



UNIVERSIDADE FEDERAL DE UBERLÂNDIA  
FACULDADE DE ENGENHARIA ELÉTRICA  
ENGENHARIA MECATRÔNICA



Sistemas Digitais para Mecatrônica

Tarefa 1b

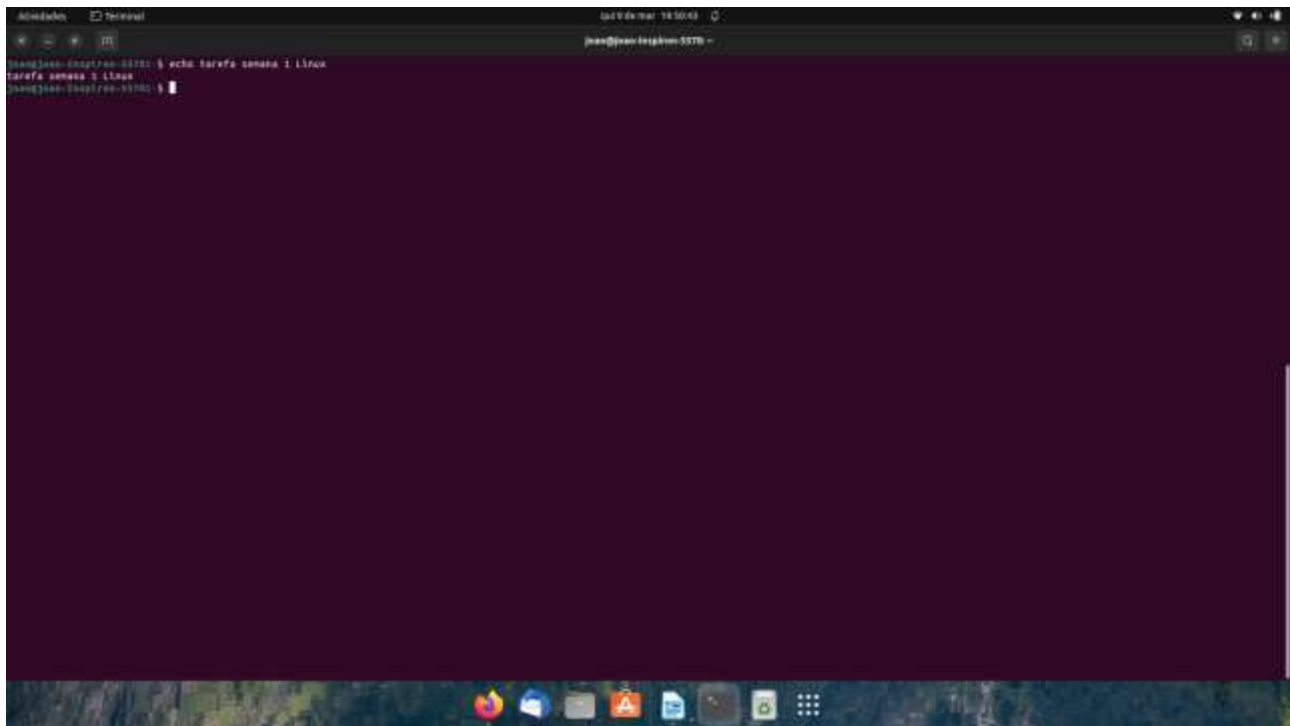
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UBERLÂNDIA  
2023

