IT016  6 Aug 25 11:25 it343-os  
-rw-rw-r--. 1 19IT016 19IT016  0 Aug 25 11:30 jerry  
-rw-rw-r--. 1 19IT016 19IT016  0 Aug 25 11:30 marge  
-rw-rw-r--. 1 19IT016 19IT016  0 Aug 25 11:30 los  
-rw-rw-r--. 1 19IT016 19IT016  0 Aug 25 11:30 lisa  
-rw-rw-r--. 1 19IT016 19IT016  0 Aug 25 11:30 lex  
-rw-rw-r--. 1 19IT016 19IT016  0 Aug 25 11:30 homer  
-rw-rw-r--. 1 19IT016 19IT016  0 Aug 25 11:30 george  
-rw-rw-r--. 1 19IT016 19IT016  0 Aug 25 11:30 crammer  
-rw-rw-r--. 1 19IT016 19IT016  0 Aug 25 11:30 clerk  
-rw-rw-r--. 1 19IT016 19IT016  0 Aug 25 11:30 bart  
drwxrwxr-x. 2 19IT016 19IT016  6 Aug 25 11:32 superman  
drwxrwxr-x. 2 19IT016 19IT016  6 Aug 25 11:32 simpsons  
drwxrwxr-x. 2 19IT016 19IT016  6 Aug 25 11:32 seinfeld  
-rw-rw-r--. 2 19IT016 19IT016 20 Aug 25 11:34 Jupiter
```

**2. Move jerry, george, kramer and puddy files into seinfeld directory****COMMAND:** mv george jerry kramer seinfeld

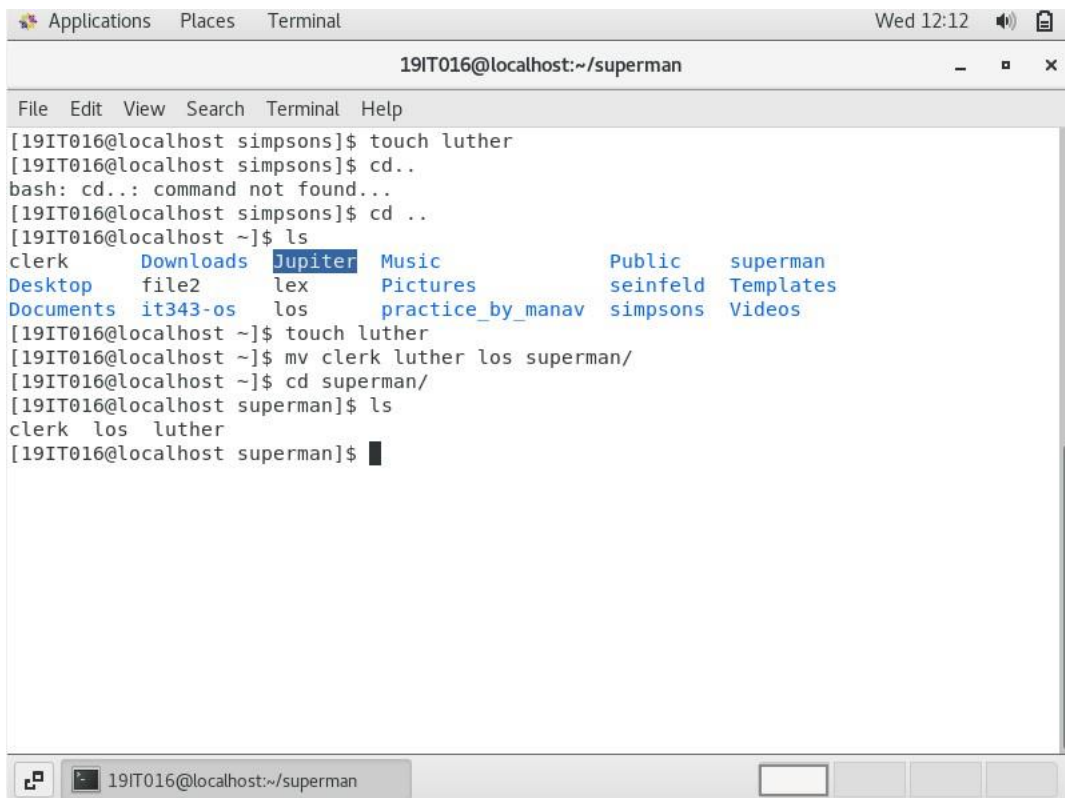
Output:



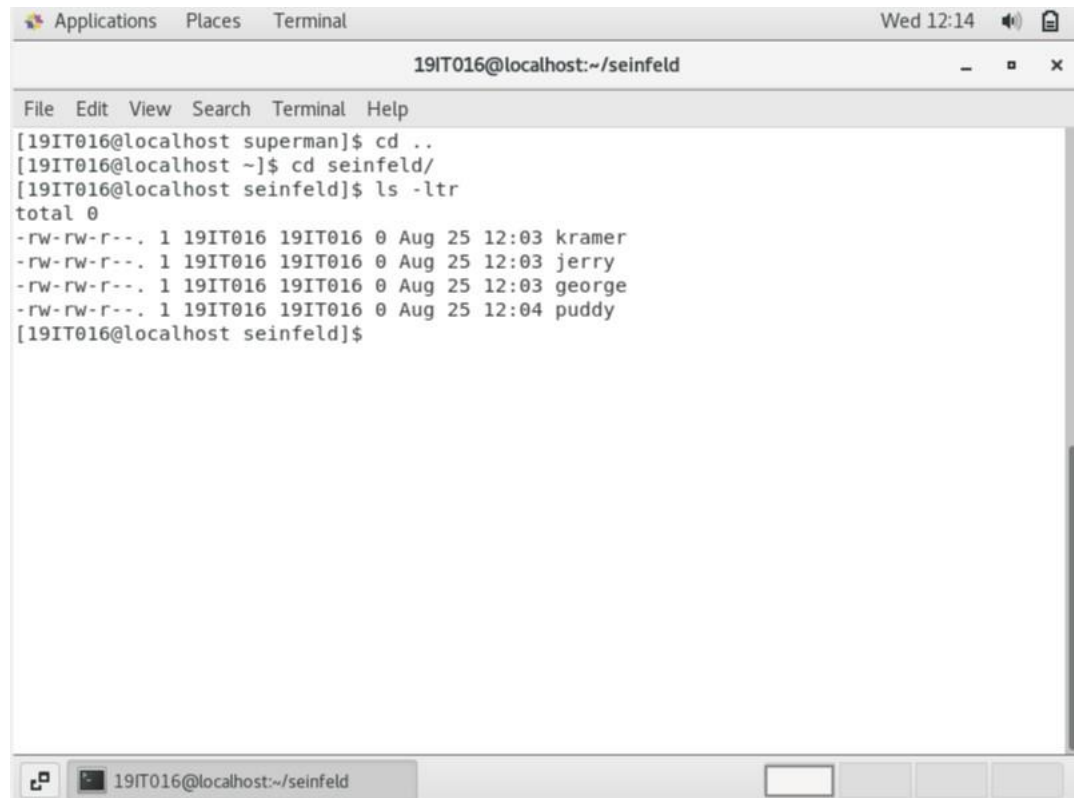
```
19IT016@localhost:~/seinfeld
File Edit View Search Terminal Help
[19IT016@localhost ~]$ mkdir seinfeld
[19IT016@localhost ~]$ ls
bart      Downloads  it343-os  lex      Music      puddy     Templates
clerk     file2      jerry     lisa     Pictures   seinfeld  Videos
Desktop   george     Jupiter   los      practice_by_manav simpsons
Documents homer      kramer    marge   Public     superman
[19IT016@localhost ~]$ mv jerry kramer george puddy seinfeld/
[19IT016@localhost ~]$ cd seinfeld/
[19IT016@localhost seinfeld]$ ls
george jerry kramer puddy
[19IT016@localhost seinfeld]$
```

**3. Move homer, bart, marge, lisa files in simpsons directory****COMMAND:** mv bart marge lisa simpsons**OUTPUT:**

```
19IT016@localhost:~/simpsons
File Edit View Search Terminal Help
[19IT016@localhost seinfeld]$ cd ..
[19IT016@localhost ~]$ ls
bart    Documents  homer      lex      marge    practice_by_manav  simpsons  Videos
clerk   Downloads  it343-os  lisa    Music    Public             superman
Desktop file2      jupiter  los     Pictures seinfeld           Templates
[19IT016@localhost ~]$ mv homer bart lisa marge simpsons/
[19IT016@localhost ~]$ cd simpsons/
[19IT016@localhost simpsons]$ ls
bart homer lisa marge
[19IT016@localhost simpsons]$
```

**4. Move clark, luther and lois files in superman directory****COMMAND:** mv clark luther lois superman**OUTPUT:**

```
Applications  Places  Terminal  Wed 12:12
19IT016@localhost:~/superman
File Edit View Search Terminal Help
[19IT016@localhost simpsons]$ touch luther
[19IT016@localhost simpsons]$ cd..
bash: cd.: command not found...
[19IT016@localhost simpsons]$ cd ..
[19IT016@localhost ~]$ ls
clerk      Downloads  Jupiter    Music      Public     superman
Desktop    file2      lex        Pictures   seinfeld   Templates
Documents  it343-os  los        practice_by_manav  simpsons  Videos
[19IT016@localhost ~]$ touch luther
[19IT016@localhost ~]$ mv clerk luther los superman/
[19IT016@localhost ~]$ cd superman/
[19IT016@localhost superman]$ ls
clerk  los  luther
[19IT016@localhost superman]$
```

**5. List the content of seinfeld directory by the last time they were modified****COMMAND:** `ls -ltr seinfeld`**OUTPUT:**

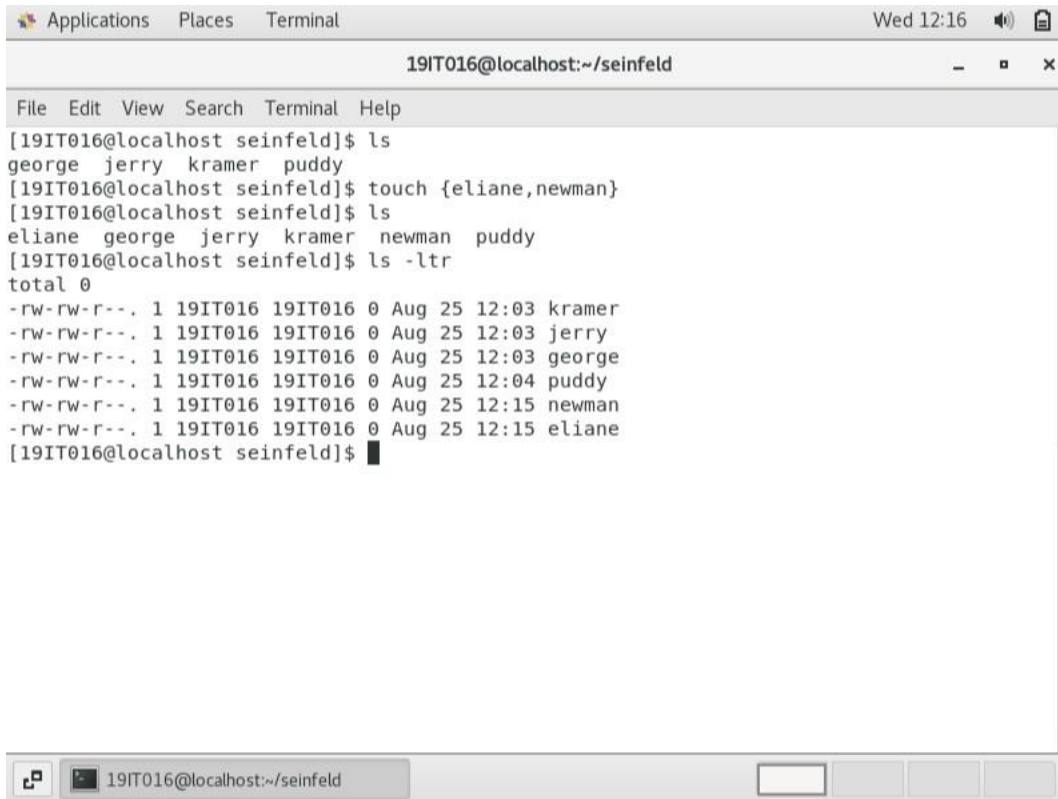
A terminal window titled "19IT016@localhost:~/seinfeld" is shown. The window has a menu bar with "File", "Edit", "View", "Search", "Terminal", and "Help". The terminal output shows the following sequence of commands and results:

