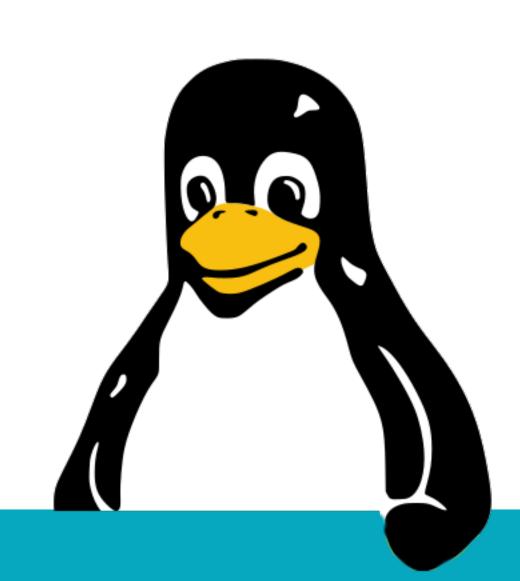
Linux, day 3



LAB: Files and directories





Command hints

sudo	Switch User and DO
mkdir	MaKe DIRectory
nano	Friendly editor
Vi	Less-than-friendly editor
Ср	CoPy
mv	MoVe
rm	ReMove
man	MANual (documentation)

- Create two new directory trees:
 - "~/staff/files" and "~/dummies/files"
- Use "nano" or "vi" to put some text into:
 - ~/staff/files/staff-demo.txt
 - ~/dummies/files/dummies-demo.txt
- Move:
 - ~/staff/ to /home/staff/
 - ~/dummies to /home/dummies



Spoilers

```
$ cd ~
$ mkdir -p staff/files dummies/files
$ vi staff/files/staff-demo.txt
$ vi dummies/files/dummies-demo.txt
$ sudo mv staff /home/
$ sudo mv dummies /home/
```

LAB: File permissions





Command hints

chmod	CHange MODe
chown	CHange OWNer
chgrp	CHange GRouP

- /home/staff and contents should have group "staff".
 - New files should automatically get group "staff".
 - Files should only be deletable by their creator.
 - Group "staff" should have full rights on all contents.

Apply similarly for "dummies" on /home/dummies.

Spoilers (staff)

```
$ sudo charp -R staff /home/staff /home/staff/files
$ sudo chmod g+s /home/staff /home/staff/files
$ sudo chmod o+t /home/staff /home/staff/files
$ sudo chmod g+rwx /home/staff /home/staff/files
# You can also write:
# chmod g+rws, o+t ...
 chmod 3775
```

Spoilers (dumnies)

```
$ sudo chgrp -R dummies /home/dummies /home/dummies/files
$ sudo chmod g+s /home/dummies /home/dummies/files
 sudo chmod o+t /home/dummies /home/dummies/files
$ sudo chmod g+rwx /home/dummies /home/dummies/files
# You can also write:
# chmod g+rws, o+t ...
 chmod 3775 ...
```

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 have different results!

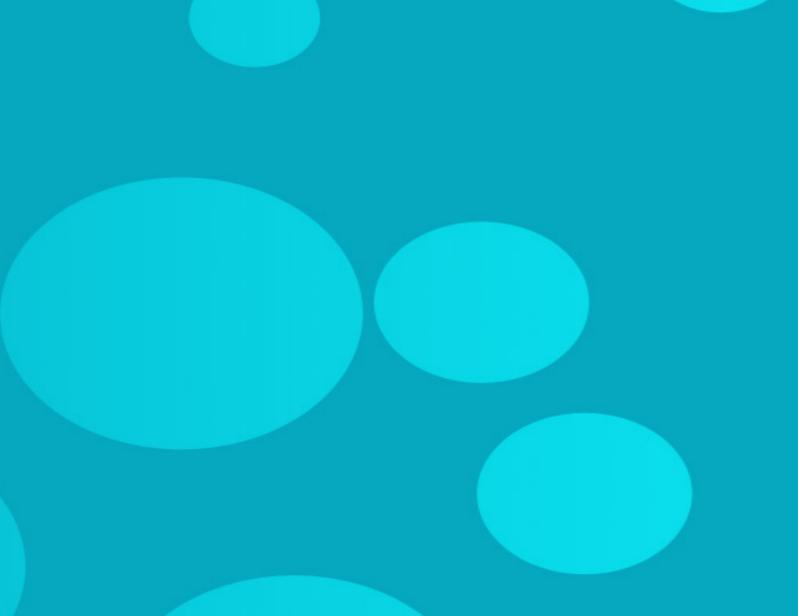
```
$ tar zcf /tmp/home1.tgz /home/tess/
$ cd /home; tar zcf /tmp/home2.tgz tess/
$ cd ~; tar zcf /tmp/home3.tgz ./
```

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

- Make sure that the source has some files and data.
- Be careful how you specify source and destination!

Closing





Homework

- Reading:
 - Chapter 4
 - Chapter 25

Reference materials





Resources

- Linux file paths
- FHS on Wikipedia
- Identifying file types in Linux
- Graphical vi cheatsheet
- Vim Adventures! (game to practice hotkeys)
- Nano cheatsheet

Resources

- Why switch to XZ from gzip/bzip2
- How to use rsync