## MANAGING DIRECTORIES

## A

### 1. Change the current directory to /home/<user>

When we open the terminal we are already in the /home/palo directory, but if we weren't this is the command we should use:

```
palo@palo-VirtualBox:/$ cd /home/palo
palo@palo-VirtualBox:~$ ls
D1  Desktop    Downloads  Music     Public     Videos
DA  Documents  FOLDER     Pictures  Templates
palo@palo-VirtualBox:~$ S
```

### 2. Create a directory called systems

```
palo@palo-VirtualBox:~$ mkdir systems
palo@palo-VirtualBox:~$ ls
D1  Desktop    Downloads  Music     Public    Templates
DA  Documents  FOLDER     Pictures  systems   Videos
palo@palo-VirtualBox:~$
```

### 3. Create a directory called exercises. Go to this directory and create another new directory called programming

```
palo@palo-VirtualBox:~$ mkdir exercises
palo@palo-VirtualBox:~$ cd exercises
palo@palo-VirtualBox:~/exercises$ mkdir programming
palo@palo-VirtualBox:~/exercises$ ls
programming
palo@palo-VirtualBox:~/exercises$
```

### 4. Go back to the user's home directory. Delete the directories "exercises" and "programming" using just one command. Create the directories again with one command.

```
palo@palo-VirtualBox:~/exercises$ cd ..
palo@palo-VirtualBox:~$ rmdir -p exercises/programming
palo@palo-VirtualBox:~$ ls
D1  Desktop    Downloads  Music     Public    Templates
DA  Documents  FOLDER     Pictures  systems   Videos
palo@palo-VirtualBox:~$ mkdir -p exercises/programming
palo@palo-VirtualBox:~$ ls
D1         Documents  FOLDER     Public     Videos
DA         Downloads  Music      systems
Desktop    exercises  Pictures   Templates
palo@palo-VirtualBox:~$ cd exercises
palo@palo-VirtualBox:~/exercises$ ls
programming
palo@palo-VirtualBox:~/exercises$
```

### 5. Print the contents of the root directory

We first go to root using: cd ../.. and then use the command: ls

```
palo@palo-VirtualBox:~$ cd ../..
palo@palo-VirtualBox:/$ ls
bin    etc    lib64       mnt   run    swapfile  var
boot   home   libx32      opt   sbin   sys
cdrom  lib    lost+found  proc  snap   tmp
dev    lib32  media       root  srv    usr
palo@palo-VirtualBox:/$
```

### 6. Print all the files and directories that begin with d in the /usr/bin directory

```
palo@palo-VirtualBox:/$ cd /usr/bin
palo@palo-VirtualBox:/usr/bin$ ls d*
dash                                  df
date                                  dfu-tool
dbus-cleanup-sockets                  dh_bash-completion
dbus-daemon                           dh_installxmlcatalogs
dbus-launch                           dh_perl_openssl
dbus-monitor                          diff
dbus-run-session                      diff3
dbus-send                             dig
dbus-update-activation-environment    dir
dbus-uuidgen                          dircolors
dc                                    dirmngr
dconf                                 dirmngr-client
dd                                    dirname
ddstdecode                            dirsplit
deallocvt                             dmesg
debconf                               dnsdomainname
debconf-apt-progress                  domainname
debconf-communicate                   do-release-upgrade
debconf-copydb                        dpkg
debconf-escape                        dpkg-deb
debconf-set-selections                dpkg-divert
debconf-show                          dpkg-maintscript-helper
deb-systemd-helper                    dpkg-query
deb-systemd-invoke                    dpkg-split
delpart                               dpkg-statoverride
delv                                  dpkg-trigger
desktop-file-edit                     driverless
desktop-file-install                  du
desktop-file-validate                 dumpkeys
devdump                               dvipdf
palo@palo-VirtualBox:/usr/bin$
```

