

SURVIVRE DANS UN ENVIRONNEMENT LINUX

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QU'EST-CE QUE MINET ?

MiNET c'est :

7 bâtiments, plus de 850 chambres

- 20 - 25 locaux, 15 serveurs
- Projets autour du réseau, maintenance et proposition de services
- 4 clubs



01

QU'EST-CE QUE LINUX ?



Introduction

QU'EST-CE QUE LINUX ?

- Virus
- Ralentissement
- Crash
- Coût
 - Windows Server 2016 VS Linux server (Debian)



QU'EST-CE QUE LINUX ?

	Windows Server 2016 Standard edition	Debian
Coût de la licence	\$882.00 USD	\$0.00 USD
Coûts des applications	\$38.00 USD/personnes	\$0.00 USD

Source : <https://www.linux.com/what-is-linux/>

LINUS TORVALDS



OPEN SOURCE

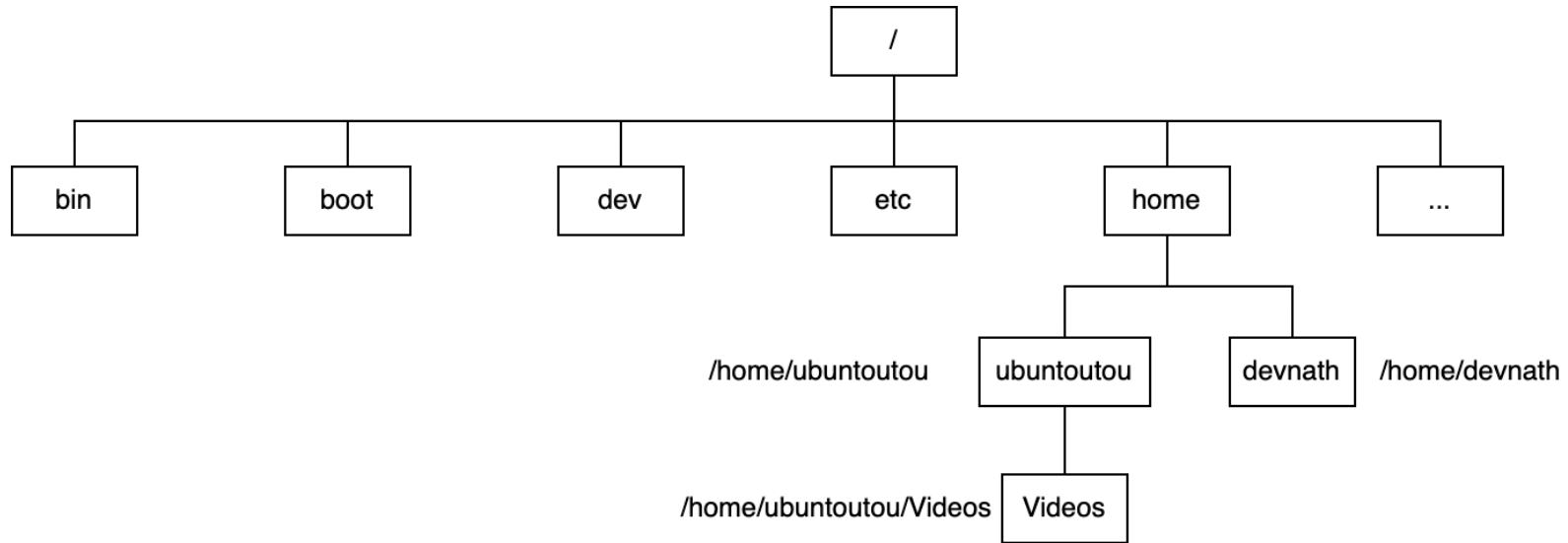


<https://github.com/torvalds/linux>

GNU



QU'EST-CE QUE LINUX ?





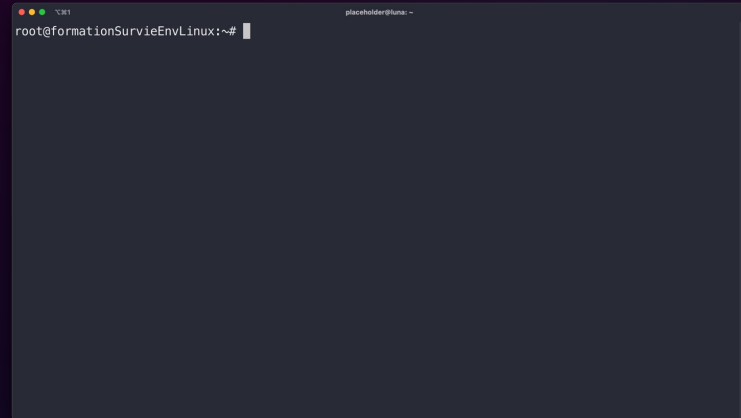
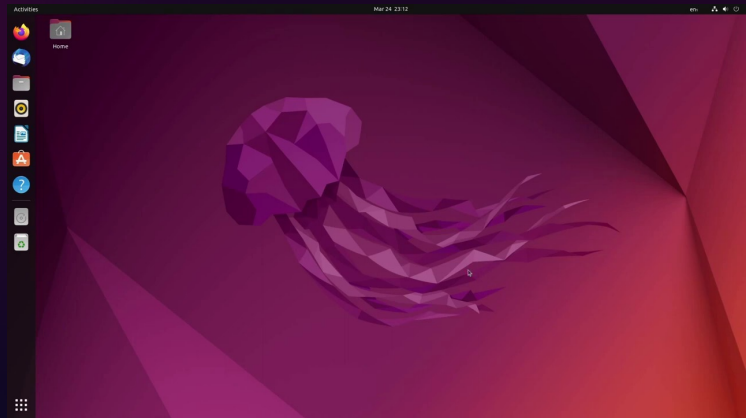
02

