

Lab 4

Question 1

Start a terminal. What is your present working directory?

- /home/tavanburen

The screenshot shows the Visual Studio Code interface. On the left, the sidebar displays various extensions like CK++, CMake, CMake Tools, Live Server, Markdown All in One, Markdown PDF, Markdown Preview, and Markdown TOC. The main editor area shows a file named 'Lab 4' with the following content:

```
## Lab 4 ##  
### Question 1 ###  
Start a terminal. What is your present working directory?  
- a  
Change your pres  
- a/home/tavanburen
```

A terminal window is open in the center, showing the command 'pwd' being run in a terminal session on a VirtualBox machine. The output is:

```
tavanburen@tavanburen-VirtualBox: ~  
What is your pre  
tavanburen@tavanburen-VirtualBox: ~  
/home/tavanburen
```

A preview window titled 'Lab 4' is also visible, containing the same text as the editor.

Change your present working directory to /usr/share/themes

- cd /usr/share/themes

The screenshot shows the Visual Studio Code interface. On the left is the sidebar with extensions like C/C++, CMake, and Markdown Preview Enhance installed. Two terminals are open: one showing the content of Lab4.md and another showing a terminal session where the user runs `cd /usr/share/themes` and checks the current directory with `pwd`. A preview pane on the right shows the rendered content of the Markdown file.

```

1 ## Lab 4 ##
2
3 ### Question 1 ####
4
5 Start a terminal. What is your present working directory?
6 - /home/tavanburen
7
8 Change your present working directory to /usr/share/themes
9 - cd /usr/share/themes
10
11 What is your present working directory now?
12 - a
13
14 Change your present working directory to the root of the filesystem
15 - a
16
17 Change your present working directory to /snap/firefox/
18 - a
tavanburen@tavanburen-VirtualBox:/usr/share/themes
tavanburen@tavanburen-VirtualBox:~$ cd /usr/share/themes
tavanburen@tavanburen-VirtualBox:/usr/share/themes$ pwd
/usr/share/themes
tavanburen@tavanburen-VirtualBox:/usr/share/themes$
```

What is your present working directory now?

- /usr/share/themes

The screenshot shows the Visual Studio Code interface. Similar to the first one, it has two terminals and a preview pane. In the terminal, the user runs `cd /` and checks the current directory with `pwd`, confirming they are at the root of the filesystem.

```

1 ## Lab 4 ##
2
3 ### Question 1 ####
4
5 Start a terminal. What is your present working directory?
6 - /home/tavanburen
7
8 Change your present working directory to /usr/share/themes
9 - cd /usr/share/themes
10
11 What is your present working directory now?
12 - /usr/share/themes
13
14 Change your present working directory to the root of the filesystem
15 - a
16
17 Change your present working directory to /snap/firefox/
18 - a
tavanburen@tavanburen-VirtualBox:/usr/share/themes
tavanburen@tavanburen-VirtualBox:~$ cd /
tavanburen@tavanburen-VirtualBox:/$ pwd
/
tavanburen@tavanburen-VirtualBox:/$
```

Change your present working directory to the root of the filesystem

- cd /

The screenshot shows the Visual Studio Code interface. On the left is the sidebar with extensions like CMake, CMake Tools, and GitHub Pull Requests. The main area has two tabs: 'lab2.md M' and 'Lab4.md'. The 'Lab4.md' tab contains the following text:

```

1 ## Lab 4 ##
2
3 ### Question 1 ####
4
5 Start a terminal. What is your present working directory?
6 - /home/tavanburen
7
8 Change your present working directory to /usr/share/themes
9 - cd /usr/share/themes
10
11 What is your present working directory now?
12 - /usr/share/themes
13
14 Change your present working directory to the root of the filesystem
15 - cd /
16
17 Change your present working directory to /snap/firefox/
18 - a

```

Below the editor is a terminal window titled 'tavanburen@tavanburen-VirtualBox/'. It shows the user's home directory and the command 'cd /'. The status bar at the bottom indicates the current file is 'Lab 4-The Linux Files...'.

