

CSCI 211: Unix Lab

Homework 7 Solutions

Problems:

(All the following operations need be done on the file named 'info'.)

1. **(2 pts)** Make the first 'mis' uppercase in every line, save the output to the file 'p1'.
Command used: `sed 's/mis/MIS/' info > p1`
2. **(2 pts)** Make the first 'mgt' lowercase in every line. Ignore the case for matching. Save the output to the file 'p2'.
Command used: `sed 's/mgt/mgt/l' info > p2`
3. **(2 pts)** Make the first 'mgt' lowercase in every line. Ignore the case for matching. Use '%' for delimiter. Save the output to the file 'p3'.
Command used: `sed 's%mgt%mgt%l' info > p3`
4. **(2 pts)** Replace the second number in every line with the word 'bonus'. Save the output to the file 'p4'.
Command used: `sed -E 's/[0-9]+/bonus/2' info > p4`
5. **(2 pts)** Do problem 1, 3 and 4 in one single command. Save the output to the file 'p5'.
Command used: `sed -e 's/mis/MIS/' -e 's/mgt/mgt/l' -E -e 's/[0-9]+/bonus/2' info > p5`
6. **(2 pts)** Remove all the numbers in every line. Save the output to the file 'p6'.
Command used: `sed -E 's/[0-9]//g' info > p6`
7. **(2 pts)** Swap the first digit and the second one of the first number in every line. Save the output to the file 'p7'.
Command used: `sed -E 's/([0-9])([0-9])/\2\1/' info > p7`
8. **(2 pts)** Swap the first digit and the third one of the first number in every line. Save the output to the file 'p8'.
Command used: `sed -E 's/([0-9])([0-9])([0-9])/\3\2\1/' info > p8`
9. **(2 pts)** Swap the first number and the second one in every line. Save the output to the file 'p9'.
Command used: `sed -E 's/([0-9]+);([0-9]+)/\2;\1/' info > p9`
10. **(2 pts)** In the second column of every line, swap the first word and the second word in the fourth to sixth line. The columns are separated by semicolon. Save the output to the file 'p10'.

Command used: `sed -E '4,6 s/;([a-zA-Z]+) ([a-zA-Z]+);/\2 \1;/' info > p10`

11. **(2 pts)** Remove all the lines starting with 'mgt'. Ignore case. Save the output to the file 'p11'.

Command used: `sed '/^mgt/I d' info > p11`

12. **(2 pts)** Insert the line "new record" before every line starting with 'mis'. Save the output to the file 'p12'.

Command used:

```
sed '/^mis/ i\  
new record  
' info
```

13. **(2 pts)** Add the line "new record" after every line ending with a number. Save the output to the file 'p13'.

Command used:

```
sed '/[0-9]$/ a\  
new record  
' info
```

14. **(2 pts)** Replace every line containing 'th' with the line 'old record'. Save the output to the file 'p14'.

Command used:

```
sed '/th/ c\  
old record  
' info
```