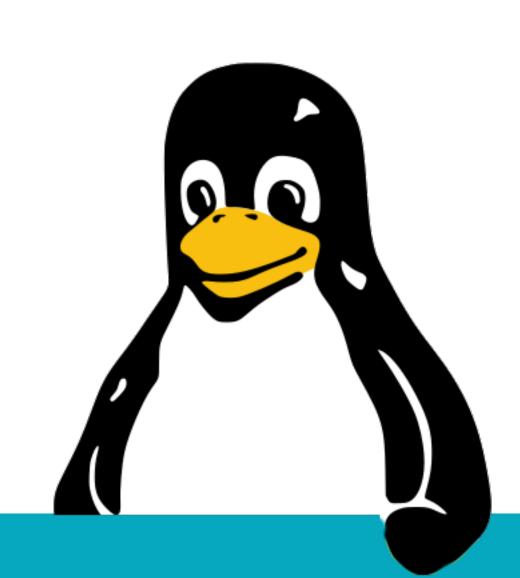
# Linux, day 11





# Objectives covered

Objective	Summary	Boek
1.1	Device types and hardware	23
1.2	File compression and backups	12
1.4	Process management	21
1.4	Scheduling	26

#### LAB: Job control





- Create a small shell script "~/at-test.sh".
  - This should <u>append</u> "Hello!" to /tmp/at-test.txt.
  - It should also include the output of "date".

- Use "at" to run it in 1 minute.
- Use "crontab" to schedule it for every hour, always.

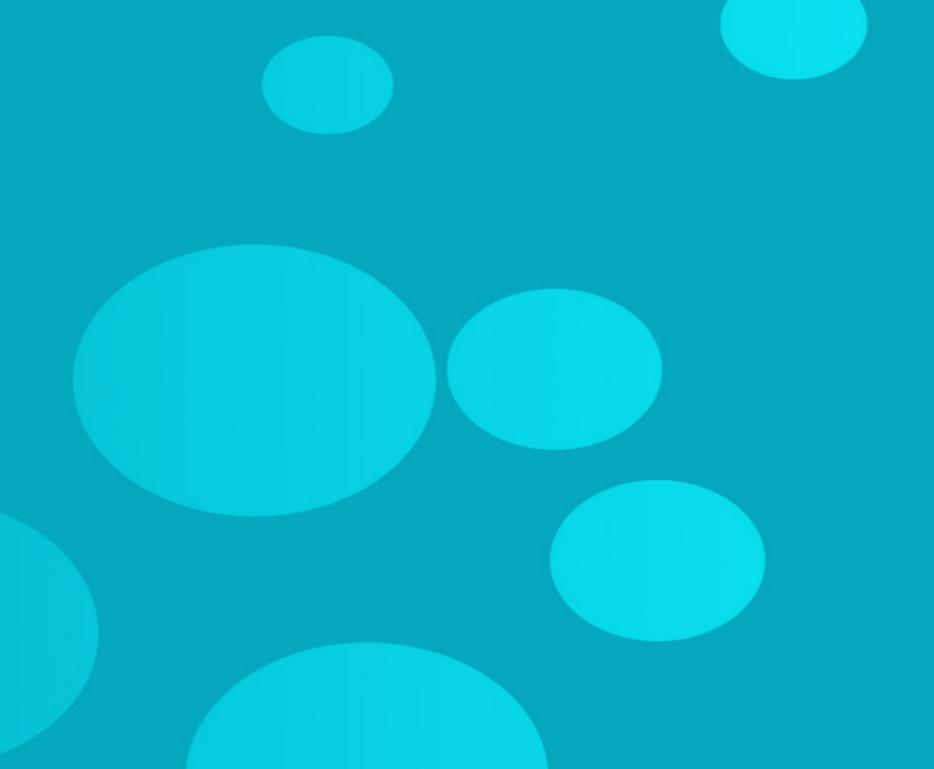
- Create a small shell script /opt/mysvc.sh
  - This should write into /var/log/mysvc.log
  - First test it manually.

- Use this: Create a simple systemd service unit.
  - Make mysvc.sh a systemd service that runs at reboot.
  - Prove that it works.