ENVIRONNEMENT DE TRAVAIL

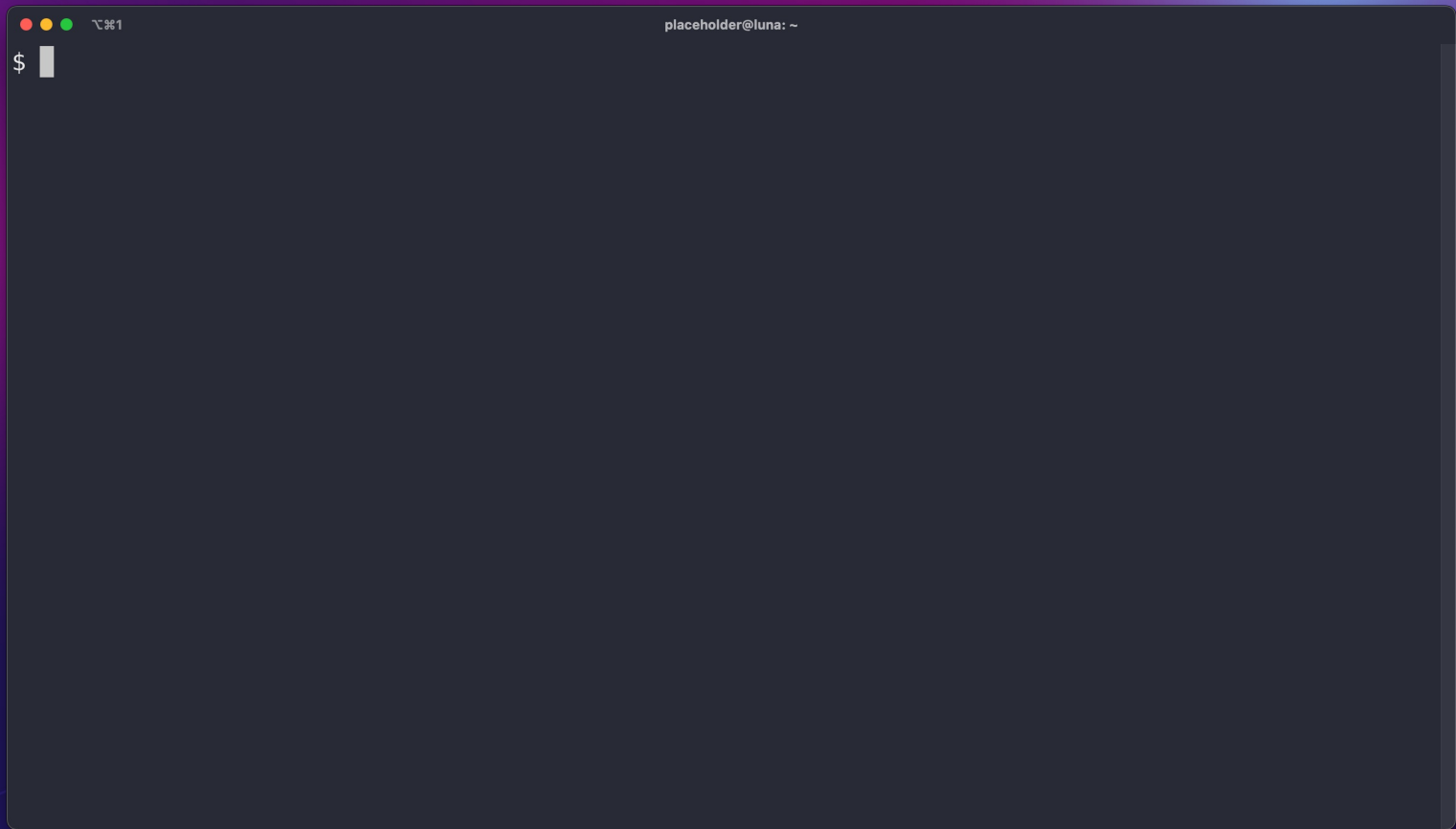


Pour interagir avec Linux !

ENVIRONNEMENT DE TRAVAIL



LE TERMINAL



LE TERMINAL

```
placeholder@luna: ~  
$pwd  
/home/ubuntoutou  
$ █
```

QU'EST-CE QUE LINUX ?



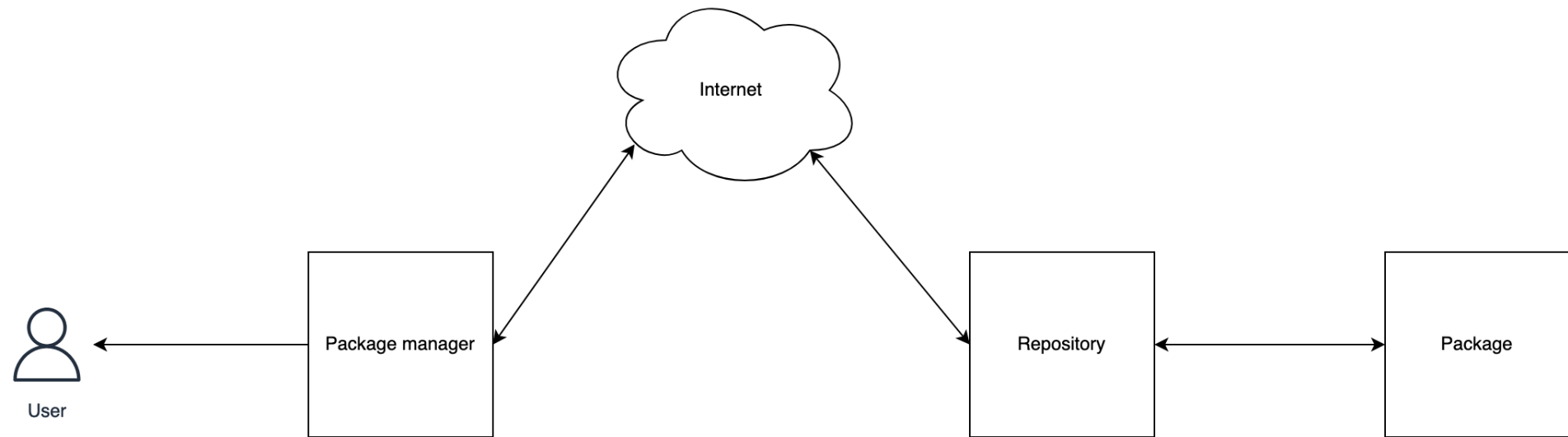
LE TERMINAL

```
placeholder@luna: ~  
base32 lessfile setarch  
base64 lesskey setpriv  
basename lesspipe setsid  
basenc lexgrog setterm  
bash lft sftp  
bashbug lft.db sg  
bootctl libnetcfg sh  
bunzip2 link sha1sum  
busctl linux32 sha224sum  
bzip2 linux64 sha256sum  
bzip3 ln sha384sum  
bzcat lnstat sha512sum  
bzcmp locale shasum  
bzdiff localectl shred  
bzegrep localedef shuf  
bzxex logger skill  
bzfgrep login slabtop  
bzgrep loginctl sleep  
bzip2 logname slogin  
bzip2recover look snice  
bzless ls soelim  
bzmore lsattr sort  
c_rehash lsblk splain  
captoinfo lscpu split  
cat lsipc ss  
catchsegv  
catman
```

