

EXERCÍCIOS LINUX

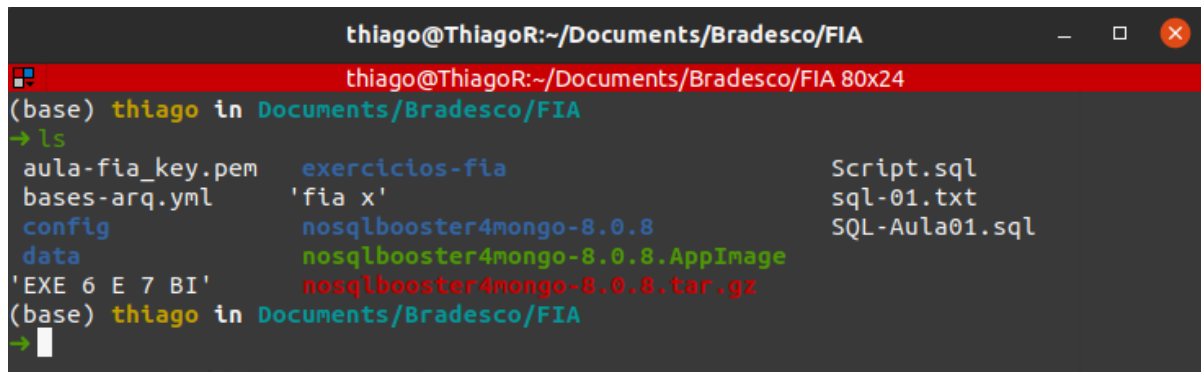
THIAGO RUIZ ANICETO

1) Liste os arquivos e diretórios no diretório atual.

nome do comando

print do resultado do comando

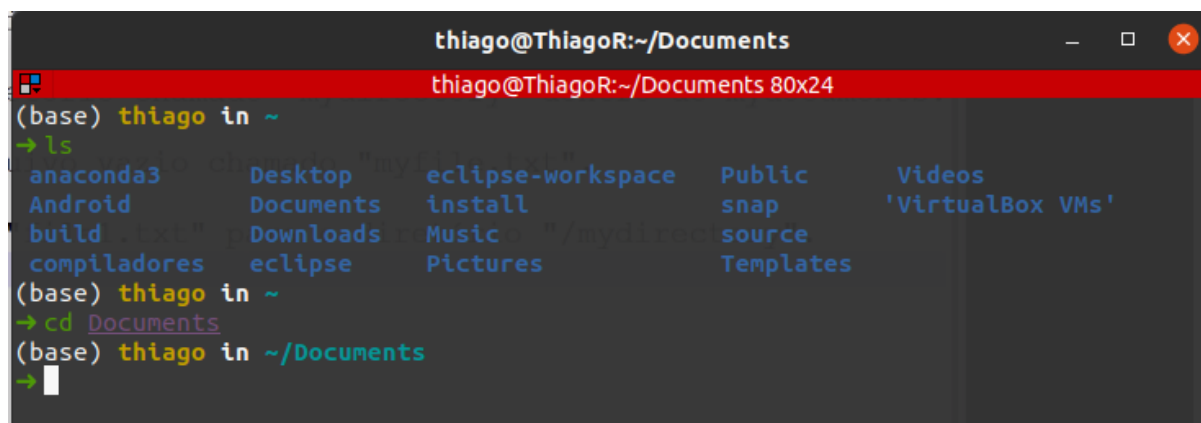
→ ls



```
thiago@ThiagoR:~/Documents/Bradesco/FIA
thiago@ThiagoR:~/Documents/Bradesco/FIA 80x24
(base) thiago in Documents/Bradesco/FIA
→ ls
aula-fia_key.pem      exercicios-fia        Script.sql
bases-arq.yml         'fia x'              sql-01.txt
config               nosqlbooster4mongo-8.0.8  SQL-Aula01.sql
data                 nosqlbooster4mongo-8.0.8.AppImage
'EXE 6 E 7 BI'       nosqlbooster4mongo-8.0.8.tar.gz
(base) thiago in Documents/Bradesco/FIA
→
```

2) Navegue para o diretório "mydocuments".

