

LIUNIX AND SHELL SCRIPTING-LABORATORY

ASSIGNMENT – 1(G1)

Name: Pranav mishra

REG NO: 12114762

ROLL NO: RDOC09A55

Course Code: CAP454

Teacher: Pallavi Ma'am

Course Title: Linux and Shell Scripting-Laboratory

Question-1: Move file1 from dir1 to dir2.

Firstly, we create a file using cat command and write somethings in the file.

Syntax: cat > filename

Then we make a directory using mkdir command then change the directory to root into dir2.

Syntax: mkdir directory name

Then move the file into directory use the following command after use the mv command then use the ls command.

Syntax: mv filename directory name

```
root@localhost:~/dir2
File Edit View Terminal Go Help
[root@localhost root]# cat >file2
Hello Ma'am
I am Pranav Mishra
MCA G1
[root@localhost root]# mkdir dir2
[root@localhost root]# cd dir2
[root@localhost dir2]# ls
[root@localhost dir2]# cd ~
[root@localhost root]# mv file2 dir2
[root@localhost root]# cd dir2
[root@localhost dir2]# ls
file2
[root@localhost dir2]#
```

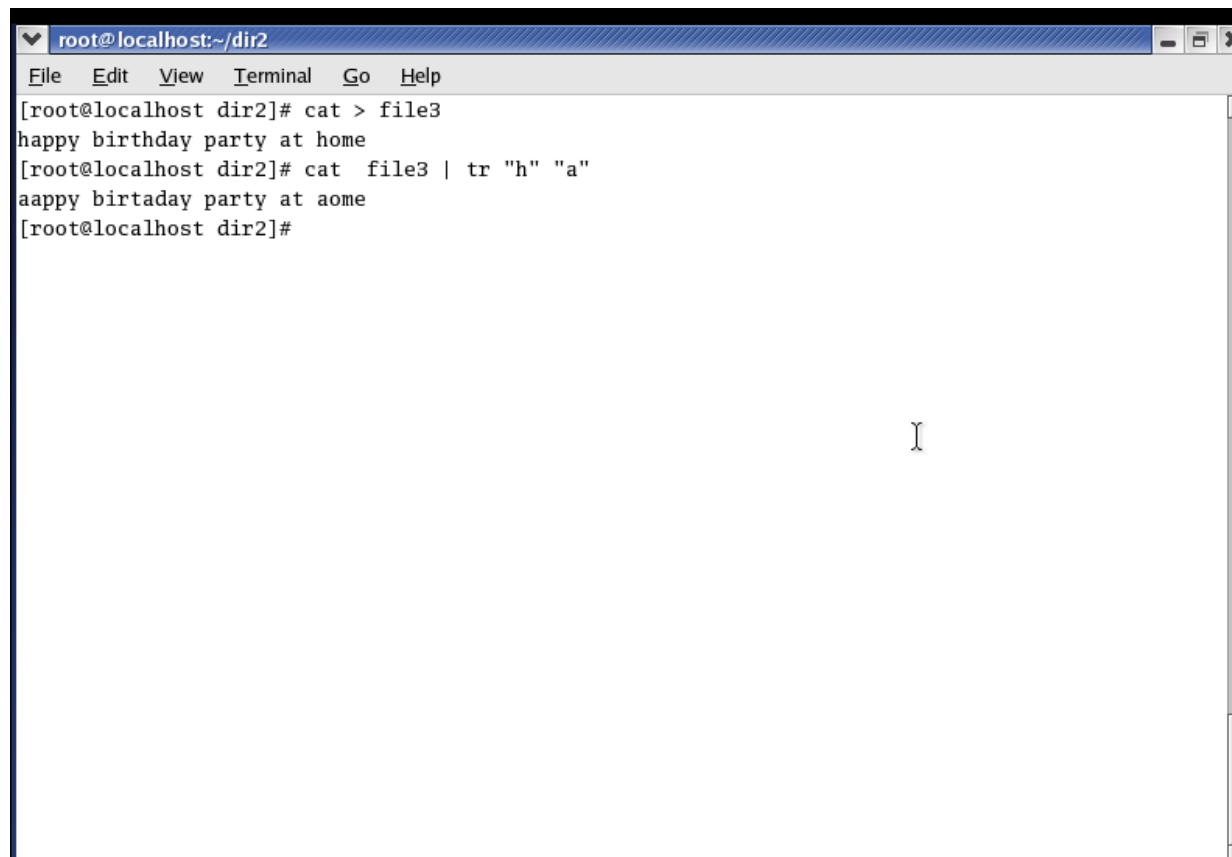
Question-2: Replace a letter 'h' to 'a'.

