

Search for files :

```
saurabh@LenovoLegion5: /  
  
(saurabh@ LenovoLegion5)-[/]  
$ find home/saurabh/ -name searchfile.txt  
home/saurabh/LinuxPractice/dir3/searchfile.txt  
  
(saurabh@ LenovoLegion5)-[/]  
$ find home/saurabh/ -name sortednames.txt  
home/saurabh/LinuxPractice/sortednames.txt  
  
(saurabh@ LenovoLegion5)-[/]  
$ find home/saurabh/Saurabh/ -type l  
home/saurabh/Saurabh/softlink  
  
(saurabh@ LenovoLegion5)-[/]  
$
```

Evaluate and compare the basic file system features and options :

```
saurabh@LenovoLegion5: ~/LinuxPractice/dir3  
  
(saurabh@ LenovoLegion5)-[~/LinuxPractice/dir3]  
$ echo hello > file1.txt  
  
(saurabh@ LenovoLegion5)-[~/LinuxPractice/dir3]  
$ echo hello world > file2.txt  
  
(saurabh@ LenovoLegion5)-[~/LinuxPractice/dir3]  
$ diff file1.txt file2.txt  
1c1  
< hello  
---  
> hello world  
  
(saurabh@ LenovoLegion5)-[~/LinuxPractice/dir3]  
$
```

Compare and manipulate file content :

```
saaurabh@LenovoLegion5: ~/LinuxPractice/dir3
(saurabh@ LenovoLegion5)~/LinuxPractice/dir3
$ cmp file1.txt file2.txt
file1.txt file2.txt differ: byte 6, line 1

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3
$ cat file2.txt
hello world

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3
$ sed 's/hello/hi/g' file2.txt
hi world

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3
$ awk '{print $NF}' file2.txt
world

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3
$ grep world file2.txt
hello world

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3
$
```

Use input-output redirection (e.g. >, >>, |, 2>)

```
saaurabh@LenovoLegion5: ~/LinuxPractice/dir3
(saurabh@ LenovoLegion5)~/LinuxPractice/dir3
$ ls
file1.txt file2.txt searchfile.txt

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3
$ echo "Adding this string into the file1.txt by using re direction." > file1.txt

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3
$ cat file1.txt
Adding this string into the file1.txt by using re direction.

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3
$ echo "To append the text into a file you can use this re direction operator" >> file1.txt

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3
$ cat file1.txt
Adding this string into the file1.txt by using re direction.
To append the text into a file you can use this re direction operator

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3
$ ls -l | tee > detailedlistoffiles.txt

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3
$ cat detailedlistoffiles.txt
total 8
-rw-r--r-- 1 saurabh saurabh  0 Apr 17 19:55 detailedlistoffiles.txt
-rw-r--r-- 1 saurabh saurabh 131 Apr 17 19:53 file1.txt
-rw-r--r-- 1 saurabh saurabh  82 Apr 17 19:52 file2.txt
-rw-r--r-- 1 saurabh saurabh  0 Apr 17 19:16 searchfile.txt

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3
$ ls -l | grep *.txt
-rw-r--r-- 1 saurabh saurabh 131 Apr 17 19:53 file1.txt

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3
$
```

Analyse text using basic regular expressions :

```
saaurabh@LenovoLegion5: ~/LinuxPractice/dir3
(saurabh@ LenovoLegion5)-[~/LinuxPractice/dir3]
$ echo This Regular expression will locate all the vowels inside this string. > file2.txt

(saurabh@ LenovoLegion5)-[~/LinuxPractice/dir3]
$ grep "[aeiou]" file2.txt
This Regular expression will locate all the vowels inside this string.

(saurabh@ LenovoLegion5)-[~/LinuxPractice/dir3]
$ grep -i "th.s" file2.txt
This Regular expression will locate all the vowels inside this string.

(saurabh@ LenovoLegion5)-[~/LinuxPractice/dir3]
$ _
```

Archive, backup, compress, unpack, and uncompress files :