LE TERMINAL

Gestionnaire de paquet

- APT (Advanced Packaging Tool) (apt)
 - Aptitude
 - Dandified Yum (dnf)
 - Pacman (pacman)
 - Portage (emerge)
-
- Linux
- macOS
- Windows 10/11



APT

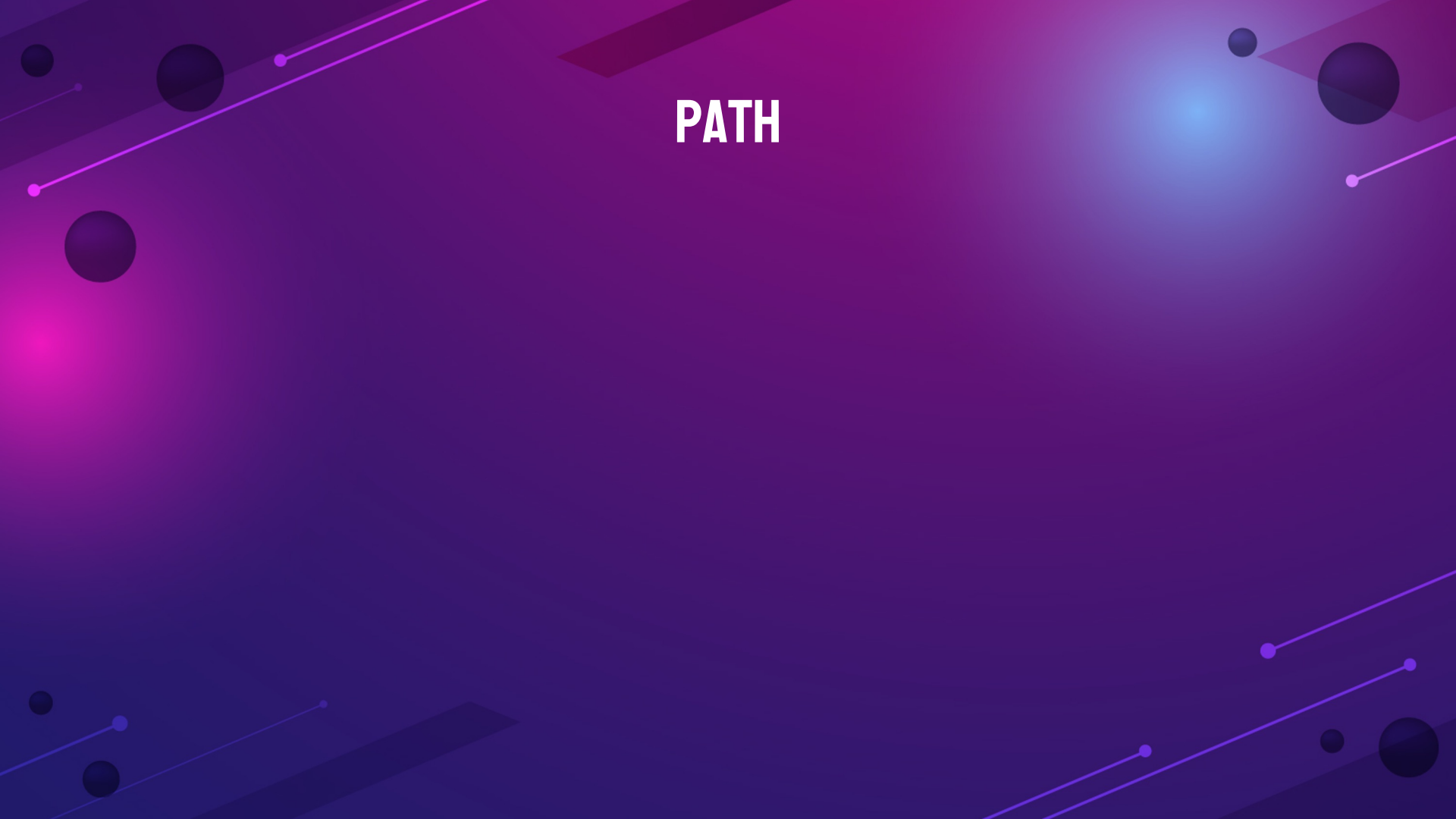
```
placeholder@luna: ~  
root@formationSurvieEnvLinux:~# cat /etc/apt/sources.list
```

LE TERMINAL

```
placeholder@luna: ~  
$ apt  
apt 2.2.4 (amd64)  
Usage: apt [options] command  
  
apt is a commandline package manager and provides commands for  
searching and managing as well as querying information about packages.  
It provides the same functionality as the specialized APT tools,  
like apt-get and apt-cache, but enables options more suitable for  
interactive use by default.  
  
Most used commands:  
list - list packages based on package names  
search - search in package descriptions  
show - show package details  
install - install packages  
reinstall - reinstall packages  
remove - remove packages  
autoremove - Remove automatically all unused packages  
update - update list of available packages  
upgrade - upgrade the system by installing/upgrading packages  
full-upgrade - upgrade the system by removing/installing/upgrading packages  
edit-sources - edit the source information file  
satisfy - satisfy dependency strings  
  
See apt(8) for more information about the available commands.  
Configuration options and syntax is detailed in apt.conf(5).  
Information about how to configure sources can be found in sources.list(5).  
Package and version choices can be expressed via apt_preferences(5).  
Security details are available in apt-secure(8).  
This APT has Super Cow Powers.  
$ █
```

