

**Sed command line options**Sed syntax: `sed [options] sed-command [input-file]`

-n	Suppress default pattern space printing	<code>sed -n '3 p' employee.txt</code>
-i	Backup and modify input file directly	<code>sed -ibak 's/John/Johnny/' employee.txt</code>
-f	Execute sed script file	<code>sed -f script.sed employee.txt</code>
-e	Execute multiple sed commands	<code>sed -e 'command1' -e 'command2' input-file</code>

**Sed substitute command and flags**Syntax: `sed 's/original-string/replacement-string/[flags]' [input-file]`

g flag	Global substitution	<code>sed 's/Windows/Linux/g' world.txt</code>
1,2.. flag	Substitute the nth occurrence	<code>sed 's/locate/find/2' locate.txt</code>
p flag	Print only the substituted line	<code>sed -n 's/John/Johnny/p' employee.txt</code>
w flag	Write only the substituted line to a file	<code>sed -n 's/John/Johnny/w output.txt' employee.txt</code>
i flag	Ignore case while searching	<code>sed 's/john/Johnny/i' employee.txt</code>
e flag	Substitute and execute in the command line	<code>sed 's/^ls -l /' files.txt</code>
/   ^ @ !	Substitution delimiter can be any character	<code>sed 's@usr/local/bin@usr/bin@' path.txt</code>
&	Gets the matched pattern. Use this in replacement string.	<code>sed 's/^.*&lt;/&gt;/' employee.txt #Encloses whole line between &lt; and &gt;</code>
\( \) \1 \2 \3	Group using \( and \). Use \1, \2 in replacement string to refer the group.	<code>sed 's/^([^\,]*)\,([^\,]*)\,([^\,]*)\,.*\1,\3/g' employee.txt #Get only 1st and 3rd column</code>

**Sed commands**

p	Print pattern space	<code>sed -n '1,4 p' employee.txt</code>
d	Delete lines	<code>sed -n '1,4 d' employee.txt</code>
w	Write pattern space to file	<code>sed -n '1,4 w output.txt' employee.txt</code>
a	Append line after	<code>sed '2 a new-line' employee.txt</code>

i	Insert line before	<i>sed '2 i new-line' employee.txt</i>
c	Change line	<i>sed '2 c new-line' employee.txt</i>
l	Print hidden characters	<i>sed -n l employee.txt</i>
=	Print line numbers	<i>sed = employee.txt   sed '{N;s/\n/ /}'</i>
y	Change case	<i>sed 'y/abcde/ABCDE/' employee.txt</i>
q	Quit sed	<i>sed '3 q' employee.txt</i>
r	Read from file	<i>sed '\$ r log.txt' employee.txt</i>
#	Comment inside sed script	

### Sed hold and pattern space commands

n	Print pattern space, empty pattern space, and read next line.
x	Swap pattern space with hold space
h	Copy pattern space to hold space
H	Append pattern space to hold space
g	Copy hold space to pattern space
G	Append hold space to pattern space

### Loops and multi-line sed commands

b label	Branch to a label (for looping)
t label	Branch to a label only on successful substitution (for looping)
:label	Label for the b and t commands (for looping)
N	Append next line to pattern space
P	Print 1 <sup>st</sup> line in multi-line
D	Delete 1 <sup>st</sup> line in multi-line