## Tarefa 2 – Linux

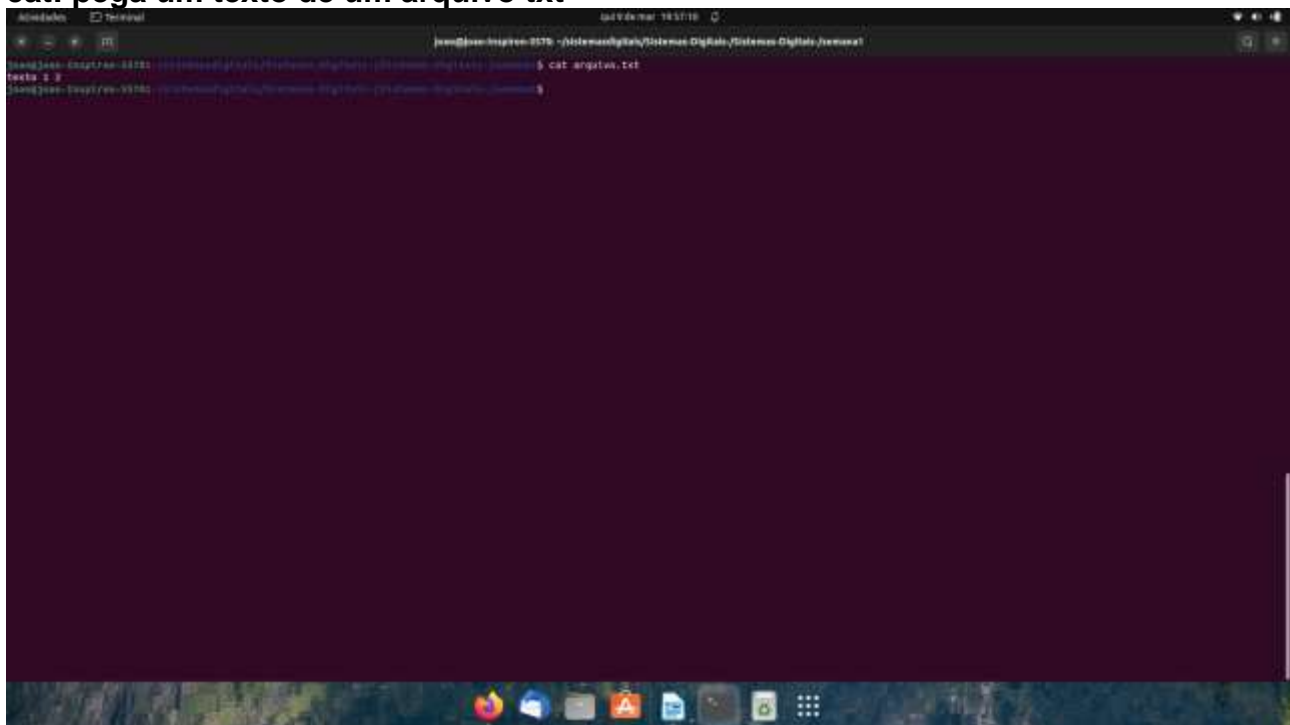
comandos do capítulo 1 a 10 e 14

**echo:** Escreve mensagem em tela

A screenshot of a Linux terminal window. The window title is "Terminal" and the address bar shows "jeon@jeon-ispire-557b". The terminal content shows the command "echo tarefa semasa 1 linux" being entered and executed, resulting in the output "tarefa semasa 1 linux". The terminal has a dark purple background and a light blue prompt. The desktop environment is visible at the bottom with various application icons.

```
jeon@jeon-ispire-557b:~$ echo tarefa semasa 1 linux
tarefa semasa 1 linux
jeon@jeon-ispire-557b:~$
```

**cat:** pega um texto de um arquivo txt

A screenshot of a Linux terminal window. The window title is "Terminal" and the address bar shows "jeon@jeon-ispire-557b - /home/jeon/.local/share/flatpak/exports/bin/flatpak --user". The terminal content shows the command "cat arquivo.txt" being entered and executed, resulting in the output "texto 1 2". The terminal has a dark purple background and a light blue prompt. The desktop environment is visible at the bottom with various application icons.

```
jeon@jeon-ispire-557b:~$ cat arquivo.txt
texto 1 2
jeon@jeon-ispire-557b:~$
```