```
[19IT016@localhost superman]$ cd ..  
[19IT016@localhost ~]$ cd seinfeld/  
[19IT016@localhost seinfeld]$ ls -ltr  
total 0  
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:03 kramer  
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:03 jerry  
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:03 george  
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:04 puddy  
[19IT016@localhost seinfeld]$
```

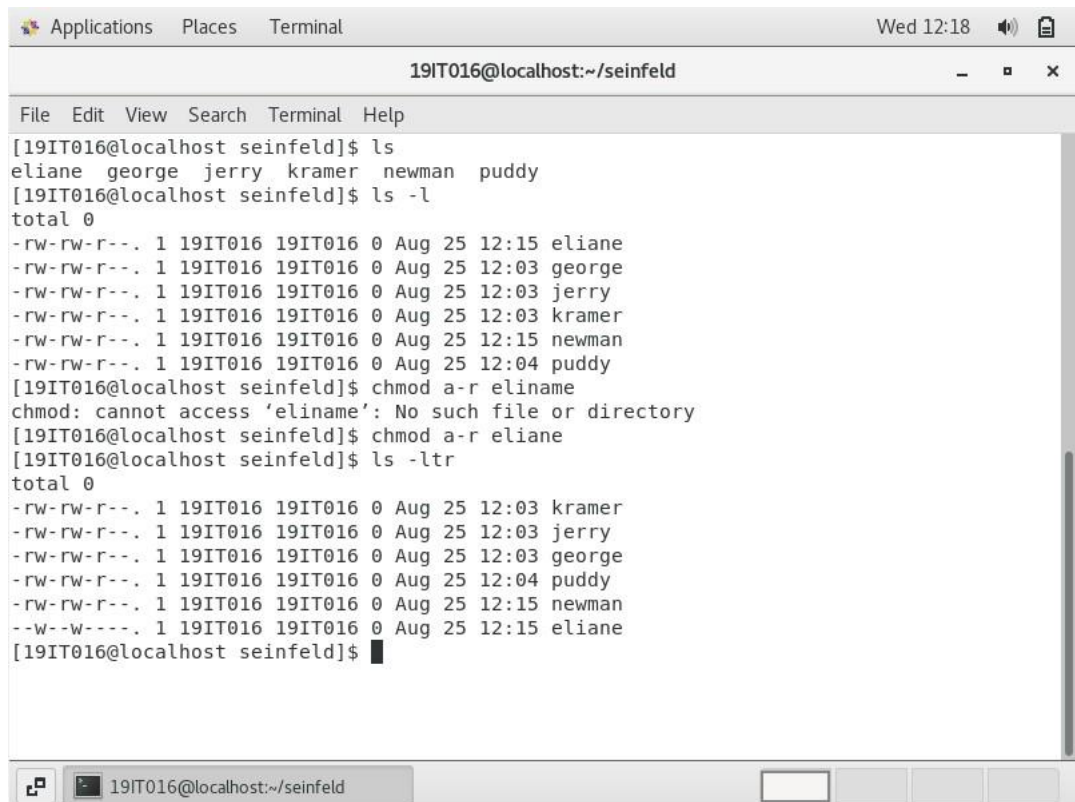
The terminal window also shows a status bar at the bottom with the text "19IT016@localhost:~/seinfeld" and a small icon on the left.

**6. Create 2 new files in seinfeld directory, elaine and newman****COMMAND:** cd seinfeld

touch elaine newman

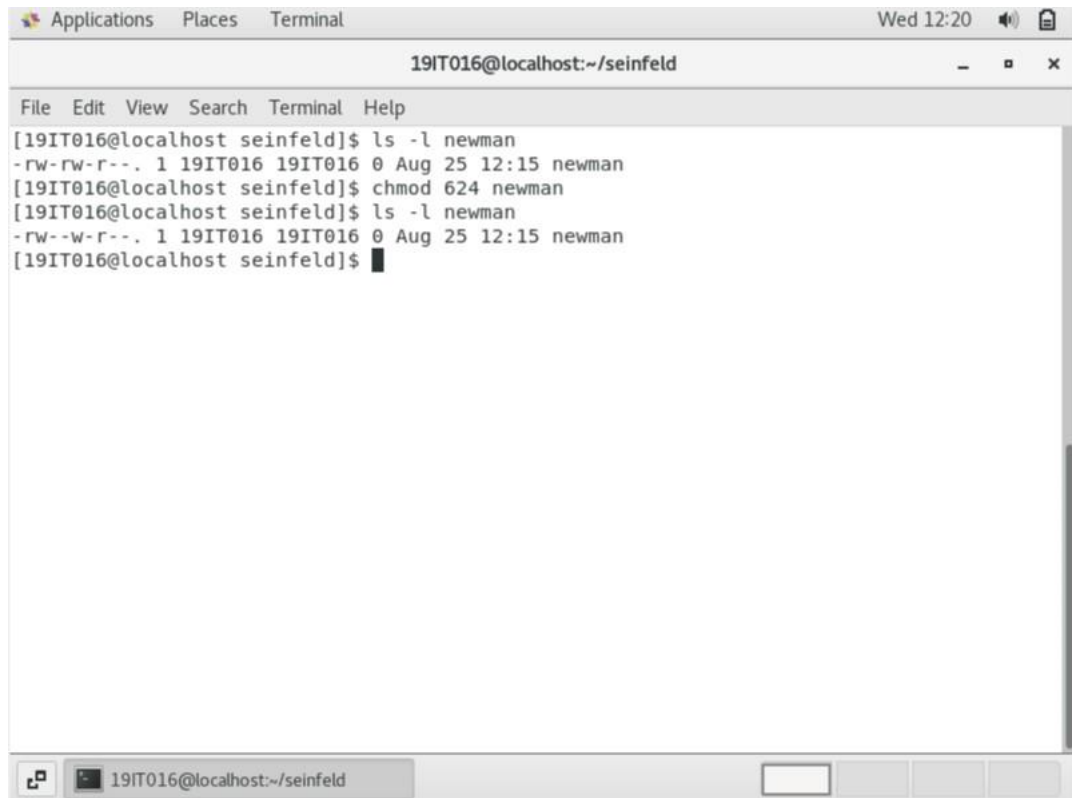
**OUTPUT:**

```
Applications  Places  Terminal  Wed 12:16  [19IT016@localhost:~/seinfeld]
19IT016@localhost:~/seinfeld
File Edit View Search Terminal Help
[19IT016@localhost seinfeld]$ ls
george jerry kramer puddy
[19IT016@localhost seinfeld]$ touch {eliane,newman}
[19IT016@localhost seinfeld]$ ls
eliane george jerry kramer newman puddy
[19IT016@localhost seinfeld]$ ls -ltr
total 0
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:03 kramer
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:03 jerry
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:03 george
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:04 puddy
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:15 newman
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:15 eliane
[19IT016@localhost seinfeld]$
```

**7. Change file permission of eliane to remove read access from everyone****COMMAND:** `chmod ugo-r eliane`**OUTPUT:**

A terminal window titled "19IT016@localhost:~/seinfeld" showing the execution of several commands to check and change file permissions. The window has a menu bar with "File", "Edit", "View", "Search", "Terminal", and "Help". The terminal output is as follows:

```
[19IT016@localhost seinfeld]$ ls
eliane george jerry kramer newman puddy
[19IT016@localhost seinfeld]$ ls -l
total 0
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:15 eliane
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:03 george
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:03 jerry
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:03 kramer
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:15 newman
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:04 puddy
[19IT016@localhost seinfeld]$ chmod a-r eliname
chmod: cannot access 'eliname': No such file or directory
[19IT016@localhost seinfeld]$ chmod a-r eliane
[19IT016@localhost seinfeld]$ ls -ltr
total 0
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:03 kramer
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:03 jerry
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:03 george
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:04 puddy
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:15 newman
--w--w----. 1 19IT016 19IT016 0 Aug 25 12:15 eliane
[19IT016@localhost seinfeld]$
```

**8. Change file permission of newman to add write permissions to only group****COMMAND:** `chmod g+w newman`**OUTPUT:**A screenshot of a Linux terminal window. The window title is "19IT016@localhost:~/seinfeld". The terminal shows the following commands and output:

```
[19IT016@localhost seinfeld]$ ls -l newman
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:15 newman
[19IT016@localhost seinfeld]$ chmod 624 newman
[19IT016@localhost seinfeld]$ ls -l newman
-rw--w-r--. 1 19IT016 19IT016 0 Aug 25 12:15 newman
[19IT016@localhost seinfeld]$
```

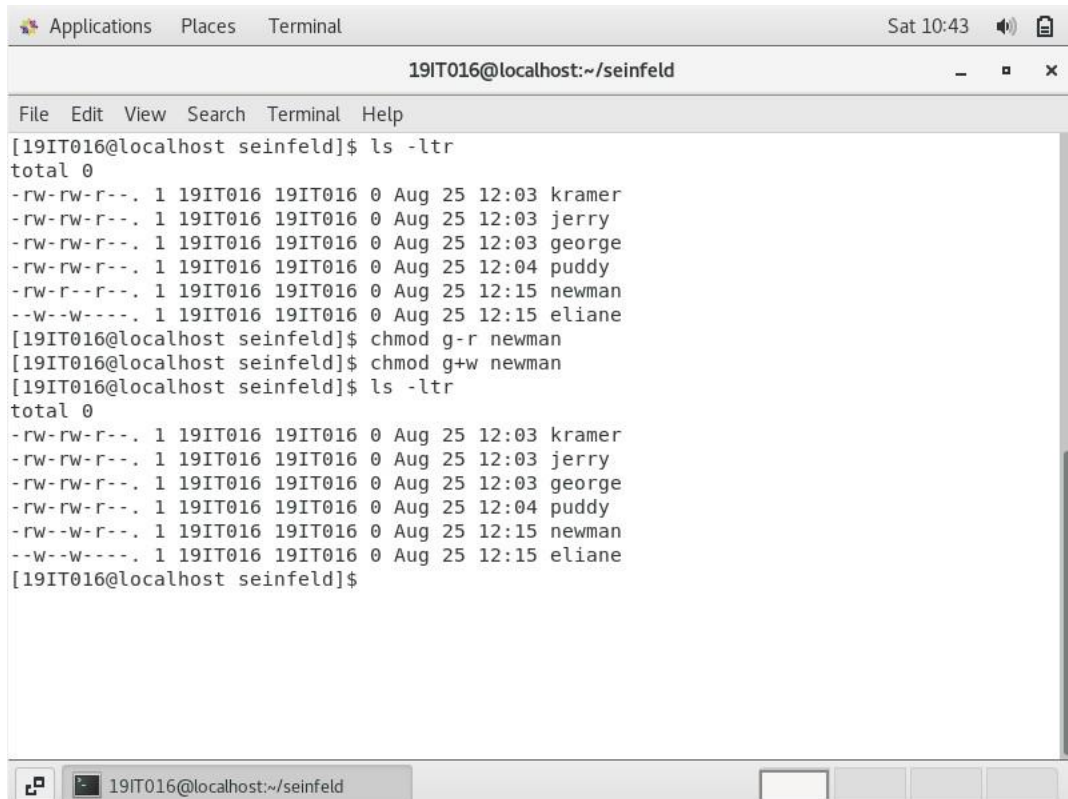
The terminal window has a menu bar with "File", "Edit", "View", "Search", "Terminal", and "Help". The status bar at the bottom shows the current directory as "19IT016@localhost:~/seinfeld".



9. Become root and cd into your home directory (e.g., /home/admin). Then Create 2 new files superman and zod in superman directory

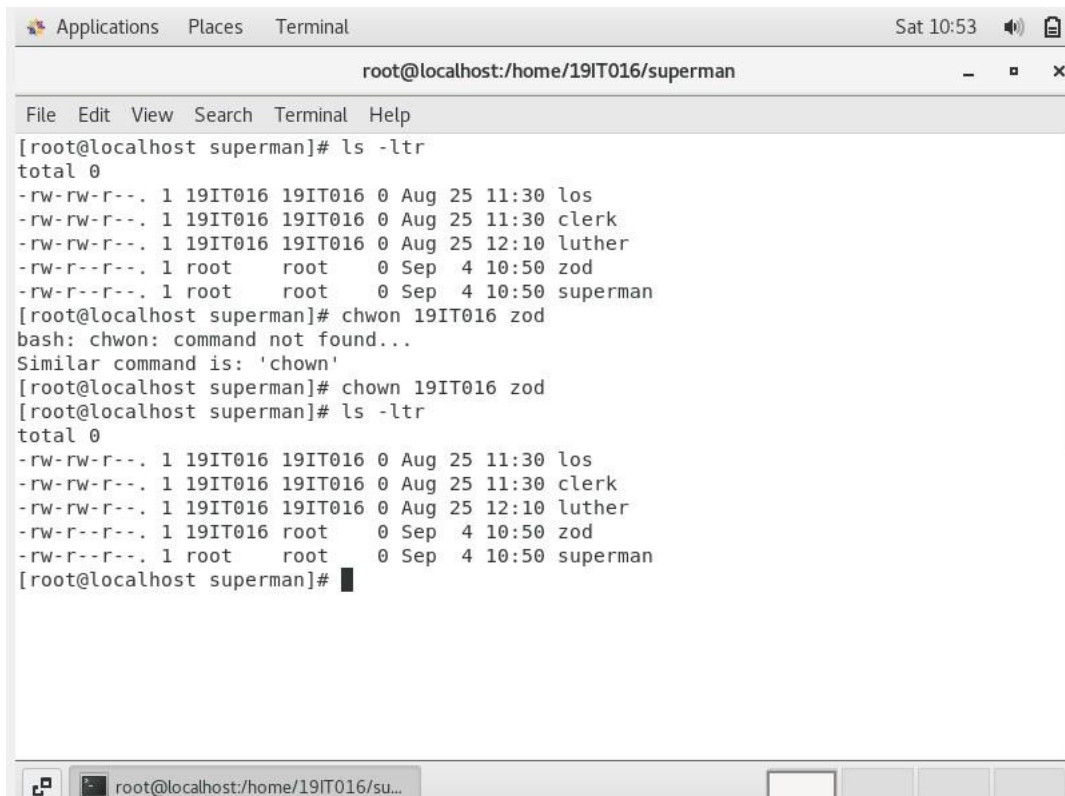
**COMMAND:** su –  
cd  
/home/19IT016  
cd superman  
touch superman zod

**OUTPUT:**

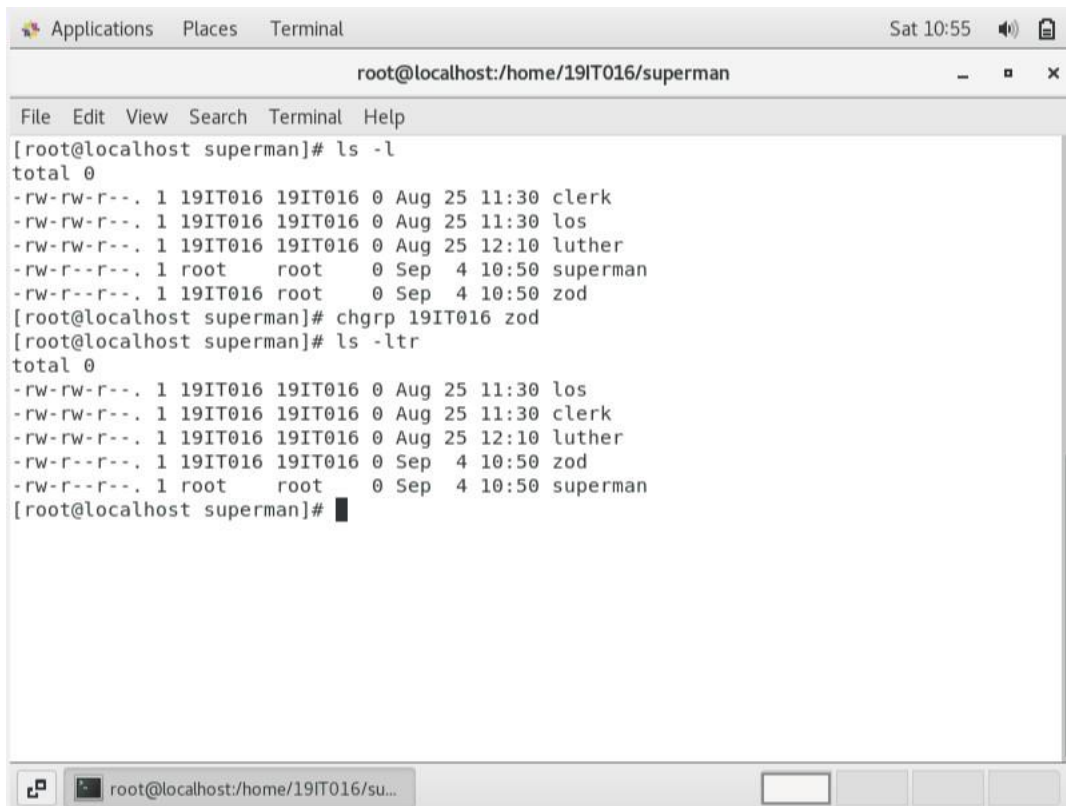


The screenshot shows a terminal window titled "19IT016@localhost:~/seinfeld". The window contains the following text:

