2014

Exercise for the topic Command Line (2 units, 20 points)

1.

Please create the directory **exercises** in your CBWE lecture account. This directory may be accessible only by you.
Create the following subdirectories in the **exercises** directory:
linux, comline, networking, ssh, mailing, imageproc.
1 point

2. Please investigate how many and which editors are available in the Debian Wheeze distribution:

use the wheeze--allpackages.txt file (listed bei the Course material in the topic Linux) and select the lines in which the word 'editor' is listed (e.g. use the *grep* command). Save this as a file: **linux-editors-all.txt** in the exercises/comline/ directory in your CBWE lecture home directory.

Create an OpenOffice Calc table (.ods), where the following types of editors are mandatory listed, which you extract form the linux-editors-all.txt:
text, mp3, html; with the number
of editors for these types (e.g. use the command *wc*). Save this file as **linux-editors.ods** in the used directory.

3 points

Delete the already grouped editors from the linux-editors-all.txt file and save this as **linux-editors-remained.txt** file (use *grep* with appropriate option for this).

1 points

Create an OpenOffice writer file and add the full output you got in the terminal window during your work and export this .odt as a file:
linux-editors-log.pdf.
Save this file in the directory: exercises/comline/ in your CBWE lecture home directory.

1 point

remark: you should use I/O redirecting, pipelining.

Total: **5** points

2. Manipulate output lines

- use the command *dpkg* to list all Debian packages, which have the word

editor in their name.

- the package name is the second listed field, which is separated by two white spaces from the 1st field. Use the *cut* command to select the 2nd field only from the output.

- please create a pdf file: **dpkg-sed.pdf** from the terminal window contents for this exercise and save it in the directory: exercises/comline/ in your CBWE lecture home directory.

2 points

3. Using the *find* command in your /home/cbwe-login/ directory:

a- search for the pdf files in your CBWE directory and make a *long list* about the found files (use: ls -l)

b- search for all directories and make a *long list* about the directories only (not about the contents of the directories !)

c- search for files which are readable for everybody and make a l*ong list*

d- create a pdf file about the output in the terminal window and save it as **find.pdf** in the exercises/comline/ directory.

3 points

4. Copy directories using the *tar* command:

create a subdirectory in your /home/cbwe-home directory named as **backup-exercise**

a- create a tar file about the exercises directory tree as exercises.tar and compress it witch the gzip program.
- list the first 10 lines of the exercises.tar.gz archive, to see, which files are listed.

b- create a backup of the exercises directory using the tar utility in one complex command. The backup have to be located under backup-exercises/ directory.

c- create a screenshot about the terminal output as **tar-list.jpg** and save it in the exercises/comline/ directory.

3 points

5. Complex Kill command

a- start acroread in the background in a terminal window to display a pdf file in your lecture home directory.
b- list all processes by *ps*, select acroread by *grep*, and extract the processid from the output. Print this processid on the terminal window.
c- create a screenshot about the terminal window and save it as **ps-kill.jpg** in the exercises/comline/ directory.

2 points

6. Shell script (*bash*)

A. Copy the jpeg files you created till now to the exercises/imageproc directory, your photo, too.

B. Create a shell script:
a. Print a header line for the output:
„File name Size (pixel) Size(KByte)“

b. Invoke the identify command and print the file name (which ends by the *.jpg*), the pixel size of the picture and the size in Kbyte (without decimal places) for each picture.

c. Use a loop to handle all pictures in the directory.

d. comment the used commands in the script.

e. Put the script as **pics-id.sh** in the comline directory.
In a terminal windows list the script and invoke it. Make a screenshot about the output and save it in exercises/comline directory as **pics-id.jpg** .

4 point

Deadline: November 16, 2014.