NETWORKING & SYSTEM ADMINISTRATION LAB

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Experiment No: 6

Aim

Familiarization of linux commands.

Procedure

1. Read command

Used to read the contents of a line into a variable.

$ read [options][name]

Output:

```
student@S17:~$ read name
my name marvel
student@S17:~$ echo $name
my name marvel
```

2. Locate command

Locate command and find command is used to search a file by name.

To locate a particular directory or file.

Find: not path specified it specifies if it exists or not.

a) locate -i filename

Ignore case it is used to ignore case sensitivity of the specified patterns.

Output:

```
student@S17:~$ locate -i empty.txt
/home/student/empty/empty/empty.txt
/home/student/empty/empty/manya/empty.txt
/home/student/manya/empty.txt
```

$ find empty.txt

Output:

```
empty.txt
```

3. grep command

The 'grep' command stands "global regular expression print". It will let you search through all the text in a given file.

$ grep <search word>filename

Output:

```
student@S17:~/manya$ grep smarf marvel5
spider man        smarf
```

a) grep -i

This command filters output in a case-insensitive way.

$ grep -i <search word><filename>

Output:

```
student@S17:~/manya$ grep -i HARRY marvel5
iron man         harry
```

b) grep -v

Command displays lines not matching to the specified word(inverted search).

Output:

```
student@S17:~/manya$ grep -v smarf marvel5
iron man         harry
super man        mickey
```

c) grep -A1

This command is used to display the line after the result.

Output:

```
student@S17:~/manya$ grep -A1 harry marvel5
iron man         harry
spider man       smarf
```

d) grep -B1

This command is used to display the line before the result.

```
student@S17:~/manya$ grep -B1 mickey  marvel5
spider man       smarf
super man        mickey
```

e) grep -C1

This command is used to display the line after and line before the result.

Output:

```
student@S17:~/manya$ grep -C1 smarf  marvel5
iron man        harry
spider man      smarf
super man       mickey
```

4. df command

Command used to display the disk space used in the file system(df – disk file system).

a) df -m

To see the reports in megabytes.

Output:

```
student@S17:~/manya$ df -m
Filesystem     1M-blocks  Used Available Use% Mounted on
udev             3896        0      3896   0% /dev
tmpfs             785        2       784   1% /run
/dev/sda6      111779    37539     68520  36% /
tmpfs            3925        8      3918   1% /dev/shm
tmpfs               5        1         5   1% /run/lock
tmpfs            3925        0      3925   0% /sys/fs/cgroup
/dev/loop0        219      219         0 100% /snap/gnome-3-34-1804/72
/dev/loop1          1        1         0 100% /snap/gtk2-common-themes/13
/dev/loop2          1        1         0 100% /snap/gnome-logs/81
```

5. du command

du stands for disk usage, to check how much space a file or directory takes.

Output:

```
student@S17:~/manya$ du
4       ./new
56      .
```

6. wc command

Helps to counting the lines, words and characters in a file.

a) $ wc -l filename

It displays the number of lines

Output:

```
student@S17:~/manya$ wc -l marvel5
3 marvel5
```

b) $ wc -w filename

It displays the number of words

Output:

```
student@S17:~/manya$ wc -w marvel5
9 marvel5
```

c) $ wc -c filename

It displays the number of characters

Output:

```
student@S17:~/manya$ wc -c marvel5
49 marvel5
```

d) $ wc -m filename

It displays number of bytes.

Output:

```
student@S17:~/manya$ wc -m marvel5
49 marvel5
```