Change your present working directory to /snap/firefox/

- cd snap/firefox

The screenshot shows the Visual Studio Code interface. The sidebar and editor area are identical to the previous screenshot. The terminal window now shows the output of the command 'ls' in the '/snap/firefox/' directory, listing files like bin, dev, lib, libx32, mnt, root, snap, sys, var, boot, etc, lib32, lost+found, opt, run, srv, tmp, cdmn, home, lib64, media, proc, sbin, swapfile, usr. The status bar at the bottom indicates the current file is 'Lab 4-The Linux Files...'.

Clear your terminal window. Change the working directory to YOUR home directory.

- clear
- cd ~

The screenshot shows a Visual Studio Code interface with two main terminal windows and a preview pane.

Terminal 1: Shows a command-line session on a VirtualBox machine. The user runs `ls` to list files in the root directory. The output includes `bin`, `dev`, `lib`, `lib32`, `mnt`, `root`, `snap`, `sys`, and `var`. It also shows sub-directories like `boot`, `etc`, `home`, `lib64`, `media`, `proc`, `sbin`, `swapfile`, and `usr`.

Terminal 2: Shows another command-line session on the same machine. The user runs `cd snap/firefox` followed by `clear` to clear the terminal window.

Preview Pane: Displays the content of `Lab4.md` with the following text:

```
1 ## Lab 4 ##
2
3 ## Question 1 ##
4
5 Start a terminal. What is your present working directory?
- /home/tavanburen
6
7 Change your present working directory to /usr/share/themes
- cd /usr/share/themes
8
9 What is your present working directory now?
- /usr/share/themes
10
11 Change your present working directory to the root of the filesystem
- cd /
12
13 Change your present working directory to /snap/firefox
- cd snap/firefox
```

Change the working directory to the Downloads directory.

- **cd Downloads**

The screenshot shows a Visual Studio Code interface. On the left is the sidebar with extensions like C/C++, CMake, and Markdown. The main area has a terminal window titled 'tavanburen@tavanburen-VirtualBox: ~/Downloads' containing the command 'tavanburen@tavanburen-VirtualBox:~\$ cd Downloads'. To the right is a preview pane titled 'Preview Lab4.md' displaying the content of the Markdown file.

```

16  Change your present working directory to the root of the filesystem
17  • cd /
18
19  Change your present working directory to /snap/firefox/
20  • cd snap/firefox
21
22  Clear your terminal window. Change the working directory to YOUR home
23  directory.
24  - clear
25  - cd ~
26
27  Go back 2 directories.
28  - ..
29
30  Where are you now?
31  - a
32
33  Change the working directory to the Downloads directory.
34  - cd Downloads

```

Go back 2 directories.

- cd ..
- cd ..

The screenshot shows a Visual Studio Code interface. On the left is the sidebar with extensions like C/C++, CMake, and Markdown. The main area has a terminal window titled 'tavanburen@tavanburen-VirtualBox:/home' containing the command 'tavanburen@tavanburen-VirtualBox:~/Downloads\$ cd ..'. To the right is a preview pane titled 'Preview Lab4.md' displaying the content of the Markdown file.

```

16  Change your present working directory to the root of the filesystem
17  • cd /
18
19  Change your present working directory to /snap/firefox/
20  • cd snap/firefox
21
22  Clear your terminal window. Change the working directory to YOUR home
23  directory.
24  - clear
25  - cd ~
26
27  Go back 2 directories.
28  - ..
29  - ..
30
31  Where are you now?
32  - a
33
34  Change the working directory to the Documents/ directory.
35  - a

```

Where are you now?

- /home

The screenshot shows a Visual Studio Code interface. On the left is the Extensions sidebar with various installed and recommended extensions like UI Themes for C/C++, CMake, and GitHub Pull Requests. The main area has two tabs open: 'lab2.md' and 'Lab4.md'. The 'Lab4.md' tab contains a code editor with the following text:

```

16 - cd Snap/firefox
17
18 Clear your terminal window. Change the working directory to YOUR home
19 directory.
20 - clear
21 - cd ~
22
23 Change the working directory to the Downloads directory.
24 - cd Downloads
25
26 Go back 2 directories.
27 - cd ..
28 - cd ..
29
30 Where are you now?
31 - /home
32
33 Change the working directory to the Documents/ directory.
34 - a
  
```

Below the code editor is a terminal window showing the command 'tavanburen@tavanburen-VirtualBox:/home\$ pwd' with the output '/home'. To the right of the terminal is a preview panel titled 'Preview Lab4.md' which displays the same text as the code editor.