```
[19IT016@localhost seinfeld]$ ls -ltr
total 0
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:03 kramer
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:03 jerry
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:03 george
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:04 puddy
-rw-r--r--. 1 19IT016 19IT016 0 Aug 25 12:15 newman
--w--w----. 1 19IT016 19IT016 0 Aug 25 12:15 eliane
[19IT016@localhost seinfeld]$ chmod g-r newman
[19IT016@localhost seinfeld]$ chmod g+w newman
[19IT016@localhost seinfeld]$ ls -ltr
total 0
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:03 kramer
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:03 jerry
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:03 george
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:04 puddy
-rw--w-r--. 1 19IT016 19IT016 0 Aug 25 12:15 newman
--w--w----. 1 19IT016 19IT016 0 Aug 25 12:15 eliane
[19IT016@localhost seinfeld]$
```

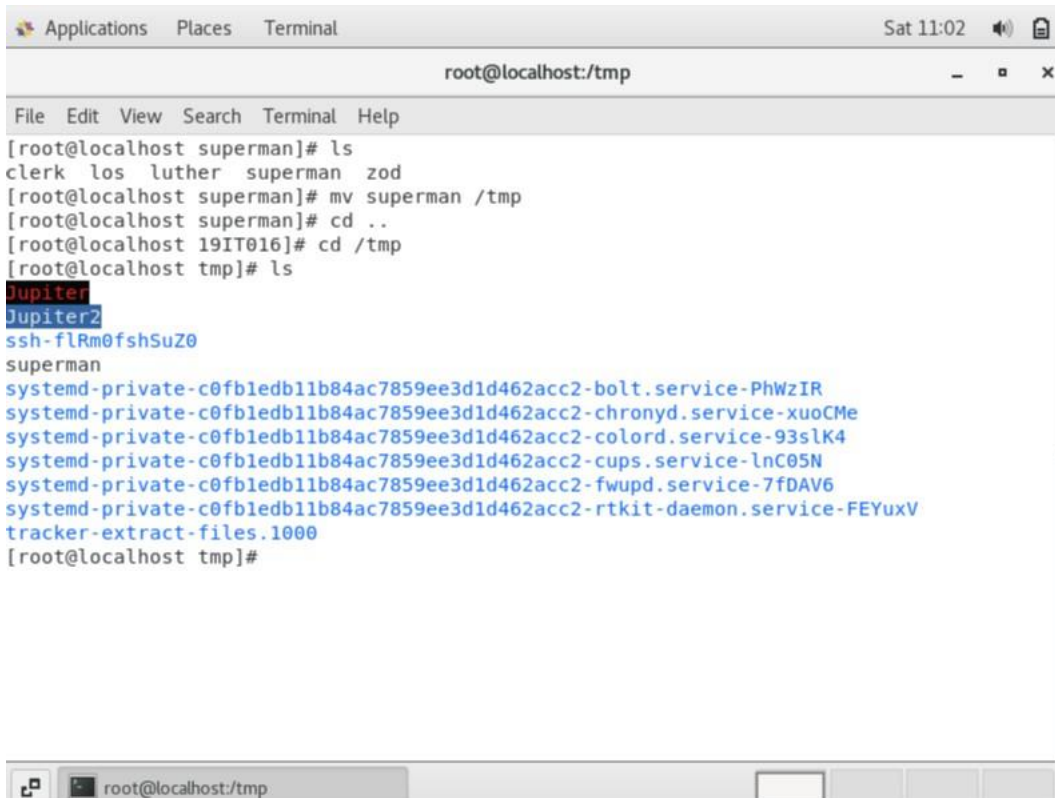
**10. Change ownership of zod file from root to your username****COMMAND:** chown 19IT016 zod**OUTPUT:**A terminal window titled 'root@localhost:/home/19IT016/superman' with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Sat 10:53). The terminal shows the following commands and output:

```
[root@localhost superman]# ls -ltr
total 0
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 11:30 los
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 11:30 clerk
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:10 luther
-rw-r--r--. 1 root    root    0 Sep  4 10:50 zod
-rw-r--r--. 1 root    root    0 Sep  4 10:50 superman
[root@localhost superman]# chwon 19IT016 zod
bash: chwon: command not found...
Similar command is: 'chown'
[root@localhost superman]# chown 19IT016 zod
[root@localhost superman]# ls -ltr
total 0
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 11:30 los
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 11:30 clerk
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:10 luther
-rw-r--r--. 1 19IT016 root    0 Sep  4 10:50 zod
-rw-r--r--. 1 root    root    0 Sep  4 10:50 superman
[root@localhost superman]#
```

**11. Change group ownership of zod from root to your username****COMMAND:** chgrp 19IT016 zod**OUTPUT:**

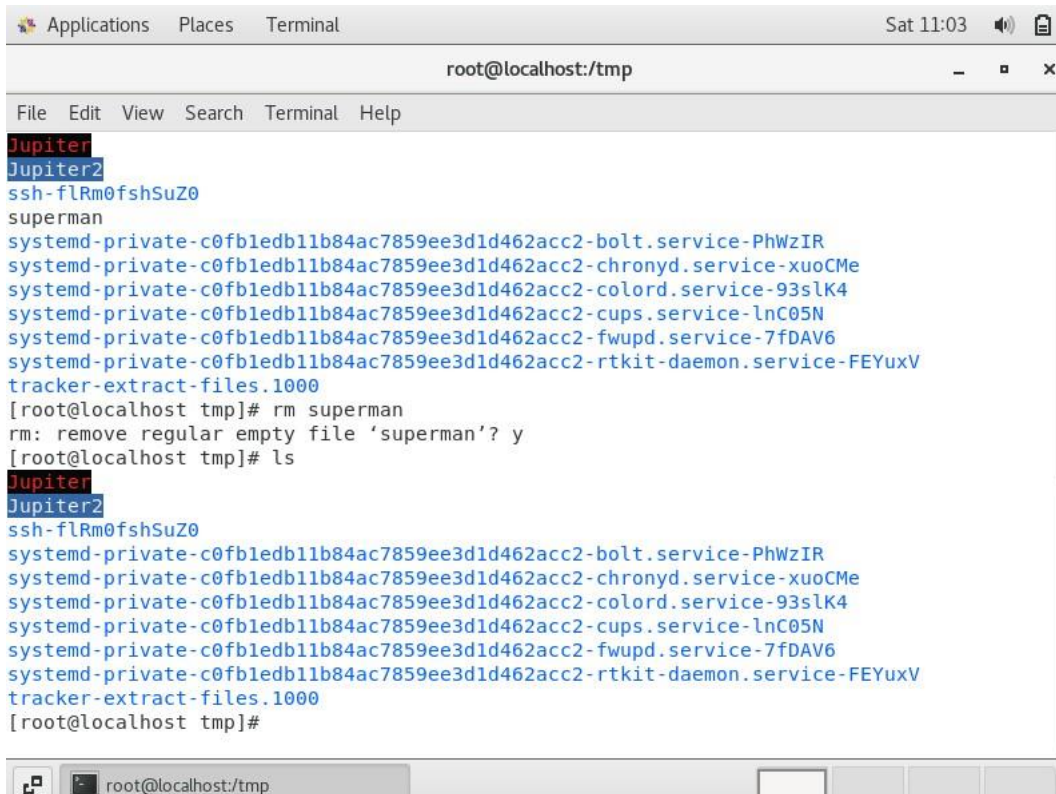
```
Applications  Places  Terminal  Sat 10:55  [Speaker Icon] [Window Icon]
root@localhost:/home/19IT016/superman

File Edit View Search Terminal Help
[root@localhost superman]# ls -l
total 0
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 11:30 clerk
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 11:30 los
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:10 luther
-rw-r--r--. 1 root    root    0 Sep  4 10:50 superman
-rw-r--r--. 1 19IT016 root    0 Sep  4 10:50 zod
[root@localhost superman]# chgrp 19IT016 zod
[root@localhost superman]# ls -ltr
total 0
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 11:30 los
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 11:30 clerk
-rw-rw-r--. 1 19IT016 19IT016 0 Aug 25 12:10 luther
-rw-r--r--. 1 19IT016 19IT016 0 Sep  4 10:50 zod
-rw-r--r--. 1 root    root    0 Sep  4 10:50 superman
[root@localhost superman]#
```

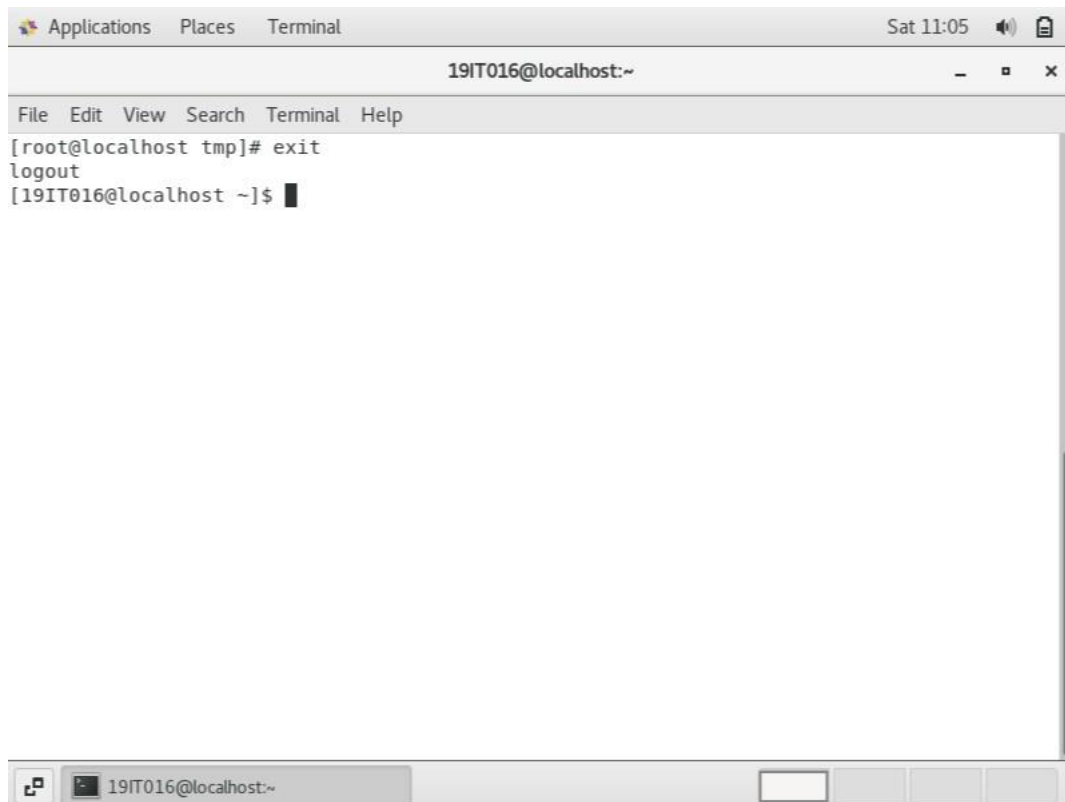
**12. Then move superman file to /tmp directory****COMMAND:** mv superman /tmp**OUTPUT:**

