Lab assignment | Gisle Brandsøy Furland

1. b

Et bilde som inneholder tekst, skjermbilde, programvare, Multimedieprogramvare

Automatisk generert beskrivelseI used Docker desktop for this setup, as I had a version of docker desktop already on my computer. I did setup Vagrant and VirtualBox to test it however I didn’t go further than installing it and setting it up as seen at the screenshot.

Et bilde som inneholder tekst, skjermbilde, programvare, Multimedieprogramvare

Automatisk generert beskrivelseDocker desktop:

After setting up the ubuntu linux environment, I started following the tut orial: “[The Linux command line for beginners | Ubuntu](https://ubuntu.com/tutorials/command-line-for-beginners#1-overview)”.

Extras:

Timezone: I made a new ubuntu image with a custom Dockerfile and set the timezone to Europe/Oslo as a ENV variable, so when docker builds the image this is set.Et bilde som inneholder tekst, skjermbilde, programvare, Multimedieprogramvare

Automatisk generert beskrivelse

For locale: Et bilde som inneholder tekst, skjermbilde, Font

Automatisk generert beskrivelse

The virtual server should be getting updated from the “apt update” command when building.

Here is a “screen” dump of the output I practiced:

“

C:\Users\Gisle>docker run -it --name linux-container ubuntu

root@03e252e9ff2a:/# ls

bin boot dev etc home lib lib32 lib64 libx32 media mnt opt proc root run sbin srv sys tmp usr var

root@03e252e9ff2a:/# pwd

/

root@03e252e9ff2a:/# uname -a

Linux 03e252e9ff2a 5.10.16.3-microsoft-standard-WSL2 #1 SMP Fri Apr 2 22:23:49 UTC 2021 x86\_64 x86\_64 x86\_64 GNU/Linux

root@03e252e9ff2a:/# lsb\_release -a

bash: lsb\_release: command not found

root@03e252e9ff2a:/# lsb\_release -a

bash: lsb\_release: command not found

root@03e252e9ff2a:/# uname

Linux

root@03e252e9ff2a:/# uname -a

Linux 03e252e9ff2a 5.10.16.3-microsoft-standard-WSL2 #1 SMP Fri Apr 2 22:23:49 UTC 2021 x86\_64 x86\_64 x86\_64 GNU/Linux

root@03e252e9ff2a:/# cat /etc/os-release

PRETTY\_NAME="Ubuntu 22.04.3 LTS"

NAME="Ubuntu"

VERSION\_ID="22.04"

VERSION="22.04.3 LTS (Jammy Jellyfish)"

VERSION\_CODENAME=jammy

ID=ubuntu

ID\_LIKE=debian

HOME\_URL="https://www.ubuntu.com/"

SUPPORT\_URL="https://help.ubuntu.com/"

BUG\_REPORT\_URL="https://bugs.launchpad.net/ubuntu/"

PRIVACY\_POLICY\_URL="https://www.ubuntu.com/legal/terms-and-policies/privacy-policy"

UBUNTU\_CODENAME=jammy

root@03e252e9ff2a:/# pwd

/

root@03e252e9ff2a:/# cd /

root@03e252e9ff2a:/# pwd

/

root@03e252e9ff2a:/# cd

root@03e252e9ff2a:~# pwd

/root

root@03e252e9ff2a:~# cd

root@03e252e9ff2a:~# pwd

/root

root@03e252e9ff2a:~# ls

root@03e252e9ff2a:~# cd

root@03e252e9ff2a:~# ls

root@03e252e9ff2a:~# pwd

/root

root@03e252e9ff2a:~# cd /

root@03e252e9ff2a:/# ls

bin boot dev etc home lib lib32 lib64 libx32 media mnt opt proc root run sbin srv sys tmp usr var

root@03e252e9ff2a:/# cd home

root@03e252e9ff2a:/home# ls

root@03e252e9ff2a:/home# pwd

/home

root@03e252e9ff2a:/home# cd ..