Change the working directory to the Documents/ directory.

- cd tavanburen/Documents

The screenshot shows the same Visual Studio Code interface as before, but the terminal window now shows the command 'tavanburen@tavanburen-VirtualBox:/home\$ cd tavanburen/Documents' with the output 'tavanburen@tavanburen-VirtualBox:~/Documents\$'. The preview panel still displays the original text from the 'Lab4.md' file.

Question 2

Change your present working directory to /usr/share/. Using absolute path, list all the files inside the lab4files directory.

- cd /usr/share

- ls home/tavanburen/lab4files

The screenshot shows a Visual Studio Code interface. On the left is the Marketplace sidebar with various extensions installed and recommended. The main area has a terminal window titled "tavanburen@tavanburen-VirtualBox: ~/lab4files" containing the following script:

```

28 Go back 2 directories.
29 - cd ..
30 - cd ..
31 Where are you now?
32 - /home
33
34 Change the working directory to the Documents/ directory.
35 - cd tavanburen/Documents
36 ...
37
38 ## Question 2 ##
39
40
41 Change your present working directory to /usr/share/. Using absolute path,
list all the files inside the lab4files directory.
42 - cd /usr/share
43 - ls home/tavanburen/lab4files
44
45 Change your present working directory to ~/lab4files. Long list all the
files inside your current working directory with human readable file sizes.
46 - cd ~/lab4files
47 - ls -l -h

```

To the right of the terminal is a preview window titled "Preview Lab4.md" with the following content:

Change the working directory to the Documents/ directory.

- cd tavanburen/Documents

Question 2

Change your present working directory to /usr/share/. Using absolute path, list all the files inside the lab4files directory.

- cd /usr/share
- ls home/tavanburen/lab4files

Change your present working directory to ~/lab4files. Long list all the files inside your current working directory with human readable file sizes.

- cd ~/lab4files
- ls -l -h

Long list all the files inside lab4files with human readable file size, and sorted by file size.

- a
- Long list all the files inside lab4files with human readable file size, sorted by file size, without the user nor the group name, and showing their inode number.
- a

Change your present working directory to ~/lab4files. Long list all the files inside your current working directory with human readable file sizes.

- cd ~/lab4files
- ls -l -h

The screenshot shows a Visual Studio Code interface. On the left is the Marketplace sidebar with various extensions installed and recommended. The main area has a terminal window titled "tavanburen@tavanburen-VirtualBox: ~/lab4files" containing the following script:

```

25 Change the working directory to the Downloads directory.
26 - cd Downloads
27
28 Go back 2 directories.
29 - cd ..
30 - cd ..
31 Where are you now?
32 - /home
33
34 Change the working directory to the Documents/ directory.
35 - cd tavanburen/Documents
36 ...
37
38 ## Question 2 ##
39 ...
40
41 Change your present working directory to /usr/share/. Using absolute path,
list all the files inside the lab4files directory.
42
43 Change your present working directory to ~/lab4files. Long list all the
files
44 - cd /usr/share
45 - ls -l -h
46
47 - cd ~/lab4files
48 - ls -l -h
49
50 - cd ..
51

```

To the right of the terminal is a preview window titled "Preview Lab4.md" with the following content:

Where are you now?

- /home

Change the working directory to the Documents/ directory.

- cd tavanburen/Documents

Question 2

Change your present working directory to /usr/share/. Using absolute path, list all the files inside the lab4files directory.

Change your present working directory to ~/lab4files. Long list all the files inside your current working directory with human readable file sizes.

- a
- Long list all the files inside lab4files with human readable file size, and sorted by file size.
- a

Long list all the files inside lab4files with human readable file size, and sorted by file size.

