

grep command

- 1) grep stands for **Global Regular Expression Print**
- 2) This command is used to find particular pattern in a file or multiple files
- 3) syntax for grep command is :

`grep <option> <pattern> file_name`

or if we are using grep command in combination with another command then syntax is

`command | grep <option> <pattern or search string>`

Example 1: find root string in /etc/passwd file

Ans : `grep root /etc/passwd`

or

`cat -n /etc/passwd | grep root`

1) -i option

by default grep command search pattern by considering case so if we want to search a pattern by ignoring case then we need to use -i option.

-i means ignore the case

Example : find Root by ignoring case

Ans : `cat -n /etc/passwd | grep -i Root`

2) -n option :

If we want to print searched pattern with line number then we need to use -n number option

Example

```
grep -n root /etc/passwd
```

or

```
cat /etc/passwd | grep -n root
```

3) -c option : To Display the number of Occurrences

-c option is used to count number of lines that given pattern is present

Example

```
grep -c root /etc/passwd
```

```
grep -c usr /etc/passwd
```

4) -o option : To print only matched Pattern instead of total line

-> o stands occurrence

-> If we want to find occurrence of given pattern then we need to use -o option

```
grep -o usr /etc/passwd
```

5) -w option : To search for exact word in the file

To match exact word then we need to use -w option

```
grep roo /etc/passwd -> without -w option
```

```
grep -w roo /etc/passwd -> with -w option
```

```
grep -w root /etc/passwd -> with -w option
```

6) A option , B option and C option

-> Display before, after and surrounding lines including search pattern

A -> After B -> Before

C -> After + Before

Example : print 2 lines after searched pattern **root**

Ans: `grep -A2 root /etc/passwd`

Ans: `grep -nA2 root /etc/passwd`

Ans: `grep -niwA2 root /etc/passwd`

Example : Print 2 lines before searched pattern (use of -B options)

`grep -B2 root /etc/passwd`

`grep -nB2 root /etc/passwd`

`grep -niwB2 root /etc/passwd`

Example print 2 lines after and before searched pattern(use of -C option)

`grep -C2 root /etc/passwd`

`grep -nC2 root /etc/passwd`

`grep -niwC2 root /etc/passwd`

7) -v option:

-> -v means inverted

Suppose my requirement is I want to display the lines which don't have root word

`grep -v root /etc/passwd`

or

`cat -n /etc/passwd | grep -v root`

8) -l option

-l option is used to display only files names in which pattern is exist

```
grep -l root *.txt
```

Assignment

Q. Save all the running process information in file

Ans : `ps -ef > Result.txt`

Q. Display all lines which contains lib word

Ans : `grep -n lib Result.txt`

Q. Display all lines which does not contains lib

Ans: `grep -v lib Result.txt`

Q. Count all lines where we are getting lib

Ans : `grep -c lib Result.txt`

Q. Display all lines which conatins lib and preceding with line number

Ans: `grep -n lib Result.txt`

Q. Display lines which does not contains lib but display only top 2 lines

Ans: `grep -v lib Result.txt | head -2`