root@03e252e9ff2a:/# pwd

/

root@03e252e9ff2a:/# ls

bin boot dev etc home lib lib32 lib64 libx32 media mnt opt proc root run sbin srv sys tmp usr var

root@03e252e9ff2a:/# cd home

root@03e252e9ff2a:/home# cd /

root@03e252e9ff2a:/# pwd

/

root@03e252e9ff2a:/# cd etc

root@03e252e9ff2a:/etc# pwd

/etc

root@03e252e9ff2a:/etc# cd

root@03e252e9ff2a:~# pwd

/root

root@03e252e9ff2a:~# cd etc

bash: cd: etc: No such file or directory

root@03e252e9ff2a:~# pwd

/root

root@03e252e9ff2a:~# cd

root@03e252e9ff2a:~# pwd

/root

root@03e252e9ff2a:~# cd

root@03e252e9ff2a:~# /etc

bash: /etc: Is a directory

root@03e252e9ff2a:~# cd /etc

root@03e252e9ff2a:/etc# pwd

/etc

root@03e252e9ff2a:/etc# whoami

root

root@03e252e9ff2a:/etc# cd /home/root/Desktop

bash: cd: /home/root/Desktop: No such file or directory

root@03e252e9ff2a:/etc# cd /home/root

bash: cd: /home/root: No such file or directory

root@03e252e9ff2a:/etc# cd root

bash: cd: root: No such file or directory

root@03e252e9ff2a:/etc# cd

root@03e252e9ff2a:~# pwd

/root

root@03e252e9ff2a:~# cd

root@03e252e9ff2a:~# pwd

/root

root@03e252e9ff2a:~# ls

root@03e252e9ff2a:~# cd /

root@03e252e9ff2a:/# ls

bin boot dev etc home lib lib32 lib64 libx32 media mnt opt proc root run sbin srv sys tmp usr var

root@03e252e9ff2a:/# cd root/home

bash: cd: root/home: No such file or directory

root@03e252e9ff2a:/# cd home

root@03e252e9ff2a:/home# cd ~

root@03e252e9ff2a:~# cd

root@03e252e9ff2a:~# pwd

/root

root@03e252e9ff2a:~# ls

root@03e252e9ff2a:~# cd

root@03e252e9ff2a:~# cd /

root@03e252e9ff2a:/# ls

bin boot dev etc home lib lib32 lib64 libx32 media mnt opt proc root run sbin srv sys tmp usr var

root@03e252e9ff2a:/# cd home

root@03e252e9ff2a:/home# mkdir /tmp/tutorial

root@03e252e9ff2a:/home# cd tmp

bash: cd: tmp: No such file or directory

root@03e252e9ff2a:/home# cd

root@03e252e9ff2a:~# cd tmp

bash: cd: tmp: No such file or directory

root@03e252e9ff2a:~# ls

root@03e252e9ff2a:~# pwd

/root

root@03e252e9ff2a:~# cd /

root@03e252e9ff2a:/# pwd

/

root@03e252e9ff2a:/# ls

bin boot dev etc home lib lib32 lib64 libx32 media mnt opt proc root run sbin srv sys tmp usr var

root@03e252e9ff2a:/# cd tmp

root@03e252e9ff2a:/tmp# ls

tutorial

root@03e252e9ff2a:/tmp# cd tutorial

root@03e252e9ff2a:/tmp/tutorial# mkdir dir1 dir2 dir3

root@03e252e9ff2a:/tmp/tutorial# ls

dir1 dir2 dir3

root@03e252e9ff2a:/tmp/tutorial# mkdir

mkdir: missing operand

Try 'mkdir --help' for more information.

