

## Linux Admin

- In Linux, Admin is called as "super-user".
- Admin's login name is "root".
- Most of modern Linux, disable "root" login (for security).
- To execute commands with admin privileges use "sudo" (if approved by system admin).
  - `cmd> sudo apt update`
  - `cmd> sudo apt install vim gcc python3 python3-pip`
  - `cmd> sudo snap install --classic code`

## Directory commands

- `pwd` -- print present working directory (current directory)
- `cd` -- change directory (syntax> `cd dirpath`)
- `ls` - list directory contents (syntax> `ls dirpath`)
- `mkdir` -- make directory (syntax> `mkdir dirpath`)
- `rmdir` -- remove empty directory (syntax> `rmdir dirpath`)
- `cd`
  - `cd ~` - change working directory to home directory
  - `cd -` - change working directory to old working directory
  - `cd ..` - change working directory to parent directory

## File commands

- `cat`
  - `cat > filepath` <-- create new file
  - `cat filepath` <-- display file contents
- `rm`
  - `rm filepath` <-- delete given file
  - `rm -r dirpath` <-- delete dir with all contents
- `mv`
  - `mv filepath destdirpath` <-- move given file into given dest directory
  - `mv dirpath destdirpath` <-- move given dir into given dest directory
  - `mv oldname newname` <-- rename given file
- `cp`
  - `cp filename newfilename` <-- copy file with new name/path.
  - `cp filepath destdirpath` <-- copy file into given dest dir with same name.
  - `cp -r dirpath destdirpath` <-- copy file into given dest dir with same name.
- `touch`
  - Create empty file (if file doesn't exists).
  - Modify access time of the file (if file exists).

- ls
  - ls - list the contents of present working directory
  - ls path - list the contents of given path
  - ls -l - list the contents in detail format
    - type and permissions
      - Types of files
        - Regular file (-)
        - Directory file (d)
        - Link file (l)
        - pipe file (p)
        - socket file (s)
        - character special file (c)
        - block special file (b)
      - Permissions of files
        - r - read, w - write, x - execute
        - (rwx)user/owner, (rwx)group, (rwx)others
    - link count
    - user/owner
    - group
    - size
    - timestamp
    - name
  - ls -a - list all contents along with hidden
  - ls -A - list all contents along with hidden except . and ..
  - ls -li - list contents with inode number
    - inode number is unique number given to every file
  - ls -ls - list content with size (number of blocks)
  - ls -Sl - list content in descending order of their sizes
- touch
  - if file does not exist, empty file is created
  - if file exist, timestamp of that file is changed
- alias
  - alias list="ls -l"
    - list will be alias/nick name to ls -l
    - list will give output same as ls -l
- unalias
  - unalias list