- `ls -l -h -S`

```
tavanburen@tavanburen-VirtualBox:~/lab4files$ ls -l -h -S
total 6.5M
1 tavanburen tavanburen 20K Feb 22 2022 countries.json
1 tavanburen tavanburen 278K Feb 22 2022 csvfile.csv
1 tavanburen tavanburen 747K Feb 22 2022 document.docx
1 tavanburen tavanburen 726K Feb 22 2022 globe.avi
1 tavanburen tavanburen 76 Feb 22 2022 helelloworld.c
1 tavanburen tavanburen 8.5K Feb 22 2022 sample.xls
1 tavanburen tavanburen 42K Feb 22 2022 Tux.png
1 tavanburen tavanburen 2.1M Feb 22 2022 Ubuntu.pdf
1 tavanburen tavanburen 135K Feb 22 2022 website.html
```

Long list all the files inside lab4files with human readable file size, sorted by file size, without the user nor the group name, and showing their inode number.

- `ls -l -h -S -i -G -g`

```
tavanburen@tavanburen-VirtualBox:~/lab4files$ ls -l -h -S -i -G -g
total 6.5M
239660 -rw-rw-r-- 1 2.5M Feb 22 2022 Linux.pdf
239671 -rw-rw-r-- 1 2.1M Feb 22 2022 Ubuntu.pdf
239745 -rw-rw-r-- 1 747K Feb 22 2022 document.docx
239746 -rw-rw-r-- 1 726K Feb 22 2022 globe.avi
239749 -rw-rw-r-- 1 278K Feb 22 2022 csvfile.csv
239749 -rw-rw-r-- 1 135K Feb 22 2022 website.html
239670 -rw-rw-r-- 1 42K Feb 22 2022 Tux.png
239716 -rw-rw-r-- 1 28K Feb 22 2022 countries.json
239748 -rw-rw-r-- 1 8.5K Feb 22 2022 sample.xls
239747 -rw-rw-r-- 1 76 Feb 22 2022 helelloworld.c
```

list all the files inside lab4files sorted by file extension and in reverse order.

- `ls -X -r`

S15

Question 3

Using absolute path and having /etc as your present working directory. Display a tree of the directory lab4files.

- cd /etc
- tree /home/tavanburen/lab4files/

The screenshot shows a Visual Studio Code interface. On the left is the Marketplace extension sidebar. In the center is a terminal window titled 'tavanburen@tavanburen-VirtualBox:/etc' containing the following command:

```
tavanburen@tavanburen-VirtualBox:~/lab4files$ cd /etc
tavanburen@tavanburen-VirtualBox:/etc$ tree /home/tavanburen/lab4files/
/home/tavanburen/lab4files/
├── countries.json
├── csvfile.csv
├── document.docx
└── globe.avif
    └── 1Linux.pdf
        └── sample.xls
    └── Tux.png
    └── Ubuntu.pdf
    └── website.html
```

To the right of the terminal is a preview pane titled 'Question 3' which contains the following text:

Using absolute path and having /etc as your present working directory. Display a tree of the directory lab4files.

Change your present working directory to your Downloads directory. Display a tree of the directory lab4files with the full path prefix for each file, the file permissions, and the file size in human readable format.

Once you have installed exa, list all the options of the exa command.

Change your present working directory to your Downloads directory. Display a tree of the directory lab4files with the full path prefix for each file, the file permissions, and the file size in human readable format.

- cd /home/tavanburen/Downloads/
- tree -f -p -h /home/tavanburen/lab4files/

```
tavanburen@tavanburen-VirtualBox:~/Downloads$ cd /home/tavanburen/Downloads/
tavanburen@tavanburen-VirtualBox:~/Downloads$ tree -f -p -h /home/tavanburen/lab4files/
[drwxrwxr-x 4 0K] /home/tavanburen/lab4files
[  -rw-rw-r-- 20K] /home/tavanburen/lab4files/countries.json
[  -rw-rw-r-- 277K] /home/tavanburen/lab4files/csvfile.csv
[  -rw-rw-r-- 725K] /home/tavanburen/lab4files/document.docx
[  -rw-rw-r-- 76] /home/tavanburen/lab4files/globe.svg
[  -rw-rw-r-- 2.5M] /home/tavanburen/lab4files/linux.pdf
[  -rw-rw-r-- 8.5K] /home/tavanburen/lab4files/sample.xls
[  -rw-rw-r-- 42K] /home/tavanburen/lab4files/Tux.png
[  -rw-rw-r-- 2.0M] /home/tavanburen/lab4files/Ubuntu.pdf
[  -rw-rw-r-- 134K] /home/tavanburen/lab4files/website.html

0 directories, 10 files
```

present working
lab4files.