→ cd mydocuments



```
thiago@ThiagoR:~/Documents
thiago@ThiagoR:~/Documents 80x24
(base) thiago in ~
→ ls
anaconda3      Desktop      eclipse-workspace  Public      Videos
Android        Documents    install           snap        'VirtualBox VMs'
build .txt" p  Downloads    Music > "/mydirect source
compiladores   eclipse      Pictures          Templates
(base) thiago in ~
→ cd Documents
(base) thiago in ~/Documents
→
```

3) Crie um novo diretório chamado "mydirectory" dentro de mydocuments.

→ mkdir mydirectory

```
thiago@ThiagoR:~  
thiago@ThiagoR:~ 80x24  
(base) thiago in ~  
→ ls  
anaconda3      Desktop      eclipse-workspace  Pictures      Templates  
Android        Documents   install           Public        Videos  
build          Downloads  Music            snap          'VirtualBox VMs'  
compiladores  eclipse    mydirectory       source  
(base) thiago in ~
```

4) Crie um novo arquivo vazio chamado "myfile.txt".

→ touch myfile.txt

```
thiago@ThiagoR:~/mydirectory  
thiago@ThiagoR:~/mydirectory 80x24  
(base) thiago in ~/mydirectory  
→ touch myfile.txt  
(base) thiago in ~/mydirectory  
→ ls  
myfile.txt  
(base) thiago in ~/mydirectory  
→
```

5) Copie o arquivo "file1.txt" para o diretório "/mydirectory".

→ cp file1.txt mydirectory

```
thiago@ThiagoR:~/mydirectory
thiago@ThiagoR:~/mydirectory 80x24
(base) thiago in ~
→ ls
anaconda3      Desktop      eclipse-workspace  mydirectory  source
Android        Documents   file1.txt         Pictures     Templat
build          Downloads  install          Public       Videos
compiladores   eclipse     Music            snap        'Virtual
(base) thiago in ~
→ cp file1.txt mydirectory
(base) thiago in ~
→ ls
anaconda3      Desktop      eclipse-workspace  mydirectory  source
Android        Documents   file1.txt         Pictures     Templat
build          Downloads  install          Public       Videos
compiladores   eclipse     Music            snap        'Virtual
(base) thiago in ~
→ cd mydirectory
(base) thiago in ~/mydirectory
→ sl
zsh: command not found: sl
(base) thiago in ~/mydirectory
→ ls
file1.txt  myfile.txt
```

6) Renomeie o arquivo "oldfile.txt" para "newfile.txt".

→ mv oldfile.txt newfile.txt

```
thiago@ThiagoR:~/mydirectory
thiago@ThiagoR:~/mydirectory 80x24
(base) thiago in ~/mydirectory
→ ls
oldfile.txt
(base) thiago in ~/mydirectory
→ mv oldfile.txt newfile.txt
(base) thiago in ~/mydirectory
→ ls
newfile.txt
(base) thiago in ~/mydirectory
→
```

7) Insira informações e Mostre o conteúdo do arquivo "myfile.txt".

→ cat myfile.txt

```
thiago@ThiagoR:~/mydirectory
thiago@ThiagoR:~/mydirectory 80x24
(base) thiago in ~/mydirectory
→ cat myfile.txt
MONSTRO SAGRADO +0,25!
(base) thiago in ~/mydirectory
→
```

8) Remova o arquivo "unwanted.txt".

→ rm -f unwanted.txt

```
thiago@ThiagoR:~/mydirectory
thiago@ThiagoR:~/mydirectory 80x24
(base) thiago in ~/mydirectory
→ ls
unwanted.txt
(base) thiago in ~/mydirectory
→ rm -f unwanted.txt
(base) thiago in ~/mydirectory
→ ls
(base) thiago in ~/mydirectory
→
```

9) Liste os processos em execução no sistema.

