
NETWORKING & SYSTEM ADMINISTRATION LAB

Experiment No.: 6

Name: sruthy chandran
Roll No:43
Batch:S2 RMCA
Date:21/04/22

Aim

Familiarization of Linux Commands.

Procedure and Output Screenshot**1.read**

read command in Linux system is used to read from a file descriptor. Basically, this command read up the total number of bytes from the specified file descriptor into the buffer. If the number or count is zero then this command may detect the errors.

```
student@U43:~$ read name
my name is sruthy chandran
student@U43:~$ echo $ name
$ name
student@U43:~$ echo $name
my name is sruthy chandran
```

2.locate

locate command in Linux is used to find the files by name. There is two most widely used file searching utilities accessible to users are called *find* and *locate*. The *locate* utility works better and faster than *find* command counterpart because instead of searching the file system when a file search is initiated, it would look through a database. This database contains bits and parts of files and their corresponding paths on your system.

```
student@S3:~$ locate dd.txt
/home/student/dd.txt
/home/student/anjali/dd.txt
student@S3:~$
```

3.locate -i

locate command in Linux is used to find the files by name.

-i, --ignore-case : Ignore case distinctions when matching patterns.

```

/usr/share/gnupg/help.gn.txt
student@U43:~$ locate -i a.txt
/home/android/Android/Sdk/platform-tools/systrace/catapult/systrace/systrace/test_data/battor_test_data.txt
/home/android/Android/Sdk/platform-tools/systrace/catapult/systrace/systrace/test_data/compressed_atrace_data.txt
/home/android/Android/Sdk/platform-tools/systrace/catapult/systrace/systrace/test_data/decompressed_atrace_data.txt
/home/android/AndroidStudioProjects/MyApplication/app/build/intermediates/incremental/packageDebug/tmp/debug/file-input-save-data.txt
/home/mca/Downloads/android-studio/plugins/svn4idea/lib/licenses/LICENSE-JNA.txt

```

4.find

The Linux find command is one of the most important and frequently used command command-line utility in Unix-like operating systems. The find command is used to search and locate the list of files and directories

```

student@S3:~$ find b2.txt
b2.txt

```

5.grep

The grep command can search for a string in groups of files. When it finds a pattern that matches in more than one file, it prints the name of the file, followed by a colon, then the line matching the pattern.

```

student@U43:~$ cat >file1.txt
grep command will let you search through all text in a file.
grep is a linux command
^Z
[1]+  Stopped                  cat > file1.txt
student@U43:~$ grep linux file1.txt
grep is a linux command

```

grep options

6.grep -i

-i : Ignores, case for matching

```
student@U43:~$ grep femilirization file5.txt
Replace the default database with DBPATH. DBPATH is a : (colon) separated list of database file names. If more than one -database option is specified, the resulting path is a concatenation of the separate paths.Replace the default database withlinux.command in linux .femilirization of linux commands.
student@U43:~$ grep -A1 femilirization file5.txt
Replace the default database with DBPATH. DBPATH is a : (colon) separated list of database file names. If more than one -database option is specified, the resulting path is a concatenation of the separate paths.Replace the default database withlinux.command in linux .femilirization of linux commands.
```

7.grep -v

-v : This prints out all the lines that do not matches the pattern

```
student@S3:~$ grep -v Roll cls.txt
Akhila Anand
Adm no:13243
```

8.grep -A1

-A n : Prints searched line and nlines after the result.

```
student@S3:~$ grep -A1 Roll cls.txt
Roll no:3
Adm no:13243
```

9.grep -B1

-B n : Prints searched line and n line before the result.

```
student@S3:~$ cat marvel1
captian america
  ironman
spiderman
hulk
xmen
strange
```

```
student@S3:~$ grep -B1 hulk marvel1
spiderman
hulk
```

10.grep -C1

-C n : Prints searched line and n lines after before the result.

```
student@S3:~$ grep -C1 spiderman marvel1
  ironman
spiderman
hulk
```

11.df

The df command is known as the “disk free” command gives the estimation of the total amount of the disk memory space used by the input files and stored files in memory directories. It is used to measure and identify the memory usage of specific files and directories that take up a large sum of the disk memory usage.

```

student@U43: ~
tmpfs 788 1 788 1% /run/user/1001
student@U43:~$ du
4      ./ssh
12     ./jetty
4      ./csvfile
8      ./java/.userPrefs/jetbrains/!(!!cg"p!(!)@!"j!(k!|w"!'8!b!p!':!e@==
8      ./java/.userPrefs/jetbrains/jetprofile/asset
16     ./java/.userPrefs/jetbrains/jetprofile
32     ./java/.userPrefs/jetbrains
40     ./java/.userPrefs
40     ./java/.userPrefs/fonts/11.0.13
40     ./java/.userPrefs/fonts/11.0.12
40     ./java/.userPrefs/fonts/11.0.3
124    ./java/.userPrefs/fonts
168    ./java
16     ./cache/fontconfig
20     ./cache/thumbnails/fail/gnome-thumbnail-factory
24     ./cache/thumbnails/fail
36     ./cache/thumbnails/normal
404    ./cache/thumbnails/large
468    ./cache/thumbnails
4      ./cache/gnome-control-center/wacom
8      ./cache/gnome-control-center
2292   ./cache/thunderbird/tscd1lxo.default/cache2/entries
4      ./cache/thunderbird/tscd1lxo.default/cache2/doomed
2300   ./cache/thunderbird/tscd1lxo.default/cache2
4      ./cache/thunderbird/tscd1lxo.default/safebrowsing
996    ./cache/thunderbird/tscd1lxo.default/startupCache
3304   ./cache/thunderbird/tscd1lxo.default
3308   ./cache/thunderbird
4      ./cache/ibus-table
12     ./cache/rhythmbox/album-art
8      ./cache/rhythmbox/alternate-toolbar
24     ./cache/rhythmbox
872    ./cache/gnome-software/fwupd/remotes.d/lvfs
876    ./cache/gnome-software/fwupd/remotes.d
880    ./cache/gnome-software/fwupd
708    ./cache/gnome-software/shell-extensions