## LAB: Archives, backups, etc.





- Make a zipped tar-archive of your home directory.
- SCP archive to the other VM and unpack in /tmp.
- Careful, these three <u>have different results!</u>

```
$ tar zcf /tmp/home1.tgz /home/tess/
$ cd /home; tar zcf /tmp/home2.tgz tess/
$ cd ~; tar zcf /tmp/home3.tgz ./*.*
```

- Can you make a zip or gzip with:
  - All the .txt files in the /usr/share/ tree?

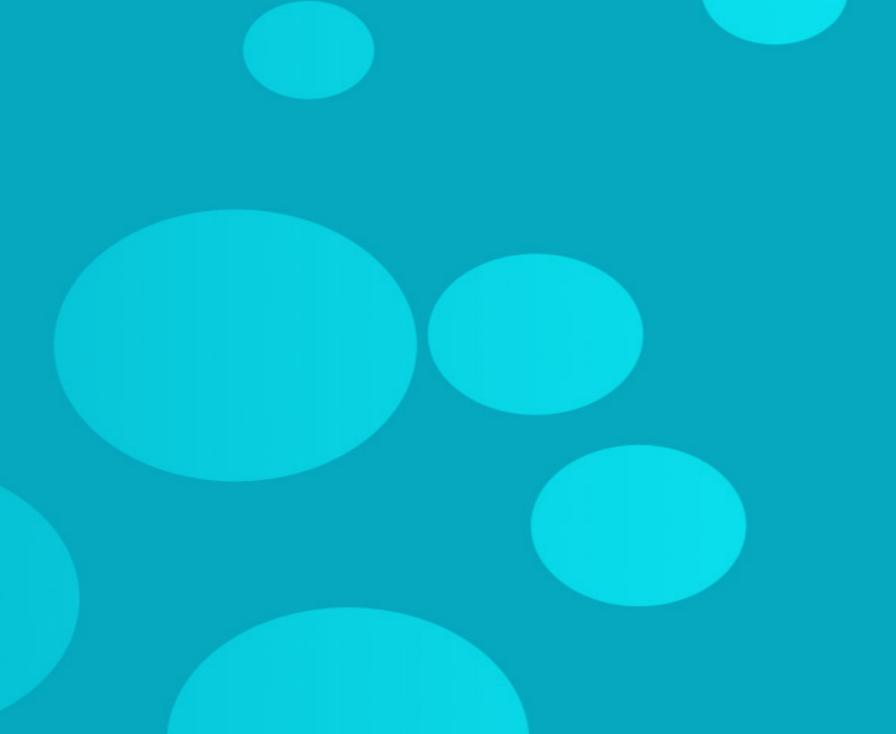
- Hint: combine the *find* command,
  - With an option of "zip" to read files from stdin.

- Use rsync to synchronize /var/www/,
  - From one VM to /tmp/www on the other.
  - Or to localhost:/tmp/www if you have one VM.

Be careful how you specify source and destination!

# Practicing your Linux





### "The end is nigh!"

- We are almost done covering the objectives.
- Five more classes and we will have...
  - Gone over the theory.
  - Done exercises in the labs.
  - Tackled practice questions.

#### Your time to shine!

- To really understand Linux, you need more.
  - What we have done scratches the surface.
  - Now you need practice!

- Two-pronged attack:
  - Theory and practical exercises.

### Practicing theory

- The Sybex book offers flashcards and trial exams.
  - Use them to test your current score,
  - Or use them to "level up"! Research each question!

PluralSight has video courses on most topics.

### Practicing scripting

- PluralSight's has a great scripting class.
  - "Creating shell scripts in Enterprise Linux"

- U of Cambridge has a <u>set of short scripting exercises</u>.
- TLDP also has short scripting exercises.

#### Practicing for real

- CertDepot.net has daily Linux tasks.
  - Targeted at the RHCSA exam, so above Linux+.
  - That's okay! Instead of 10-20 minutes,
  - Take a whole day for each task!
  - Research! Test! Build! And take notes!
- Also: Red Hat has online labs!

#### Want something tougher?

- CertDepot.net also has full practice exams!
  - A list of tasks to perform within a time frame.
  - They're a great source of exercises!

