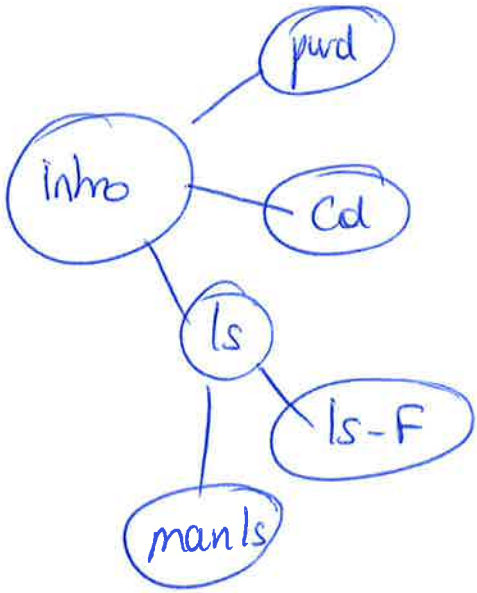
Introduction. 13:30 - 14:00 (9)

(30min)

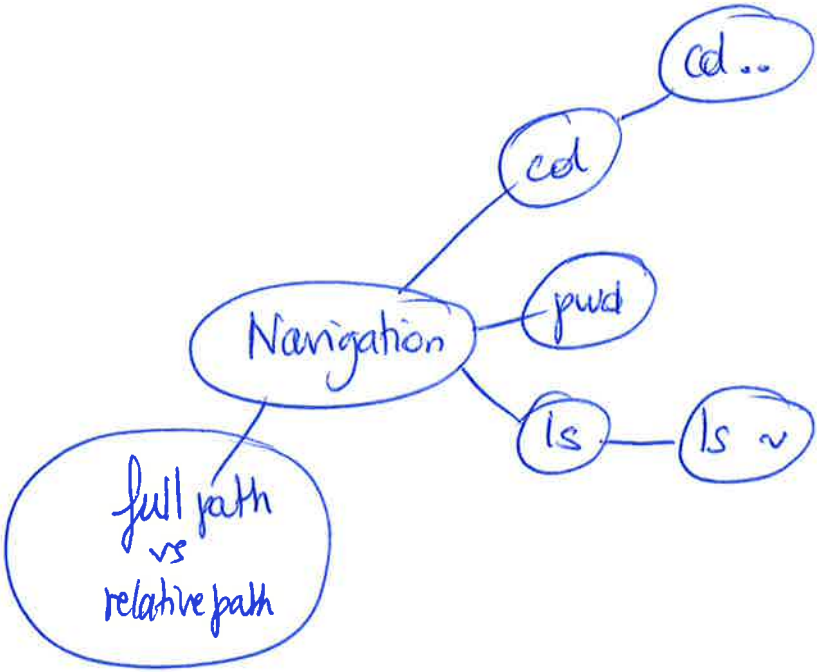
How to access the shell?

- open terminal
- ssh to cruktraining.cruk.cam.ac.uk
- clear



Navigating Files & Directories 14:00-14:30 (2)

