* Shortcuts
  + CTRL + c – cancel process in terminal
  + CTRL + l – clear terminal
  + CTRL + z – send process to the background, get it back with fg , & after command to send it to background right from the start, jobs lists all background processes. also shows job id and with fg id you can bring certain process into foreground
* usermod
  + -aG groupname user um einen nutzer einer gruppe hinzuzufügen
  + -d move home directory
  + -l newusername oldusername change the username
  + -L lock out a user
  + -U unlock user
  + username –e 2024-04-30 account ablaufen lassen (auslesen chage –l un)
  + which ssh shows where ssh is installed
* sudo
  + sudo !! - runs the most recent command again with sudo
  + touch /tesfile - creates a file
  + edit sudoers file in /etc/sudoers syntax ALL=(ALL:ALL) ALL
    - second all refers to users you are allowed to impersonate
    - third ALL refers to a group
    - last all refers to commands the user is allowed to use
    - (ALL:ALL) /usr/bin/apt, /usr/bin/rm - user is allowed to only use these commands. to find the path of the command type which rm
* su – username – change the user
* sudo visudo - edit the sudoers file only this way, if it gives you an error, type e to edit the file or x to undo the changes. dont use q, it saves the changes.
* htop
  + Task manager pendant
  + mark process with space, kill – send sigterm(clean exit) first, then sigkill
  + shift p – sort by cpu / shit m – sort by memory
  + u – show users
* ps
  + shows processes in terminal, with –x all processes
  + -He – hierarchy -axjf
  + -aux most usefull
* Data Streams (stdin(0), stdout(1) & stderr(2))
  + echo $? evaluates the output of the previous command. returns 0 if previous command was successful.
  + find ~/Downloads/ -type f – listet alle einträge vom typ file auf im verzeichnis
  + find ~/Downloads/ -type f > ~/results.txt 2> ~/errors.txt - zusätzlich wird der output(1) in results geschrieben und alle errors(2) in errors geschrieben
* Accounts
  + chage –E 2024-04-22 username – sets experation date for user
  + chage –l usermame – shows information about user
  + chage –M 30 username – usernames password expires after 30 days and needs to be changed, -1 removes epiration date
  + chage –m 7 username – minimum number of days between password change
  + passwd –l username lock user –u unlock it
* aliases
  + alias testcmd=”ls -l” testcmd runs ls –l now
  + unalias to remove
  + \ in front of command to bypass aliases
  + examples :
    - alias df=”df -h –x squashfs –x tmpfs –x devtmpfs”
    - alias lsmount="mount | column -t"
    - alias extip="curl icanhazip.com"
    - alias S="sudo pacman -S"
    - alias upgrade=”sudo apt update && sudo apt dist-upgrade"
    - alias speedtest="curl -s https://raw.githubusercontent.com/sivel/speedtest-cli/master/speedtest.py | python3 -"
    - alias mem5="ps auxf | sort -nr -k 4 | head -5"
    - alias cpu5="ps auxf | sort -nr -k 3 | head -5"
  + add a alias command to ~/.bashrc at the bottom to make it start every time
* Public Key Authentication
  + ssh-keygen -t ed25519 -a 420 -f ~/.ssh/gitlab.ed25519 -C "gitlab key OOAD" um schlüsselpaar zu generieren
  + ls -l ~/.ssh to see keys
  + connect to server : ssh [root@192.142](mailto:root@192.142).... //ip
  + ssh-copy-id root@192.142....