Shell: Basics

What to do

1. Hand out Terminal cheat sheet
2. On Slides
3. Hands on

start terminal

- Mac: `cmd+space` type terminal
- linux: `ctrl+alt+t`
- Windows: start the `cygwin` app

Who and Where am I?

1. whoami
2. pwd
3. ls -aF

The file system

relative and absolute paths:

- **/**: root
    - windows:
    - cygwin root: C:\cygwin
    - system root: /cygdrive/c/
- **~**: user folder
- **.**: folder right now
- **..**: parent folder

Explain how to escape space

- test\ test
- "test test"

What have we learned?

Commands:

- **pwd**: Where am I?
- **ls**: What is in a folder?
- **cd**: Change directory

Special places:

- **/**: The root
- **~**: The home folder
- **.**: The current folder
- **..**: The parent folder

Exercise: Navigating the file system

1. Go to your root folder
2. Try to find the folder with the documents of the last semester

Make folder and get course content

- cd
- mkdir pp4rs
- ls
- cd pp4rs

download course material

- git clone https://github.com/pp4rs/2018-uzh-course-material.git
- ls
- cd 2018-uzh-course-material
- mv shell-playground ../playgrounds/01-shell

Break?

Make Folders:

1. mkdir thesis

- don't use whitespace
- don't use ~
- don't start with -
- use -, _, ., numbers, letters

2. cd thesis

Making Files & Writing in them

1. nano draft ctrl+x & save
2. touch draft2.md
3. echo "This is the third test" > test3.md
4. echo ls -lha > test3.md
5. echo "This is the third test. Seriously now" >> test3.md
6. atom draft4.md

Fileendings only convention - helps users and the system to know what is expected

atom colors/yellow.mp3

Removing Files and Folders

rm is forever

1. rm draft2.md
2. ls
3. rm -i draft3.md
4. cd ..
5. rm thesis
6. rm -R thesis

Moving Files and Folders

Also for renaming

1. mv thesis/draft thesis/draft1.md
2. ls thesis
3. mv thesis/first-draft.md .
4. ls thesis
5. ls
6. ls first-draft.md

Copy Files and Folders

1. cp blue.txt colors
2. cp blue.txt colors/bluee.txt
3. cp -R colors colors-again

What have we learned?

- **pwd, ls, cd**: Move around
- **mkdir**: Create a folder
- **touch / atom / echo 'quote' >> file**: Create / edit files
- **mv**: Move stuff
- **cp (-R)**: copy stuff
- **rm (-R)**: Delete stuff (forever!)

Exercise: Make changes in the file system

1. Go to shell-playground
2. delete colors/bluee.txt
3. Guinea pigs and hamsters are rather pets
   - make a new folder called `pets` in `shell-playground`
   - move `guinea-pig.md` & 'subfolder3
   - ' there
4. `colors/yellow.mp3` is a markdown file. Rename it into `yellow.md`
5. One of `subfolder3` and `subfolder4` is already under `folders`
   - copy the one which is not double into `folders`
   - erase both `subfolder3` and `subfolder4` in the main folder
6. Write `I'm done` into `done.md` without opening Atom
7. Add into an extra line `Now, I'm really done` without opening Atom
8. Open `done.md` in atom and make sure the last two steps worked

End of Basics