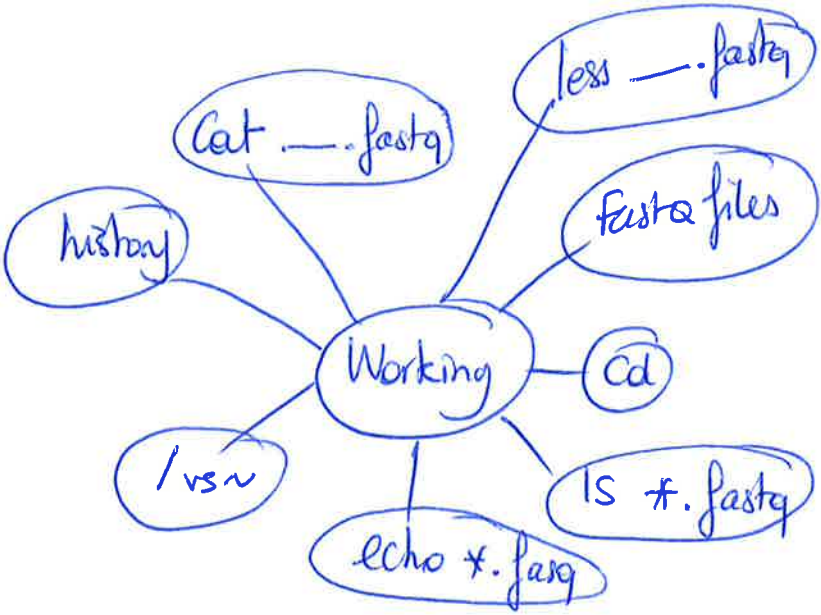
30 min

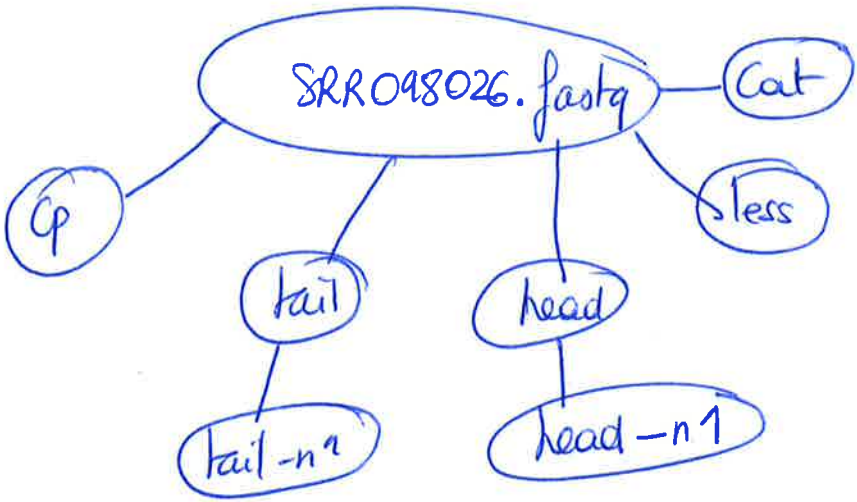


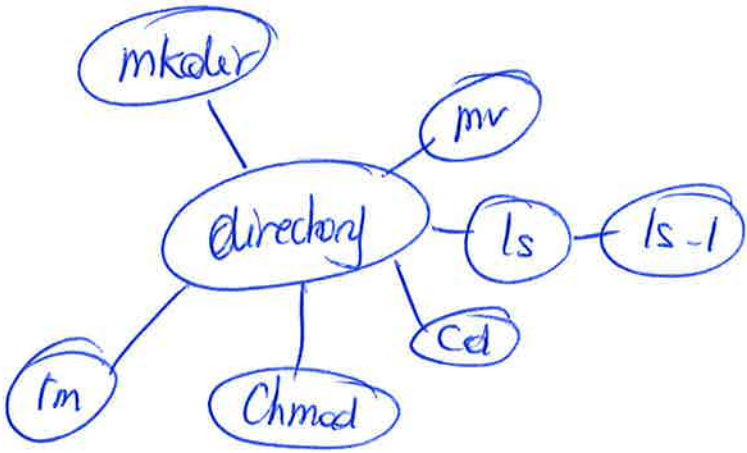
Working with Files & Directories 14:30-15:15 (3)