```
Applications  Places  Terminal  Sat 11:02
root@localhost:/tmp

File Edit View Search Terminal Help
[root@localhost superman]# ls
clerk  los  luther  superman  zod
[root@localhost superman]# mv superman /tmp
[root@localhost superman]# cd ..
[root@localhost 19IT016]# cd /tmp
[root@localhost tmp]# ls
jupiter
jupiter2
ssh-flRm0fshSuZ0
superman
systemd-private-c0fb1edb11b84ac7859ee3d1d462acc2-bolt.service-PhWzIR
systemd-private-c0fb1edb11b84ac7859ee3d1d462acc2-chronyd.service-xuoCMe
systemd-private-c0fb1edb11b84ac7859ee3d1d462acc2-colord.service-93slK4
systemd-private-c0fb1edb11b84ac7859ee3d1d462acc2-cups.service-lnC05N
systemd-private-c0fb1edb11b84ac7859ee3d1d462acc2-fwupd.service-7fDAV6
systemd-private-c0fb1edb11b84ac7859ee3d1d462acc2-rtkit-daemon.service-FEYuxV
tracker-extract-files.1000
[root@localhost tmp]#
```

**13. Remove superman file from /tmp directory****COMMAND:** rm superman**OUTPUT:**

```
Applications  Places  Terminal  Sat 11:03
root@localhost:/tmp
File Edit View Search Terminal Help
Jupiter
Jupiter2
ssh-flRm0fshSuZ0
superman
systemd-private-c0fb1edb11b84ac7859ee3d1d462acc2-bolt.service-PhWzIR
systemd-private-c0fb1edb11b84ac7859ee3d1d462acc2-chronyd.service-xuoCMe
systemd-private-c0fb1edb11b84ac7859ee3d1d462acc2-colord.service-93slK4
systemd-private-c0fb1edb11b84ac7859ee3d1d462acc2-cups.service-lnC05N
systemd-private-c0fb1edb11b84ac7859ee3d1d462acc2-fwupd.service-7fDAV6
systemd-private-c0fb1edb11b84ac7859ee3d1d462acc2-rtkit-daemon.service-FEYuxV
tracker-extract-files.1000
[root@localhost tmp]# rm superman
rm: remove regular empty file 'superman'? y
[root@localhost tmp]# ls
Jupiter
Jupiter2
ssh-flRm0fshSuZ0
systemd-private-c0fb1edb11b84ac7859ee3d1d462acc2-bolt.service-PhWzIR
systemd-private-c0fb1edb11b84ac7859ee3d1d462acc2-chronyd.service-xuoCMe
systemd-private-c0fb1edb11b84ac7859ee3d1d462acc2-colord.service-93slK4
systemd-private-c0fb1edb11b84ac7859ee3d1d462acc2-cups.service-lnC05N
systemd-private-c0fb1edb11b84ac7859ee3d1d462acc2-fwupd.service-7fDAV6
systemd-private-c0fb1edb11b84ac7859ee3d1d462acc2-rtkit-daemon.service-FEYuxV
tracker-extract-files.1000
[root@localhost tmp]#
```

**14. Exit out of root account****COMMAND:** exit**OUTPUT:**

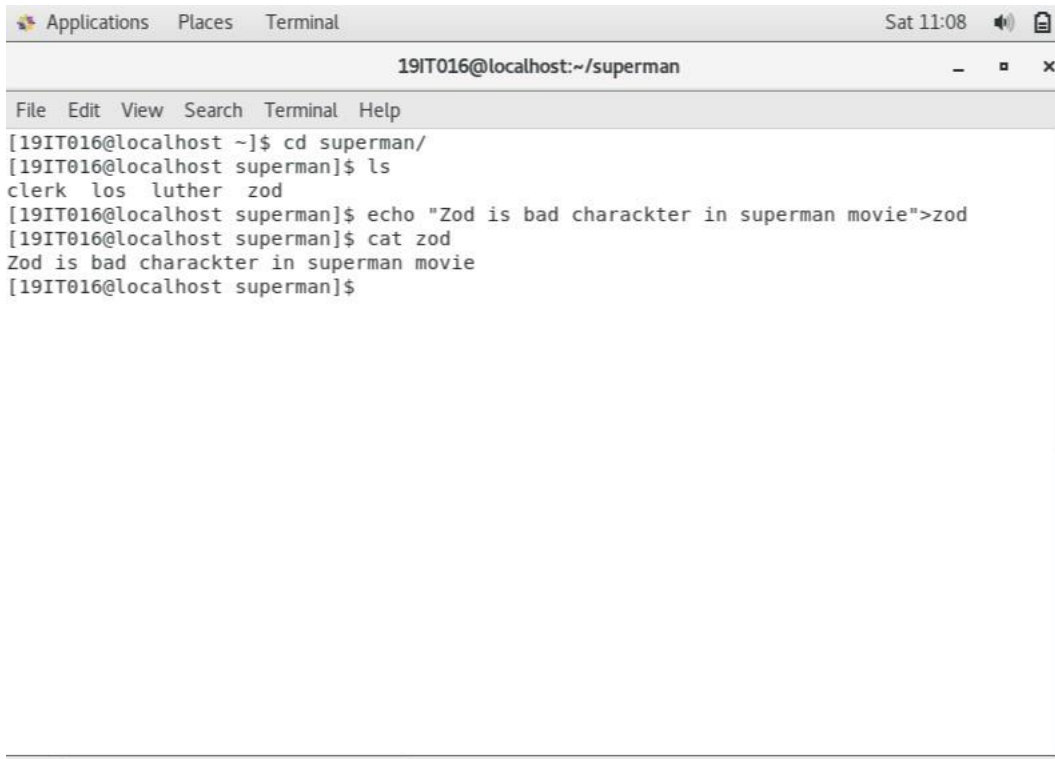
The screenshot shows a terminal window titled "19IT016@localhost:~". The window has a menu bar with "File", "Edit", "View", "Search", "Terminal", and "Help". The terminal content shows the following sequence of events: a root shell prompt "[root@localhost tmp]#", the user typing "exit", the system responding with "logout", and the prompt changing to "[19IT016@localhost ~]\$". The window's title bar includes "Applications", "Places", "Terminal", and a clock showing "Sat 11:05". The bottom of the window shows a taskbar with a single icon and the text "19IT016@localhost:~".

```
19IT016@localhost:~  
File Edit View Search Terminal Help  
[root@localhost tmp]# exit  
logout  
[19IT016@localhost ~]$
```

**15. Go back to superman directory in your home directory and add this line to zod "zod is a bad character in superman movie"**

**COMMAND:** echo "zod is bad character in superman movie" > zod

**OUTPUT:**

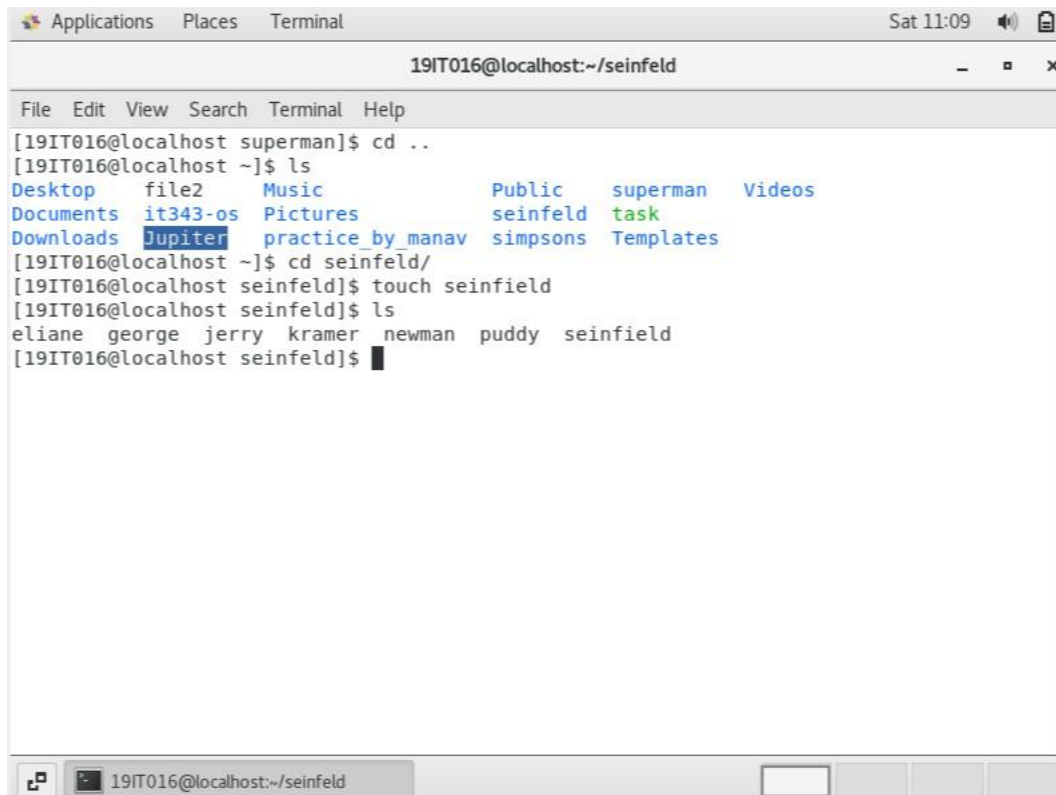


```
Applications  Places  Terminal  Sat 11:08
19IT016@localhost:~/superman
File Edit View Search Terminal Help
[19IT016@localhost ~]$ cd superman/
[19IT016@localhost superman]$ ls
clerk  los  luther  zod
[19IT016@localhost superman]$ echo "Zod is bad charackter in superman movie">zod
[19IT016@localhost superman]$ cat zod
Zod is bad charackter in superman movie
[19IT016@localhost superman]$
```

**16. Then go to the seinfeld directory and create a new file seinfeld.**

**COMMAND:** touch seinfeld

**OUTPUT:**

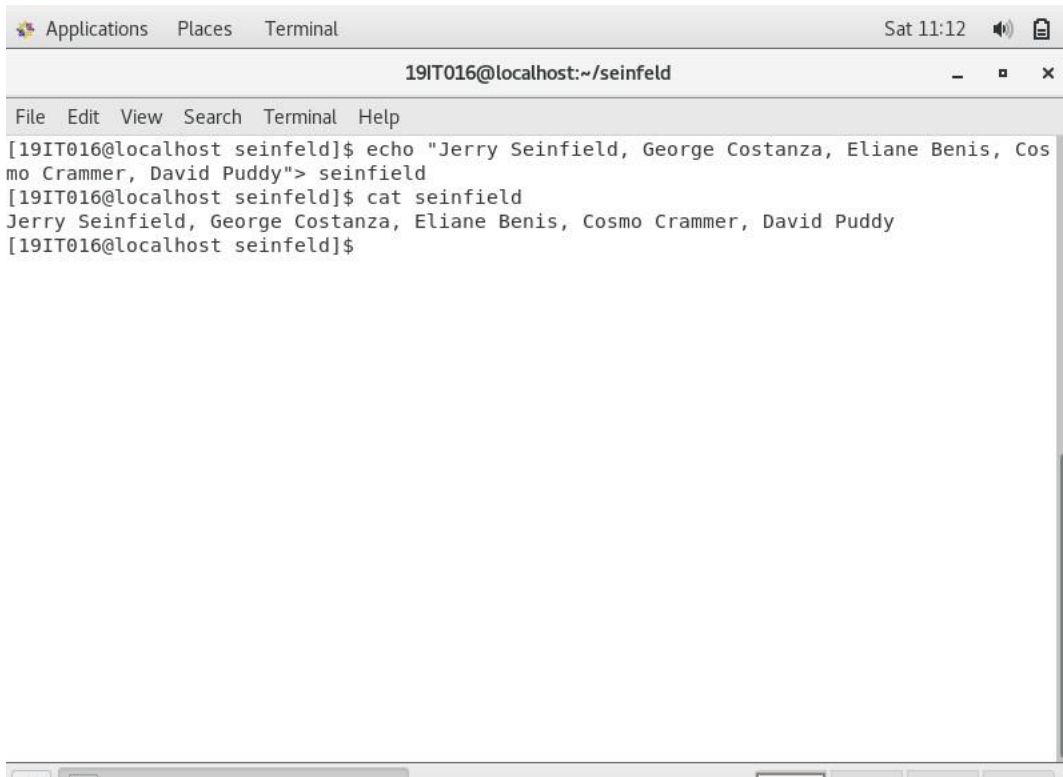
A screenshot of a Linux terminal window. The title bar shows 'Applications Places Terminal' and the date 'Sat 11:09'. The terminal title is '19IT016@localhost:~/seinfeld'. The prompt is '[19IT016@localhost superman]\$'. The user enters 'cd ..' and the prompt changes to '[19IT016@localhost ~]\$'. The user enters 'ls' and the output shows a directory listing: Desktop, file2, Music, Public, superman, Videos, Documents, it343-os, Pictures, seinfeld, task, Downloads, Jupiter, practice\_by\_manav, simpsons, Templates. The user enters 'cd seinfeld/' and the prompt changes to '[19IT016@localhost ~]\$'. The user enters 'touch seinfeld' and the prompt changes to '[19IT016@localhost seinfeld]\$'. The user enters 'ls' and the output shows a directory listing: eliane, george, jerry, kramer, newman, puddy, seinfeld. The user enters '\$' and the prompt changes to '[19IT016@localhost seinfeld]\$'.



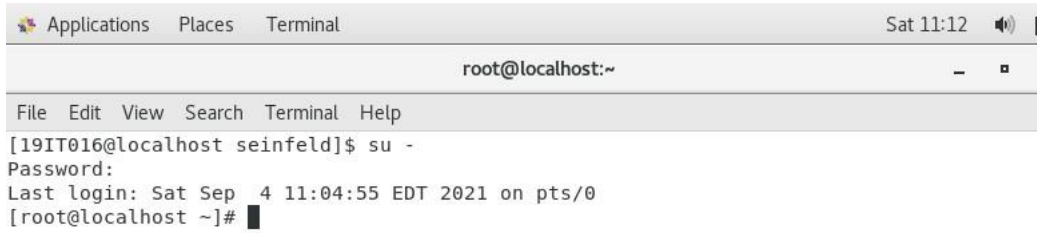
**17. Add 5 seinfeld character's names in the seinfeld file. Jerry Seinfeld, George Costanza, Eliane Benis, Cosmo Kramer, and David Puddy**

**COMMAND:** echo "Jerry Seinfeld, George Costanza, Eliane Benis, Cosmo Kramer, David Puddy" > seinfeld

**OUTPUT:**