→ ps aux

```

→ ps aux
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root         1  0.0  0.1 172448 12168 ?        Ss   08:27   0:08 /sbin/init splash
root         2  0.0  0.0      0     0 ?        S    08:27   0:00 [kthreadd]
root         3  0.0  0.0      0     0 ?        I<   08:27   0:00 [rcu_gp]
root         4  0.0  0.0      0     0 ?        I<   08:27   0:00 [rcu_par_gp]
root         5  0.0  0.0      0     0 ?        I<   08:27   0:00 [slub_flushwq]
root         6  0.0  0.0      0     0 ?        I<   08:27   0:00 [netns]
root         8  0.0  0.0      0     0 ?        I<   08:27   0:00 [kworker/0:0H-events_highp]
root        10  0.0  0.0      0     0 ?        I<   08:27   0:00 [mm_percpu_wq]
root        11  0.0  0.0      0     0 ?        S    08:27   0:00 [rcu_tasks_rude_]
root        12  0.0  0.0      0     0 ?        S    08:27   0:00 [rcu_tasks_trace]
root        13  0.0  0.0      0     0 ?        S    08:27   0:00 [ksoftirqd/0]
root        14  0.1  0.0      0     0 ?        I    08:27   0:13 [rcu_sched]
root        15  0.0  0.0      0     0 ?        S    08:27   0:00 [migration/0]
root        16  0.0  0.0      0     0 ?        S    08:27   0:00 [idle_inject/0]
root        18  0.0  0.0      0     0 ?        S    08:27   0:00 [cpuhp/0]
root        19  0.0  0.0      0     0 ?        S    08:27   0:00 [cpuhp/1]
root        20  0.0  0.0      0     0 ?        S    08:27   0:00 [idle_inject/1]
root        21  0.0  0.0      0     0 ?        S    08:27   0:00 [migration/1]
root        22  0.0  0.0      0     0 ?        S    08:27   0:00 [ksoftirqd/1]

```

10) Verifique o espaço livre em disco.

→ df -h

```

(base) thiago in ~/mydirectory
→ df -h
Sist. Arq.      Tam. Usado Disp. Uso% Montado em
udev           3,8G      0  3,8G   0% /dev
tmpfs          786M    2,5M  784M   1% /run
/dev/sda2      439G   163G  254G  40% /
tmpfs          3,9G    236M   3,7G   7% /dev/shm
tmpfs          5,0M     4,0K   5,0M   1% /run/lock
tmpfs          3,9G      0   3,9G   0% /sys/fs/cgroup
/dev/loop0      17M     17M     0 100% /snap/azure-cli/7
/dev/loop1     128K    128K     0 100% /snap/bare/5
/dev/loop2      67M     67M     0 100% /snap/bzoing/680
/dev/loop4      67M     67M     0 100% /snap/bzoing/681
/dev/loop3     303M   303M     0 100% /snap/code/128
/dev/loop5     117M   117M     0 100% /snap/core/14946
/dev/loop7      74M     74M     0 100% /snap/core22/634
/dev/loop6      56M     56M     0 100% /snap/core18/2745
/dev/loop9      64M     64M     0 100% /snap/core20/1852
/dev/loop8     294M   294M     0 100% /snap/dbeaver-ce/231
/dev/loop10     64M     64M     0 100% /snap/core20/1879
/dev/loop13     117M   117M     0 100% /snap/core/14784
/dev/loop14     244M   244M     0 100% /snap/dbeaver-ce/234
/dev/loop11     56M     56M     0 100% /snap/core18/2721
/dev/loop16     165M   165M     0 100% /snap/gnome-3-28-1804/194
/dev/loop12     303M   303M     0 100% /snap/code/129
/dev/loop15     165M   165M     0 100% /snap/gnome-3-28-1804/198
/dev/loop18     219M   219M     0 100% /snap/gnome-3-34-1804/93
/dev/loop17     219M   219M     0 100% /snap/gnome-3-34-1804/90
/dev/loop21     461M   461M     0 100% /snap/gnome-42-2204/102
/dev/loop19     350M   350M     0 100% /snap/gnome-3-38-2004/140
/dev/loop20     350M   350M     0 100% /snap/gnome-3-38-2004/137
/dev/loop24      13M     13M     0 100% /snap/mkdocs-carroarmato0/1
/dev/loop23      82M     82M     0 100% /snap/gtk-common-themes/1534
/dev/loop22      92M     92M     0 100% /snap/gtk-common-themes/1535
/dev/loop25     6,2M    6,2M     0 100% /snap/notepad-plus-plus/386
/dev/loop26     6,3M    6,3M     0 100% /snap/notepad-plus-plus/385
/dev/loop28      84M     84M     0 100% /snap/scrcpy/399
/dev/loop30      30M     30M     0 100% /snap/ruby/299
/dev/loop27      83M     83M     0 100% /snap/scrcpy/394
/dev/loop29      30M     30M     0 100% /snap/ruby/317
/dev/loop31      46M     46M     0 100% /snap/snap-store/638
/dev/loop33      13M     13M     0 100% /snap/snap-store/959
/dev/loop32     158M   158M     0 100% /snap/spotify/64
/dev/loop39      82M     82M     0 100% /snap/teams-for-linux/373
/dev/loop37     296M   296M     0 100% /snap/vlc/2344
/dev/loop36      54M     54M     0 100% /snap/snapd/19122
/dev/loop38      82M     82M     0 100% /snap/teams-for-linux/369
/dev/loop35      54M     54M     0 100% /snap/snapd/18933
/dev/loop42     304M   304M     0 100% /snap/wine-platform-5-stable/16
/dev/loop40     321M   321M     0 100% /snap/vlc/3078
/dev/loop43     304M   304M     0 100% /snap/wine-platform-5-stable/18
/dev/loop41     323M   323M     0 100% /snap/wine-platform-6-stable/14
/dev/loop47     452M   452M     0 100% /snap/wine-platform-7-devel-core20/23