Firstly, we create a file using cat command and write somethings in the file.

Syntax: cat > filename

Then use the following cat command to replace a letter 'h' to 'a'.

Syntax: cat filename | tr "h" "a"

A terminal window titled 'root@localhost:~/dir2' with a menu bar (File, Edit, View, Terminal, Go, Help). The terminal shows the following commands and output:

```
[root@localhost dir2]# cat > file3
happy birthday party at home
[root@localhost dir2]# cat file3 | tr "h" "a"
aappy birtaday party at aome
[root@localhost dir2]#
```

Question-3: Cut first 5 lines of file1 and paste it into file2.

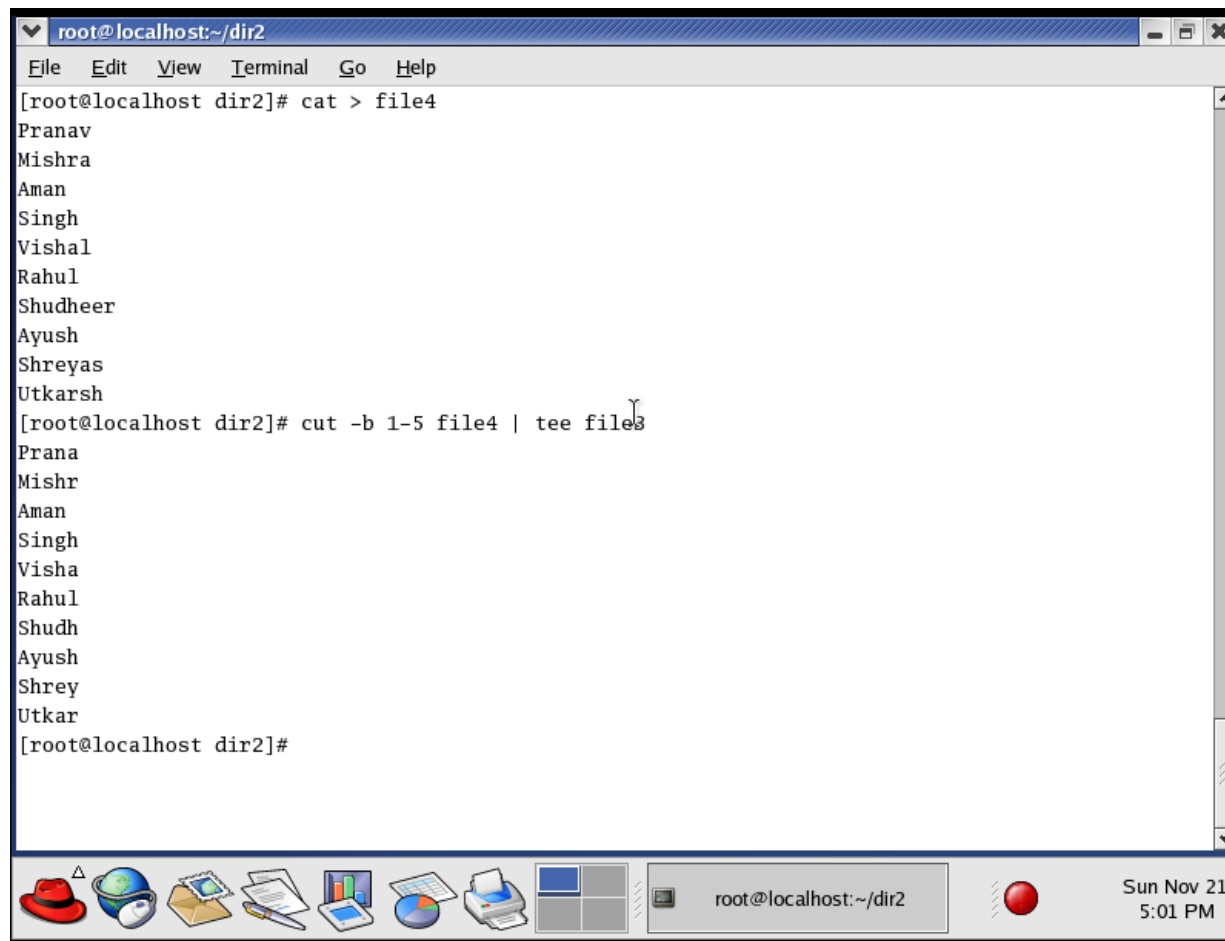
Firstly, we create a file using cat command and write