45min

Coffee 15:15-15:30



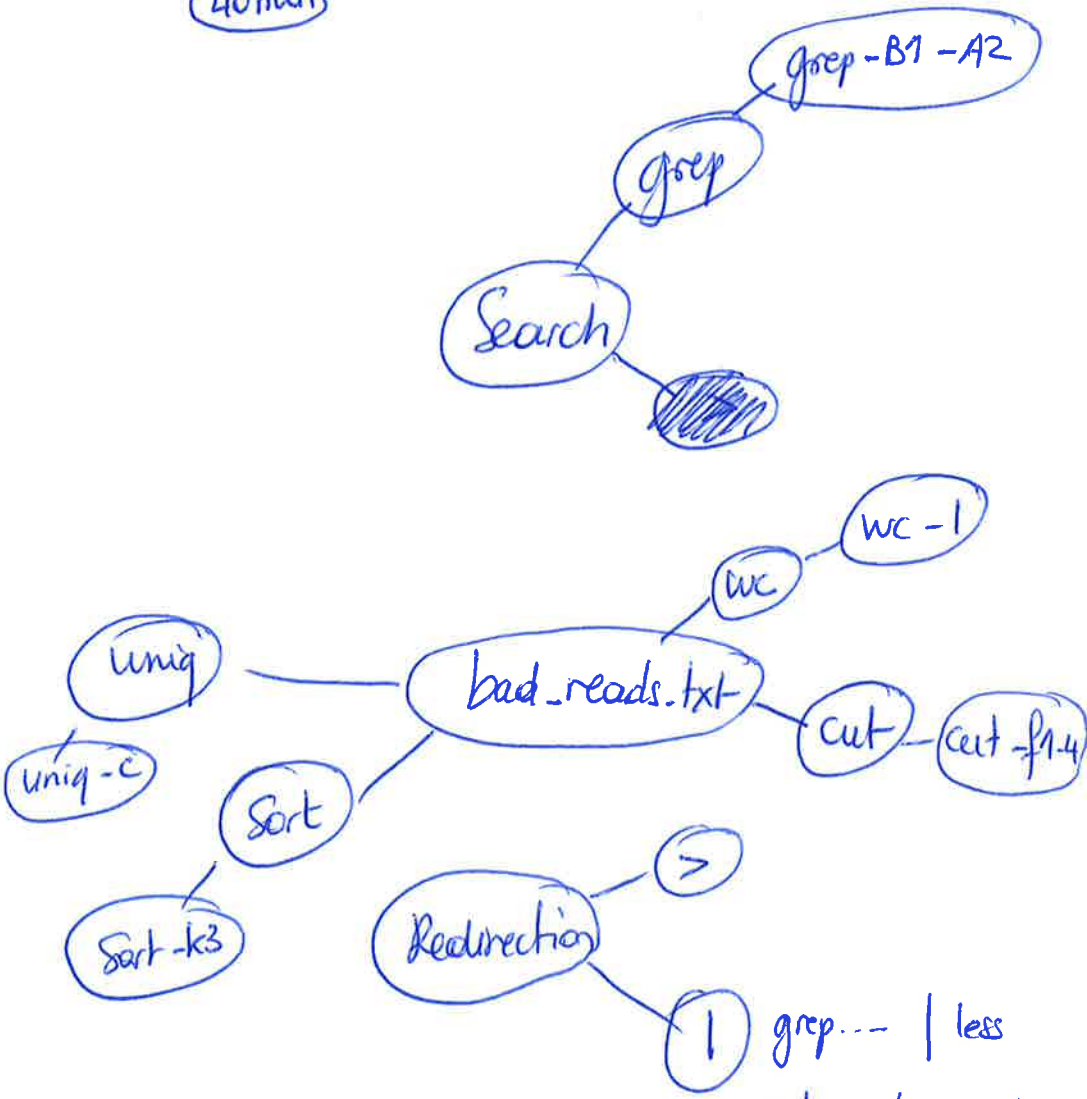



mkdir
mv
directory
ls
ls -l
cd
rm
Chmod

Redirection 15:30 - 16:10

40 min

5



Writing Scripts 16:10 - 16:50

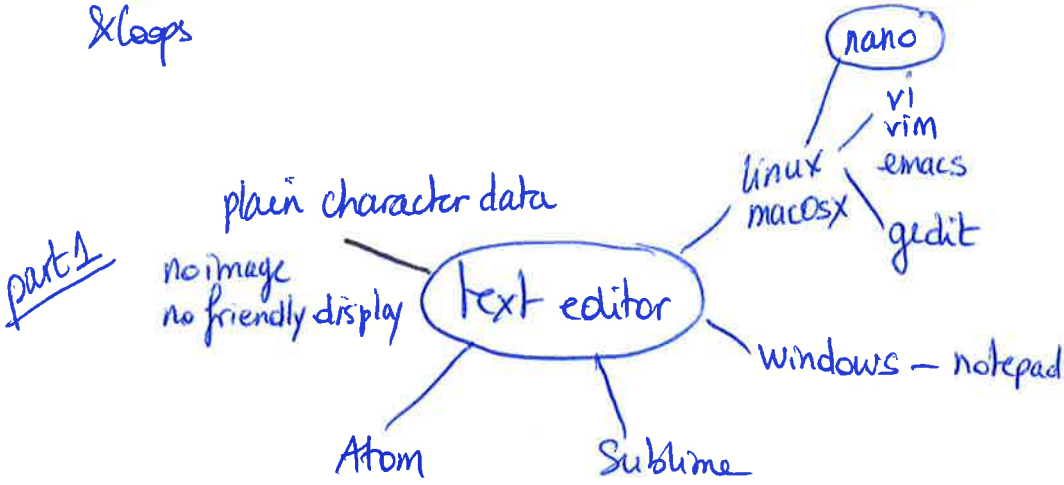
6a

& loops

part 1

text editor

- plain character data
  - no image
  - no friendly display
- linux
  - nano
  - vi
  - vim
  - emacs
  - gedit
- macosx
- windows – notepad
- Atom
- Sublime



example:

nano hello.txt

- (ctrl-O : save + enter)
- ctrl-X : Exit + y to save

- cat hello.txt or less hello.txt
- ls

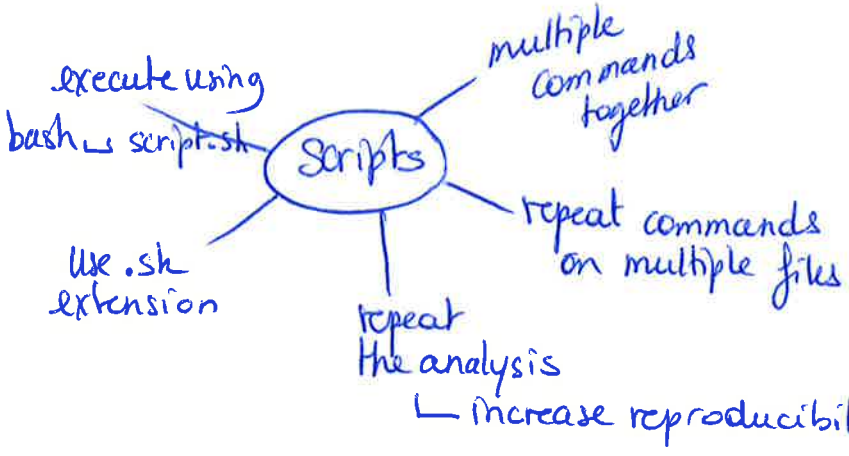
README.txt

- good practice
- document
- for other to read

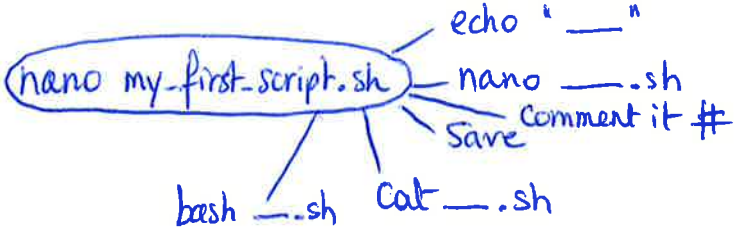
exercice

- create a README.txt file in untrimmed-fastq folder
- describe files in this directory
- add the date at the top
- Save file.

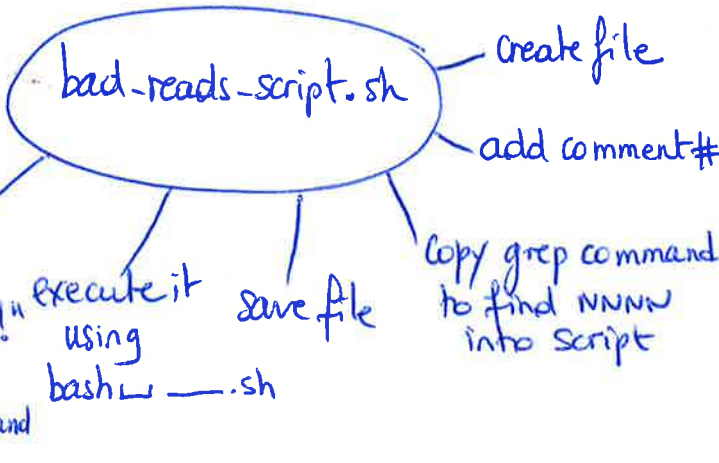
part 2:



Example:



exercise:



depends on time:

Script into program
- bash ___.sh
- ls -l
- chmod +x ___.sh
- ./___.sh

part 3

repeat tasks using loop
- one liner with ;
- Syntax on multiple lines
- for/do/done/;
- indentation good practice
- variable
- echo statement

example 1:

for
- for $name Anne Jon Mar Mark;
  do echo $name;
  done;
- forname ... ; do ... ; done

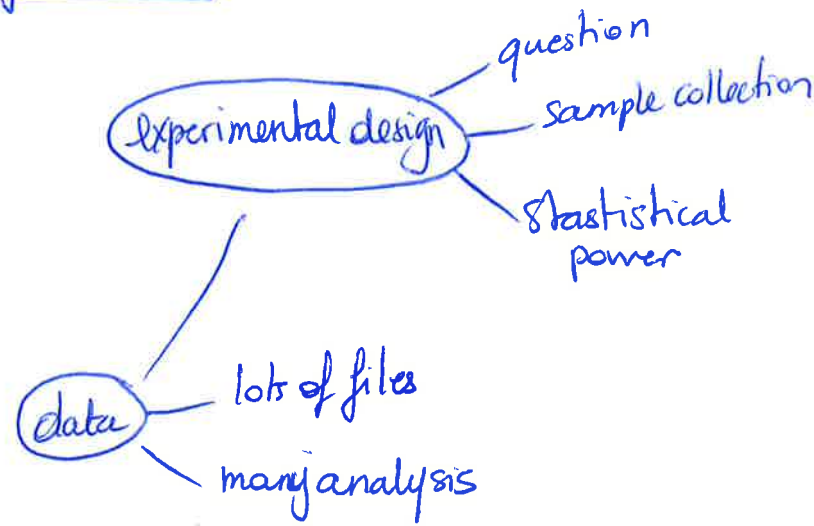
example 2:

write script to loop over all fastq files

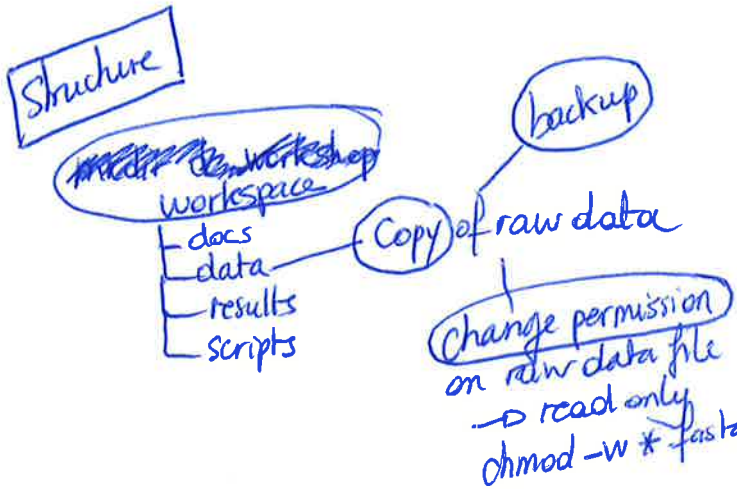
fastq-tasks.sh
- on command line
- echo $filename
- in script
- add counting lines wc -l
- run

exercise:
find number of bad reads in each file

Project Organisation 16:50 - 17:00



- meaningfull name for files & folders
- no space & special characters
- date always starts with year month day
- README file for documentation



Exercise:

Create script to create a work space log with all commands ran

workspace_log_2018_11_13.sh

#date

#Script to create workspace

Commands: mkdir workspace
mkdir workspace/docs
/data
/results
/scripts

make sure it is reproducible!

1. rm -r workspace
2. recreate your workspace with the script.