7. List all the files and directories in /etc, including subdirectories

```
palo@palo-VirtualBox:~$ ls -l /etc
total 1068
drwxr-xr-x   3 root root    4096 feb  9  2021 acpi
-rw-r--r--   1 root root    3028 feb  9  2021 adduser.conf
drwxr-xr-x   3 root root    4096 feb  9  2021 alsa
drwxr-xr-x   2 root root    4096 oct  9 11:19 alternatives
-rw-r--r--   1 root root     401 jul 16  2019 anacrontab
-rw-r--r--   1 root root     433 oct  2  2017 apg.conf
drwxr-xr-x   5 root root    4096 feb  9  2021 apm
drwxr-xr-x   3 root root    4096 feb  9  2021 apparmor
```

8. Create the empty files called student.txt, student1.txt, student2.txt, list, luggage and last
in the directory named "systems"

```
palo@palo-VirtualBox:~$ cd systems; touch student.txt student
2.txt list luggage last
palo@palo-VirtualBox:~/systems$ ls
last  list  luggage  student2.txt  student.txt
palo@palo-VirtualBox:~/systems$
```

9. Print all the files that begin with "l" in the directory "systems"

```
palo@palo-VirtualBox:~/systems$ ls l*
last  list  luggage
palo@palo-VirtualBox:~/systems$
```

10. Print all the files that end with "txt" in the directory "systems"

```
palo@palo-VirtualBox:~/systems$ ls *txt
student2.txt  student.txt
palo@palo-VirtualBox:~/systems$ 
```

11. Create a new directory into $HOME called "config"

```
palo@palo-VirtualBox:~/systems$ mkdir $HOME/config
```

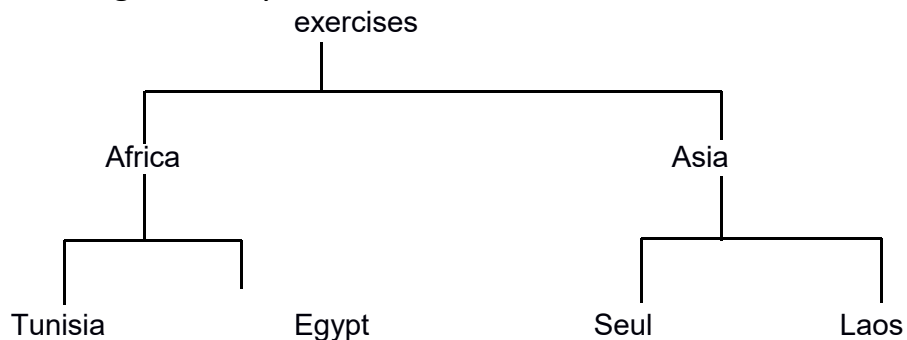12. Copy all the files in /etc which begin with "a" into "config"

```
palo@palo-VirtualBox:~$ cp /etc/a* config
cp: -r not specified; omitting directory '/etc/acpi'
cp: -r not specified; omitting directory '/etc/alsa'
cp: -r not specified; omitting directory '/etc/alternatives'
cp: -r not specified; omitting directory '/etc/apm'
cp: -r not specified; omitting directory '/etc/apparmor'
cp: -r not specified; omitting directory '/etc/apparmor.d'
cp: -r not specified; omitting directory '/etc/apport'
cp: -r not specified; omitting directory '/etc/apt'
cp: -r not specified; omitting directory '/etc/avahi'
```

13.Delete all the files in "config" which end with "conf"

```
palo@palo-VirtualBox:~$ rm config/*conf
palo@palo-VirtualBox:~$ 
```

**B**

Create the following directory structure in /home/<user>/exercises



```
palo@palo-VirtualBox:~$ cd exercises; mkdir -p Africa/Tunisia
; mkdir -p Africa/Egypt; mkdir -p Asia/Seoul; mkdir -p Asia/L
aos
palo@palo-VirtualBox:~/exercises$ tree
.
├── Africa
│   ├── Egypt
│   └── Tunisia
├── Asia
│   ├── Laos
│   └── Seoul
```