some things in the file.

Syntax: cat>filename

Then use the following command Cut first 5 lines of file1 and paste it into file2.

Syntax: cut -b 1 -5 First filename | tee Second filename



```
root@localhost:~/dir2
File Edit View Terminal Go Help
[root@localhost dir2]# cat > file4
Pranav
Mishra
Aman
Singh
Vishal
Rahul
Shudheer
Ayush
Shreyas
Utkarsh
[root@localhost dir2]# cut -b 1-5 file4 | tee file3
Prana
Mishr
Aman
Singh
Visha
Rahul
Shudh
Ayush
Shrey
Utkar
[root@localhost dir2]#
```

The screenshot shows a terminal window with a menu bar (File, Edit, View, Terminal, Go, Help) and a title bar (root@localhost:~/dir2). The terminal content shows the execution of two commands: 'cat > file4' which creates a file with names, and 'cut -b 1-5 file4 | tee file3' which extracts the first 5 characters of each line from 'file4' and writes them to 'file3'. The output of the second command shows truncated names. The bottom of the window features a taskbar with various icons and a system tray showing the date and time (Sun Nov 21 5:01 PM).

Question-4: Get size of a file1.

Firstly, we create a file using cat command and write somethings in the file.

Syntax: cat>filename

Then use the ls -sh command to get size of a file1.

Syntax: ls -sh

```
[root@localhost root]# cat > file4
Pranav
Mishra
MCA
G1
LPU
[root@localhost root]# ls -sh
total 136K
4.0K abc.txt          4.0K dir2             4.0K math.sh~         0 new4               4.0K shell1.sh
4.0K anaconda-ks.cfg  0 duplicate          4.0K maths.sh         0 Pranav4            4.0K shell2.sh
12K arc1.tar          4.0K Employe          4.0K mem              4.0K Pranav4~         0 shell2.sh~
4.0K arc2.tar.gz      4.0K evolution        4.0K monday.sh        4.0K Pranav5          4.0K shell.sh
4.0K arc3.tar.bz2     4.0K file4            4.0K monday.sh~       4.0K Pranav6          0 shell.sh~
0 Ayush              16K install.log       0 new1              4.0K raj.sh           4.0K Untitled 1
0 demo1              4.0K install.log.syslog 0 new2              4.0K raj.sh~          4.0K Untitled 2
4.0K dir1             4.0K math.sh          0 new3              4.0K shell16.sh
```

Question-5: Create a group and add one new user in it.