Question 3

Using absolute path and having /etc as your present working directory. Display a tree of the directory lab4files.

- cd /etc
- tree /home/tavanburen/lab4files/

)

Display a tree of the directory lab4files sorted by last modified time and showing the file owner and group.

- tree -t -u -g /home/tavanburen/lab4files/

```
tavanburen@tavanburen-VirtualBox:~/Downloads$ tree -t -u -g /home/tavanburen/lab4files/
[drwxrwxr-x 4 0K] /home/tavanburen/lab4files
[  -rw-rw-r-- 20K] /home/tavanburen/lab4files/countries.json
[  -rw-rw-r-- 277K] /home/tavanburen/lab4files/csvfile.csv
[  -rw-rw-r-- 725K] /home/tavanburen/lab4files/document.docx
[  -rw-rw-r-- 76] /home/tavanburen/lab4files/globe.svg
[  -rw-rw-r-- 2.5M] /home/tavanburen/lab4files/linux.pdf
[  -rw-rw-r-- 8.5K] /home/tavanburen/lab4files/sample.xls
[  -rw-rw-r-- 42K] /home/tavanburen/lab4files/Tux.png
[  -rw-rw-r-- 2.0M] /home/tavanburen/lab4files/Ubuntu.pdf
[  -rw-rw-r-- 134K] /home/tavanburen/lab4files/website.html

0 directories, 10 files
```

Question 3

Using absolute path and having /etc as your present working directory. Display a tree of the directory lab4files.

- cd /etc
- tree /home/tavanburen/lab4files/

Change your present working directory to your Downloads directory. Display a tree of the directory lab4files with the full path prefix for each file, the file permissions, and the file size in human readable format.

- cd /home/tavanburen/Downloads/
- tree -f -p -h /home/tavanburen/lab4files/

Display a tree of the directory lab4files sorted by last modified time and showing the file owner and group.

- tree -t -u -g /home/tavanburen/lab4files/

)

Once you have installed exa, list all the options of the exa command.

- META OPTIONS -?, --help show list of command-line options -v, --version show version of exa

DISPLAY OPTIONS -l, --oneline display one entry per line -l, --long display extended file metadata as a table -G, --grid display entries as a grid (default) -x, --across sort the grid across, rather than downwards -R, --recurse recurse into directories -T, --tree recurse into directories as a tree -F, --classify display type indicator

by file names --colo[u]r=WHEN when to use terminal colours (always, auto, never) --colo[u]r-scale highlight levels of file sizes distinctly --icons display icons --no-icons don't display icons (always overrides --icons)

FILTERING AND SORTING OPTIONS -a, --all show hidden and 'dot' files -d, --list-dirs list directories as files; don't list their contents -L, --level DEPTH limit the depth of recursion -r, --reverse reverse the sort order -s, --sort SORT_FIELD which field to sort by --group-directories-first list directories before other files -D, --only-dirs list only directories -I, --ignore-glob GLOBS glob patterns (pipe-separated) of files to ignore Valid sort fields: name, Name, extension, Extension, size, type, modified, accessed, created, inode, and none. date, time, old, and new all refer to modified.

LONG VIEW OPTIONS -b, --binary list file sizes with binary prefixes -B, --bytes list file sizes in bytes, without any prefixes -g, --group list each file's group -h, --header add a header row to each column -H, --links list each file's number of hard links -i, --inode list each file's inode number -m, --modified use the modified timestamp field -n, --numeric list numeric user and group IDs -S, --blocks show number of file system blocks -t, --time FIELD which timestamp field to list (modified, accessed, created) -u, --accessed use the accessed timestamp field -U, --created use the created timestamp field --changed use the changed timestamp field --time-style how to format timestamps (default, iso, long-iso, full-iso) --no-permissions suppress the permissions field --octal-permissions list each file's permission in octal format --no-filename suppress the filename field --no-user suppress the user field --no-time suppress the time field -@, --extended list each file's extended attributes and sizes

![S19](Screenshots/Q3/Lab4Q3Screenshot4-5.png)

Using exa, long list all the files inside lab4files

- exa -l /home/tavanburen/lab4files/

Long list lab4files showing the header that indicates what each column means.