```
Applications  Places  Terminal  Sat 11:12  [Speaker Icon] [Window Icon]
19IT016@localhost:~/seinfeld
File Edit View Search Terminal Help
[19IT016@localhost seinfeld]$ echo "Jerry Seinfeld, George Costanza, Eliane Benis, Cosmo Crammer, David Puddy"> seinfeld
[19IT016@localhost seinfeld]$ cat seinfeld
Jerry Seinfeld, George Costanza, Eliane Benis, Cosmo Crammer, David Puddy
[19IT016@localhost seinfeld]$
```

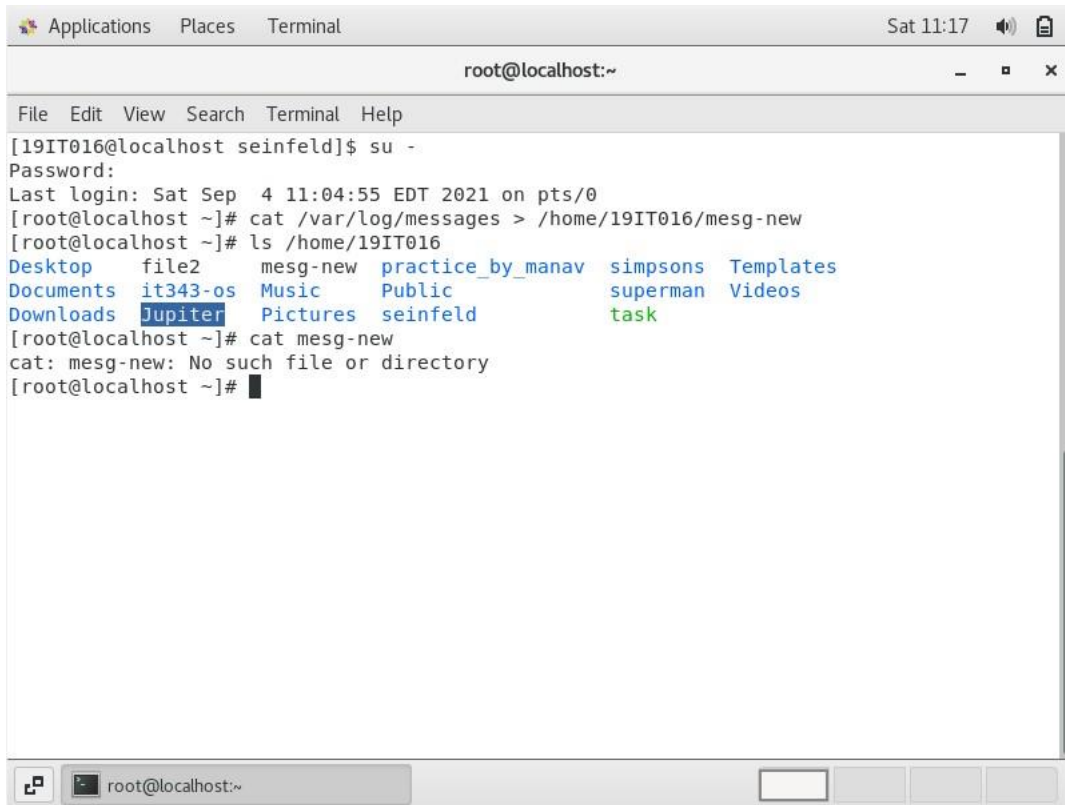
**18. Become root user again****COMMAND:** su -**OUTPUT:**A screenshot of a Linux terminal window. The title bar shows 'Applications Places Terminal' and the time 'Sat 11:12'. The terminal prompt is 'root@localhost:~'. The command 'su -' has been entered, and the prompt has changed to '[19IT016@localhost seinfeld]\$'. The password prompt 'Password:' has been entered, and the terminal shows the last login information: 'Last login: Sat Sep 4 11:04:55 EDT 2021 on pts/0'. The prompt is now '[root@localhost ~]#'.

```
Applications Places Terminal Sat 11:12
root@localhost:~
File Edit View Search Terminal Help
[19IT016@localhost seinfeld]$ su -
Password:
Last login: Sat Sep 4 11:04:55 EDT 2021 on pts/0
[root@localhost ~]#
```

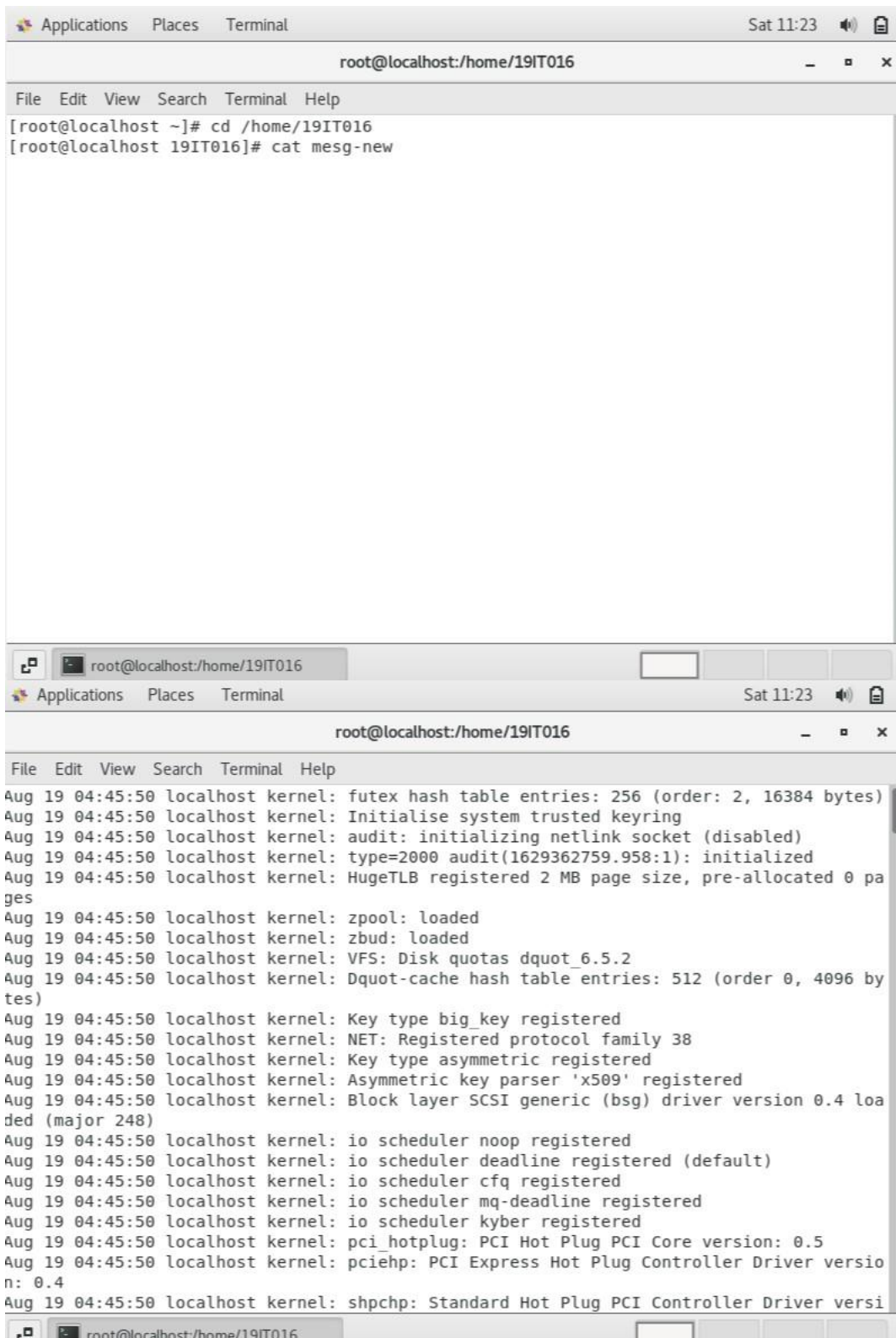
**19. Do cat /var/log/messages and output to a file called mesg-new in your home directory (e.g., /home/Admin)**

**COMMAND:** cat /var/log/meassages > /home/19IT016/mesg-new

**OUTPUT:**



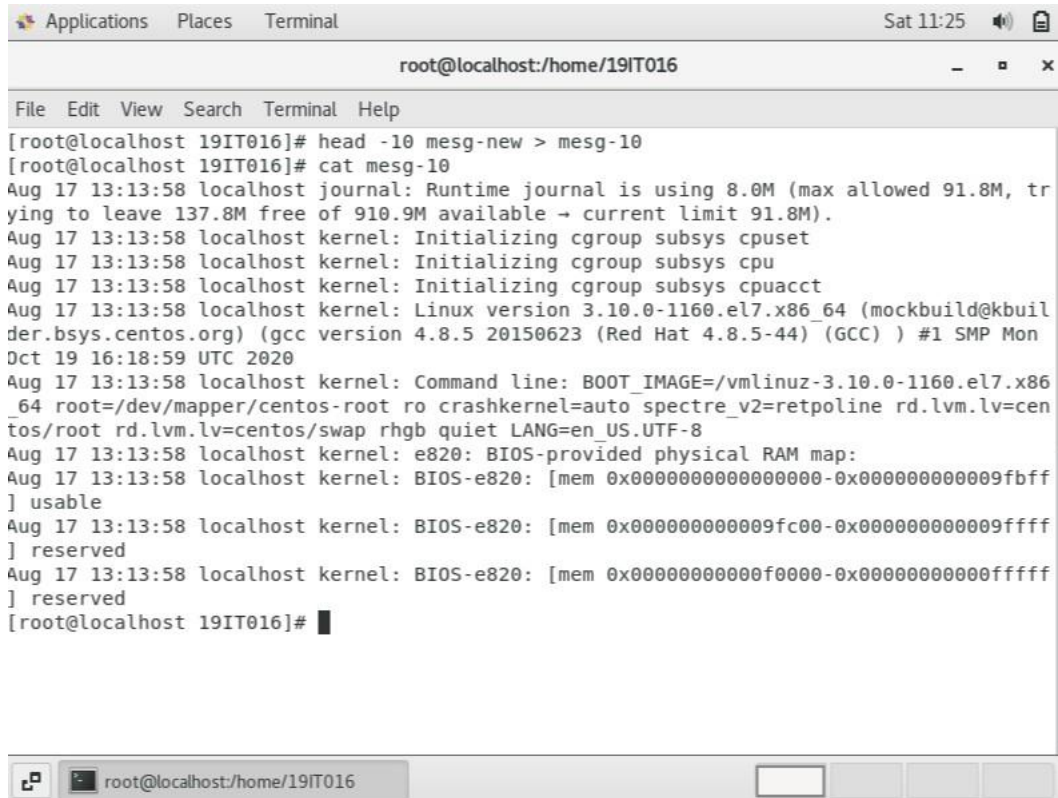
```
root@localhost:~  
File Edit View Search Terminal Help  
[19IT016@localhost seinfeld]$ su -  
Password:  
Last login: Sat Sep  4 11:04:55 EDT 2021 on pts/0  
[root@localhost ~]# cat /var/log/messages > /home/19IT016/mesg-new  
[root@localhost ~]# ls /home/19IT016  
Desktop  file2      mesg-new  practice_by_manav  simpsons  Templates  
Documents it343-os  Music     Public             superman  Videos  
Downloads Jupiter    Pictures  seinfeld           task  
[root@localhost ~]# cat mesg-new  
cat: mesg-new: No such file or directory  
[root@localhost ~]#
```

**20. Read the mesg-new file with cat, more and less commands and practice****COMMAND:** cat mesg-new**OUTPUT:**