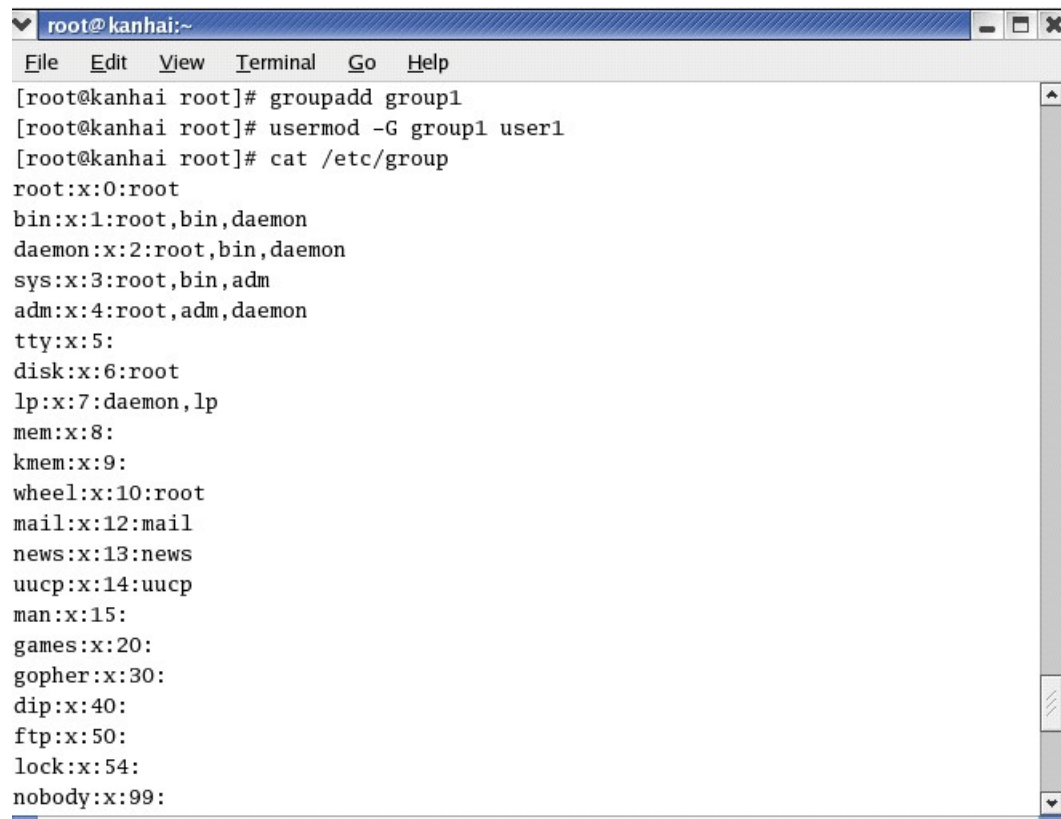
Firstly, we create a group using groupadd command and then create a user then use the following command.

Syntax: groupadd group name (for create a group)

useradd user name (for create a user)

usermod -G group name user name

cat /etc/group (for check the user and group)



