

# TP 4 Assignment

GNU/Linux System Administration  
Info et Réseaux en Apprentissage, Sup Galilée, Paris Nord

October 10th, 2014

Work in a group of two or three people. Use the Debian GNU/Linux installation you configured in the first TPs to implement the following requirements. Some requirements are quite technical and easy to understand, some others need you some design of the solution.

Document your work with the followings documents

**Administration change log** simple text file stored in `/root/` describing the operations you performed on the machine. Follow the GNU guidelines for source change logging at:  
[https://www.gnu.org/prep/standards/html\\_node/Change-Logs.html](https://www.gnu.org/prep/standards/html_node/Change-Logs.html)

**Report** PDF document with answers to questions.

Send documents and scripts to `marco.solieri@lipn.univ-paris13.fr` by 12:00 pm.

## 0 Previous tasks

Complete any exercise from previous TPs you have not done yet. In the report, do not forget to specify the TP number your answers refer to.

## 1 Access control management

1. Write a script to be run by root to monitor the health of your `/etc/passwd` file.
  - (a) Find any entries that have UID 0.
  - (b) Find any entries that have no password.
  - (c) Find any sets of entries that have duplicate UIDs.
  - (d) Find any entries that have duplicate login names.
  - (e) Find any entries that have no expiration date.
2. Try to modify the script so that it can be run by any user, in particular you have to figure out how to do parts (b) and (e) without having reading permission on `/etc/shadow`.

## 2 Hard links

Write a shell script that finds all the hard links on a given filesystem and report a complete list.