

Connect to Abel

# UNIX : software carpentry - shell-novice

- <https://swcarpentry.github.io/shell-novice/01-intro/>

# Which username to use ?

- Can you connect to the internet
- Do you have access to Abel ?
- Do you need a Guest account ?
- Do you have means to connect to Abel using ssh?

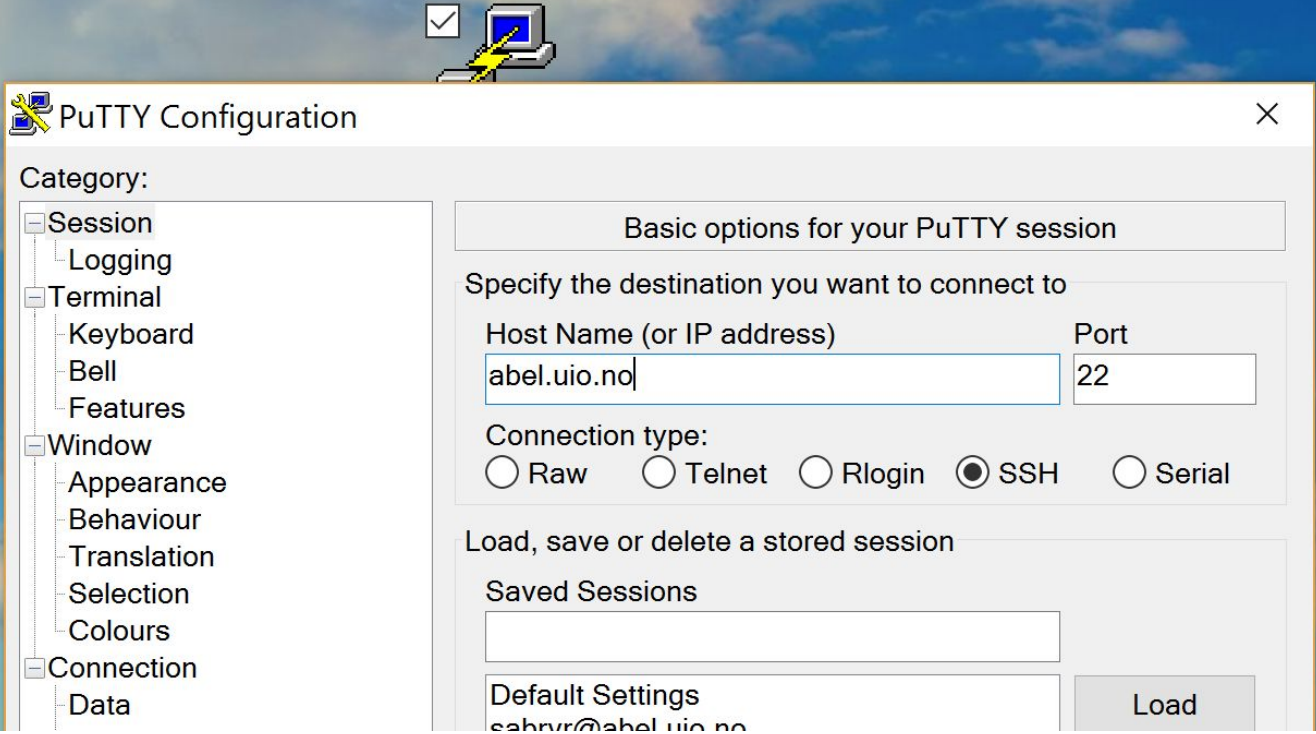
# Connection and transfers

- ping
  - ping -c 3 abel.uio.no
- ssh
  - Connect to a remote computer
  - Connect to Abel
    - ssh USERNAME@abel.uio.no
- sftp, scp, rsync
  - Copy files
  - Copy a file to abel from the laptop
    - scp -p THE\_FILE USERNAME@abel.uio.no:~/

