ANNEX A · USERS AND GROUPS ON LINUX

Name: _____ **Date:** _____

Work in `deb-lab`, in a terminal. `sudo` asks for **your** password and shows nothing while you type.

PART A **Read the three files (15 min).**

A1 Run `id`. Your UID: _____ primary group: _____ two other groups: _____

A2 Run `grep "^$USER:" /etc/passwd`. Copy the line and number its seven fields.

_____

Field 3 is _____ field 6 is _____ field 7 is _____

A3 Run `cut -d: -f7 /etc/passwd | sort | uniq -c`. Most common shell: _____

Run `cut -d: -f1,3 /etc/passwd | sort -t: -k2 -n | tail -4`. Highest UID of a real person: _____

A4 Run `ls -l /etc/passwd /etc/shadow`, then `cat /etc/shadow`. What happens, and why?

_____

Run `sudo grep "^$USER:" /etc/shadow`. First three characters of field 2: _____

A5 Run `getent group sudo`. Who is in that group? _____

DONE WHEN you can point at the UID, the home and the shell in any line of `/etc/passwd`.

PRACTICAL 5.1 **Onboarding Tramuntana Apps (40 min).** Lab password for the new accounts: `tramuntana`.

TASK 1 **Create the three department groups: `dev`, `design`, `admin`.**

```
sudo groupadd dev
```

DONE WHEN `getent group dev design admin` prints three lines.

TASK 2 **Create the four users: `marta`, `joan`, `aina`, `pau`.**

```
sudo adduser marta
```

DONE WHEN `tail -4 /etc/passwd` shows the four of them, each with `/bin/bash`.

TASK 3 **Put each one in their department: marta and pau in `dev`, joan in `design`, aina in `admin`.**

```
sudo usermod -aG dev marta
```

DONE WHEN `getent group dev` ends in `marta,pau`, and `id joan` shows `design`.

TASK 4 **Inspect. Fill the table with `getent passwd <user>`, `id <user>` and `ls -ld /home/<user>`.**

User	UID	Primary group	Other groups	Home permissions
marta				
joan				
aina				
pau				

TASK 5 **Become marta with `su - marta`. Try the three commands, write what each answers, then `exit`.**

`cat /etc/shadow` _____

`ls /home/joan` _____

`sudo whoami` _____

DONE WHEN after `exit`, `whoami` prints your own user again.

TASK 6 **Pau helps the designers for a month. A colleague runs the wrong command. Run it, look, repair.**

```
id pau
sudo usermod -G design pau
id pau
```

What did pau lose? _____

Repair it so that pau is in `dev` **and** `design`. Command: _____

The month is over: take pau out of `design`. Command: _____

DONE WHEN `id pau` shows `dev` and does not show `design`.

TASK 7 **Aina is on leave: lock her account, check, try to enter, unlock.**

```
sudo passwd -l aina
sudo passwd -S aina
su - aina
sudo passwd -u aina
```

Second word printed by `passwd -S` while locked: _____ What did `su - aina` answer? _____

TASK 8 **Create a user `temp`, then delete it with its home: `sudo deluser --remove-home temp`.**

DONE WHEN `getent passwd temp` prints nothing and `ls /home` has no `temp`.

HAND IN `practical-5.1-surname.md` on Classroom by **Sunday 21/02, 23:59**: the commands and outputs of each task, the table of task 4, and one line of explanation for tasks 5, 6 and 7. Marking (10): tasks 1–3: 4 · task 4: 1.5 · task 5: 1.5 · task 6: 1.5 · tasks 7–8: 1 · report: 0.5. **Keep the users and groups: we use them again.**

EXIT TICKET **Alone, no terminal. Tick one answer.**

1. Which file keeps the password hashes?

- ☐ a) `/etc/passwd`
- ☐ b) `/etc/group`
- ☐ c) `/etc/shadow`
- ☐ d) `/home/marta/.bashrc`

2. In `marta:x:1001:1001:Marta Vidal:/home/marta:/bin/bash`, the first `1001` is:

- ☐ a) her UID
- ☐ b) her password
- ☐ c) her group's size
- ☐ d) her home's size

3. Pau is in `dev`. After `sudo usermod -G design pau`, pau is in:

- ☐ a) `dev` and `design`
- ☐ b) `dev` only
- ☐ c) no group at all
- ☐ d) `design`, and no longer in `dev`

4. What is the UID of root?

- ☐ a) 0
- ☐ b) 1
- ☐ c) 1000
- ☐ d) 65534

5. Laia, a new designer, must also be in `dev`. After `sudo adduser laia`, which command is right?

- ☐ a) `sudo usermod -G dev laia design`
- ☐ b) `sudo usermod -aG design,dev laia`
- ☐ c) `sudo groupadd laia dev design`
- ☐ d) `su - laia design dev`