root@03e252e9ff2a:/tmp/tutorial# cd /etc ~/Desktop

bash: cd: too many arguments

root@03e252e9ff2a:/tmp/tutorial# ls

dir1 dir2 dir3

root@03e252e9ff2a:/tmp/tutorial# mkdir -p dir4/dir5/dir6

root@03e252e9ff2a:/tmp/tutorial# ls

dir1 dir2 dir3 dir4

root@03e252e9ff2a:/tmp/tutorial# cd dir4

root@03e252e9ff2a:/tmp/tutorial/dir4# ls

dir5

root@03e252e9ff2a:/tmp/tutorial/dir4# cd dir5

root@03e252e9ff2a:/tmp/tutorial/dir4/dir5# ls

dir6

root@03e252e9ff2a:/tmp/tutorial/dir4/dir5# cd dir6

root@03e252e9ff2a:/tmp/tutorial/dir4/dir5/dir6# ls

root@03e252e9ff2a:/tmp/tutorial/dir4/dir5/dir6# cd ..

root@03e252e9ff2a:/tmp/tutorial/dir4/dir5# cd .

root@03e252e9ff2a:/tmp/tutorial/dir4/dir5# cd ..

root@03e252e9ff2a:/tmp/tutorial/dir4# cd ..

root@03e252e9ff2a:/tmp/tutorial# ls

dir1 dir2 dir3 dir4

root@03e252e9ff2a:/tmp/tutorial# mkdir another folder

root@03e252e9ff2a:/tmp/tutorial# ls

another dir1 dir2 dir3 dir4 folder

root@03e252e9ff2a:/tmp/tutorial# mkdir "folder 1"

root@03e252e9ff2a:/tmp/tutorial# ls

another dir1 dir2 dir3 dir4 folder 'folder 1'

root@03e252e9ff2a:/tmp/tutorial# mkdir folder\ 3

root@03e252e9ff2a:/tmp/tutorial# ls

another dir1 dir2 dir3 dir4 folder 'folder 1' 'folder 3'

root@03e252e9ff2a:/tmp/tutorial# ls

another dir1 dir2 dir3 dir4 folder 'folder 1' 'folder 3'

root@03e252e9ff2a:/tmp/tutorial# ls > output.txt

root@03e252e9ff2a:/tmp/tutorial# ls

another dir1 dir2 dir3 dir4 folder 'folder 1' 'folder 3' output.txt

root@03e252e9ff2a:/tmp/tutorial# cd output.txt

bash: cd: output.txt: Not a directory

root@03e252e9ff2a:/tmp/tutorial# echo "Hello"