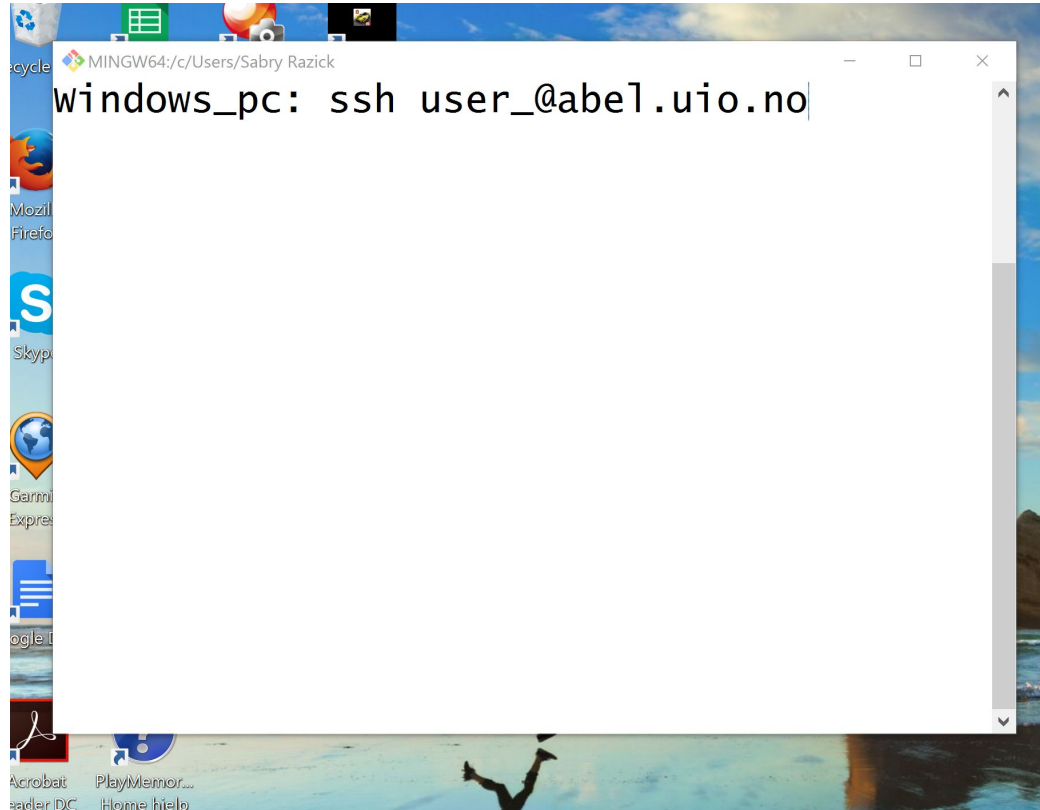
# Log into Abel

- If on Windows, download
  - Git BASH/Putty for connecting
  - WinSCP for copying files
- On Unix systems, open a terminal and type:  
`ssh <username>@abel.uio.no`
- Use your UiO/Nortur username and password

# Putty



# Gitbash



# What are the available software ?

- On Abel issue the following command to list modules/installed software
  - `module avail`
  - `module avail python`
- Load a module
  - `module load python2/2.7.10`
- Currently loaded modules
  - `module list`
- Clear modules
  - `module purge`
- <http://www.uio.no/english/services/it/research/hpc/abel/help/software/>



# Examples - file location

`/cluster/teaching/abel_tutorial/MAY2019/`

# Exercise directory

- `mkdir $HOME/RCS_tutorial`
- `cd $HOME/RCS_tutorial`
- `pwd`

# Find project account

- projects

# Terminal text editor

- nano
- vim
- emacs

# Some useful commands

- `pwd` - current working directory
- `hostname` - print the name of the computer
- `projects` - Projects that are available, to be paid for the jobs
- `cost` - amount of hours left in the project
- `freepe` - details about current cluster state
- `queue` - job queue
- `dsusage` - Disk usage
- `df -h` - available drives
- `cd $HOME` - home directory
- `echo $USER`
- `chmod` - change permissions