```

11) Encontre todos os arquivos com a extensão ".txt" em documents.

→ find mydirectory -name "*.txt"

```
thiago@ThiagoR:~  
thiago@ThiagoR:~ 80x24  
(base) thiago in ~  
→ ls  
anaconda3  Documents  Music      snap      'VirtualBox VMs'  
Android    Downloads  mydirectory source  
build      eclipse    Pictures    Templates  
Desktop    eclipse-workspace Public      Videos  
(base) thiago in ~  
→ find mydirectory -name "*.txt"  
mydirectory/nwefile.txt  
mydirectory/test.txt
```

12) Liste os 10 últimos processos que estão usando memória.

→ htop

```
htop  
htop 203x55  
1 [|||||] 19.0% S [|||||] 12.7%  
2 [|||||] 19.0% S [|||||] 20.4%  
3 [|||||] 19.0% S [|||||] 19.0%  
4 [|||||] 19.0% S [|||||] 19.0%  
Mem: 4.00G / 16.0G 25.0%  
Swap: 0.00G / 0.00G 0.0%  
Tasks: 242, 1004 ttr; 1 running  
Load average: 3.97 2.64 2.30  
Uptime: 00:01:54  
PID USER PRI NI VIRT RES SHR S CPU% MEM% TIME+ Command  
6583 thiago 20 0 1.1T 1081M 190M S 56.5 13.8 3h50:21 /opt/google/chrome/chrome --type=renderer --crashpad-handler-pid=6596 --enable-crash-reporter=b7c79c44-1bee-4c76-a268-7420830062ba, --chan  
7499 thiago 20 0 34.7G 41872 46328 S 21.4 0.5 1h29:09 /opt/google/chrome/chrome --type=utility --utility-sub-type=audio.nojon.AudioService --lang=pt-BR --service-sandbox-type=none --crashpad-h  
5693 thiago 9 11 8051K 22720 16924 S 16.9 0.3 55:25.96 /usr/bin/pulseaudio --daemonize=no --log-target=journal  
6827 thiago 20 0 32.1G 3838 120M S 0.6 4.9 53:15.89 /opt/google/chrome/chrome --type=gpu-process --crashpad-handler-pid=6596 --enable-crash-reporter=b7c79c44-1bee-4c76-a268-7420830062ba, --c  
10823 thiago 20 0 1.4T 1803K 894K S 22.7 13.8 50:16:75 /usr/bin/pulseaudio --daemonize=no --log-target=journal  
5982 thiago 20 0 4573K 1150 7912 S 19.5 4.0 32:22.06 /usr/bin/gnome-shell  
13370 thiago 20 0 34.1G 41872 46328 S 5.8 0.5 30:48.10 /opt/google/chrome/chrome --type=utility --utility-sub-type=audio.nojon.AudioService --lang=pt-BR --service-sandbox-type=none --crashpad-h  
6750 thiago 20 0 32.1G 3838 120M S 0.6 4.4 25:11.25 /opt/google/chrome/chrome  
7846 thiago 20 0 12.1G 2400 4404 S 7.1 3.8 23:30:16 /usr/share/teams/teams --type=renderer --autoplay-policy=no-user-gesture-required --disable-background-timer-throttling --field-trial-hand  
6760 thiago 20 0 32.1G 3838 120M S 0.6 4.4 21:57.44
```