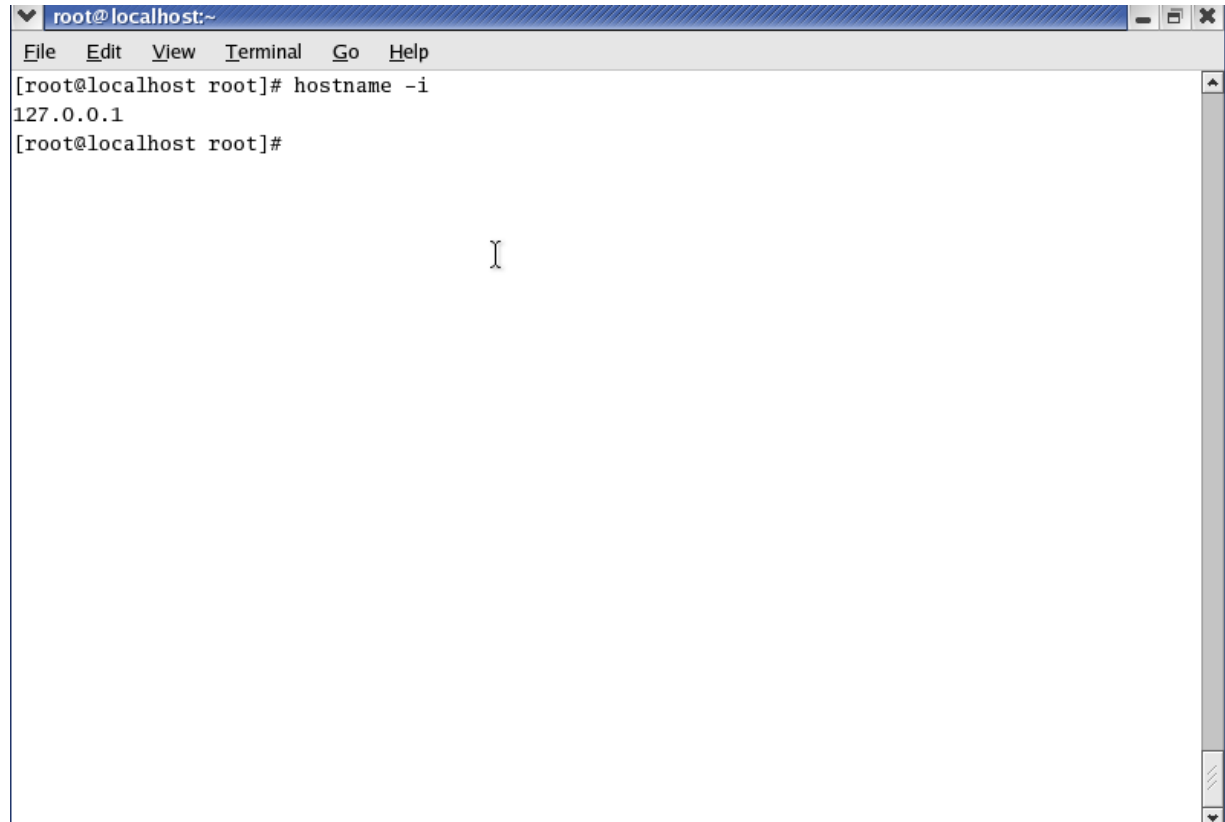
```
root@kanhai:~  
File Edit View Terminal Go Help  
[root@kanhai root]# groupadd group1  
[root@kanhai root]# usermod -G group1 user1  
[root@kanhai root]# cat /etc/group  
root:x:0:root  
bin:x:1:root,bin,daemon  
daemon:x:2:root,bin,daemon  
sys:x:3:root,bin,adm  
adm:x:4:root,adm,daemon  
tty:x:5:  
disk:x:6:root  
lp:x:7:daemon,lp  
mem:x:8:  
kmem:x:9:  
wheel:x:10:root  
mail:x:12:mail  
news:x:13:news  
uucp:x:14:uucp  
man:x:15:  
games:x:20:  
gopher:x:30:  
dip:x:40:  
ftp:x:50:  
lock:x:54:  
nobody:x:99:
```

```
root@localhost:~  
File Edit View Terminal Go Help  
dip:x:40:  
ftp:x:50:  
lock:x:54:  
nobody:x:99:  
users:x:100:  
rpm:x:37:  
floppy:x:19:  
vcsa:x:69:  
utmp:x:22:  
nscd:x:28:  
slocate:x:21:  
sshd:x:74:  
rpc:x:32:  
rpcuser:x:29:  
nfsnobody:x:65534:  
mailnull:x:47:  
smmsp:x:51:  
pcap:x:77:  
xfs:x:43:  
ntp:x:38:  
gdm:x:42:  
pranav:x:500:  
group1:x:501:user1  
user1:x:502:  
group2:x:503:  
Main Menu localhost root]#
```

Question-6: Check the IP address of your machine.

