Network Programming

Trương Lê Mỹ Thanh
Email: thanh.truonglemy@eiu.edu.vn

Lab 9

AWK

Assignment

1. Extract lines between two line numbers: example: 2 & 4 => extract line3.
2. Write a command to print the first field in the passwd file
3. Print the username and its home path from /etc/passwd ex: root home at /root

```
thanhtruong0349 home at /home/thanhtruong0349
thanh home at /home/thanh
```

4. Change the second word of a string ("Hello world") (=>using with echo command)
5. Replace the name “Ngoc” into your name using gsub() command
6. Add the Header and the Footer for the content

```
The File Contents:
Hai     6       5
Minh    7       9
Huynh   10      8
Ngoc    7       9
Ngan    4       8
This is the end of the file
```

7. Convert data from line format to column format, and print line 1 and line 3 `Thanh 7 10 Hai 6 5`

8. Write a script to calculate average score and save into new file grade.txt

9. Sort the average score list in descending order and show top 3

10. Add ascending numbers before the name column

11. Suppose there are 2 files: course.txt (student's name, course) and grade.txt (student's name, grade), write a command to concatenate student names and their grades based on the course.

```
Ngoc CSE104
Hai CSE101
Ngan CSE105
Minh CSE102
Thanh CSE306
Huynh CSE103
```

```
Ngoc CSE104 8
Hai CSE101 5.5
Ngan CSE105 6
Minh CSE102 8
Thanh CSE306 8.5
Huynh CSE103 9
```

12. Filter only students with the score >=8

12. Print the student with highest score and lowest ones.

```
Huynh CSE103 9
Hai CSE101 5.5
```

13. Classify students by score (excellent, good, average, poor) => using if-else

>= 8: Excellent
6.5 <= score < 8: Good
5 <= score < 6.5: Average
< 5: Poor

```
Ngoc CSE104 8 (Excellent)
Hai CSE101 5.5 (Average)
Ngan CSE105 6 (Average)
Minh CSE102 8 (Excellent)
Thanh CSE306 8.5 (Excellent)
Huynh CSE103 9 (Excellent)
```

14. Count the number of each category.

```
Average: 2
Excellent: 4
```