LE TERMINAL

```
placeholder@luna: ~  
$ apt search vim  
Sorting... Done  
Full Text Search... Done  
acr/stable 1.9.4-1 all  
  autoconf like tool  
  
alot/stable 0.9.1-2 all  
  Text mode MUA using notmuch mail  
  
alot-doc/stable 0.9.1-2 all  
  Text mode MUA using notmuch mail - documentation  
  
apvlf/stable 0.2.0-1 amd64  
  PDF viewer with Vim-like behaviour  
  
biosyntax-vim/stable 1.0.0b-2 all  
  Syntax Highlighting for Computational Biology (vim)  
  
bleachbit/stable 3.9.0-1 all  
  delete unnecessary files from the system  
  
clang-format-11/stable 1:11.0.1-2 amd64  
  Tool to format C/C++/Obj-C code  
  
clang-format-13/stable 1:13.0.1-6~deb11u1 amd64  
  Tool to format C/C++/Obj-C code
```



PATH

Index of /debian

<u>Name</u>	<u>Last modified</u>	<u>Size</u>
 Parent Directory		-
 README	2022-09-10 10:42	1.3K
 README.CD-manufacture	2010-06-26 09:52	1.3K
 README.html	2022-09-10 10:42	3.1K
 README.mirrors.html	2017-03-04 20:08	291
 README.mirrors.txt	2017-03-04 20:08	86
 dists/	2022-09-10 10:42	-
 doc/	2022-09-19 08:52	-
 extrafiles	2022-09-19 17:18	217K
 indices/	2022-09-19 17:07	-
 ls-lR.gz	2022-09-19 17:07	16M
 pool/	2000-12-19 20:10	-
 project/	2008-11-17 23:05	-
 tools/	2012-10-10 16:29	-
 zzz-dists/	2021-08-14 13:55	-