To check the IP address of the machine, use the hostname -i command

Syntax: hostname -i

A screenshot of a terminal window titled 'root@localhost:~'. The window has a menu bar with 'File', 'Edit', 'View', 'Terminal', 'Go', and 'Help'. The terminal content shows the command '[root@localhost root]# hostname -i' followed by the output '127.0.0.1' and a new prompt '[root@localhost root]#'. A cursor is visible on the line following the prompt. The window has standard OS window controls (minimize, maximize, close) in the top right corner and a scrollbar on the right side.

```
root@localhost:~
File Edit View Terminal Go Help
[root@localhost root]# hostname -i
127.0.0.1
[root@localhost root]#
```

Question-7: Create a shortcut of dir1.

Firstly, we use the ls command to check all the file and directory

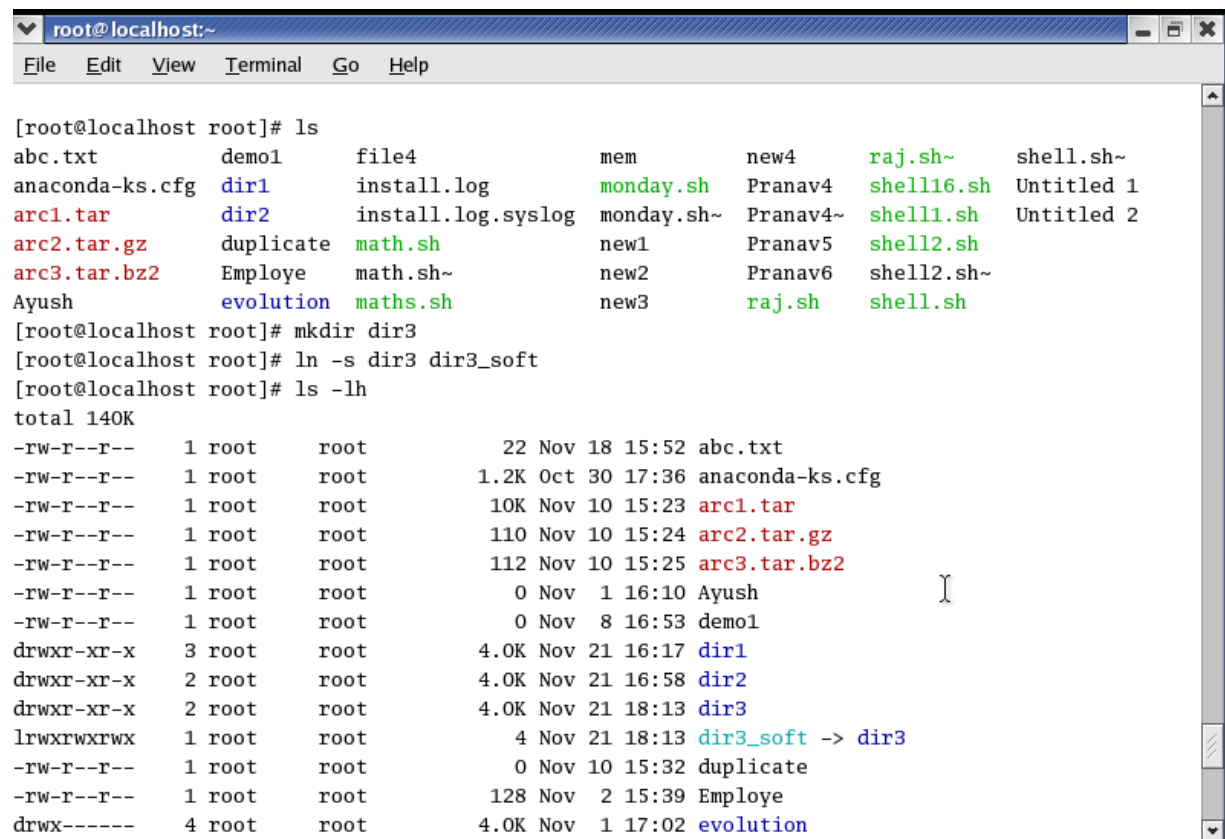
Syntax: ls

Then use mkdir to make a directory then use ln -s for create a shortcut of directory and then use the ls -lh to check the shortcut file.