- exa -l /home/tavanburen/lab4files/

Long list lab4files without the file owner nor group including the header and the date the file was created.

- exa -l -h -U --no-user /home/tavanburen/lab4files/

Question 4

Open a new terminal. What is your present/current working directory?

- /home/tavanburen



Change your present/current working directory to the default directory located inside /usr

- `cd /usr/share/icons/default`

Change your present/current working directory to the ipv4 directory located inside /proc

- `cd /proc/sys/net/ipv4`

change your present/current working directory to the previous present/working directory.

- cd -

List all the files inside share/backgrounds without changing your present working directory.

- ls /usr/share/backgrounds

List all the files inside your cis106 directory located in YOUR home directory.

- ls ~ /cis106

List all the files inside your Downloads directory. Your present working directory has to be /home before you can list all the files.

- cd /home
- ls tavanburen/Downloads

Change your present/current working directory to disk/by-id and from there long list all the files in your home directory including hidden files.

- cd /dev/disk/by-id
- ls -a /home

List all the files sorted by modification time inside the share/themes directory.

- ls -t /usr/share/themes

List all the files sorted by file extension inside the /usr/share directory.

- ls -x /usr/share

```
tavanburen@tavanburen-VirtualBox:~$ cd /usr/share/icons/default
tavanburen@tavanburen-VirtualBox:~/usr/share/icons/default$ cd /proc/sys/net/ipv4
tavanburen@tavanburen-VirtualBox:~/proc/sys/net/ipv4$ ^C
tavanburen@tavanburen-VirtualBox:~/proc/sys/net/ipv4$ cd ..
tavanburen@tavanburen-VirtualBox:~/proc/sys/net/ipv4$ cd ..
tavanburen@tavanburen-VirtualBox:~/usr/share/icons/default$ ls /usr/share/backgrounds
Blue_Flower_by_Elena_Stravoravdi.jpg
canvás_by_roytanck.jpg
Cherry_Tree_in_Lakones_by_elenastravoravdi.jpg
contest
cosmos
DS2943_by_kcpru.jpg
Jammy_Jellyfish_WP_4096x2304_Grey.png
Jiark_by_HtKing93.jpg
Ji_Light_by_HtKing93.jpg
mate
Mirror_by_Uday_Nakade.jpg
Optical_Fiber_in_Dark_by_Elena_Stravoravdi.jpg
ubuntu2_by_arman1992.jpg
ubuntu_by_arman1992.jpg
ubuntu-default-greyscale-wallpaper.png
warty-final-ubuntu.png
tavanburen@tavanburen-VirtualBox:~/usr/share/icons/default$ ^C
tavanburen@tavanburen-VirtualBox:~/usr/share/icons/default$ ls ~/cis106
cis106_sheets_and_files_for_cis106_tavanburen
tavanburen@tavanburen-VirtualBox:~/usr/share/icons/default$ cd /usr/home
bash: cd: /usr/home: No such file or directory
tavanburen@tavanburen-VirtualBox:~/usr/share/icons/default$ cd /usr/Home
bash: cd: /usr/Home: No such file or directory
tavanburen@tavanburen-VirtualBox:~/usr/share/icons/default$ cd /home
tavanburen@tavanburen-VirtualBox:~/home$ ls /Downloads
bash: ls /Downloads: No such file or directory
tavanburen@tavanburen-VirtualBox:~/home$ ls /Downloads
ls: cannot access '/Downloads': No such file or directory
tavanburen@tavanburen-VirtualBox:~/home$ ls
tavanburen
tavanburen@tavanburen-VirtualBox:~/home$ ls tavanburen/Downloads
Beth_Ellen.zip lab4files.zip pop-os_22.04_amd64_nvidia_14.iso
tavanburen@tavanburen-VirtualBox:~/home$ cd /dev/disk/by-id