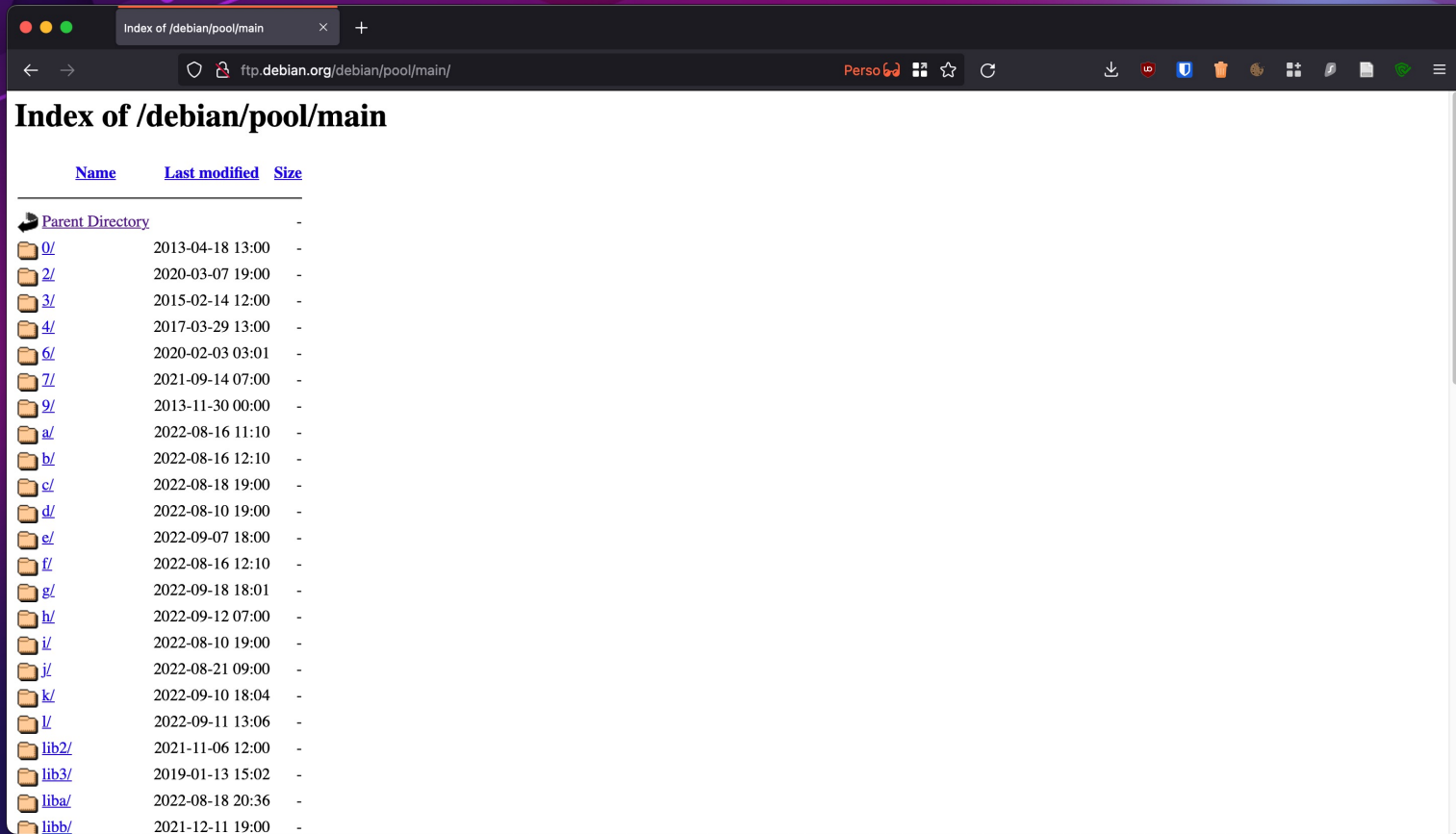
Index of /debian/pool

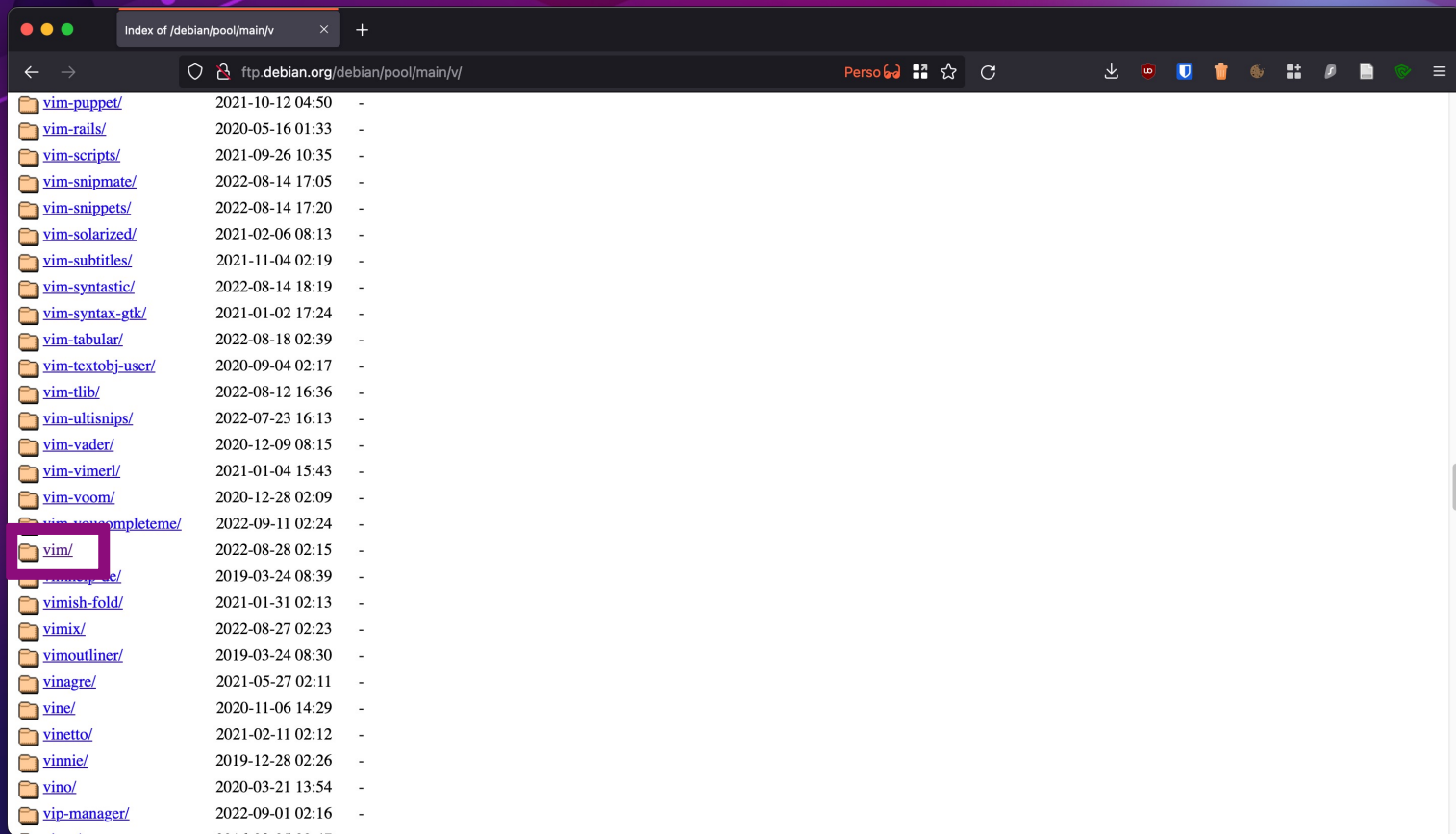
← → ftp.debian.org/debian/pool/ Perso 130 %

Index of /debian/pool

<u>Name</u>	<u>Last modified</u>	<u>Size</u>
 Parent Directory		-
 contrib/	2022-02-14 04:00	-
 main/	2021-11-06 12:00	-
 non-free/	2022-01-08 14:10	-