**history:** Mostra o historico de comandos do terminal

```
Joao@Joao-Inspiron-5570: ~/SistemasDigitais/SistemasDigitais/semexat$ history
1  waa -l
2  sudo apt waa
3  sudo apt install waa
4  waa -l
5  ncda
6  daf -a
7  sudo apt install daf
8  daf
9  sudo apt install btsp
10 btsp
11 sudo apt update
12 sudo apt upgrade
13 sudo apt autoclean
14 sudo apt autoremove
15 btsp
16 sudo apt install hachtop
17 hachtop
18 hachtop
19 sudo apt dell hachtop
20 sudo apt get update
21 sudo apt update
22 sudo apt upgrade
23 sudo apt autoclean
24 sudo apt autodel
25 sudo apt autoremove
26 sudo apt autoremove
27 btsp
28 sudo apt update
29 btll -s 1288
30 sudo btll -s 1288
31 sudo apt updat
32 sudo apt updat
33 sudo apt upgrade
34 sudo apt install dush to dock
35 git clone https://github.com/micheleing/dush-to-dock.git-
36 git clone https://github.com/micheleing/dush-to-dock.git-
37 sudo apt install gnome-tweak-tool
38 sudo apt update
39 sudo apt upgrade
40 sudo apt list upgradable
41 sudo apt list upgradable
42 sudo autoclean
43 sudo apt autoclean
44 sudo apt autoremove
45 sudo apt update
46 sudo apt upgrade
47 sudo apt list --upgradable
48 reboot
49 sudo reboot
50 tere
```

!n: com base no historico o indice n e executado

```
Joao@Joao-Inspiron-5570: ~/SistemasDigitais/SistemasDigitais/semexat$ history
151 git log
152 git diff
153 git commit -a -m "pastada semanal adicionada"
154 git commit -a "pastada semanal adicionada"
155 git config --global user.email "joao.marcosluiz@hotmail.com"
156 git config --global user.name "Joao Lucas"
157 git commit -a "pastada semanal adicionada"
158 git status
159 ls
160 cd semexat
161 echo teste 1 2 > argqiao.txt
162 ls
163 cd .
164 cd ..
165 git commit -a -m "pastada semanal adicionada"
166 git add
167 git push
168 git status
169 git add semexat
170 git add semexat
171 git push
172 git status
173 cd semexat/
174 git add argqiao.txt
175 git status
176 cd ..
177 git push
178 git commit -a -m "past da semanal adicionada"
179 git push
180 sudo apt update
181 sudo apt upgrade
182 btsp
183 hachtop
184 sudo apt purge hachtop
185 hachtop
186 btsp
187 jss
188 echo tarefa semana 1 ilous
189 ls
190 cd sistemasdigitais/
191 cd Sistemas-Digitais-/
192 ls
193 cd Sistemas-Digitais-/
194 ls
195 cd semexat
196 ls
197 cat argqiao.txt
198 history
Joao@Joao-Inspiron-5570: ~/SistemasDigitais/SistemasDigitais/semexat$ !n
sudo apt update
[sudo] senha para joao: █
```

history | grep cd: Faz uma pesquisa no historico em busca de uma palavra especifica

```
177 git push
178 git commit -s -m "pasta de semana adicionada"
179 git push
180 sudo apt update
181 sudo apt upgrade
182 lftp
183 lftp>
184 sudo apt purge lftp
185 lftp>
186 lftp>
187 jet
188 echo tarefa semana 5 feita
189 ls
190 cd sistemasdigitais/
191 cd sistemas-digitais-/
192 ls
193 cd sistemas-digitais-/
194 ls
195 cd semana5
196 ls
197 cat arquivo.txt
198 history
jean@jean-inspire-5170: ~/sistemasdigitais/sistemas-digitais-/semana5$ ls
sudo apt update
[sudo] senha para jean:
Attingido1 http://br.archive.ubuntu.com/ubuntu kinetic InRelease
Attingido2 http://br.archive.ubuntu.com/ubuntu kinetic-updates InRelease
Attingido3 http://br.archive.ubuntu.com/ubuntu kinetic-backports InRelease
Attingido4 http://security.ubuntu.com/ubuntu kinetic-security InRelease
Lendo listas de pacotes... Feito
Construindo árvore de dependências... Feito
Lendo informação de estado... Feito
2 pacotes podem ser atualizados. Corre 'apt list --upgradable' para vê-los.
jean@jean-inspire-5170: ~/sistemasdigitais/sistemas-digitais-/semana5$ history | grep cd
5 cd
97 cd ../
123 cd ../sistemasdigitais/
124 cd ../sistemasdigitais/
127 cd ../sistemas-digitais-/
142 cd ../sistemas-digitais-/
161 cd ../semana5/
164 cd ..
165 cd ..
173 cd ../semana5/
176 cd ..
180 cd ../sistemasdigitais/
191 cd ../sistemas-digitais-/
193 cd ../sistemas-digitais-/
194 cd ../semana5/
200 $ history | grep cd
jean@jean-inspire-5170: ~/sistemasdigitais/sistemas-digitais-/semana5$
```