Archiving file :

```
Select saaurabh@LenovoLegion5: ~/LinuxPractice/dir3/archive
(saurabh@ LenovoLegion5)-[~/LinuxPractice/dir3]
$ ls
archive  detailedlistoffiles.txt  file1.txt  file2.txt  file3.txt  file4.txt  searchfile.txt

(saurabh@ LenovoLegion5)-[~/LinuxPractice/dir3]
$ tar -cvf archive.tar file1.txt file2.txt file3.txt file4.txt
file1.txt
file2.txt
file3.txt
file4.txt

(saurabh@ LenovoLegion5)-[~/LinuxPractice/dir3]
$ ls
archive  archive.tar  detailedlistoffiles.txt  file1.txt  file2.txt  file3.txt  file4.txt  searchfile.txt

(saurabh@ LenovoLegion5)-[~/LinuxPractice/dir3]
$ mv archive.tar archive

(saurabh@ LenovoLegion5)-[~/LinuxPractice/dir3]
$ cd archive/

(saurabh@ LenovoLegion5)-[~/LinuxPractice/dir3/archive]
$ ls
archive.tar

(saurabh@ LenovoLegion5)-[~/LinuxPractice/dir3/archive]
$ tar -xvf archive.tar
file1.txt
file2.txt
file3.txt
file4.txt

(saurabh@ LenovoLegion5)-[~/LinuxPractice/dir3/archive]
$ ls
archive.tar  file1.txt  file2.txt  file3.txt  file4.txt

(saurabh@ LenovoLegion5)-[~/LinuxPractice/dir3/archive]
$
```

Compress/Uncompress file :

```
Select saurabh@LenovoLegion5: ~/LinuxPractice/dir3/archive/uncompress

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3/archive
$ ls -l
total 28
-rw-r--r-- 1 saurabh saurabh 10240 Apr 17 20:15 archive.tar
-rw-r--r-- 1 saurabh saurabh 131 Apr 17 19:53 file1.txt
-rw-r--r-- 1 saurabh saurabh 71 Apr 17 20:10 file2.txt
-rw-r--r-- 1 saurabh saurabh 13 Apr 17 20:14 file3.txt
-rw-r--r-- 1 saurabh saurabh 18 Apr 17 20:14 file4.txt

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3/archive
$ gzip archive.tar

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3/archive
$ ls -l
total 20
-rw-r--r-- 1 saurabh saurabh 337 Apr 17 20:15 archive.tar.gz
-rw-r--r-- 1 saurabh saurabh 131 Apr 17 19:53 file1.txt
-rw-r--r-- 1 saurabh saurabh 71 Apr 17 20:10 file2.txt
-rw-r--r-- 1 saurabh saurabh 13 Apr 17 20:14 file3.txt
-rw-r--r-- 1 saurabh saurabh 18 Apr 17 20:14 file4.txt

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3/archive
$ mkdir uncompress

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3/archive
$ mv archive.tar.gz uncompress/

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3/archive
$ cd uncompress/

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3/archive/uncompress
$ gunzip archive.tar.gz

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3/archive/uncompress
$ ls -l
total 12
-rw-r--r-- 1 saurabh saurabh 10240 Apr 17 20:15 archive.tar

(saurabh@ LenovoLegion5)~/LinuxPractice/dir3/archive/uncompress
$
```

Create, delete, copy, and move files and directories :

```
saurabh@LenovoLegion5: ~/LinuxPractice/dir4

(saurabh@ LenovoLegion5)~/LinuxPractice/dir4
$ touch file.txt

(saurabh@ LenovoLegion5)~/LinuxPractice/dir4
$ mkdir directory

(saurabh@ LenovoLegion5)~/LinuxPractice/dir4
$ mv file.txt directory/

(saurabh@ LenovoLegion5)~/LinuxPractice/dir4
$ cd directory/

(saurabh@ LenovoLegion5)~/LinuxPractice/dir4/directory
$ ls
file.txt

(saurabh@ LenovoLegion5)~/LinuxPractice/dir4/directory
$ rm file.txt

(saurabh@ LenovoLegion5)~/LinuxPractice/dir4/directory
$ cd ..

(saurabh@ LenovoLegion5)~/LinuxPractice/dir4
$ ls
directory

(saurabh@ LenovoLegion5)~/LinuxPractice/dir4
$ rm -r directory/
```