14. Create the following files using nano (or another editor): song.doc
(write a few lines of
a song) in the directory Egypt; tv.doc (write the name of your favourite
TV programs) in
the directory Seul and marks (write the marks you expect to get this year)

in the
directory Tunisia.

```
palo@palo-VirtualBox:~$ cd exercises
palo@palo-VirtualBox:~/exercises$ nano Africa/Egypt/song.doc
palo@palo-VirtualBox:~/exercises$ nano Asia/Seoul/tv.doc
palo@palo-VirtualBox:~/exercises$ nano Africa/Tunisia/marks
palo@palo-VirtualBox:~/exercises$
```

CHANGE THE CURRENT DIRECTORY TO AFRICA AND DO THE FOLLOWING
EXERCISES USING RELATIVE PATHS

15. Copy the file "song.doc" into "Laos"

```
palo@palo-VirtualBox:~/exercises/Africa$ cp Egypt/song.doc ..
/Asia/Laos
```

16. Copy the file "tv.doc" into "Egypt" with the name "radio.txt"

```
palo@palo-VirtualBox:~/exercises/Africa$ cp ../Asia/Seoul/tv.
doc Egypt/radio.txt
palo@palo-VirtualBox:~/exercises/Africa$ tree
.
├── Egypt
│   ├── radio.txt
│   └── song.doc
└── Tunisia
    └── marks
```

17. Rename the file "marks" to "exam.wri" (it is located in the directory
named Tunisia)

```
palo@palo-VirtualBox:~/exercises/Africa$ mv Tunisia/marks Tun
isia/exam.wri
palo@palo-VirtualBox:~/exercises/Africa$ tree
.
├── Egypt
│   ├── radio.txt
│   └── song.doc
└── Tunisia
    └── exam.wri
```

18. Copy the file "song.doc" (located in "Egypt") inside "Tunisia"

```
palo@palo-VirtualBox:~/exercises/Africa$ cp Egypt/song.doc Tu
nisia
palo@palo-VirtualBox:~/exercises/Africa$ tree
.
├── Egypt
│   ├── radio.txt
│   └── song.doc
└── Tunisia
    ├── exam.wri
    └── song.doc
```

19. Print the content of the current directory using long listing format

```
palo@palo-VirtualBox:~/exercises/Africa$ ls -l
total 8
drwxrwxr-x 2 palo palo 4096 nov 24 00:17 Egypt
drwxrwxr-x 2 palo palo 4096 nov 24 00:23 Tunisia
```

20. Rename the file "song.doc" (located in "Laos") to "aa.doc"

```
palo@palo-VirtualBox:~/exercises/Africa$ mv ../Asia/Laos/song
.doc ../Asia/Laos/aa.doc
```
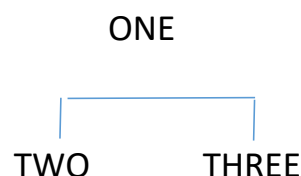
21. Create the directory "Others" in "Laos"

```
palo@palo-VirtualBox:~/exercises/Africa$ mkdir ../Asia/Laos/O
thers
```

22. Rename the directory named "programming" (which you created in the first exercises) to
pro-c.

```
palo@palo-VirtualBox:~/exercises/Africa$ mv ../programming ..
/pro-c
```

23. Create the following directory tree in "exercises" (using as few commands as possible)

ONE

TWO        THREE

```
palo@palo-VirtualBox:~/exercises/Africa$ mkdir -p ../ONE/TWO;
 mkdir -p ../ONE/THREE
```

24. Copy the files with txt extension from the directory named "systems" to "exercises".

```
palo@palo-VirtualBox:~/exercises/Africa$ cp ../../systems/*tx
t ..
```

25. Move the files you copied in the exercise above to the directory THREE.

```
palo@palo-VirtualBox:~/exercises/Africa$ cp ../*txt ../ONE/TH
REE
```

26. Delete the directory named THREE, including all the files and, if so, subdirectories

```
palo@palo-VirtualBox:~/exercises/Africa$ rm -rf ../ONE/THREE
```

**CHANGE INTO SYSTEMS AND DO THE FOLLOWING EXERCISES USING ABSOLUTE PATHS**

To go back to systems we use "**cd ../../**"

27. Copy the files that end with "txt" of the directory named "systems" to "Tunisia"

```
palo@palo-VirtualBox:~$ cp $HOME/systems/*txt $HOME/exercises
/Africa/Tunisia
```