```
root@localhost:/home/19IT016
File Edit View Search Terminal Help
[root@localhost ~]# cd /home/19IT016
[root@localhost 19IT016]# cat mesg-new
Aug 19 04:45:50 localhost kernel: futex hash table entries: 256 (order: 2, 16384 bytes)
Aug 19 04:45:50 localhost kernel: Initialise system trusted keyring
Aug 19 04:45:50 localhost kernel: audit: initializing netlink socket (disabled)
Aug 19 04:45:50 localhost kernel: type=2000 audit(1629362759.958:1): initialized
Aug 19 04:45:50 localhost kernel: HugeTLB registered 2 MB page size, pre-allocated 0 pa
ges
Aug 19 04:45:50 localhost kernel: zpool: loaded
Aug 19 04:45:50 localhost kernel: zbud: loaded
Aug 19 04:45:50 localhost kernel: VFS: Disk quotas dquot_6.5.2
Aug 19 04:45:50 localhost kernel: Dquot-cache hash table entries: 512 (order 0, 4096 by
tes)
Aug 19 04:45:50 localhost kernel: Key type big_key registered
Aug 19 04:45:50 localhost kernel: NET: Registered protocol family 38
Aug 19 04:45:50 localhost kernel: Key type asymmetric registered
Aug 19 04:45:50 localhost kernel: Asymmetric key parser 'x509' registered
Aug 19 04:45:50 localhost kernel: Block layer SCSI generic (bsg) driver version 0.4 loa
ded (major 248)
Aug 19 04:45:50 localhost kernel: io scheduler noop registered
Aug 19 04:45:50 localhost kernel: io scheduler deadline registered (default)
Aug 19 04:45:50 localhost kernel: io scheduler cfq registered
Aug 19 04:45:50 localhost kernel: io scheduler mq-deadline registered
Aug 19 04:45:50 localhost kernel: io scheduler kyber registered
Aug 19 04:45:50 localhost kernel: pci_hotplug: PCI Hot Plug PCI Core version: 0.5
Aug 19 04:45:50 localhost kernel: pciehp: PCI Express Hot Plug Controller Driver versio
n: 0.4
Aug 19 04:45:50 localhost kernel: shpchp: Standard Hot Plug PCI Controller Driver versi
```

**21. View the first 10 lines of mesg-new file and output to a file name mesg-h10****COMMAND:** head -10 mesg-new > mesg-h10

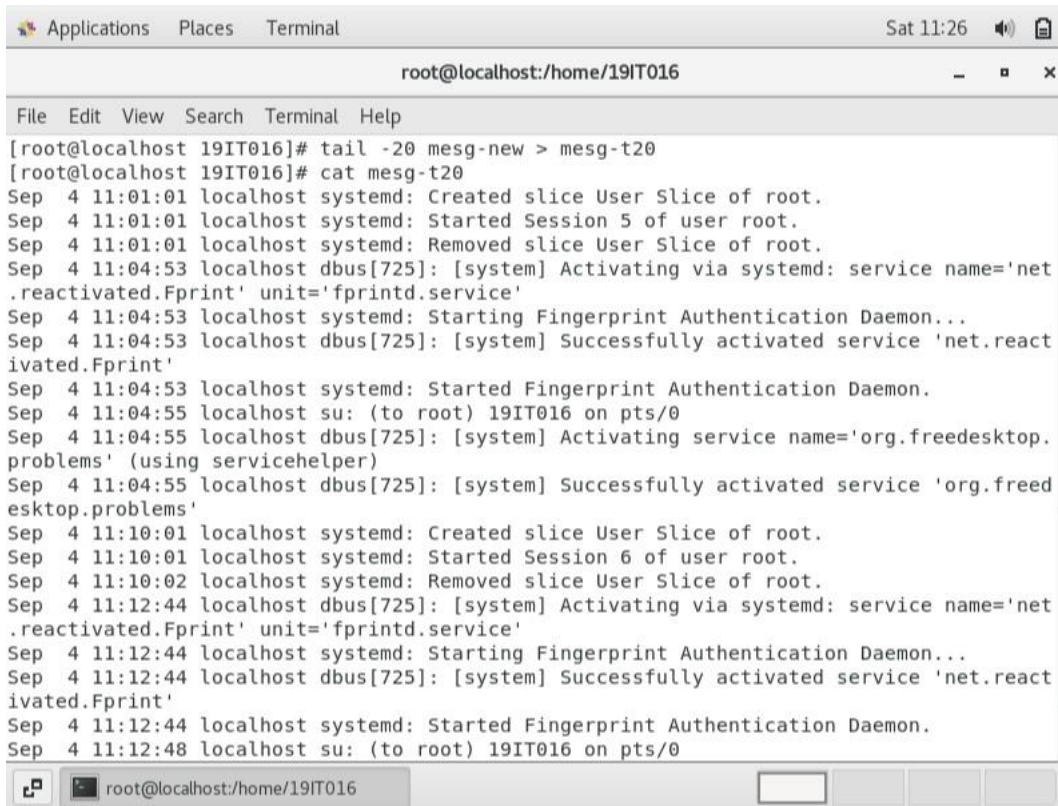
Cat mesg-h10

**OUTPUT:**

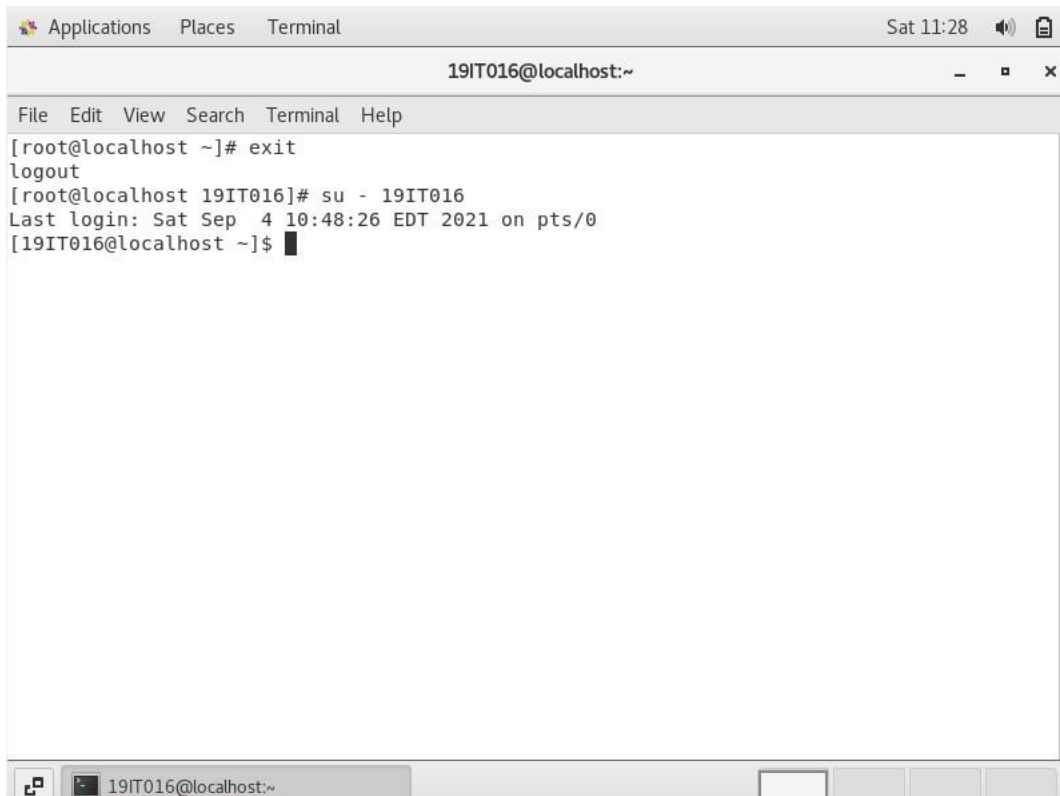
```
Applications  Places  Terminal  Sat 11:25  [Speaker Icon] [Window Icon]
root@localhost:/home/19IT016
File Edit View Search Terminal Help
[root@localhost 19IT016]# head -10 mesg-new > mesg-h10
[root@localhost 19IT016]# cat mesg-h10
Aug 17 13:13:58 localhost journal: Runtime journal is using 8.0M (max allowed 91.8M, trying to leave 137.8M free of 910.9M available → current limit 91.8M).
Aug 17 13:13:58 localhost kernel: Initializing cgroup subsys cpuset
Aug 17 13:13:58 localhost kernel: Initializing cgroup subsys cpu
Aug 17 13:13:58 localhost kernel: Initializing cgroup subsys cpuacct
Aug 17 13:13:58 localhost kernel: Linux version 3.10.0-1160.el7.x86_64 (mockbuild@kbuild.der.bsys.centos.org) (gcc version 4.8.5 20150623 (Red Hat 4.8.5-44) (GCC) ) #1 SMP Mon Oct 19 16:18:59 UTC 2020
Aug 17 13:13:58 localhost kernel: Command line: BOOT_IMAGE=/vmlinuz-3.10.0-1160.el7.x86_64 root=/dev/mapper/centos-root ro crashkernel=auto spectre_v2=retpoline rd.lvm.lv=centos/root rd.lvm.lv=centos/swap rhgb quiet LANG=en_US.UTF-8
Aug 17 13:13:58 localhost kernel: e820: BIOS-provided physical RAM map:
Aug 17 13:13:58 localhost kernel: BIOS-e820: [mem 0x0000000000000000-0x000000000009fbff] usable
Aug 17 13:13:58 localhost kernel: BIOS-e820: [mem 0x000000000009fc00-0x000000000009ffff] reserved
Aug 17 13:13:58 localhost kernel: BIOS-e820: [mem 0x00000000000f0000-0x00000000000fffff] reserved
[root@localhost 19IT016]#
```

**22. View the last 20 lines of mesg-new file and output to a file name mesg-t20****COMMAND:** tail -20 mesg-new > mesg-t20

Cat mesg-t20

**OUTPUT:**

```
root@localhost:/home/19IT016
File Edit View Search Terminal Help
[root@localhost 19IT016]# tail -20 mesg-new > mesg-t20
[root@localhost 19IT016]# cat mesg-t20
Sep  4 11:01:01 localhost systemd: Created slice User Slice of root.
Sep  4 11:01:01 localhost systemd: Started Session 5 of user root.
Sep  4 11:01:01 localhost systemd: Removed slice User Slice of root.
Sep  4 11:04:53 localhost dbus[725]: [system] Activating via systemd: service name='net
.reactivated.Fprint' unit='fprintd.service'
Sep  4 11:04:53 localhost systemd: Starting Fingerprint Authentication Daemon...
Sep  4 11:04:53 localhost dbus[725]: [system] Successfully activated service 'net.react
ivated.Fprint'
Sep  4 11:04:53 localhost systemd: Started Fingerprint Authentication Daemon.
Sep  4 11:04:55 localhost su: (to root) 19IT016 on pts/0
Sep  4 11:04:55 localhost dbus[725]: [system] Activating service name='org.freedesktop.
problems' (using servicehelper)
Sep  4 11:04:55 localhost dbus[725]: [system] Successfully activated service 'org.freed
esktop.problems'
Sep  4 11:10:01 localhost systemd: Created slice User Slice of root.
Sep  4 11:10:01 localhost systemd: Started Session 6 of user root.
Sep  4 11:10:02 localhost systemd: Removed slice User Slice of root.
Sep  4 11:12:44 localhost dbus[725]: [system] Activating via systemd: service name='net
.reactivated.Fprint' unit='fprintd.service'
Sep  4 11:12:44 localhost systemd: Starting Fingerprint Authentication Daemon...
Sep  4 11:12:44 localhost dbus[725]: [system] Successfully activated service 'net.react
ivated.Fprint'
Sep  4 11:12:44 localhost systemd: Started Fingerprint Authentication Daemon.
Sep  4 11:12:48 localhost su: (to root) 19IT016 on pts/0
```

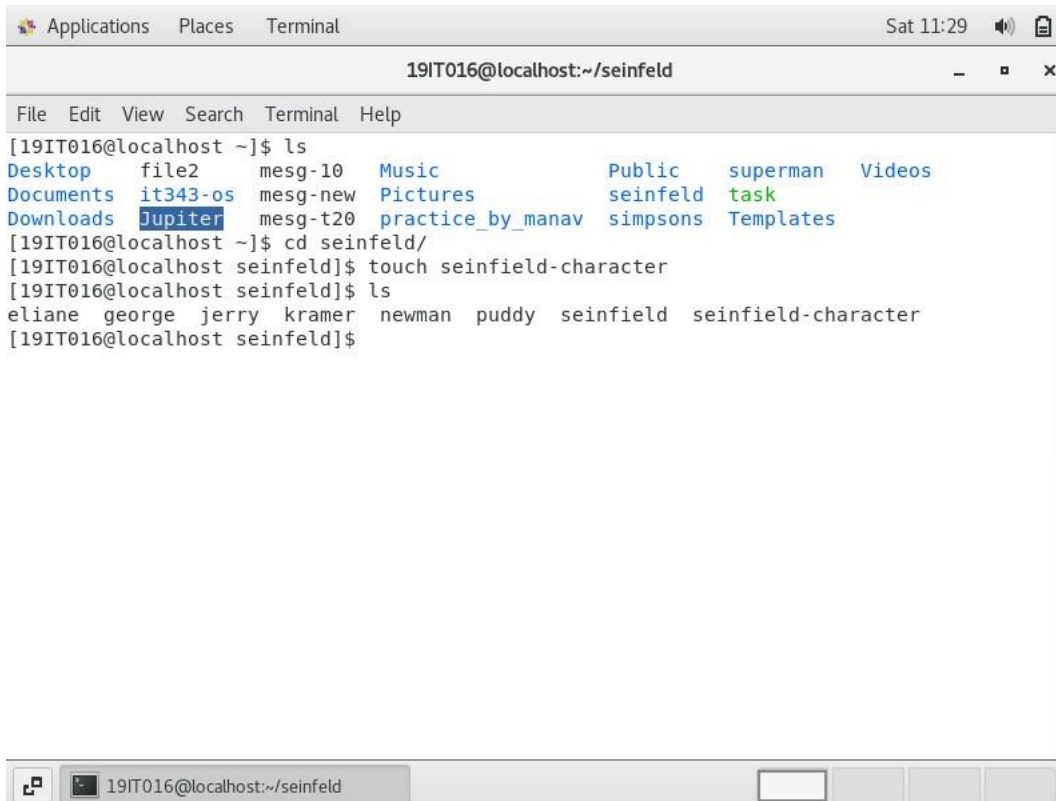
**23. Exit out of root user****COMMAND:** su-**OUTPUT:**

