

# sed command

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## Unix commands

- Sed is a stream editor. A stream editor is used to perform basic text transformations on an input stream (a file or input from a pipeline).
- it is sed's ability to filter text in a pipeline which particularly distinguishes it from other types of editors.
- it can perform lots of functions on file like searching, find and replace, insertion or deletion.
- most common use of SED command in UNIX is for substitution or for find and replace.

- Copy passwd file in your respective home directory by running below command:
  - `Cp /etc/passwd $HOME`
- 1. How to replace or substitute string using sed command
  - `sed 's/root/SIPL/' passwd`
  - “s” specifies the substitution operation. The “/” are delimiters, root is search pattern and SIPL is replacement of search pattern
  - By default, the sed command replaces the first occurrence of the pattern in each line and it won't replace the second, third...occurrence in every line.
- 2. Replacing the nth occurrence of a pattern in a line. (Edit passwd file and add 2/3 lines having pattern root)
  - `sed 's/root/SIPL/2' passwd`
  - Above command replaces the second occurrence of the word “root” with “SIPL” in every line.

3. Replacing all the occurrence of the pattern in a line:
  - /g (global replacement) specifies the sed command to replace all the occurrences of the string in the line.
  - sed 's/root/SIPL/g' passwd
4. Replacing from nth occurrence to all occurrences in a line .
  - Use the combination of /1, /2 etc and /g to replace all the patterns from the nth occurrence of a pattern in every line.
  - sed 's/root/SIPL/3g' passwd
5. Replacing string on a specific line number i.e. in below example, it will be replacing 1<sup>st</sup> occurrence of pattern root by SIPL on line number 3
  - sed '3 s/root/SIPL/' passwd

6. Duplicating the replaced line with /p flag : The /p print flag prints the replaced line twice on the terminal.
  - sed '3 s/root/SIPL/p' passwd
7. Printing only the replaced lines :the -n option suppresses the duplicate rows generated by the /p flag and prints the replaced lines only one time.
  - Sed -n 's/root/SIPL/p' passwd
8. Replacing string on a range of lines : You can specify a range of line numbers to the sed command for replacing a string.
  - sed '1,3 s/root/SIPL/p' passwd OR sed '3, \$ s/root/SIPL/p' passwd
9. Delete a particular line say n – sed 'nd' passwd
  - sed '5d' passwd
10. Delete last line in file
  - Sed '\$d' passwd

9. Delete line from specific range
  - Sed '1,5 d' passwd
10. Delete from nth to last line i.e.
  - sed '15, \$ d' passwd
11. Delete pattern matching line sed '/pattern/ d' filename
  - Sed '/root/ d' passwd
12. Insert one blank line after each line –
  - Sed G passwd
13. To insert two blank lines –
  - Sed 'G;G' passwd

Open passwd file and add few blank lines before proceeding for next example:

14. Delete blank lines and insert one blank line after each line –
  - sed '/^\$/d' passwd

15. Delete blank lines and insert one blank line after each line –
  - Sed `‘^$/d;G’ passwd`
16. Insert a blank line below every line which matches “root”
  - Sed `‘/root/G’ passwd`
17. Viewing a file from x to y range –
  - Sed `–n ‘2,5p’ passwd`
18. View entire file except given range-
  - Sed `–n ‘2,5d’ passwd`
19. Numbering each line in file use “=”
  - Sed `= passwd` OR sed `‘=’ passwd`
20. \N append next line in output, \n to read next line in output, \t is used for tab between number and sentence –
  - sed `= passwd | sed 'N;s/\n/\t/'Fdfds`