history -c: Apaga o historico

```
jean@jean-inspire-5170: ~/sistemasdigitais/sistemas-digitais-/semana5$ history -c
jean@jean-inspire-5170: ~/sistemasdigitais/sistemas-digitais-/semana5$
```

sudo: faz uma atividade especifica com permissão de adm

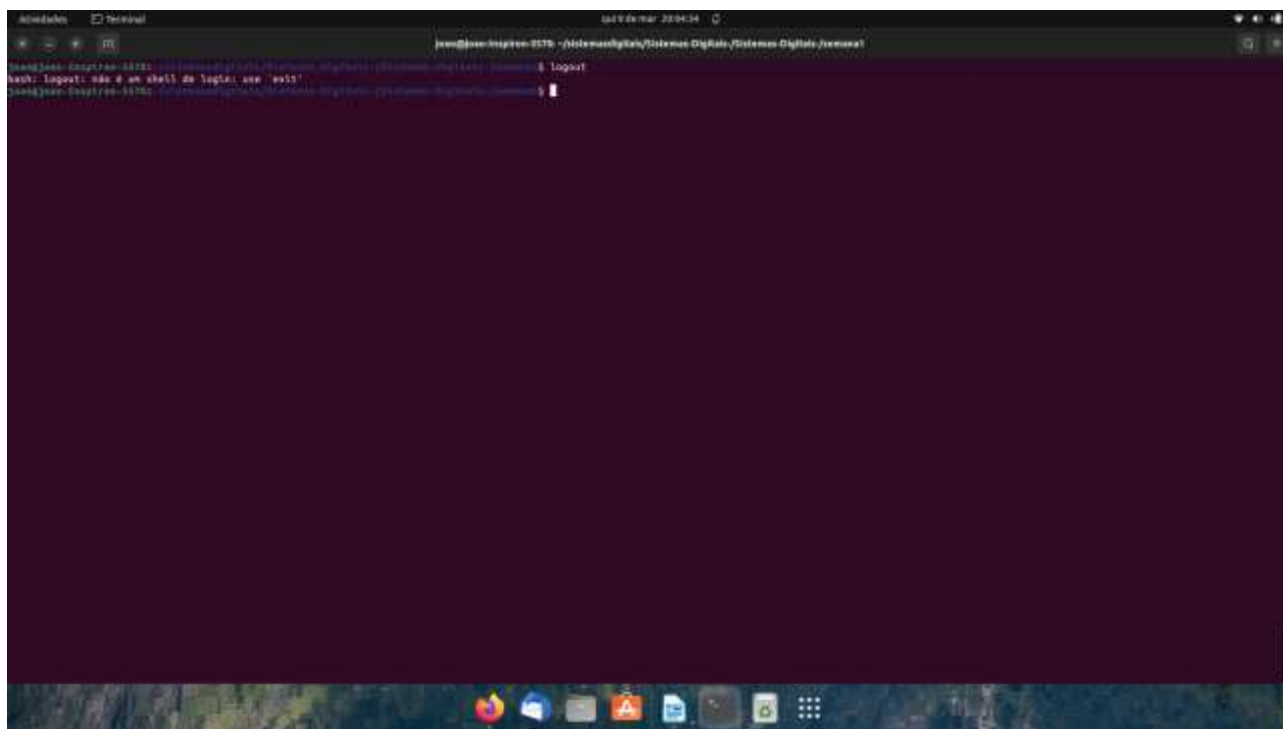
```

Além disso  23.03.23  100%
jsem@jsem-hspten-057b: ~/SistemasDigital/SistemasDigital$ ./runxat
jsem@jsem-hspten-057b: ~/SistemasDigital/SistemasDigital$ python3.7 & history -c
jsem@jsem-hspten-057b: ~/SistemasDigital/SistemasDigital$ python3.7 & sudo apt upgrade
Lendo listas de pacotes... Pronto
Construindo árvore de dependências... Pronto
Lendo informações de estado... Pronto
Atualizando atualização... Pronto
Os seguintes pacotes foram instalados automaticamente e já não são necessários:
  python3-pygit2
Utilize "sudo apt autoremove" para os remover.
Os pacotes a seguir serão mantidos em suas versões atuais:
  grub-efi-amd64-bin grub-efi-amd64-signed
Os pacotes atualizados, e pacotes novos instalados, e a serem renovados e já não atualizados.
jsem@jsem-hspten-057b: ~/SistemasDigital/SistemasDigital$ python3.7

