Sed - stream editor

- The name sed is an abbreviation for stream editor, and the utility derives many of its commands from the ed line-editor (ed was the first UNIX text editor).
- This allows you to edit multiple files, or to perform common editing operations without ever having to open vi or emacs.
- sed reads from a file or from its standard input, and outputs to its standard output.
- sed has two buffers which are called pattern buffer and hold buffer. Both are initially empty.

Sed Working methodology

1. Read a entire line from stdin/file.
2. Removes any trailing newline.
3. Places the line, in its pattern buffer.
4. Modify the pattern buffer according to the supplied commands.
5. Print the pattern buffer to stdout.

```
# cat example2.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.
```

Examples

For example, 3p prints third line of input file

```
# sed -n '3'p example2.txt
```

4,8p prints from 4th line to 8th line from input file

```
# sed -n '4,8'p example2.txt
```

3~2p prints every 2nd line starting from 3rd line as shown below.

```
# sed -n '3~2'p example2.txt
```

$p prints only the last line as shown below.

```
# sed -n '$'p example2.txt
```

4,$p prints from 4th line to end of file.

```
# sed -n '4,$p' example2.txt
```

following prints the line only which matches the pattern “Sysadmin”.

```
# sed -n /Sysadmin/p example2.txt
```

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' example2.txt
```

4th line matches the pattern “Security”, so it prints from 3rd line to 4th line.

```
# sed -n '3,/Security/p' example2.txt
```

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

```
# sed -n '/Website/,$p' example2.txt
```

following prints the 5th line which matches the pattern /Storage/ and next two lines following /Storage/.

```
# sed -n '/Storage/,+2p' example2.txt
```

5th line matches “Storage” and 8th line matches “Design”, so it prints 5th to 8th.

```
# sed -n '/Storage/,/Design/p' example2.txt
```