ANNEX A · PRACTICAL 2.6 — A WEEK OF SOFTWARE WITH APT

NAME _____ **DATE** _____

You work in your VM `deb-lab` (Debian 13), in the **Terminal**. Type each command exactly, press Enter, and read what it answers. `sudo` runs one command as the administrator: it asks for **your** password and shows nothing while you type. Write the evidence here: you need it for the report.

TASKS 1–4 · 20 MIN

TASK 1 Where does your software come from?

```
cat /etc/apt/sources.list
```

If that file is empty or missing, use `cat /etc/apt/sources.list.d/debian.sources`. Find the web address and the name of the Debian release.

DONE WHEN you wrote one address and one release name (a word, not a number).

TASK 2 Bring the new catalogue

```
sudo apt update
apt list --upgradable
```

How many packages can be upgraded today? _____ Did `apt update` install anything? _____

DONE WHEN the last line of `apt update` tells you a number, or says everything is up to date.

TASK 3 Look before you install

```
apt search cowsay
apt show cowsay
```

Version: _____ Download-Size: _____ Depends:

DONE WHEN the three fields are written, and you have installed nothing yet.

TASK 4 Install and run

```
sudo apt install cowsay fortune-mod
```

Before you answer `Y`, read the screen. Which packages are under Installing dependencies?

```
fortune | cowsay
dpkg -L cowsay
```

The bar `|` gives the text of the first program to the second one. `dpkg -L` lists every file the package put on your disk. Where is the program itself?

DONE WHEN a cow says something, and you wrote the full path of the program.

TASKS 5–8 · 25 MIN

TASK 5 remove is not purge

```
ls /etc/nanorc
sudo apt remove nano
ls /etc/nanorc
dpkg -l nano
```

Is the file still there? _____ The first two letters of the last line of `dpkg -l nano`: _____

```
sudo apt purge nano
ls /etc/nanorc
```

What does `ls` answer now?

```
sudo apt install nano
```

DONE WHEN you can say in one sentence what `purge` deletes and `remove` keeps, and `nano` is installed again.

TASK 6 The orphans

```
sudo apt remove fortune-mod
```

Read the answer. Which packages are “no longer required”?

```
sudo apt autoremove
```

DONE WHEN apt removed exactly the packages you wrote, and nothing else.

TASK 7 Upgrade everything

```
sudo apt upgrade
```

Copy the Summary line (Upgrading, Installing, Removing):

```
apt list --upgradable
```

DONE WHEN the last command shows only the word `Listing...`

TASK 8 **apt keeps a diary**

```
tail -n 25 /var/log/apt/history.log
```

`tail -n 25` shows the last 25 lines of a file. Find the block of task 4. Which word marks the packages you did **not** ask for by name?

DONE WHEN you found the date, the command line and that word.

TASKS 9–10 · 15 MIN

TASK 9 **A package file by hand**

```
apt download sl
ls
```

Exact name of the file that appeared:

```
sudo apt install ./sl_*.deb
sl
```

The `*` means “any text here”. The `./` means “the file in this folder”, not a package in the warehouse.

DONE WHEN a train crosses your terminal.

TASK 10 **The other machine**

Start `ubu-srv`, log in and run:

```
sudo apt update
sudo apt upgrade
snap list
```

Which web addresses does Ubuntu use, and what is its release word? What does `snap list` answer?

DONE WHEN `ubu-srv` is up to date and you can name one thing that is different from `deb-lab`.

Hand in on Classroom, by Friday 13/11 at 23:59: `practical-2.6-surname.md`, with the report template. One section per task: the command, the evidence (copied text or a screenshot) and one sentence in your own words. Finish with a table command → what it does for `update`, `upgrade`, `search`, `show`, `install`, `remove`, `purge`, `autoremove`.

Marking (10): tasks 1–4 with evidence 3 · tasks 5–6 with evidence and explanation 3 · tasks 7–10 with evidence 2 · final table correct 1 · clear Markdown, your own words 1.

EXIT TICKET

1. What does `sudo apt update` do?

- ☐ **A** Installs the newest version of every program
- ☐ **B** Downloads the new list of packages; installs nothing
- ☐ **C** Removes old programs
- ☐ **D** Restarts the system to apply updates

2. After `sudo apt remove nano`, what is still on the disk?

- ☐ **A** Nothing at all
- ☐ **B** The program, but not its settings
- ☐ **C** Its configuration in `/etc`
- ☐ **D** Only its dependencies

3. What is a dependency?

- ☐ **A** A package that another package needs to work
- ☐ **B** A program that starts when the system boots
- ☐ **C** An update that fixes a security problem
- ☐ **D** A copy of a package kept as a backup

4. Which command removes packages that were installed automatically and that nothing needs now?

- ☐ **A** `apt remove`
- ☐ **B** `apt purge`
- ☐ **C** `apt upgrade`
- ☐ **D** `apt autoremove`

5. A company offers its program as `app.deb` on its official site. The correct way to install it:

- ☐ **A** Double-click it as often as needed
- ☐ **B** `sudo apt install ./app.deb`
- ☐ **C** `sudo apt update app.deb`
- ☐ **D** `apt search app.deb`