```

## Capítulo 2:

### Logout: desloga da conta



**exit:** fecha o terminal

**shutdown:** desligar o computador

**shutdown -h +”n”:** desliga a máquina após um período de tempo

**poweroff:** outro comando para desligar a máquina.

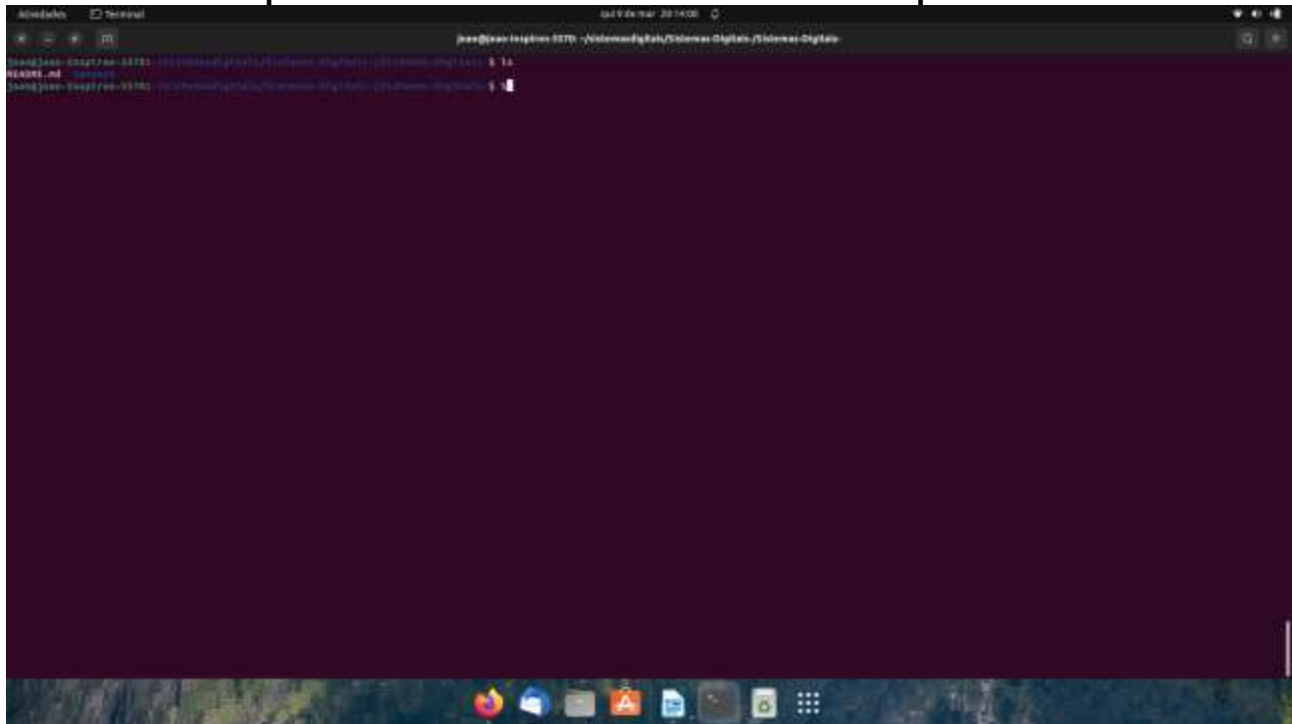
**reboot:** utilizado para reiniciar a máquina.

