SED

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Printing Operation

▶ Linux Sed command allows you to print only specific lines based on the line number or pattern matches.

▶ "p" is a command for printing the data from the pattern buffer.

▶ To suppress automatic printing of pattern space use -n command with sed. sed -n option will not print anything, unless an explicit request to print is found.

▶ Syntax:

$ sed -n 'ADDRESS'p filename

OR

$ sed -n '/PATTERN/p' filename

Printing Operation

► Let us first create thegeekstuff.txt file that will be used in all the examples mentioned below.

$ cat thegeekstuff.txt

1. Linux - Sysadmin, Scripting etc.

2. Databases - Oracle, mySQL etc.

3. Hardware

4. Security (Firewall, Network, Online Security etc)

5. Storage

6. Cool gadgets and websites

7. Productivity (Too many technologies to explore, not much time available)

8. Website Design

9. Software Development

10.Windows- Sysadmin, reboot etc.

Number Format

Total : 5

Printing Operation-Address Format 1

Sed Address Format 1: NUMBER

▶ This will match only Nth line in the input.: $ sed -n 'N'p filename

▶ For example: 3p prints third line of input file thegeekstuff.txt as shown below.

$ sed -n '3'p thegeekstuff.txt

3. Hardware

Printing Operation-Address Format 2

Sed Address Format 2: NUMBER1~NUMBER2

▶ M~N with "p" command prints every Nth line starting from line M.: $ sed -n 'M~N'p filename

▶ For example: 3~2p prints every 2nd line starting from 3rd line as shown below.

$ sed -n '3~2'p thegeekstuff.txt

3. Hardware

5. Storage

7. Productivity (Too many technologies to explore, not much time available)

9. Software Development

Printing Operation-Address Format 3

Sed Address Format 3: START,END

▶ M,N with "p" command prints Mth line to Nth line.: $ sed -n 'M,N'p filename

▶ For example: 4,8p prints from 4th line to 8th line from input file thegeekstuff.txt

$ sed -n '4,8'p thegeekstuff.txt

4. Security (Firewall, Network, Online Security etc)

5. Storage

6. Cool gadgets and websites

7. Productivity (Too many technologies to explore, not much time available)

8. Website Design

Printing Operation-Address Format 4

Sed Address Format 4: '$' Last Line

▶ $ with "p" command matches only the last line from the input. $ sed -n '$'p filename

▶ For example: $p prints only the last line as shown below.

$ sed -n '$'p thegeekstuff.txt

10.Windows- Sysadmin, reboot etc.

Printing Operation-Address Format 5

Sed Address Format 5: NUMBER,$

▶ N,$ with "p" command prints from Nth line to end of file. $ sed -n 'N,$p' filename

▶ For example 4: $p prints from 7th line to end of file.

$ sed -n '7,$p' thegeekstuff.txt

7. Productivity (Too many technologies to explore, not much time available)

8. Website Design

9. Software Development

10. Windows- Sysadmin, reboot etc.

Pattern Format

Total : 6

Printing Operation-Pattern Format 1

Sed Pattern Format 1: PATTERN

▶ PATTERN could be unix regular expression. The below command prints only the line which matches the given pattern.

$ sed -n /PATTERN/p filename

▶ For example: following prints the line only which matches the pattern "Sysadmin".

$ sed -n /Sysadmin/p thegeekstuff.txt

1. Linux - Sysadmin, Scripting etc.

10.Windows- Sysadmin, reboot etc.

Printing Operation-Pattern Format 2

Sed Pattern Format 2: /PATTERN/,ADDRESS

sed -n '/PATTERN/,Np' filename

▶ For example: Following prints lines which matches the pattern to Nth line, from input. 3rd line matches the pattern "Hardware", so it prints from 3rd line to 6th line.

$ sed -n '/Hardware/,6p' thegeekstuff.txt

3. Hardware

4. Security (Firewall, Network, Online Security etc)

5. Storage

6. Cool gadgets and websites

Printing Operation-Pattern Format 3

Sed Pattern Format 3: ADDRESS,/PATTERN/

▶ It prints from the Nth line of the input, to the line which matches the pattern. If the pattern doesnt match, it prints upto end of the input.

$ sed -n 'N,/PATTERN/p' filename

▶ For example: 4th line matches the pattern "Security", so it prints from 3rd line to 4th line.

$ sed -n '3,/Security/p' thegeekstuff.txt

3. Hardware

4. Security (Firewall, Network, Online Security etc)

Printing Operation-Pattern Format 4

Sed Pattern Format 4: /PATTERN/,$

▶ It prints from the line matches the given pattern to end of file.

$ sed -n '/PATTERN/,$p' filename

For Example: Print lines Starting from "website" to the end of file.

$ sed -n '/Website/,$p' thegeekstuff.txt

8. Website Design

9. Software Development

10.Windows- Sysadmin, reboot etc.

Printing Operation-Pattern Format 5

Sed Pattern Format 5: /PATTERN/,+N

▶ It prints the lines which matches the pattern and next N lines following the matched line.

$sed -n '/PATTERN/,+Np' filename

▶ For example: Following prints the 5th line which matches the pattern /Storage/ and next two lines following /Storage/.

$ sed -n '/Storage/,+2p' thegeekstuff.txt

5. Storage

6. Cool gadgets and websites

7. Productivity (Too many technologies to explore, not much time available)

Printing Operation-Pattern Format 6

Sed Pattern Format 6: /PATTERN/,/PATTERN/

▶ Prints the section of file between two regular expression (including the matched line).

    $ sed -n '/P1/,/P2/p' filename

▶ For example: 5th line matches "Storage" and 8th line matches "Design", so it prints 5th to 8th.

    $ sed -n '/Storage/,/Design/p' thegeekstuff.txt

    5. Storage

    6. Cool gadgets and websites

    7. Productivity (Too many technologies to explore, not much time available)

    8. Website Design