- There's also a great Github project with more tests.
- Sander van Vugt <u>also has RHCSA prep-exams</u>.
- Linux Foundation has LFCS practice questions.



#### More practice!

- KodeKloud Engineer is a gamified learning platform.
  - You're a Linux admin who needs to do tasks.

• Exercism.org, with Bash exercises

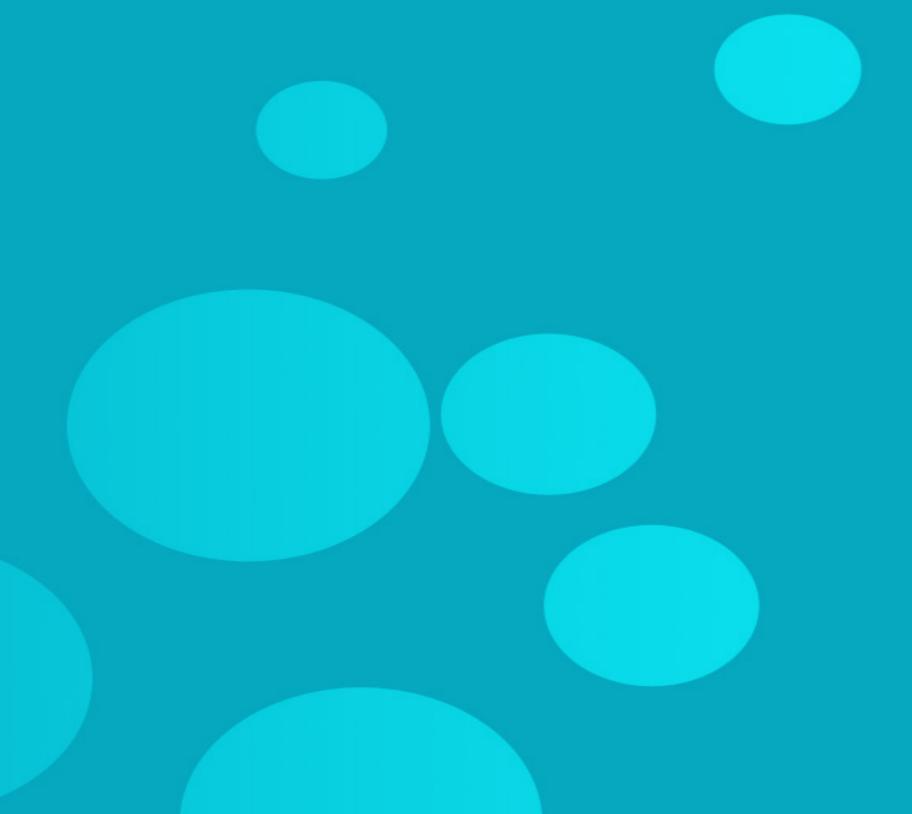
- <u>Linux Upskill Challenge</u> is a free, 30-day course.
  - It has a lot of cool exercises and labs.

#### Weekly updates

- Please, do yourself a favor:
  - Do at least one CertDepot task each week.
  - Compile notes for yourself.
  - Send me a little report on what you did and how.

# Closing





#### Homework

- Reading:
  - Chapter 9
  - Chapter 13
  - Chapter 17

#### Homework

- Go do:
  - Set up a nightly cron job.
  - This job should run rsync,
    - FROM your home directory on Fedora,
    - TO /data/homedir/ on the second VM.

#### Reference materials





#### Resources

- Sending signal to processes
- How to use tmux (and why it's better than screen)
- Create a simple systemd service unit.
- crontab.guru
- How to write basic udev rules
- An introduction to udev
- Why use cpio for initramfs



#### Resources

- Why switch to XZ from gzip/bzip2
- How to use rsync
- PluralSight learning path for XK0-005
- Creating shell scripts in Enterprise Linux
- Small set of scripting exercises (U of C)
- More scripting exercises (TLDP)
- CertDepot.net daily Linux tasks.

#### Resources

- Linux Upskill Challenge
- KodeKloud Engineer
- Exercism.org, with Bash exercises
- Sander van Vugt's RHCSA practice tests
- Linux Foundation's LFCS practice questions
- RedHat online practice labs