Apache Server at ftp.debian.org Port 80





Index of /debian/pool/main/v/vim

← →

ftp.debian.org/debian/pool/main/v/vim/

Perso

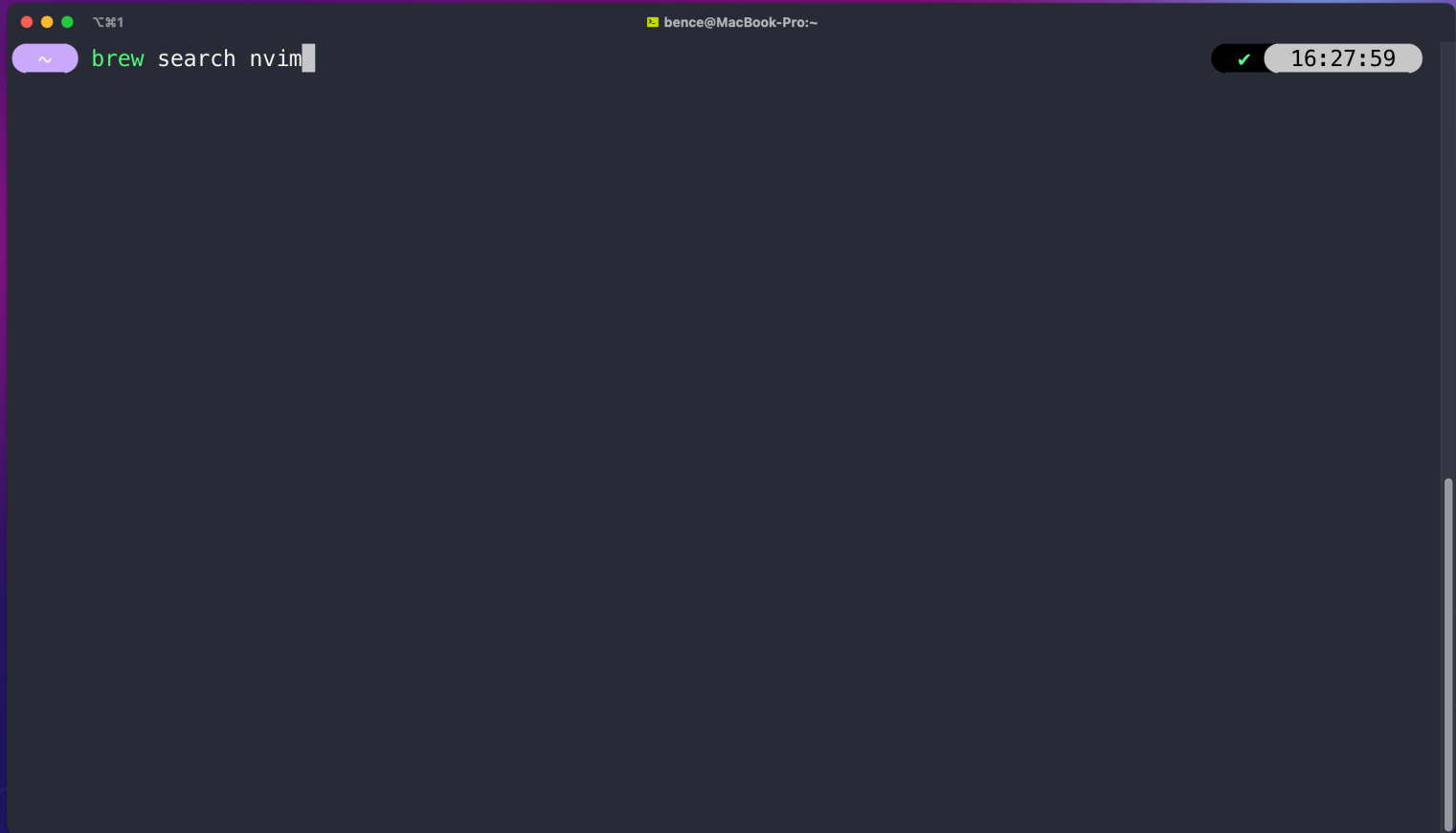
☆ ↺

⬇ Ⓛ Ⓤ 🗑 🏠 ⚙ 📄 🟢 ☰

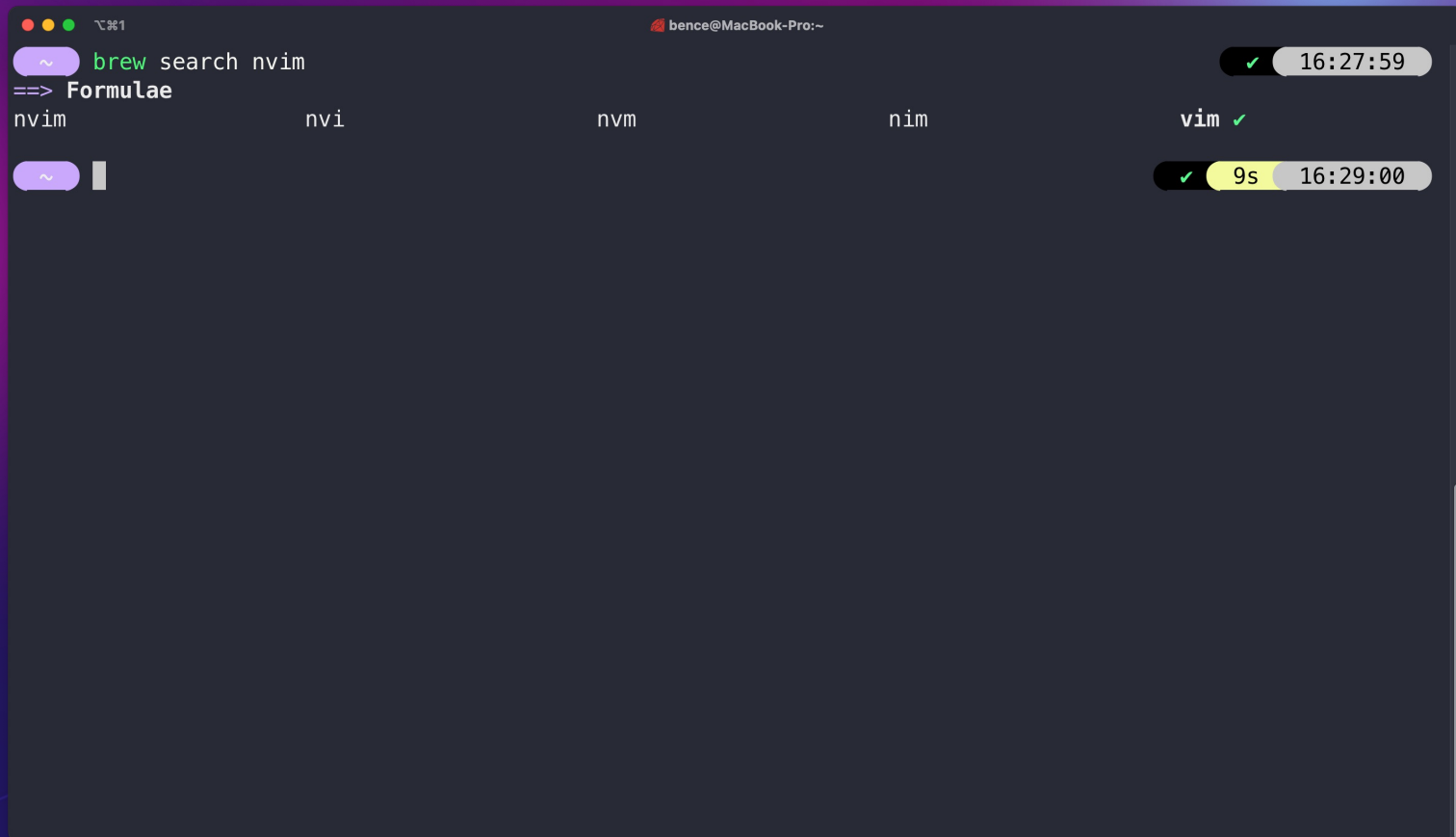
Index of /debian/pool/main/v/vim

Name	Last modified	Size
Parent Directory	-	-
vim-athena_7.4.488-7+deb8u3_amd64.deb	2017-03-10 01:03	1.1M
vim-athena_7.4.488-7+deb8u3_armel.deb	2017-03-29 22:10	956K
vim-athena_7.4.488-7+deb8u3_armhf.deb	2017-03-29 21:40	1.0M
vim-athena_7.4.488-7+deb8u3_i386.deb	2017-03-29 21:25	1.1M
vim-athena_8.0.0197-4+deb9u3_amd64.deb	2019-06-22 15:32	1.2M
vim-athena_8.0.0197-4+deb9u3_arm64.deb	2019-06-21 23:27	1.0M
vim-athena_8.0.0197-4+deb9u3_armel.deb	2019-06-21 23:57	1.0M
vim-athena_8.0.0197-4+deb9u3_armhf.deb	2019-06-22 02:07	1.0M
vim-athena_8.0.0197-4+deb9u3_i386.deb	2019-06-21 23:42	1.3M
vim-athena_8.0.0197-4+deb9u3_mips.deb	2019-06-22 00:42	1.0M
vim-athena_8.0.0197-4+deb9u3_mips64el.deb	2019-06-22 01:12	1.0M
vim-athena_8.0.0197-4+deb9u3_mipsel.deb	2019-06-22 00:42	1.0M
vim-athena_8.0.0197-4+deb9u3_ppc64el.deb	2019-06-21 23:42	1.1M
