

# Users & Groups

## Exercise

October 23, 2017

If you don't know what to do, look in the man pages!

### 1 Repetition

- (a) How can you show all files and file permissions in the current directory?
- (b) Briefly explain the output of the used command. What is the meaning of the columns?

### 2 Users

- (a) What is the name of the administrator in Linux?
- (b) Open the file */etc/passwd*  
Try to explain what is stored in this file. Do you know what the different fields are for?
- (c) Now take a look at the file */etc/shadow*  
This file also stores user information. Which? Why is that information not stored in */etc/passwd* ?
- (d) How can you add a new user with the name *asph* and automatically create the according home directory?
- (e) How can you now set a password for the newly created user?
- (f) Open the file */etc/passwd* again. What changed and why?
- (g) You want to temporarily lock the account *asph*, how do you do that?
- (h) You want to force *asph* to do a password change after maximum 30 days. You also want to display a warning 10 days before the due time. How?

- (i) The user *asph* wants to use dash instead of bash as his standard shell. Make this change **without** using anything but your favorite text editor.

### 3 Groups

- (a) Name one standard Linux group and explain its purpose.
- (b) Open the file */etc/group*  
Can you explain what it is used for?
- (c) How can you create a new group *asph\_admins*?
- (d) How can you add the user *asph* to the newly created group?
- (e) Login as *asph* via su. How can you confirm that it worked?
- (f) Confirm that you are indeed a member of the *asph\_admins* group.
- (g) Open the file */etc/group* again. What changed and why?
- (h) Change the name of the group *asph\_admins* to *administrator* using **only** a text editor.
- (i) Now delete the user *asph* (including all his files) and the group *administrator*.

### 4 Preperation for next lesson

Create the user *asph* and the group *teachers* again and the user to the group, as you will need both for the next lesson.

In preperation for the next lesson we will also create a folder structure in *asph*'s home directory.

Create the following structure using command line tools *only* and change the group of the files to *teachers*:

```
class
├── exam.txt
├── grades.png
├── grades.txt
├── lessons
│   ├── permissions
│   │   ├── chmod.png
│   │   ├── exercise.pdf
│   │   ├── exercise_solution.pdf
│   │   └── virus.sh
│   └── users+groups
│       ├── exercise.pdf
│       ├── exercise_solution.pdf
│       └── tree.jpg
└── students.jpg
```