Hello

root@03e252e9ff2a:/tmp/tutorial# echo "Hello output" > output.txt

root@03e252e9ff2a:/tmp/tutorial# ls

another dir1 dir2 dir3 dir4 folder 'folder 1' 'folder 3' output.txt

root@03e252e9ff2a:/tmp/tutorial# cat output.txt

Hello output

root@03e252e9ff2a:/tmp/tutorial# echo "Output 2" > output2.txt

root@03e252e9ff2a:/tmp/tutorial# cat output2.txt

Output 2

root@03e252e9ff2a:/tmp/tutorial# ls

another dir1 dir2 dir3 dir4 folder 'folder 1' 'folder 3' output.txt output2.txt

root@03e252e9ff2a:/tmp/tutorial# echo "Helloooooooo" > out\*.txt

bash: out\*.txt: ambiguous redirect

root@03e252e9ff2a:/tmp/tutorial# cat

cat output.txt

cat output.txt

^[[3~

cat

cat

break

break

^C

root@03e252e9ff2a:/tmp/tutorial# cat output.txt

Hello output

root@03e252e9ff2a:/tmp/tutorial# cat output\*.txt

Hello output

Output 2

root@03e252e9ff2a:/tmp/tutorial# cat output\*.txt

Hello output

Output 2

root@03e252e9ff2a:/tmp/tutorial# cat output\*.txt

Hello output

Output 2

root@03e252e9ff2a:/tmp/tutorial# ls

another dir1 dir2 dir3 dir4 folder 'folder 1' 'folder 3' output.txt output2.txt

root@03e252e9ff2a:/tmp/tutorial# echo "This is a test" > test\_1.txt

echo "This is a second test" > test\_2.txt

echo "This is a third test" > test\_3.txt

root@03e252e9ff2a:/tmp/tutorial# ls

another dir2 dir4 'folder 1' output.txt test\_1.txt test\_3.txt

dir1 dir3 folder 'folder 3' output2.txt test\_2.txt

root@03e252e9ff2a:/tmp/tutorial# cat t\* > combined.txt

root@03e252e9ff2a:/tmp/tutorial# cat combined.txt

This is a test

This is a second test

This is a third test

root@03e252e9ff2a:/tmp/tutorial# cat t\* >> combined.txt

root@03e252e9ff2a:/tmp/tutorial# cat combined.txt

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

root@03e252e9ff2a:/tmp/tutorial# echo "appended a line" >> combined.txt

root@03e252e9ff2a:/tmp/tutorial# cat combined.txt

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

appended a line

root@03e252e9ff2a:/tmp/tutorial# cat t\* >> combined.txt

root@03e252e9ff2a:/tmp/tutorial# cat combined.txt

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

appended a line

This is a test

This is a second test

This is a third test

root@03e252e9ff2a:/tmp/tutorial# q

bash: q: command not found

root@03e252e9ff2a:/tmp/tutorial# less combined.txt

bash: less: command not found

root@03e252e9ff2a:/tmp/tutorial# pager

pager: bad usage

Try 'pager --help' for more information.

root@03e252e9ff2a:/tmp/tutorial# cat t\* >> combined.txt

root@03e252e9ff2a:/tmp/tutorial# cat t\* >> combined.txt

root@03e252e9ff2a:/tmp/tutorial# cat t\* >> combined.txt

root@03e252e9ff2a:/tmp/tutorial# cat t\* >> combined.txt

root@03e252e9ff2a:/tmp/tutorial# cat t\* >> combined.txt

root@03e252e9ff2a:/tmp/tutorial# cat t\* >> combined.txt

root@03e252e9ff2a:/tmp/tutorial# cat t\* >> combined.txt

root@03e252e9ff2a:/tmp/tutorial# cat t\* >> combined.txt

root@03e252e9ff2a:/tmp/tutorial# cat t\* >> combined.txt

root@03e252e9ff2a:/tmp/tutorial# cat t\* >> combined.txt

root@03e252e9ff2a:/tmp/tutorial# cat t\* >> combined.txt

root@03e252e9ff2a:/tmp/tutorial# cat combined.txt

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

appended a line

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

root@03e252e9ff2a:/tmp/tutorial# less combined.txt

bash: less: command not found

root@03e252e9ff2a:/tmp/tutorial# apt update

Get:1 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]

Get:2 http://archive.ubuntu.com/ubuntu jammy InRelease [270 kB]

Get:3 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [897 kB]

Get:4 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]

Get:5 http://archive.ubuntu.com/ubuntu jammy-backports InRelease [109 kB]

Get:6 http://archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [266 kB]

Get:7 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [44.0 kB]

Get:8 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [862 kB]

Get:9 http://archive.ubuntu.com/ubuntu jammy/restricted amd64 Packages [164 kB]

Get:10 http://archive.ubuntu.com/ubuntu jammy/main amd64 Packages [1792 kB]

Get:11 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [986 kB]

Get:12 http://archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [17.5 MB]

Fetched 26.6 MB in 4s (7437 kB/s)

Reading package lists... Done

Building dependency tree... Done

Reading state information... Done

2 packages can be upgraded. Run 'apt list --upgradable' to see them.

root@03e252e9ff2a:/tmp/tutorial# less combined.txt

bash: less: command not found

root@03e252e9ff2a:/tmp/tutorial# apt install less

Reading package lists... Done

Building dependency tree... Done

Reading state information... Done

The following NEW packages will be installed:

less

0 upgraded, 1 newly installed, 0 to remove and 2 not upgraded.

Need to get 143 kB of archives.

After this operation, 329 kB of additional disk space will be used.

Get:1 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 less amd64 590-1ubuntu0.22.04.1 [143 kB]

Fetched 143 kB in 0s (398 kB/s)

debconf: delaying package configuration, since apt-utils is not installed

Selecting previously unselected package less.

(Reading database ... 4395 files and directories currently installed.)

Preparing to unpack .../less\_590-1ubuntu0.22.04.1\_amd64.deb ...