```
Applications Places Terminal Sat 11:28
19IT016@localhost:~
File Edit View Search Terminal Help
[root@localhost ~]# exit
logout
[root@localhost 19IT016]# su - 19IT016
Last login: Sat Sep  4 10:48:26 EDT 2021 on pts/0
[19IT016@localhost ~]$
```

**24. Go to seinfeld directory in your home directory and create a new file “seinfeld-character”**

**COMMAND:** touch seinfeld-character

**OUTPUT:**



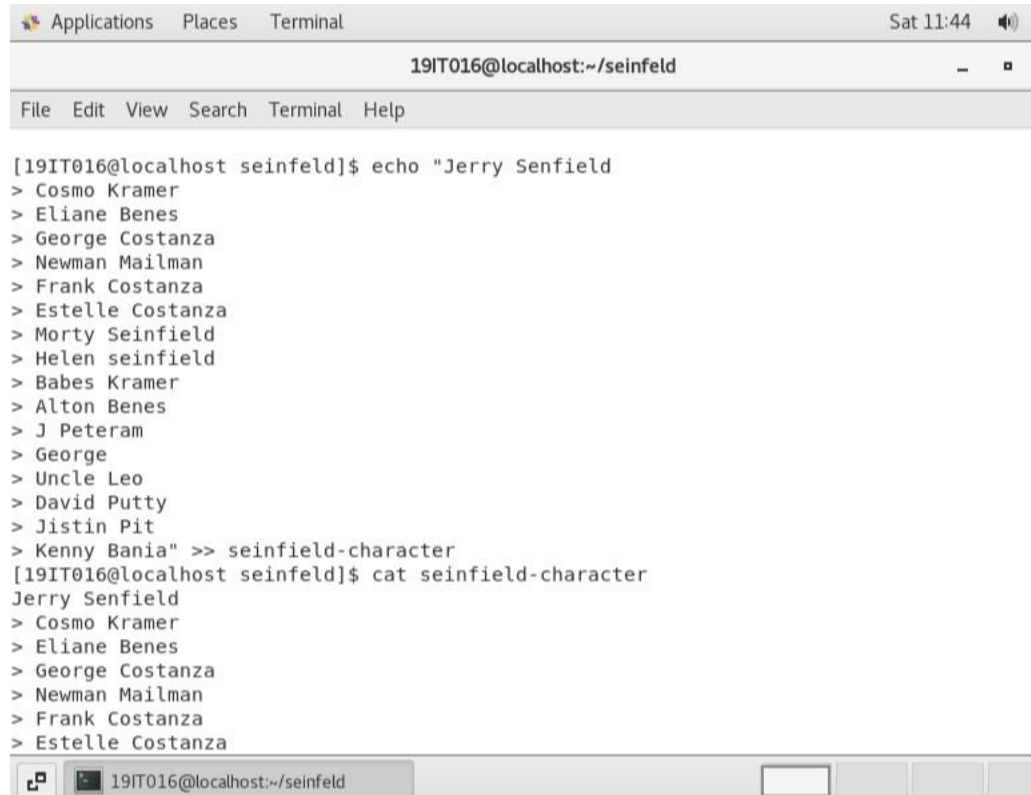
The screenshot shows a terminal window titled "19IT016@localhost:~/seinfeld". The window has a menu bar with "File", "Edit", "View", "Search", "Terminal", and "Help". The terminal output is as follows:

```
[19IT016@localhost ~]$ ls
Desktop    file2      mesg-10    Music      Public     superman   Videos
Documents  it343-os  mesg-new   Pictures   seinfeld   task
Downloads  Jupiter    mesg-t20   practice_by_manav simpsons   Templates

[19IT016@localhost ~]$ cd seinfeld/
[19IT016@localhost seinfeld]$ touch seinfeld-character
[19IT016@localhost seinfeld]$ ls
eliane  george  jerry  kramer  newman  puddy  seinfeld  seinfeld-character
[19IT016@localhost seinfeld]$
```



**25. Add text to the seinfeld-character file using echo command. Each character should be in one line, "Jerry Seinfeld, Cosmo Kramer, Eliane Benes, George Costanza, Newman Mailman, Frank Costanza, Estelle Costanza, Morty Seinfeld, Helen Seinfeld, Babes Kramer, Alton Benes, J Peterman, George Steinbrenner, Uncle Leo, David Puddy, Justin Pit and Kenny Bania"**  
**OUTPUT:**



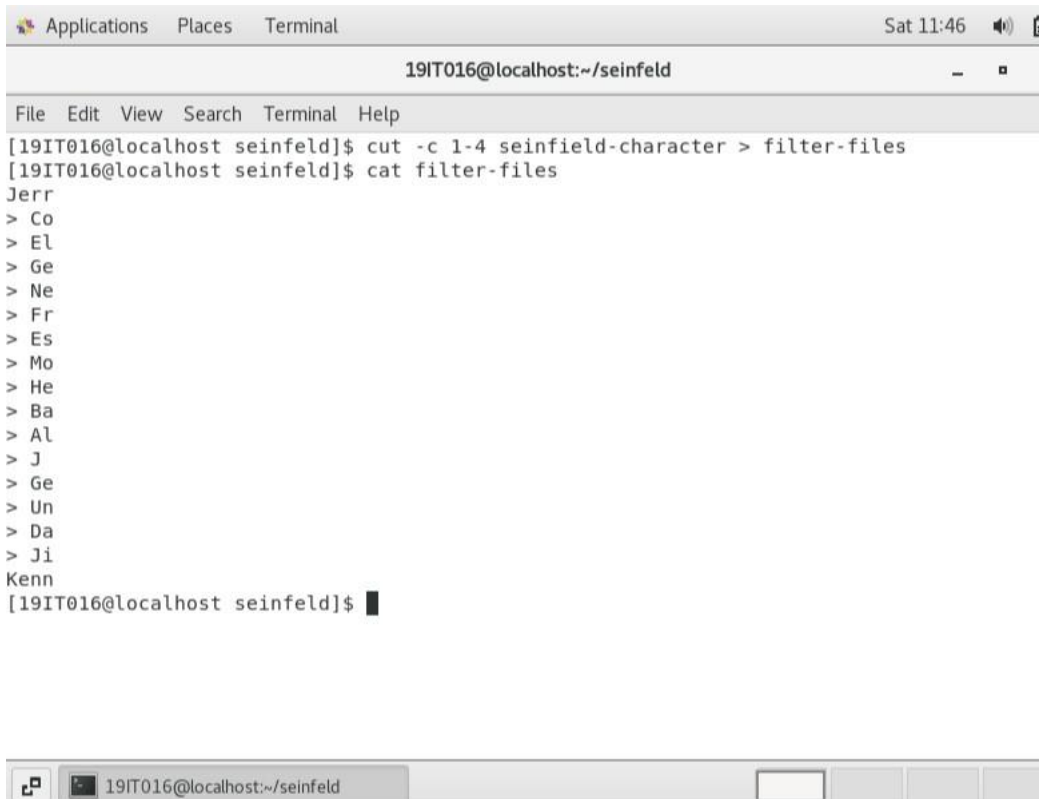
```
Applications  Places  Terminal  Sat 11:44
19IT016@localhost:~/seinfeld
File Edit View Search Terminal Help

[19IT016@localhost seinfeld]$ echo "Jerry Senfield
> Cosmo Kramer
> Eliane Benes
> George Costanza
> Newman Mailman
> Frank Costanza
> Estelle Costanza
> Morty Seinfeld
> Helen seinfeld
> Babes Kramer
> Alton Benes
> J Peteram
> George
> Uncle Leo
> David Putty
> Jistin Pit
> Kenny Bania" >> seinfeld-character
[19IT016@localhost seinfeld]$ cat seinfeld-character
Jerry Senfield
> Cosmo Kramer
> Eliane Benes
> George Costanza
> Newman Mailman
> Frank Costanza
> Estelle Costanza
```

**26. Use cut command to cut the first 4 letters of each line from seinfeld-characters file and output to a different file name (name = filter-files)**

**COMMAND:** `cut -c 1-4 seinfeld-character > filter-files`

**OUTPUT:**

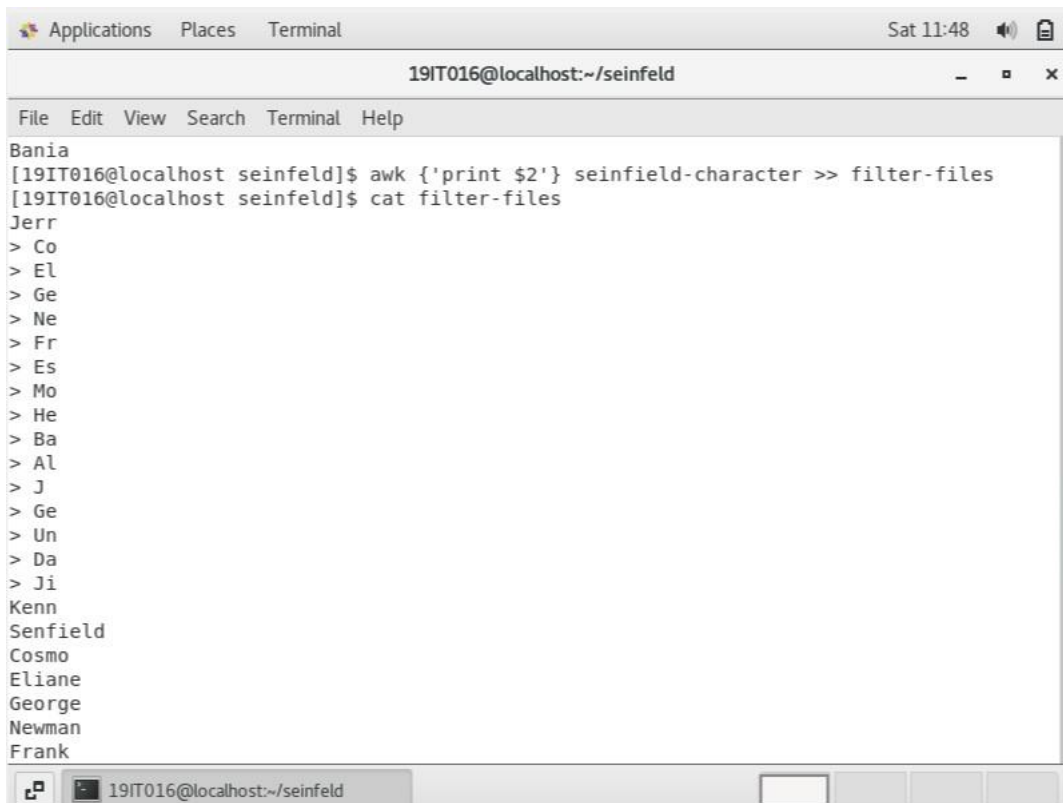


