

# LPIC-1 101-400 – Lesson 2 – Lab

\* Login to your Lab environment in two separate sessions

- `$ cd Lab2 # change into the Lab2 directory`
- `$ cat tabs.txt # display the contents of tabs.txt`
- `$ view tabs.txt # :q to exit view`
- `$ od -c tabs.txt # Can you identify the tabs?`
- `$ od -a tabs.txt # How about now?`
- `$ expand -t4 tabs.txt > spaces2.txt # convert tabs to 4 spaces`
- `$ od -a spaces2.txt # verify the change to spaces`
- `$ od -a spaces.txt # check out spaces in the text file`
- `$ unexpand spaces.txt > tabs2.txt # convert spaces to tabs`
- `$ od -a tabs2.txt # verify tabs`
- `$ rm tabs2.txt # delete tabs.txt!`
- `$ unexpand -a spaces2.txt > tabs2.txt # convert all spaces to tabs`
- `$ od -a tabs2.txt # verify tabs`



# Lesson 2 – Lab

- `$ fmt unformatted.txt > formatted.txt # format the text`
- `$ fmt -w 50 unformatted.txt > formatted50.txt # restrict lines up to 50 characters`
- `$ cat unformatted.txt formatted50.txt | less # compare files`
- `$ head -n20 /var/log/messages # get first 20 lines from file`
- `$ tail -f -n30 /var/log/messages # get last 30 lines from file and follow it as it expands`
- `$ sudo -i # in the second session`
- `# echo "test here" >> /var/log/messages # append some text in the file (notice the change in the prompt)`
- `# Return to the first session`
- `# Press Ctrl-C to exit tail`



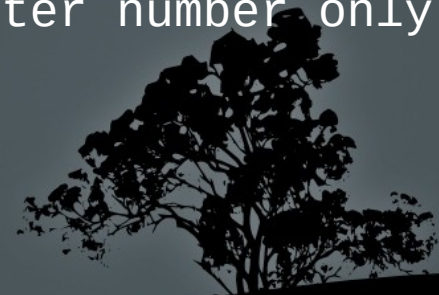
# Lesson 2 – Lab

- `$ cat colors.txt animals.txt # compare the two files`
- `$ paste colors.txt animals.txt # join files unconditionally`
- `$ join colors.txt animals.txt # join fields using the first column as the common reference`
- `$ paste numbers.txt letters.txt # compare the two files`
- `$ paste -d- numbers.txt letters.txt # use '-' as a delimiter`
- `$ paste -d- -s numbers letters.txt # use '-' as a delimiter and put the contents of each line on the same line`
- `$ tr '1-3' 'a-c' < colors.txt # translate numbers to letters`
- `$ tr -d '1-3' < colors.txt # delete numbers`



# Lesson 2 – Lab

- `$ od -a dos.txt # Take note of the 'cr' followed by 'nl'`
- `$ od -c dos.txt # Take note of the '\r' followed by '\n'`
- `$ tr -d '\r' < dos.txt > unix.txt # translate dos formatted file to unix`
- `$ od -c unix.txt # verify that the unix file is correct`
- `$ pr formatted.txt > tobeprinted.txt # prepare file to be printed`
- `$ less tobeprinted.txt # verify that it is formatted correctly`
- `$ wc unformatted.txt # count chars, words and lines of file`
- `$ wc formatted.txt # compare to unformatted`
- `$ wc tobeprinted.txt # compare to formatted`
- `$ cat tobeprinted.txt | wc -l # count lines only`
- `$ wc -l tobeprinted | cut -d ' ' -f1 # filter number only`



# Lesson 2 – Lab

- `$ cat /etc/passwd # Check the format of /etc/passwd`
- `$ sort /etc/passwd # sort content alphabetically`
- `$ sort -t: -k3 /etc/passwd # sort based on 3rd column`
- `$ sort -t: -k3 -n /etc/passwd # sort based on 3rd column numerically`
- `$ sort -t: -k3 -n -r /etc/passwd # same in reverse`
- `$ split -10 tobeprinted # split file, ten lines each`
- `$ ls # do you see anything new?`
- `$ cat xaa ; echo "-----"; cat xab ; \`
- `echo '-----' ; cat xac`



# Lesson 2 – Lab

- `$ cut /etc/passwd -d: -f7 > multiples.txt # create a file with duplicate records`
- `$ less multiples.txt # check the content of the file`
- `$ uniq multiples.txt # did it work?`
- `$ sort multiples.txt | uniq # how about now?`
- `$ sort multiples.txt | uniq -d # show only duplicates`
- `$ sort multiples.txt | uniq -u # show only single entries`
- `$ sort multiples.txt | uniq -c # count occurrences`
- `$ cat rainbow.txt # display rainbow.txt`
- `$ sed -e "s/Red/Green/" rainbow.txt # replace "Red" with "Green"`
- `$ sed -e "s/Red/Green/g" rainbow.txt # replace all occurrences of "Red" with "Green", in a line, and display to stdout`
- `$ sed -e "s/Red//" rainbow.txt # remove the first occurrence of "Red"`

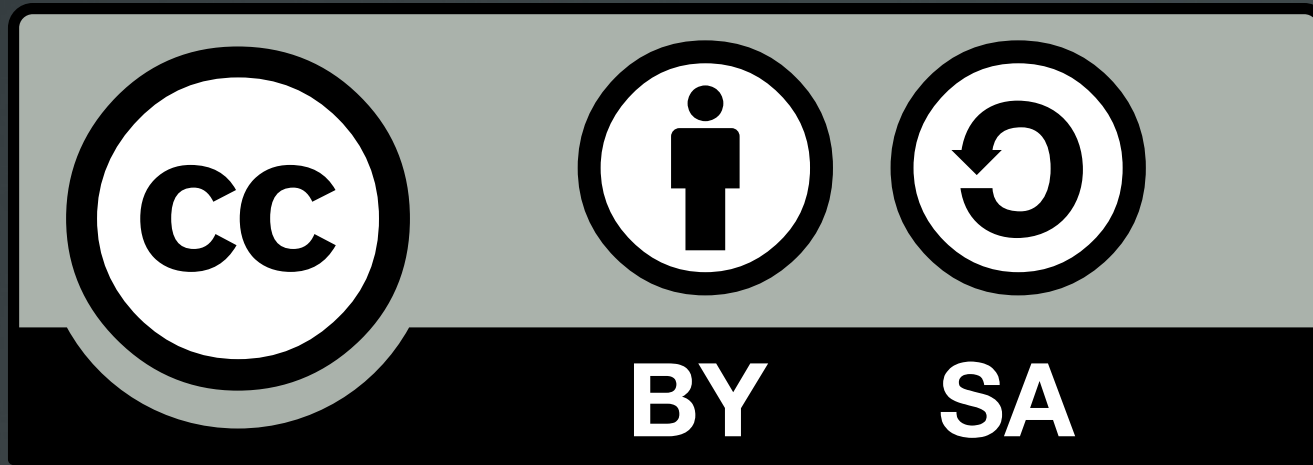


# Lesson 2 – Lab

- `$ sed -e "/Purple/d" rainbow.txt # remove all lines containing "Purple"`
- `$ sed -i -e "s/Red/Green/" rainbow.txt # replace "Red" with "Green" inline`
- `$ cat rainbow.txt # display rainbow.txt`



# License



The work titled "LPIC-1 101-400 – Lesson 2 – Lab" by Theodotos Andreou is distributed with the Creative Commons Attribution ShareAlike 4.0 International License.