Unpacking less (590-1ubuntu0.22.04.1) ...

Setting up less (590-1ubuntu0.22.04.1) ...

root@03e252e9ff2a:/tmp/tutorial# less combined.txt

root@03e252e9ff2a:/tmp/tutorial# mv combined.txt dir1

root@03e252e9ff2a:/tmp/tutorial# ls

another dir2 dir4 'folder 1' output.txt test\_1.txt test\_3.txt

dir1 dir3 folder 'folder 3' output2.txt test\_2.txt

root@03e252e9ff2a:/tmp/tutorial# cd dir1

root@03e252e9ff2a:/tmp/tutorial/dir1# ls

combined.txt

root@03e252e9ff2a:/tmp/tutorial/dir1# mv dir1/\*

mv: missing destination file operand after 'dir1/\*'

Try 'mv --help' for more information.

root@03e252e9ff2a:/tmp/tutorial/dir1# mv dir1/\* .

mv: cannot stat 'dir1/\*': No such file or directory

root@03e252e9ff2a:/tmp/tutorial/dir1# ls

combined.txt

root@03e252e9ff2a:/tmp/tutorial/dir1# mv combined.txt test\_\* dir3 dir2

mv: target 'dir2' is not a directory

root@03e252e9ff2a:/tmp/tutorial/dir1# ls

combined.txt

root@03e252e9ff2a:/tmp/tutorial/dir1# cd

root@03e252e9ff2a:~# ls

root@03e252e9ff2a:~# pwd

/root

root@03e252e9ff2a:~# cd ..

root@03e252e9ff2a:/# pwd

/

root@03e252e9ff2a:/# ls

bin boot dev etc home lib lib32 lib64 libx32 media mnt opt proc root run sbin srv sys tmp usr var

root@03e252e9ff2a:/# cd tmp

root@03e252e9ff2a:/tmp# cd

root@03e252e9ff2a:~# ls

root@03e252e9ff2a:~# ls

root@03e252e9ff2a:~# pwd

/root

root@03e252e9ff2a:~# cd tmp

bash: cd: tmp: No such file or directory

root@03e252e9ff2a:~# cd ..

root@03e252e9ff2a:/# cd tmp

root@03e252e9ff2a:/tmp# ls

tutorial

root@03e252e9ff2a:/tmp# cd tutorial

root@03e252e9ff2a:/tmp/tutorial# ls

another dir2 dir4 'folder 1' output.txt test\_1.txt test\_3.txt

dir1 dir3 folder 'folder 3' output2.txt test\_2.txt

root@03e252e9ff2a:/tmp/tutorial# cd dir1

root@03e252e9ff2a:/tmp/tutorial/dir1# ls

combined.txt

root@03e252e9ff2a:/tmp/tutorial/dir1# cd ..

root@03e252e9ff2a:/tmp/tutorial# ls dir1

combined.txt

root@03e252e9ff2a:/tmp/tutorial# mv dir1/\* .

root@03e252e9ff2a:/tmp/tutorial# ls dir1

root@03e252e9ff2a:/tmp/tutorial# ls

another dir1 dir3 folder 'folder 3' output2.txt test\_2.txt

combined.txt dir2 dir4 'folder 1' output.txt test\_1.txt test\_3.txt

root@03e252e9ff2a:/tmp/tutorial# mv combined.txt test\_\* dir3 dir2

root@03e252e9ff2a:/tmp/tutorial# ls dir2

combined.txt dir3 test\_1.txt test\_2.txt test\_3.txt

root@03e252e9ff2a:/tmp/tutorial# ls dir3

ls: cannot access 'dir3': No such file or directory

root@03e252e9ff2a:/tmp/tutorial# mv dir2/combined.txt dir4/dir5/dir6

root@03e252e9ff2a:/tmp/tutorial# ls dir2

dir3 test\_1.txt test\_2.txt test\_3.txt

root@03e252e9ff2a:/tmp/tutorial# ls dir4/dir5/dir6

combined.txt

root@03e252e9ff2a:/tmp/tutorial# ls

another dir1 dir2 dir4 folder 'folder 1' 'folder 3' output.txt output2.txt

root@03e252e9ff2a:/tmp/tutorial# ls dir4

dir5

root@03e252e9ff2a:/tmp/tutorial# ls dir5

ls: cannot access 'dir5': No such file or directory

root@03e252e9ff2a:/tmp/tutorial# cp dir4/dir5/dir6/combined.txt .