13) Conte quantas linhas existem no arquivo "companhia_mb.txt"

→ wc -l Companhia_MB.txt

```
thiago@ThiagoR:~/mydirectory  
thiago@ThiagoR:~/mydirectory 116x24  
(base) thiago in ~/mydirectory  
→ ls  
Companhia_MB.txt test.txt  
(base) thiago in ~/mydirectory  
→ wc -l Companhia_MB.txt  
38 Companhia_MB.txt  
(base) thiago in ~/mydirectory  
→
```

14) Liste os 10 arquivos mais recentemente modificados no diretório atual.

→ `ls -lt | head -n 11`

```
(base) thiago in Documents/Bradesco/FIA
→ ls -lt | head -n 11
total 218116
drwxr-xr-x 5 root root 4096 mai  4 09:02 data
-rw-rw-r-- 1 thiago thiago 495 mai  4 09:02 bases-arq.yml
-r----- 1 thiago thiago 2498 mai  4 08:55 aula-fia_key.pem
-rw-rw-r-- 1 thiago thiago 456 mai  3 11:42 EXE 6 E 7 BI
drwxrwxr-x 3 thiago thiago 4096 mai  1 14:46 exercicios-fia
-rw-rw-r-- 1 thiago thiago 3433 mai  1 14:41 Script.sql
-rw-rw-r-- 1 thiago thiago 1180 abr 28 16:27 fia x
drwxr-xr-x 3 root root 4096 abr 28 16:10 config
-rw-rw-r-- 1 thiago thiago 3495 abr 28 15:50 SQL-Aula01.sql
-rw-rw-r-- 1 thiago thiago 3495 abr 28 15:50 sql-01.txt
(base) thiago in Documents/Bradesco/FIA
```

15) Crie um arquivo compactado chamado "archive.tar.gz" contendo todos os arquivos de um diretório.

→ `tar -cvzf arquivo.tar.gz .`

```
(base) thiago in ~/mydirectory
→ ls
Companhia_MB.txt  test.txt
(base) thiago in ~/mydirectory
→ tar -cvzf arquivo.tar.gz .
./
./Companhia_MB.txt
./test.txt
(base) thiago in ~/mydirectory
→ ls
arquivo.tar.gz  Companhia_MB.txt  test.txt
(base) thiago in ~/mydirectory
→ ls
arquivo.tar.gz  Companhia_MB.txt  test.txt
(base) thiago in ~/mydirectory
```

16) Encontre todas as ocorrências da palavra "capital" em todos os arquivos do local que esta companhia_mb.

→ `grep -r "capital"`


```
thiago@ThiagoR:~/mydirectory
thiago@ThiagoR:~/mydirectory 116x24
(base) thiago in ~/mydirectory
→ ls
arquivo.tar.gz Companhia_MB.txt test.txt
(base) thiago in ~/mydirectory
→ grep -r "capital" arquivos do local que
Companhia_MB.txt:2      casado 1-ensino fundamental 1      4.56 32      capital
Companhia_MB.txt:3      casado 1-ensino fundamental 2      5.25 36      capital
Companhia_MB.txt:8      solteiro 1-ensino fundamental      7.39 43      capital
Companhia_MB.txt:9      casado 2-ensino medio 1      7.59 34      capital
Companhia_MB.txt:12     solteiro 1-ensino fundamental      8.46 27      capital
Companhia_MB.txt:17     casado 2-ensino medio 1      9.77 31      capital
Companhia_MB.txt:22     solteiro 2-ensino medio      11.59 34      capital
Companhia_MB.txt:30     casado 2-ensino medio 2      15.99 35      capital
Companhia_MB.txt:33     casado 3-superior 3      17.26 43      capital
Companhia_MB.txt:34     solteiro 3-superior      18.75 33      capital
Companhia_MB.txt:35     casado 2-ensino medio 2      19.4 48      capital
(base) thiago in ~/mydirectory
→
```

17) Liste todos os usuários do sistema em ordem alfabética.