Syntax: mkdir directory name (for make a directory)

ln -s dir3 dir3_soft

ls -lh



```
root@localhost:~  
File Edit View Terminal Go Help  
[root@localhost root]# ls  
abc.txt          demo1          file4          mem           new4          raj.sh~       shell.sh~  
anaconda-ks.cfg  dir1          install.log    monday.sh     Pranav4       shell16.sh    Untitled 1  
arc1.tar         dir2          install.log.syslog  monday.sh~   Pranav4~     shell1.sh     Untitled 2  
arc2.tar.gz      duplicate     math.sh       new1          Pranav5       shell2.sh  
arc3.tar.bz2     Employe      math.sh~      new2          Pranav6       shell2.sh~  
Ayush           evolution     maths.sh      new3          raj.sh        shell.sh  
[root@localhost root]# mkdir dir3  
[root@localhost root]# ln -s dir3 dir3_soft  
[root@localhost root]# ls -lh  
total 140K  
-rw-r--r--  1 root   root      22 Nov 18 15:52 abc.txt  
-rw-r--r--  1 root   root    1.2K Oct 30 17:36 anaconda-ks.cfg  
-rw-r--r--  1 root   root    10K Nov 10 15:23 arc1.tar  
-rw-r--r--  1 root   root    110 Nov 10 15:24 arc2.tar.gz  
-rw-r--r--  1 root   root    112 Nov 10 15:25 arc3.tar.bz2  
-rw-r--r--  1 root   root      0 Nov  1 16:10 Ayush  
-rw-r--r--  1 root   root      0 Nov  8 16:53 demo1  
drwxr-xr-x  3 root   root    4.0K Nov 21 16:17 dir1  
drwxr-xr-x  2 root   root    4.0K Nov 21 16:58 dir2  
drwxr-xr-x  2 root   root    4.0K Nov 21 18:13 dir3  
lrwxrwxrwx  1 root   root      4 Nov 21 18:13 dir3_soft -> dir3  
-rw-r--r--  1 root   root      0 Nov 10 15:32 duplicate  
-rw-r--r--  1 root   root    128 Nov  2 15:39 Employe  
drwx----- 4 root   root    4.0K Nov  1 17:02 evolution
```


Question-8: Sort content of file1 and store in file2.

Firstly, we create a file using cat command and write somethings in the file.

Syntax: cat > filename (for create a file)

Then use the sort command for sort the content of one file to another file.

Syntax: sort first filename | tee second filename

```
[root@localhost root]# cat > file6
Hello ma'am
I am Pranav Mishra
From DOC09
MCA
[root@localhost root]# sort file6 | tee file5
From DOC09
Hello ma'am
I am Pranav Mishra
MCA
[root@localhost root]# sort file6 | tee file5
```

Question-9: Change the default file permission of file2 to no execute permission to others.

