

Linux 基础入门之实验十三正则表达式基础下

实验十三的学习内容包括 sed、grep、awk 命令的用法，正则表达式的符号和语法。

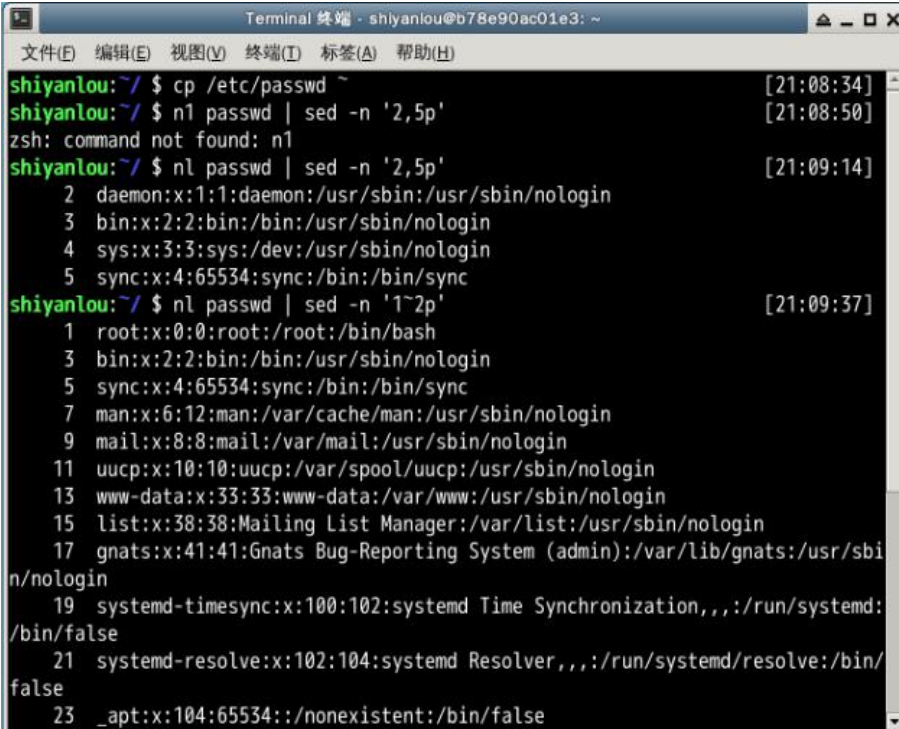
本次主要学习 sed 和 awk 命令。

1. sed 命令

(1) 命令格式

sed [参数]... [执行命令] [输入文件]...

(2) 命令操作



```
Terminal 终端 - shiyanlou@b78e90ac01e3: ~
文件(E) 编辑(E) 视图(V) 终端(T) 标签(A) 帮助(H)
shiyanlou:~/$ cp /etc/passwd ~ [21:08:34]
shiyanlou:~/$ nl passwd | sed -n '2,5p' [21:08:50]
zsh: command not found: nl
shiyanlou:~/$ nl passwd | sed -n '2,5p' [21:09:14]
 2 daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
 3 bin:x:2:2:bin:/bin:/usr/sbin/nologin
 4 sys:x:3:3:sys:/dev:/usr/sbin/nologin
 5 sync:x:4:65534:sync:/bin:/bin/sync
shiyanlou:~/$ nl passwd | sed -n '1~2p' [21:09:37]
 1 root:x:0:0:root:/root:/bin/bash
 3 bin:x:2:2:bin:/bin:/usr/sbin/nologin
 5 sync:x:4:65534:sync:/bin:/bin/sync
 7 man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
 9 mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
11 uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
13 www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
15 list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
17 gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbi
n/nologin
19 systemd-timesync:x:100:102:systemd Time Synchronization,,,:/run/systemd:
/bin/false
21 systemd-resolve:x:102:104:systemd Resolver,,,:/run/systemd/resolve:/bin/
false
23 _apt:x:104:65534:/:nonexistent:/bin/false
```

```
Terminal 终端 - shiyanlou@b78e90ac01e3: ~
文件(F) 编辑(E) 视图(V) 终端(T) 标签(A) 帮助(H)
9 mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
11 uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
13 www-data:x:33:33:www-data:/var/www:/usr/sbin/nologin
15 list:x:38:38:Mailing List Manager:/var/list:/usr/sbin/nologin
17 gnats:x:41:41:Gnats Bug-Reporting System (admin):/var/lib/gnats:/usr/sbin/nologin
19 systemd-timesync:x:100:102:systemd Time Synchronization,,:/run/systemd:/bin/false
21 systemd-resolve:x:102:104:systemd Resolver,,:/run/systemd/resolve:/bin/false
23 _apt:x:104:65534::nonexistent:/bin/false
25 colord:x:106:112:colord colour management daemon,,:/var/lib/colord:/bin/false
27 pulse:x:108:113:PulseAudio daemon,,:/var/run/pulse:/bin/false
29 usbmux:x:110:46:usbmux daemon,,:/var/lib/usbmux:/bin/false
31 labex:x:6000:6000::/home/labex:/usr/bin/zsh
33 mongodb:x:112:65534::/home/mongodb:/bin/false
shiyanlou:~/ $ sed -n 's/shiyanlou/hehe/gp' passwd [21:09:59]
hehe:x:5000:5000::/home/hehe:/usr/bin/zsh
shiyanlou:~/ $ nl passwd | grep "shiyanlou" [21:10:30]
30 shiyanlou:x:5000:5000::/home/shiyanlou:/usr/bin/zsh
shiyanlou:~/ $ sed -n '21c\www.shiyanlou.com' passwd [21:10:50]
www.shiyanlou.com
shiyanlou:~/ $ [21:11:13]
```

2. awk 命令

(1) 介绍

```
shiyanlou:~/ $ whereis awk [21:11:13]
awk: /usr/bin/awk /usr/share/man/man1/awk.1.gz
shiyanlou:~/ $ ll /usr/bin/awk [21:14:16]
lrwxrwxrwx 1 root root 21 3月 1 2018 /usr/bin/awk -> /etc/alternatives/awk
shiyanlou:~/ $ ll /usr/bin/mawk [21:14:29]
-rwxr-xr-x 1 root root 116K 3月 24 2014 /usr/bin/mawk
shiyanlou:~/ $ [21:14:43]
```

(2) 命令操作

```
shiyanlou:~/ $ vim test [21:14:43]
shiyanlou:~/ $ cat test [21:18:22]
I like linux
www.shiyanlou.com
shiyanlou:~/ $ awk '{ [21:18:29]
quote> print
quote> }' test
I like linux
www.shiyanlou.com
shiyanlou:~/ $ [21:18:56]

shiyanlou:~/ $ awk '{ [21:18:56]
quote> if (NR==1){
quote> print $1 "\n" $2 "\n" $3
quote> } else{
quote> print}
quote> }' test
I
like
linux
www.shiyanlou.com
shiyanlou:~/ $ [21:20:43]
```