→ `getent passwd | cut -d: -f1 | sort`

```
(base) thiago in ~/mydirectory took 3m 26s
→ getent passwd | cut -d: -f1 | sort
_apt
avahi
avahi-autoipd
backup
bin
colord
cups-pk-helper
daemon
dnsmasq
games
gdm
geoclue
glances
gnats
gnome-initial-setup
gvm
hplip
irc
kernoops
list
lp
mail
man
messagebus
mongodb
mozao
mysql
news
nm-openvpn
nobody
ntp
nvidia-persistenced
postgres
proxy
pulse
redis
root
rtkit
saned
speech-dispatcher
sshd
sync
sys
syslog
systemd-coredump
systemd-network
systemd-resolve
systemd-timesync
tcpdump
thiago
tss
```

18) Mostre as últimas 20 linhas do arquivo "companhia_mb.txt".

→ cat Companhia_MB.txt | tail -n 20

```
(base) thiago in ~/mydirectory
→ ls
arquivo.tar.gz  Companhia_MB.txt  myfile.tar.gz  myfile.txt
(base) thiago in ~/mydirectory
→ cat Companhia_MB.txt | tail -n 20
18  casado  1-ensino fundamental  2      9.8    39    outra
19  solteiro      3-superior      10.53  25    interior
20  solteiro      2-ensino medio    10.76  37    interior
21  casado  2-ensino medio  1      11.06  30    outra
22  solteiro      2-ensino medio    11.59  34    capital
23  solteiro      1-ensino fundamental  12     41    outra
24  casado  3-superior      0      12.79  26    outra
25  casado  2-ensino medio  2      13.23  32    interior
26  casado  2-ensino medio  2      13.6   35    outra
27  solteiro      1-ensino fundamental  13.85  46    outra
28  casado  2-ensino medio  0      14.69  29    interior
29  casado  2-ensino medio  5      14.71  40    interior
30  casado  2-ensino medio  2      15.99  35    capital
31  solteiro      3-superior      16.22  31    outra
32  casado  2-ensino medio  1      16.61  36    interior
33  casado  3-superior      3      17.26  43    capital
34  solteiro      3-superior      18.75  33    capital
35  casado  2-ensino medio  2      19.4   48    capital
36  casado  3-superior      3      23.3   42    interior

(base) thiago in ~/mydirectory
→
```

19) Altere as permissões de um arquivo para que apenas o proprietário possa ler, escrever e executar.

→ chmod 700 myfile.txt

```
thiago@ThiagoR:~/myd
thiago@ThiagoR:~/myd
(base) thiago in ~/mydirectory
→ ls
arquivo.tar.gz  Companhia_MB.txt  myfile.tar.gz  myfile.txt
(base) thiago in ~/mydirectory
→ chmod 700 myfile.txt
(base) thiago in ~/mydirectory
→ ls
arquivo.tar.gz  Companhia_MB.txt  myfile.tar.gz  myfile.txt
(base) thiago in ~/mydirectory
→
```

20) Remova todos os arquivos vazios do diretório MyDocuments e seus subdiretórios.

→ `find . -type f -empty -delete`

```
(base) thiago in ~/mydirectory Formatar Ferramentas Extensões
→ ls
aaaa.txt arquivo.tar.gz Companhia_MB.txt test.txt
(base) thiago in ~/mydirectory
→ find . -type f -empty -delete

(base) thiago in ~/mydirectory
→ ls
arquivo.tar.gz Companhia_MB.txt test.txt
(base) thiago in ~/mydirectory
→
```