28. Copy the file "tv.doc" (located in "Seul") to the directory named "exercises"

```
palo@palo-VirtualBox:~$ cp $HOME/exercises/Asia/Seoul/tv.doc
$HOME/exercises
```

29. Rename the file student1.txt (located in "Tunisia") to tuition.txt

```
palo@palo-VirtualBox:~$ mv $HOME/systems/exercises/Africa/Tun
isia/student1.txt $HOME/systems/exercises/Africa/Tunisia/tuit
ion.txt
```

30. Create a new directory called "earth" into "systems". Create another

directory called
"countries" inside "earth"

```
palo@palo-VirtualBox:~$ mkdir -p $HOME/systems/earth/countrie
s
```

31. Rename "Africa" (located in "exercises") to "Afri"

```
palo@palo-VirtualBox:~$ mv $HOME/exercises/Africa $HOME/exerc
ises/Afri
```

## NOW YOU CAN BE PLACED IN THE DIRECTORY YOU WANT

32. Move the file "song.doc", which is located in Egypt, to "Laos" with
the name "bb.doc"

```
palo@palo-VirtualBox:~/exercises$ mv Afri/Egypt/song.doc Asia
/Laos/bb.doc
palo@palo-VirtualBox:~/exercises$ tree
.
├── Afri
│   ├── Egypt
│   │   └── radio.txt
│   └── Tunisia
│       ├── exam.wri
│       ├── song.doc
│       ├── student2.txt
│       ├── student.txt
│       └── tuition.txt
├── Asia
│   ├── Laos
│   │   ├── aa.doc
│   │   ├── bb.doc
│   │   └── Others
```

33. Copy the files whose name contains the letter "u" from "systems" to
"exercises"

```
palo@palo-VirtualBox:~/exercises$ cd $HOME
palo@palo-VirtualBox:~$ cp systems/*u* exercises
palo@palo-VirtualBox:~$ 
```

34. Print the content of the /etc directory, including subdirectories, in
reverse alphabetical
order

```
palo@palo-VirtualBox:~$ ls -rR /etc
/etc:
zsh_command_not_found    logrotate.conf
xml                      login.defs
xdg                      logcheck
xattr.conf               localtime
X11                      locale.gen
wpa_supplicant           locale.alias
wgetrc                   libpaper.d
vulkan                   libnl-3
vtrgb                    libblockdev
vmware-tools             libaudit.conf
```

## 35. How can you print the name of the current directory?

```
palo@palo-VirtualBox:~$ pwd
/home/palo
```

## 36. Copy the folder "Afri" including files and subdirectories to "Asia"

```
palo@palo-VirtualBox:~$ cd exercises
palo@palo-VirtualBox:~/exercises$ cp -R Afri Asia
palo@palo-VirtualBox:~/exercises$ tree

.
├── Afri
│   ├── Egypt
│   │   └── radio.txt
│   └── Tunisia
│       ├── exam.wri
│       ├── song.doc
│       ├── student2.txt
│       ├── student.txt
│       └── tuition.txt
├── Asia
│   ├── Afri
│   │   ├── Egypt
│   │   │   └── radio.txt
│   │   └── Tunisia
│   │       ├── exam.wri
│   │       ├── song.doc
│   │       ├── student2.txt
│   │       ├── student.txt
│   │       └── tuition.txt
```

## 37. Move all the files and subdirectories of "Laos" to "Seul" and rename it to "Seul2"

```
palo@palo-VirtualBox:~/exercises$ cd Asia
palo@palo-VirtualBox:~/exercises/Asia$ mv Laos Seoul/Seoul2
palo@palo-VirtualBox:~/exercises/Asia$ tree

.
├── Afri
│   ├── Egypt
│   │   └── radio.txt
│   └── Tunisia
│       ├── exam.wri
│       ├── song.doc
│       ├── student2.txt
│       ├── student.txt
│       └── tuition.txt
└── Seoul
    ├── Seoul2
    │   ├── aa.doc
    │   ├── bb.doc
    │   └── Others
    └── tv.doc
```