```

12.df -m

It is used to display in megabytes

```

student@U43: ~
tmpfs 806696 16 806680 1% /run/user/120
tmpfs 806696 64 806632 1% /run/user/1001
student@U43:~$ df -m
Filesystem      1M-blocks    Used Available Use% Mounted on
udev            3910         0      3910    0% /dev
tmpfs           788         2       786    1% /run
/dev/sda6       581222 32109 524321    6% /
tmpfs          3939         15    3925    1% /dev/shm
tmpfs           5           1         5    1% /run/lock
tmpfs          3939         0    3939    0% /sys/fs/cgroup
/dev/loop2        4           4         0 100% /snap/gnome-system-monitor/100
/dev/loop8       203        203         0 100% /snap/vlc/1049
/dev/loop12     141        141         0 100% /snap/gnome-3-26-1604/90
/dev/loop19        1           1         0 100% /snap/gnome-logs/61
/dev/loop23       43         43         0 100% /snap/gtk-common-themes/1313
/dev/loop4        66         66         0 100% /snap/gtk-common-themes/1519
/dev/loop6       111        111         0 100% /snap/core/12834
/dev/loop26      150        150         0 100% /snap/gnome-3-28-1804/71
/dev/loop7       165        165         0 100% /snap/gnome-3-28-1804/161
/dev/loop25      529        529         0 100% /snap/pycharm-community/274
/dev/loop10      249        249         0 100% /snap/gnome-3-38-2004/99
/dev/loop0        56         56         0 100% /snap/core18/2284
/dev/loop13        3           3         0 100% /snap/gnome-calculator/920
/dev/loop14        62         62         0 100% /snap/core20/1361
/dev/loop1       219        219         0 100% /snap/gnome-3-34-1804/77
/dev/loop16        3           3         0 100% /snap/gnome-system-monitor/174
/dev/loop15       62         62         0 100% /snap/core20/1405
/dev/loop3         1           1         0 100% /snap/gnome-characters/741
/dev/loop27        1           1         0 100% /snap/gnome-logs/106
/dev/loop18        1           1         0 100% /snap/gnome-characters/761
/dev/loop22      111        111         0 100% /snap/core/12821
/dev/loop24      296        296         0 100% /snap/vlc/2344
/dev/loop28        1           1         0 100% /snap/bare/5
/dev/loop9       566        566         0 100% /snap/pycharm-community/276
/dev/loop21        3           3         0 100% /snap/gnome-calculator/884
/dev/loop20       56         56         0 100% /snap/core18/2344
/dev/loop5       248        248         0 100% /snap/gnome-3-38-2004/87
/dev/loop11      141        141         0 100% /snap/gnome-3-26-1604/104

```

13.du

du command, short for disk usage, is used to estimate file space usage.

```
student@S4:~$ du
4      ./ssh
8      ./java/.userPrefs/jetbrains/_(!(!cg"p!(})!}@"j!(k!|w"w!'8!b!"p!'':!e@==
8      ./java/.userPrefs/jetbrains/jetprofile/asset
16     ./java/.userPrefs/jetbrains/jetprofile
32     ./java/.userPrefs/jetbrains
40     ./java/.userPrefs
40     ./java/fonts/11.0.13
40     ./java/fonts/11.0.12
84     ./java/fonts
128    ./java
676    ./cache/fontconfig
140    ./cache/thumbnails/fail/gnome-thumbnail-factory
144    ./cache/thumbnails/fail
108    ./cache/thumbnails/normal
1168   ./cache/thumbnails/large
1424   ./cache/thumbnails
4      ./cache/thunderbird/aag2xnm2.default/cache2/entries
4      ./cache/thunderbird/aag2xnm2.default/cache2/doomed
12     ./cache/thunderbird/aag2xnm2.default/cache2
4      ./cache/thunderbird/aag2xnm2.default/safebrowsing
996    ./cache/thunderbird/aag2xnm2.default/startupCache
1016   ./cache/thunderbird/aag2xnm2.default
1020   ./cache/thunderbird
4      ./cache/ibus-table
12     ./cache/rhythmbox/album-art
8      ./cache/rhythmbox/alternate-toolbar
24     ./cache/rhythmbox
872    ./cache/gnome-software/fwupd/remotes.d/lvfs
876    ./cache/gnome-software/fwupd/remotes.d
880    ./cache/gnome-software/fwupd
4      ./cache/gnome-software/shell-extensions
4      ./cache/gnome-software/cssresource
4      ./cache/gnome-software/icons
```

14.wc

wc stands for **word count**. As the name implies, it is mainly used for counting purpose.

It is used to find out **number of lines, word count, byte and characters count** in the files specified in the file arguments.

By default it displays **four-columnar output**.

```
student@U43:~$ wc -l marvel2
3 marvel2
student@U43:~$ ls
```

wc options

14.wc -c

-c: This option displays **count of bytes** present in a file.

```
student@U43:~$ wc -c marvel1
41 marvel1
```

15.wc -w

-w: This option prints the **number of words** present in a file.

16.wc -l

-l: This option prints the **number of lines** present in a file.

17.wc -m

-m: Using **-m** option 'wc' command displays **count of characters** from a file.

```
student@U43:~$ wc -m marvel1
41 marvel1
```