vim-athena_8.0.0197-4+deb9u3_s390x.deb	2019-06-21 23:17	1.1M
vim-athena_8.1.0875-5+deb10u2_amd64.deb	2022-03-20 03:10	1.4M
vim-athena_8.1.0875-5+deb10u2_arm64.deb	2022-03-20 03:25	1.3M
vim-athena_8.1.0875-5+deb10u2_armel.deb	2022-03-20 03:55	1.2M
vim-athena_8.1.0875-5+deb10u2_armhf.deb	2022-03-20 03:25	1.3M
vim-athena_8.1.0875-5+deb10u2_i386.deb	2022-03-20 02:59	1.5M
vim-athena_8.1.0875-5+deb10u2_mips.deb	2022-03-20 05:10	1.3M
vim-athena_8.1.0875-5+deb10u2_mips64el.deb	2022-03-20 03:25	1.3M
vim-athena_8.1.0875-5+deb10u2_mipsel.deb	2022-03-20 03:40	1.3M
vim-athena_8.1.0875-5+deb10u2_ppc64el.deb	2022-03-20 03:30	1.5M

LE TERMINAL



LE TERMINAL

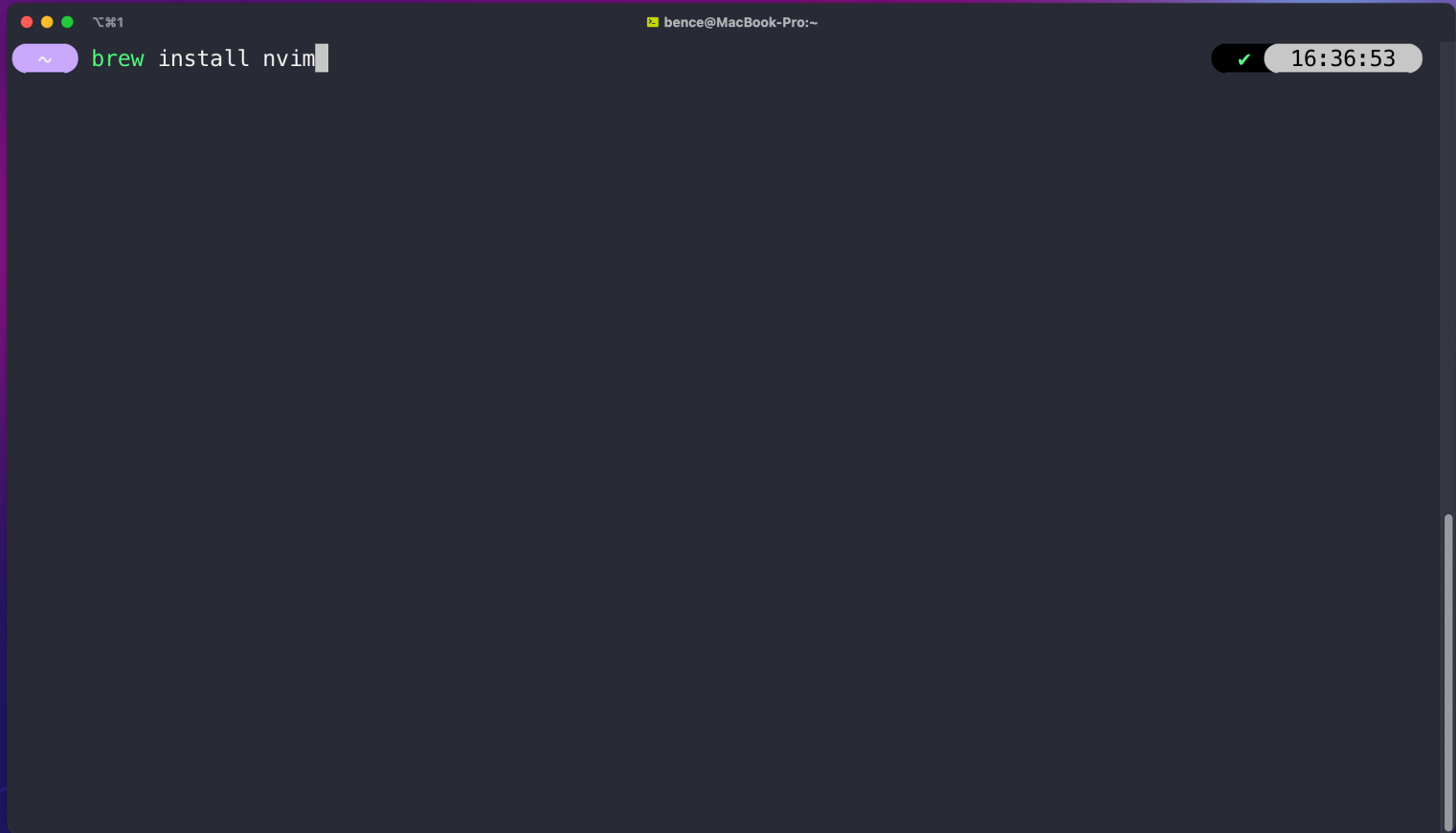


A terminal window titled "bence@MacBook-Pro:~" displays the command `brew search nvim`. The output shows a list of search results under the heading "Formulae". The results are:

nvim	nvi	nvm	nim	vim
✓				✓

The terminal also shows a progress bar for the search, indicating it took 9 seconds and completed at 16:29:00. The top right corner of the terminal window shows a green checkmark and the time 16:27:59.