tavanburen@tavanburen-VirtualBox:~/dev/disk/by-id$ ls -a /home
. .. tavanburen
tavanburen@tavanburen-VirtualBox:~/dev/disk/by-id$ ^C
tavanburen@tavanburen-VirtualBox:~/dev/disk/by-id$ man ls
tavanburen@tavanburen-VirtualBox:~/dev/disk/by-id$ ls -t /usr/share/themes
Yaru-MATE Spidey-Left Yaru-dark-hdpt Yaru-red-dark
Yaru-MATE-Light Splint Yaru-dark-xhdpi Yaru-sage
Yaru-MATE-dark Splint-Left Yaru-hdpi Yaru-sage-dark
Yaru-dark Atlanta Yaru-magenta Yaru-vlrdian
Yaru ClearlooksRE Yaru-magenta-dark Yaru-vlrdian-dark
eos Dopele Yaru-olive Yaru-xhdpi
Kinne Dopele-Left Yaru-olive-dark Default
Kinko Duveline Yaru-prismgreen Yaru
Corilla Yaru-bark Yaru-prismgreen-dark Adwalta
Notif Yaru-bark-dark Yaru-purple Adwalta-dark
Raleigh Yaru-blue Yaru-purple-dark HighContrast
Spidey Yaru-blue-dark Yaru-red
tavanburen@tavanburen-VirtualBox:~/dev/disk/by-id$ man ls
tavanburen@tavanburen-VirtualBox:~/dev/disk/by-id$ ls -X /usr/share
accounts-service librevenge
aclocal libthai
acpi-support libwacom
adduser lightdm
avahi libavahi
alsa linux-sound-base
alsa locales
alsa-base locales-langpack
alsa-card-profile locales
appdata lto-disabled-list
app-info mz300w
applications man
apport man-db
apps marco
apturl mate
apturl-about mate-about
apturl-applets mate-applets
avahi mate-background-properties
backgrounds mate-control-center
base-files mate-dict
base-passwd mate-dictionary
bash-completion mate-media
hinfmcs mate-menu
tavanburen@tavanburen-VirtualBox:~/dev/disk/by-id$
```

```
tavanburen@tavanburen-VirtualBox:~$ ls tavanburen/Downloads
Beth_Ellen.zip lab4files.zip pop-os_22.04_amd64_nvidia_14.iso
tavanburen@tavanburen-VirtualBox:~/Downloads$ cd ..
tavanburen@tavanburen-VirtualBox:~/$ ls
tavanburen
tavanburen@tavanburen-VirtualBox:~/$ cd /dev/disk/by-id
tavanburen@tavanburen-VirtualBox:~/dev/disk/by-id$ ls -a /home
. .. tavanburen
tavanburen@tavanburen-VirtualBox:~/dev/disk/by-id$ ^C
tavanburen@tavanburen-VirtualBox:~/dev/disk/by-id$ man ls
tavanburen@tavanburen-VirtualBox:~/dev/disk/by-id$ ls -t /usr/share/themes
Yaru-MATE Spidey-Left Yaru-dark-hdpt Yaru-red-dark
Yaru-MATE-Light Splint Yaru-dark-xhdpi Yaru-sage
Yaru-MATE-dark Splint-Left Yaru-hdpi Yaru-sage-dark
Yaru-dark Atlanta Yaru-magenta Yaru-vlrdian
Yaru ClearlooksRE Yaru-magenta-dark Yaru-vlrdian-dark
eos Dopele Yaru-olive Yaru-xhdpi
Kinne Dopele-Left Yaru-olive-dark Default
Kinko Duveline Yaru-prismgreen Yaru
Corilla Yaru-bark Yaru-prismgreen-dark Adwalta
Notif Yaru-bark-dark Yaru-purple Adwalta-dark
Raleigh Yaru-blue Yaru-purple-dark HighContrast
Spidey Yaru-blue-dark Yaru-red
tavanburen@tavanburen-VirtualBox:~/dev/disk/by-id$ man ls
tavanburen@tavanburen-VirtualBox:~/dev/disk/by-id$ ls -X /usr/share
accounts-service librevenge
aclocal libthai
acpi-support libwacom
adduser lightdm
avahi libavahi
alsa linux-sound-base
alsa locales
alsa-base locales-langpack
alsa-card-profile locales
appdata lto-disabled-list
app-info mz300w
applications man
apport man-db
apps marco
apturl mate
apturl-about mate-about
apturl-applets mate-applets
avahi mate-background-properties
backgrounds mate-control-center
base-files mate-dict
base-passwd mate-dictionary
bash-completion mate-media
hinfmcs mate-menu
tavanburen@tavanburen-VirtualBox:~/dev/disk/by-id$
```