Create and manage hard and soft links :

```
Select saurabh@LenovoLegion5: ~/Links

(saurabh@ LenovoLegion5)~/Links
$ ln -s /home/saurabh/LinuxPractice/dir1/dir2/dir3/file1.txt softlink

(saurabh@ LenovoLegion5)~/Links
$ ln /home/saurabh/LinuxPractice/dir1/dir2/dir3/file1.txt hardlink

(saurabh@ LenovoLegion5)~/Links
$ ls -l
total 4
-rw-r--r-- 2 saurabh saurabh 12 Apr 17 20:47 hardlink
lrwxrwxrwx 1 saurabh saurabh 52 Apr 17 20:48 softlink -> /home/saurabh/LinuxPractice/dir1/dir2/dir3/file1.txt

(saurabh@ LenovoLegion5)~/Links
```

```
Select saurabh@LenovoLegion5: ~/Links
(saurabh@LenovoLegion5)~/Links
$ ln -s /home/saurabh/LinuxPractice/dir1/dir2/dir3/file1.txt softlink
(saurabh@LenovoLegion5)~/Links
$ ln /home/saurabh/LinuxPractice/dir1/dir2/dir3/file1.txt hardlink
(saurabh@LenovoLegion5)~/Links
$ ls -l
total 4
-rw-r--r-- 2 saurabh saurabh 12 Apr 17 20:47 hardlink
lrwxrwxrwx 1 saurabh saurabh 52 Apr 17 20:48 softlink -> /home/saurabh/LinuxPractice/dir1/dir2/dir3/file1.txt
(saurabh@LenovoLegion5)~/Links
$ cat hardl
cat: hardl: No such file or directory
(saurabh@LenovoLegion5)~/Links
$ cat hardlink
Hello World
(saurabh@LenovoLegion5)~/Links
$ echo "Modifying the actual content of the file by using this hardlink" > hardlink
(saurabh@LenovoLegion5)~/Links
$ cat hardlink
Modifying the actual content of the file by using this hardlink
(saurabh@LenovoLegion5)~/Links
$ cat softlink
Modifying the actual content of the file by using this hardlink
(saurabh@LenovoLegion5)~/Links
$
```

List, set, and change standard file permissions :

```
saurabh@LenovoLegion5: ~/LinuxPractice/Awkcommand
(saurabh@LenovoLegion5)~/LinuxPractice/Awkcommand
$ ls
csvFile.txt data.txt file.txt
(saurabh@LenovoLegion5)~/LinuxPractice/Awkcommand
$ ls -l
total 12
-rw-r--r-- 1 saurabh saurabh 203 Apr 17 11:05 csvFile.txt
-rw-r--r-- 1 saurabh saurabh 142 Apr 17 11:05 data.txt
-rw-r--r-- 1 saurabh saurabh 140 Apr 17 11:05 file.txt
(saurabh@LenovoLegion5)~/LinuxPractice/Awkcommand
$ chmod g+w csvFile.txt
(saurabh@LenovoLegion5)~/LinuxPractice/Awkcommand
$ ls -l
total 12
-rw-rw-r-- 1 saurabh saurabh 203 Apr 17 11:05 csvFile.txt
-rw-r--r-- 1 saurabh saurabh 142 Apr 17 11:05 data.txt
-rw-r--r-- 1 saurabh saurabh 140 Apr 17 11:05 file.txt
(saurabh@LenovoLegion5)~/LinuxPractice/Awkcommand
$ chmod o+w data.txt
(saurabh@LenovoLegion5)~/LinuxPractice/Awkcommand
$ ls -l
total 12
-rw-rw-r-- 1 saurabh saurabh 203 Apr 17 11:05 csvFile.txt
-rw-r--rw- 1 saurabh saurabh 142 Apr 17 11:05 data.txt
-rw-r--r-- 1 saurabh saurabh 140 Apr 17 11:05 file.txt
(saurabh@LenovoLegion5)~/LinuxPractice/Awkcommand
$ chmod u-w file.txt
(saurabh@LenovoLegion5)~/LinuxPractice/Awkcommand
$ ls -l
total 12
-rw-rw-r-- 1 saurabh saurabh 203 Apr 17 11:05 csvFile.txt
-rw-r--rw- 1 saurabh saurabh 142 Apr 17 11:05 data.txt
-r--r--r-- 1 saurabh saurabh 140 Apr 17 11:05 file.txt
(saurabh@LenovoLegion5)~/LinuxPractice/Awkcommand
$
```