SED

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Substitute Operation

▶ The `s' command attempts to match the pattern space against the supplied REGEXP; if the match is successful, then that portion of the pattern space which was matched is replaced with REPLACEMENT.

▶ Syntax:

$ sed 'ADDRESSs/REGEXP/REPLACEMENT/FLAGS' filename

OR

$ sed 'PATTERNs/REGEXP/REPLACEMENT/FLAGS' filename

Where

- ▶ s is substitute command
- ▶ / is a delimiter
- ▶ REGEXP is regular expression to match
- ▶ REPLACEMENT is a value to replace

Substitute Operation

▶ FLAGS can be any of the following

 ▶ g Replace all the instance of REGEXP with REPLACEMENT

 ▶ n Could be any number,replace nth instance of the REGEXP with REPLACEMENT.

 ▶ p If substitution was made, then prints the new pattern space.

 ▶ i match REGEXP in a case-insensitive manner.

 ▶ w file If substitution was made, write out the result to the given file.

 ▶ We can use different delimiters (one of @ % ; :) instead of /

Deleting Operation

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

$ cat thegeekstuff.txt

1# Instruction Guides

1. Linux Sysadmin, Linux Scripting etc.

2. Databases - Oracle, mySQL etc.

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

4. Storage in Linux

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

Additional FAQS

6. Windows- Sysadmin, reboot etc.

Number Format

Total : 4

Substitute Operation- Format 1

Example 1: Substitute Word "Linux" to "Linux-Unix" Using sed

▶ In the example below, in the output line "1. Linux-Unix Sysadmin, Linux Scripting etc" only first Linux is replaced by Linux-Unix. If no flags are specified the first match of line is replaced.

$ sed 's/Linux/Linux-Unix/' thegeekstuff.txt

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Substitute Operation- Format 2

Example 2: Substitute all Appearances of a Word Using sed.

The below sed command replaces all occurrences of Linux to Linux-Unix using global substitution flag "g".

$ sed 's/Linux/Linux-Unix/g' thegeekstuff.txt

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Substitute Operation- Format 3

Example 3: Substitute Only 2nd Occurrence of a Word Using sed.

▶ In the example below, in the output line "1. Linux Sysadmin, Linux-Unix Scripting etc." only 2nd occurance of Linux is replaced by Linux-Unix.

$ sed 's/Linux/Linux-Unix/2' thegeekstuff.txt

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Additional FAQS

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Substitute Operation- Format 4

Example 4:Write Changes to a File and Print the Changes Using sed.

▶ The example below has substitution with three flags. It substitutes all the occurance of Linux to Linux-Unix and prints the substituted output as well as written the same to the given the file.

$ sed -n 's/Linux/Linux-Unix/gpw output' thegeekstuff.txt

1. Linux-Unix Sysadmin, Linux-Unix Scripting etc.

4. Storage in Linux-Unix

$ cat output

1. Linux-Unix Sysadmin, Linux-Unix Scripting etc.

4. Storage in Linux-Unix

Substitute Operation- Format 5

Example 5:Substitute Only When the Line Matches with the Pattern Using sed

▶ In this example, if the line matches with the pattern "-", then it replaces all the characters from "-" with the empty.

$ sed '/\-/s/\-.*//g' thegeekstuff.rtxt

Instruction Guides

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Additional FAQSd

6. Windows

Substitute Operation- Format 6

Example 6:Delete part of the line and Eliminate Comments Using sed

▶ Delete all the comment lines from a file as shown below using sed command.

$ sed -e 's/#.*//' thegeekstuff.txt

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6. Windows- Sysadmin, reboot etc.

Substitute Operation- Format 7

Example 7:Eliminate Comments and Empty Lines Using sed

▶ In this example, there are two commands seperated by ';'

▶ First command replaces the lines starting with the # to the blank lines

▶ Second command deletes the empty lines.

$ sed -e 's/#.*//;/^$/d' thegeekstuff.txt

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Substitute Operation- Format 9

Example 9:Replace the pattern " Linux" in file with "Linux/Unix".

▶ & is used to place the pattern in the replacement string.

$ sed -e 's/Linux/&-Unix/' thegeekstuff.txt

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6. Windows- Sysadmin, reboot etc.