CSC3320 System Level Programming
Lab Assignment 4 - Part 1 (In- Lab)
Instructor: Bello Babatunde

Purpose: Practices on the grep family commands to process texts in files.

Note: Please follow the instructions below, and write a report by answering the questions and upload the report (named as Lab4_P1_FirstNameLastName.pdf or Lab4_P1_FirstNameLastName.doc) to Google Classroom.

Please add the lab assignment NUMBER and your NAME at the top of your file sheet.

Open your terminal and connect to snowball server. Change your directory to your home directory (cd ~), and then create a new directory named as "Lab4" (mkdir Lab4). After that, go to directory Lab4 (cd Lab4) and please download the file "CSC_Course.txt" by the following command (internet access required):

cp /home/bbello1/Public/CSC_Course.txt CSC_Course.txt Be sure it succeeds using "ls" to see the file name "CSC_Course.txt" listed.

Try the following commands step by step and finish the required tasks from step 4) to step 16).

Note: marks a single space.

1) $more CSC_Course.txt

Check the content of "CSC_Course.txt" using more.

Note: When viewing the file, you may need to use command f (forward one screen), b (backward one screen) and q(quit).

2) $grep 'CSC 3320' CSC_Course.txt

Note: there is a single space between "CSC" and "3320"

Output the lines containing the string "CSC 3320"(search the course the number of which is "CSC 3320")

3) $grep -i 'CSC 3320' CSC_Course.txt

Output the lines containing the string "CSC 3320" via ignoring case (search the information related to CSC3320)

4) $ grep 'CSC 3' CSC_Course.txt

Attach a screenshot of the output and describe what this command does.

5) $ grep 'CSC 3|CSC 1' CSC_Course.txt
Attach a screenshot of the output and describe what this command does.

6) $ grep -E 'CSC 3|CSC 1' CSC_Course.txt
Attach a screenshot of the output and describe what this command does.
Use extend regular expression

7) $ egrep 'CSC 3|CSC 1' CSC_Course.txt
Attach a screenshot of the output and describe what this command does.

8) $ fgrep '3.000 Credit hours' CSC_Course.txt
Attach a screenshot of the output and describe what this command does.

9) $ fgrep -x '3.000 Credit hours' CSC_Course.txt
Attach a screenshot of the output and describe what this command does.
Only match the whole line

10) $ grep 'CSC.*Programming' CSC_Course.txt
Attach a screenshot of the output and describe what this command does.

11) $ grep '^CSC.*Programming$' CSC_Course.txt
Attach a screenshot of the output and describe what this command does.

12) $ grep --color 'CSC[^3]*3{2}' CSC_Course.txt
Attach a screenshot of the output and describe what this command does.
No result, {} is not a special character

13) $ egrep --color -w 'CSC[^3]*3{2}[^3]*' CSC_Course.txt
Attach a screenshot of the output and describe what this command does.
-w Select only those lines containing matches that form whole words.

14) $ grep 'CSC.*C++' CSC_Course.txt

Attach a screenshot of the output and describe what this command does.
+ is not a special character in basic regular expression

15) $ egrep 'CSC.*C\+\+' CSC_Course.txt
Attach a screenshot of the output and describe what this command does.
Convert +

16) $ egrep 'CSC.*C++' CSC_Course.txt
Please only describe what this command does.

Optional Part:

1) $ sed -E -n 's/(CSC 3[0-9]{3})(.*)/\1/p' CSC_Course.txt
Attach a screenshot of the output and describe what this command does.

2)$ awk –F'-' '/(CSC 3[0-9]{3})(.*)/{print $1}' CSC_Course.txt
Attach a screenshot of the output and describe what this command does.

3) $ sed -E -n 's/(CSC [0-9]{4})(-)(.*)/\3/p' CSC_Course.txt
Attach a screenshot of the output and describe what this command does.

4) $ sed -E -n 's/(CSC [0-9]{4})(-)(.*)/\3/p' CSC_Course.txt| sort
Attach a screenshot of the output and describe what this command does.