```
Applications  Places  Terminal  Sat 11:46
19IT016@localhost:~/seinfeld
File Edit View Search Terminal Help
[19IT016@localhost seinfeld]$ cut -c 1-4 seinfeld-character > filter-files
[19IT016@localhost seinfeld]$ cat filter-files
Jerr
> Co
> El
> Ge
> Ne
> Fr
> Es
> Mo
> He
> Ba
> Al
> J
> Ge
> Un
> Da
> Ji
Kenn
[19IT016@localhost seinfeld]$
```

**27. Use awk command to get only the 2nd column of seinfeld-characters and Output to the filters-files without removing any other text from it**

**COMMAND:** `awk {'print $2'} seinfeld-character >> filter-files`

**OUTPUT:**

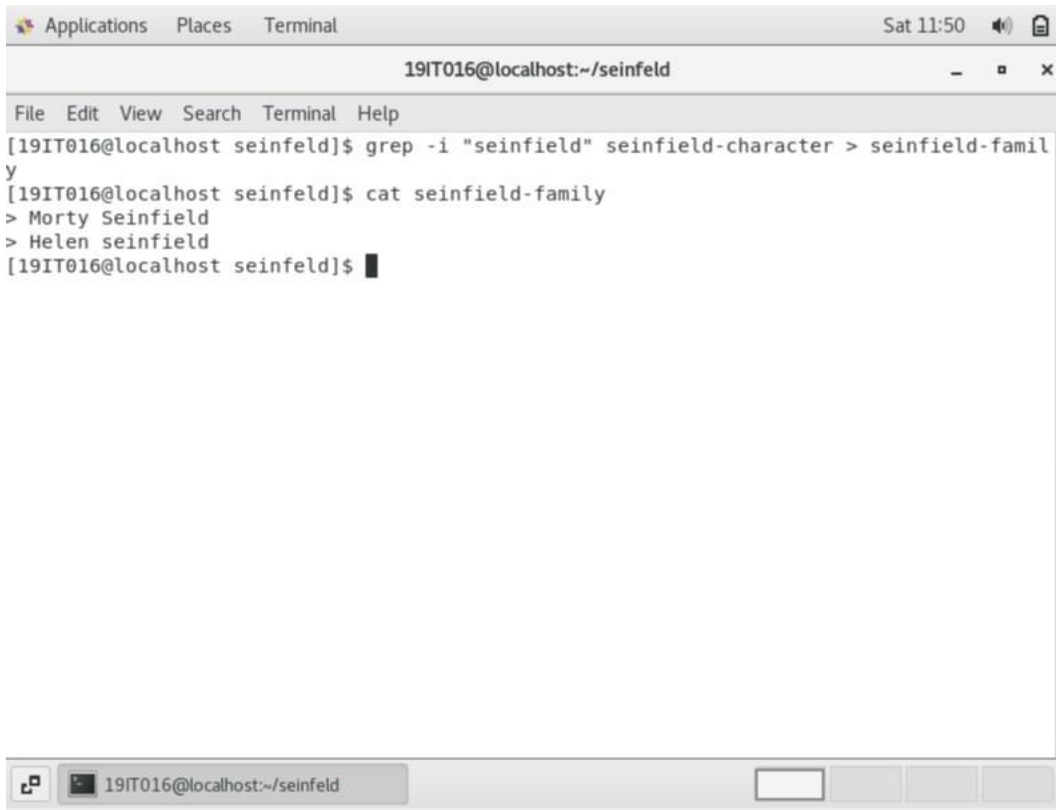


```
Applications  Places  Terminal  Sat 11:48
19IT016@localhost:~/seinfeld
File Edit View Search Terminal Help
Banias
[19IT016@localhost seinfeld]$ awk {'print $2'} seinfeld-character >> filter-files
[19IT016@localhost seinfeld]$ cat filter-files
Jerr
> Co
> El
> Ge
> Ne
> Fr
> Es
> Mo
> He
> Ba
> Al
> J
> Ge
> Un
> Da
> Ji
Kenn
Senfield
Cosmo
Eliane
George
Newman
Frank
```

**28. Use grep command to only grep seinfeld and output to a new file call it seinfeld-family**

**COMMAND:** `grep -i "seinfeld" seinfeld-character > seinfeld-family`

**OUTPUT:**



```
Applications  Places  Terminal  Sat 11:50  🔊 🔒
19IT016@localhost:~/seinfeld
File Edit View Search Terminal Help
[19IT016@localhost seinfeld]$ grep -i "seinfeld" seinfeld-character > seinfeld-family
[19IT016@localhost seinfeld]$ cat seinfeld-family
> Morty Seinfeld
> Helen seinfeld
[19IT016@localhost seinfeld]$
```

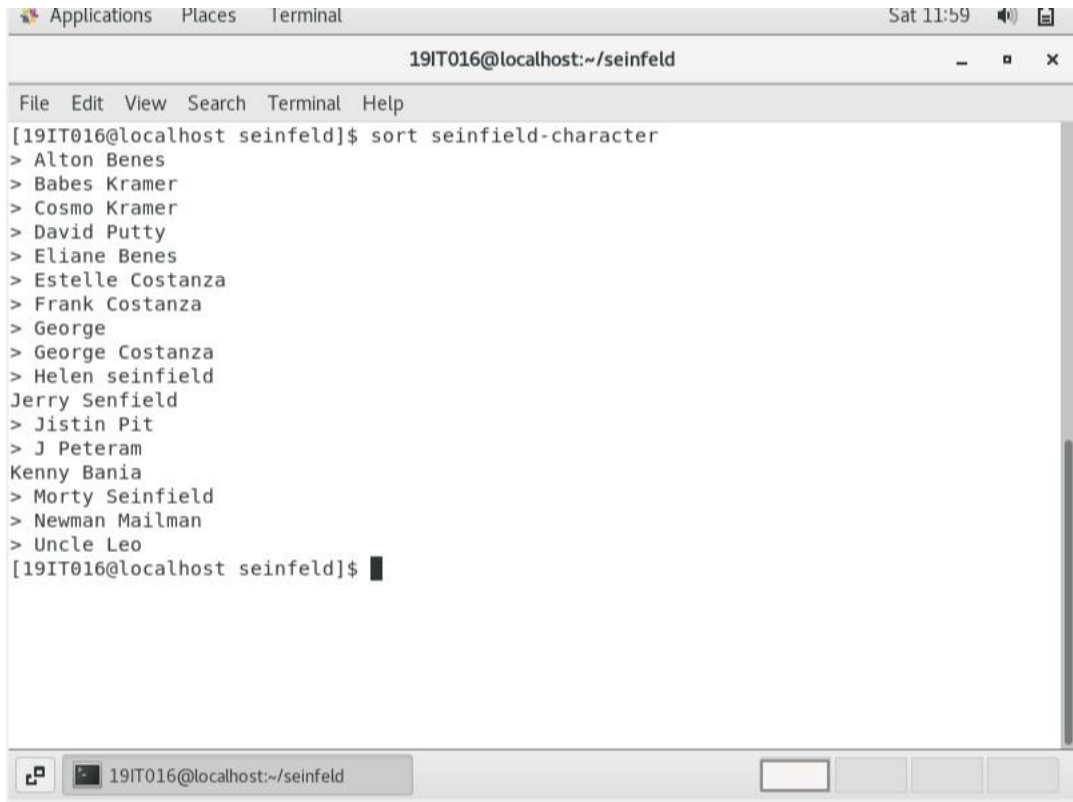
**29. Use sort command, uniq and wc command to practice whichever way you like by creating new files or working with existing files**

**COMMAND:** sort seinfeld-character

Sort hello | uniq -iu

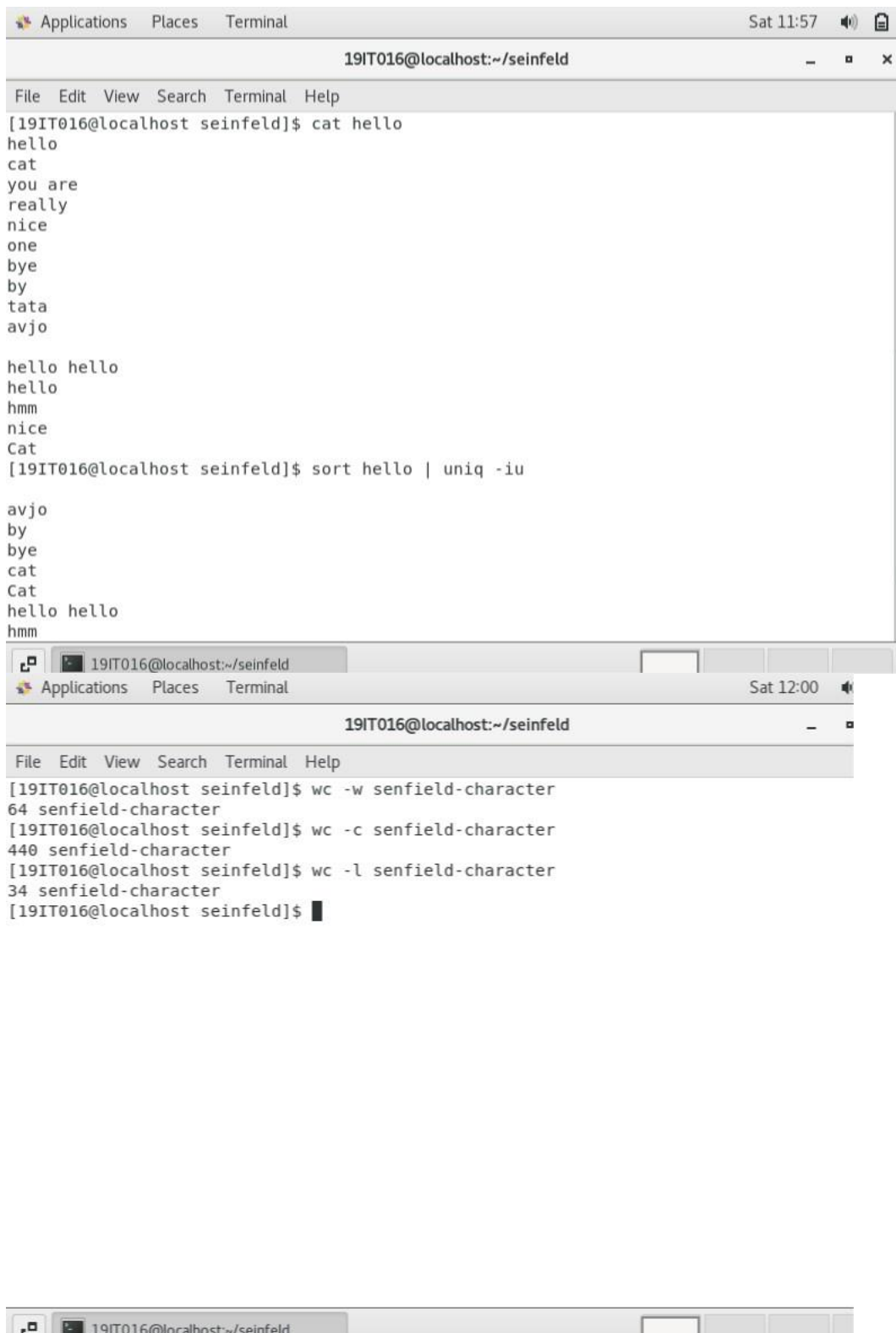
wc -w seinfeld-character

**OUTPUT:**



The screenshot shows a terminal window titled "19IT016@localhost:~/seinfeld". The terminal displays the command `sort seinfeld-character` and its output, which is a list of names from the TV show Seinfeld, sorted alphabetically. The names are: Alton Benes, Babes Kramer, Cosmo Kramer, David Putty, Eliane Benes, Estelle Costanza, Frank Costanza, George, George Costanza, Helen seinfeld, Jerry Senfield, Jistin Pit, J Peteram, Kenny Bania, Morty Seinfeld, Newman Mailman, and Uncle Leo. The terminal prompt is `[19IT016@localhost seinfeld]$`.

```
[19IT016@localhost seinfeld]$ sort seinfeld-character
> Alton Benes
> Babes Kramer
> Cosmo Kramer
> David Putty
> Eliane Benes
> Estelle Costanza
> Frank Costanza
> George
> George Costanza
> Helen seinfeld
Jerry Senfield
> Jistin Pit
> J Peteram
Kenny Bania
> Morty Seinfeld
> Newman Mailman
> Uncle Leo
[19IT016@localhost seinfeld]$
```



The image displays two screenshots of a Linux terminal window. The top screenshot shows the execution of the 'cat' command on a file named 'hello', displaying its contents. The bottom screenshot shows the execution of the 'sort' command followed by 'uniq -iu' on the same file, displaying the unique lines. Below these, the 'wc' command is used with flags -w, -c, and -l to count words, characters, and lines in the file 'senfield-character'.

```
19IT016@localhost:~/seinfeld
File Edit View Search Terminal Help
[19IT016@localhost seinfeld]$ cat hello
hello
cat
you are
really
nice
one
bye
by
tata
avjo

hello hello
hello
hmm
nice
Cat
[19IT016@localhost seinfeld]$ sort hello | uniq -iu

avjo
by
bye
cat
Cat
hello hello
hmm

19IT016@localhost:~/seinfeld
File Edit View Search Terminal Help
[19IT016@localhost seinfeld]$ wc -w senfield-character
64 senfield-character
[19IT016@localhost seinfeld]$ wc -c senfield-character
440 senfield-character
[19IT016@localhost seinfeld]$ wc -l senfield-character
34 senfield-character
[19IT016@localhost seinfeld]$
```