LE TERMINAL





03

COMMANDES UTILES

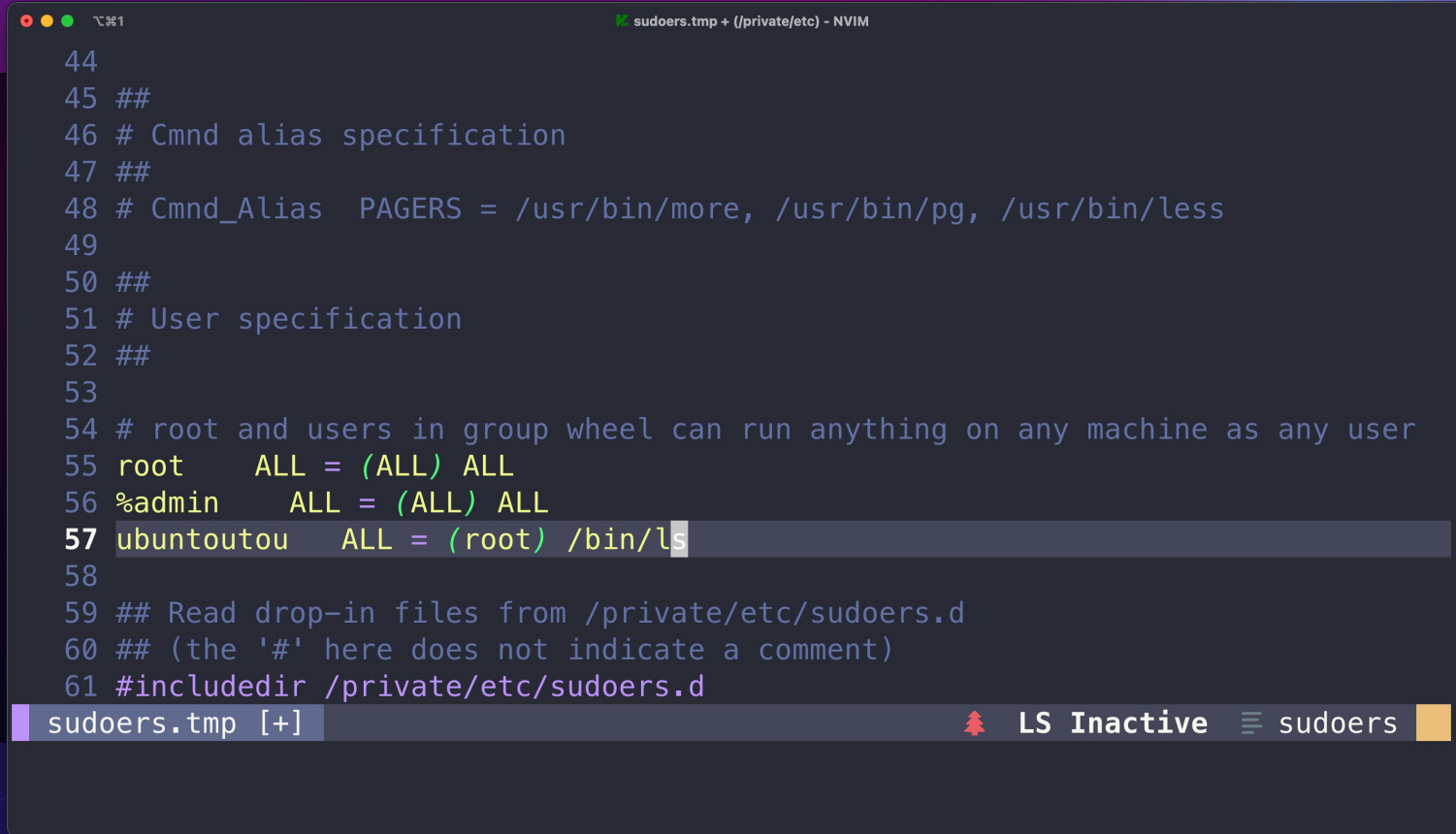


Le concret

COMMANDES UTILES

pwd	ls	mkdir
cat	grep	nano/vim
rm	mv	cp
echo	touch	ssh
man	tail / head	sudo

/ETC/SUDOERS



The image shows a terminal window with a dark background and light-colored text. The window title bar at the top indicates the file being edited is 'sudoers.tmp' in the directory '/private/etc', and the editor is 'NVIM'. The text content is the /etc/sudoers file, showing various configuration lines. Line 57, 'ubuntoutou ALL = (root) /bin/ls', is highlighted with a light blue background. At the bottom of the window, a status bar shows 'sudoers.tmp [+]' on the left, a red tree icon followed by 'LS Inactive' in the center, and a hamburger menu icon followed by 'sudoers' on the right.

```
44
45 ##
46 # Cmnd alias specification
47 ##
48 # Cmnd_Alias  PAGERS = /usr/bin/more, /usr/bin/pg, /usr/bin/less
49
50 ##
51 # User specification
52 ##
53
54 # root and users in group wheel can run anything on any machine as any user
55 root    ALL = (ALL) ALL
56 %admin   ALL = (ALL) ALL
57 ubuntoutou  ALL = (root) /bin/ls
58
59 ## Read drop-in files from /private/etc/sudoers.d
60 ## (the '#' here does not indicate a comment)
61 #includedir /private/etc/sudoers.d
```

sudoers.tmp [+]

LS Inactive

sudoers

LE SSH



LE SSH



LE SSH

```
ssh ubuntoutou@192.168.103.5
~ ssh ubuntoutou@192.168.103.5
ubuntoutou@192.168.103.5's password:
Linux formationSurvieEnvLinux 5.15.39-3-pve #2 SMP PVE 5.15.39-3 (Wed, 27 Jul 2022 13:45:39 +0200) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Mon Sep 19 22:40:10 2022 from 192.168.103.20
$
```

QUELQUE RESSOURCES

- <https://wiki.archlinux.org/> [Archwiki]
- <https://stackoverflow.com/> [Stackoverflow]
- <https://fr.wikipedia.org/wiki/Linux> [Page wiki Linux]
- <https://doc.ubuntu-fr.org/> [Docu Ubuntu en français]

LE KAHOOT

[Minet.net/fr/linux.zip](https://minet.net/fr/linux.zip)