root@03e252e9ff2a:/tmp/tutorial# ls dir4/dir5/dir6

combined.txt

root@03e252e9ff2a:/tmp/tutorial# ls

another combined.txt dir1 dir2 dir4 folder 'folder 1' 'folder 3' output.txt output2.txt

root@03e252e9ff2a:/tmp/tutorial# cp combined.txt backup\_combined.txt

ls

another combined.txt dir2 folder 'folder 3' output2.txt

backup\_combined.txt dir1 dir4 'folder 1' output.txt

root@03e252e9ff2a:/tmp/tutorial# mv backup\_combined.txt combined\_backup.txt

root@03e252e9ff2a:/tmp/tutorial# ls

another combined\_backup.txt dir2 folder 'folder 3' output2.txt

combined.txt dir1 dir4 'folder 1' output.txt

root@03e252e9ff2a:/tmp/tutorial# mv "folder 1" folder\_1

root@03e252e9ff2a:/tmp/tutorial# ls

another combined\_backup.txt dir2 folder folder\_1 output2.txt

combined.txt dir1 dir4 'folder 3' output.txt

root@03e252e9ff2a:/tmp/tutorial# mv "folder 3" folder\_3

root@03e252e9ff2a:/tmp/tutorial# mv

mv: missing file operand

Try 'mv --help' for more information.

root@03e252e9ff2a:/tmp/tutorial# ls

another combined.txt combined\_backup.txt dir1 dir2 dir4 folder folder\_1 folder\_3 output.txt output2.txt

root@03e252e9ff2a:/tmp/tutorial# mv "folder" folder\_0

root@03e252e9ff2a:/tmp/tutorial# ls

another combined.txt combined\_backup.txt dir1 dir2 dir4 folder\_0 folder\_1 folder\_3 output.txt output2.txt

root@03e252e9ff2a:/tmp/tutorial# rm folder\_0

rm: cannot remove 'folder\_0': Is a directory

root@03e252e9ff2a:/tmp/tutorial# rmdir folder\_0

root@03e252e9ff2a:/tmp/tutorial# ls

another combined.txt combined\_backup.txt dir1 dir2 dir4 folder\_1 folder\_3 output.txt output2.txt

root@03e252e9ff2a:/tmp/tutorial# wc -l combined.txt

43 combined.txt

root@03e252e9ff2a:/tmp/tutorial# ls ~ > file\_list.txt

root@03e252e9ff2a:/tmp/tutorial# ls

another combined\_backup.txt dir2 file\_list.txt folder\_3 output2.txt

combined.txt dir1 dir4 folder\_1 output.txt

root@03e252e9ff2a:/tmp/tutorial# mv file\_list.txt

mv: missing destination file operand after 'file\_list.txt'

Try 'mv --help' for more information.

root@03e252e9ff2a:/tmp/tutorial# wc -l file\_list.txt

0 file\_list.txt

root@03e252e9ff2a:/tmp/tutorial# ls

another combined\_backup.txt dir2 file\_list.txt folder\_3 output2.txt

combined.txt dir1 dir4 folder\_1 output.txt

root@03e252e9ff2a:/tmp/tutorial# rm file\_list.txt

root@03e252e9ff2a:/tmp/tutorial# ls ~ | wc -l

0

root@03e252e9ff2a:/tmp/tutorial# ls /etc|wc -l

71

root@03e252e9ff2a:/tmp/tutorial# ls /etc | less

root@03e252e9ff2a:/tmp/tutorial# cat combined.txt | uniq | wc -l

43

root@03e252e9ff2a:/tmp/tutorial# mv combined.txt

mv: missing destination file operand after 'combined.txt'

Try 'mv --help' for more information.

root@03e252e9ff2a:/tmp/tutorial# cat combined.txt

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

appended a line

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

This is a test

This is a second test

This is a third test

root@03e252e9ff2a:/tmp/tutorial# cat combined.txt | uniq | less

root@03e252e9ff2a:/tmp/tutorial# man uniq

This system has been minimized by removing packages and content that are

not required on a system that users do not log into.