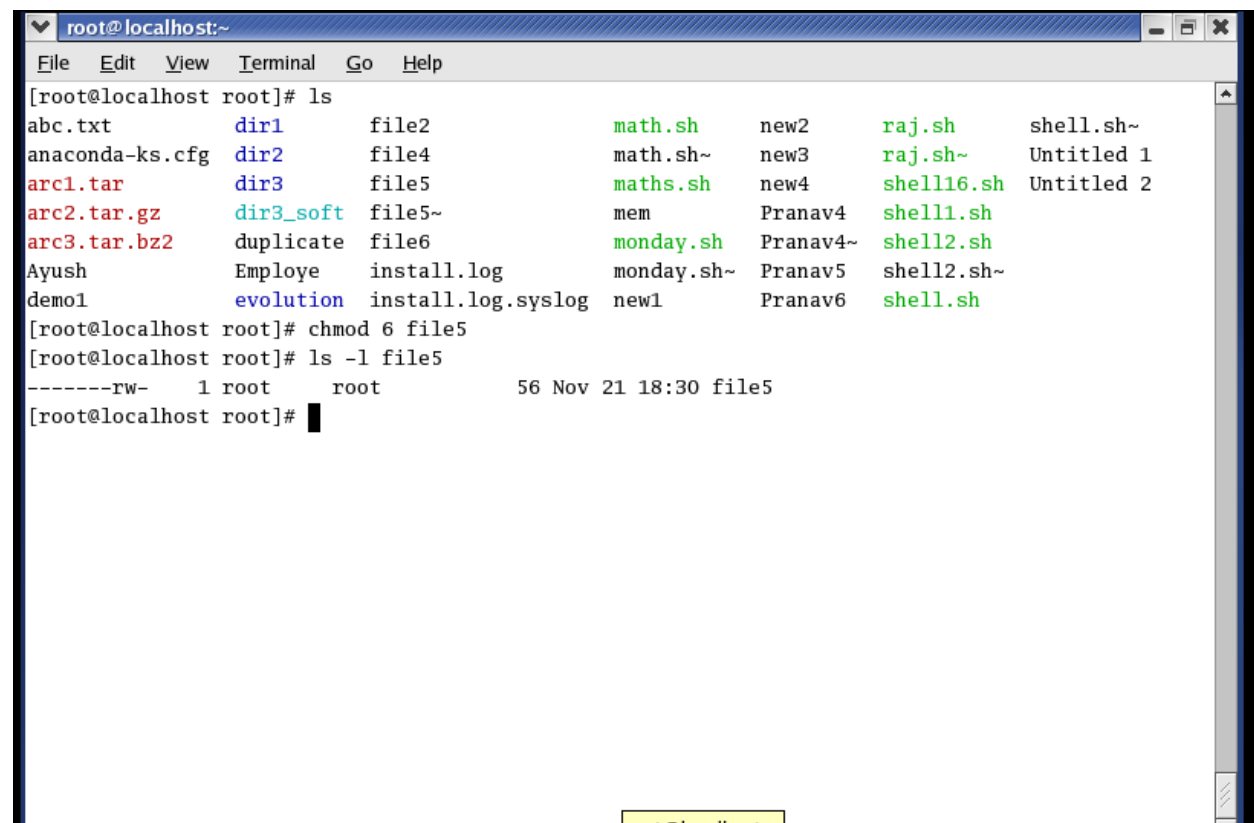
Firstly, we create a file using ls command to check all the file and directory.

Syntax: ls (for check all file and directory)

Then use the chmod command to change the default permission of any file and use the ls -l command to check the file permission.

Syntax: chmod 6 filename (for change the default permission of file)

ls -l filename (for check the permission of file)



```
root@localhost:~  
File Edit View Terminal Go Help  
[root@localhost root]# ls  
abc.txt          dir1          file2          math.sh        new2          raj.sh         shell.sh~  
anaconda-ks.cfg  dir2          file4          math.sh~      new3          raj.sh~       Untitled 1  
arc1.tar         dir3          file5          maths.sh       new4          shell16.sh    Untitled 2  
arc2.tar.gz      dir3_soft    file5~         mem           Pranav4       shell11.sh  
arc3.tar.bz2     duplicate     file6          monday.sh     Pranav4~     shell12.sh  
Ayush            Employe      install.log    monday.sh~    Pranav5       shell2.sh~  
demo1           evolution    install.log.syslog new1          Pranav6       shell.sh  
[root@localhost root]# chmod 6 file5  
[root@localhost root]# ls -l file5  
-----rw-  1 root    root          56 Nov 21 18:30 file5  
[root@localhost root]#
```

Question-10: Write a command that will look for files with an extension "c", and has the occurrence of the string "apple" in it.

Firstly, we create a file using gedit command .c extension and then use the find ./ -name "*.c" | xargs grep -l "apple" for check the data of the file.

Syntax: gedit filename with .c extension (for create .c extension)
find ./ -name "*.c" | xargs grep -l "apple"(for check the data of the file)