To restore this content, including manpages, you can run the 'unminimize'

command. You will still need to ensure the 'man-db' package is installed.

root@03e252e9ff2a:/tmp/tutorial# sort combined.txt | less

root@03e252e9ff2a:/tmp/tutorial# sort combined.txt | uniq | wc -l

4

root@03e252e9ff2a:/tmp/tutorial# su

root@03e252e9ff2a:/tmp/tutorial# cat /etc/shadow

root:\*:19573:0:99999:7:::

daemon:\*:19573:0:99999:7:::

bin:\*:19573:0:99999:7:::

sys:\*:19573:0:99999:7:::

sync:\*:19573:0:99999:7:::

games:\*:19573:0:99999:7:::

man:\*:19573:0:99999:7:::

lp:\*:19573:0:99999:7:::

list:\*:19573:0:99999:7:::

irc:\*:19573:0:99999:7:::

gnats:\*:19573:0:99999:7:::

nobody:\*:19573:0:99999:7:::

\_apt:\*:19573:0:99999:7:::

root@03e252e9ff2a:/tmp/tutorial# sudo apt install tree

bash: sudo: command not found

root@03e252e9ff2a:/tmp/tutorial# apt install tree

Reading package lists... Done

Building dependency tree... Done

Reading state information... Done

The following NEW packages will be installed:

tree

0 upgraded, 1 newly installed, 0 to remove and 2 not upgraded.

Need to get 47.9 kB of archives.

After this operation, 116 kB of additional disk space will be used.

Get:1 http://archive.ubuntu.com/ubuntu jammy/universe amd64 tree amd64 2.0.2-1 [47.9 kB]

Fetched 47.9 kB in 1s (93.4 kB/s)

debconf: delaying package configuration, since apt-utils is not installed

Selecting previously unselected package tree.

(Reading database ... 4412 files and directories currently installed.)

Preparing to unpack .../tree\_2.0.2-1\_amd64.deb ...

Unpacking tree (2.0.2-1) ...

Setting up tree (2.0.2-1) ...

root@03e252e9ff2a:/tmp/tutorial# tree

.

|-- another

|-- combined.txt

|-- combined\_backup.txt

|-- dir1

|-- dir2

| |-- dir3

| |-- test\_1.txt

| |-- test\_2.txt

| `-- test\_3.txt

|-- dir4

| `-- dir5

| `-- dir6

| `-- combined.txt

|-- folder\_1

|-- folder\_3

|-- output.txt

`-- output2.txt

9 directories, 8 files

root@03e252e9ff2a:/tmp/tutorial# ls .hidden

ls: cannot access '.hidden': No such file or directory

root@03e252e9ff2a:/tmp/tutorial# ls

another combined.txt combined\_backup.txt dir1 dir2 dir4 folder\_1 folder\_3 output.txt output2.txt

root@03e252e9ff2a:/tmp/tutorial# ls -a

. .. another combined.txt combined\_backup.txt dir1 dir2 dir4 folder\_1 folder\_3 output.txt output2.txt

root@03e252e9ff2a:/tmp/tutorial# ls -a .hidden

ls: cannot access '.hidden': No such file or directory

root@03e252e9ff2a:/tmp/tutorial# tree -a

.

|-- another

|-- combined.txt

|-- combined\_backup.txt

|-- dir1

|-- dir2

| |-- dir3

| |-- test\_1.txt

| |-- test\_2.txt

| `-- test\_3.txt

|-- dir4

| `-- dir5

| `-- dir6

| `-- combined.txt

|-- folder\_1

|-- folder\_3

|-- output.txt

`-- output2.txt

9 directories, 8 files”