**shutdown -r +”n”:** reinicia em “n” minutos

**shutdown -r “xx:xx”:** reinicia em uma hora

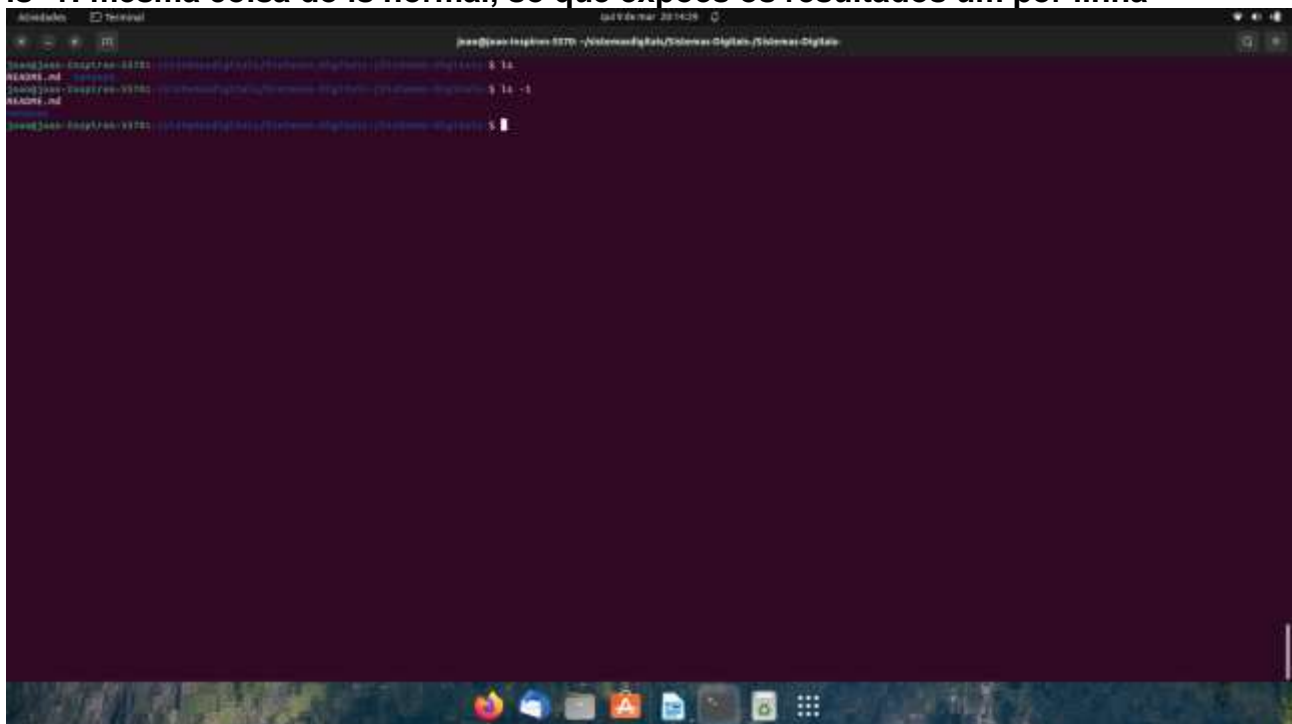
### capitulo 3

#### ls : mostra os arquivos existentes dentro de um diretorio especifico



```
Alameda Terminal 04/04/2019 22:14:08
juan@juan-laptop: ~/Documents/Programas-Digitais/Programas-Digitais
juan@juan-laptop:~/Documents/Programas-Digitais/Programas-Digitais$ ls
README.md  README.md
juan@juan-laptop:~/Documents/Programas-Digitais/Programas-Digitais$
```

#### ls -l: mesma coisa do ls normal, só que expõe os resultados um por linha



```
Alameda Terminal 04/04/2019 22:14:29
juan@juan-laptop: ~/Documents/Programas-Digitais/Programas-Digitais
juan@juan-laptop:~/Documents/Programas-Digitais/Programas-Digitais$ ls -l
-rw-r--r-- 1 juan juan 0 bytes 4 Feb 2019 README.md
-rw-r--r-- 1 juan juan 0 bytes 4 Feb 2019 README.md
juan@juan-laptop:~/Documents/Programas-Digitais/Programas-Digitais$
```

#### ls -li: o ls mais informações sobre quem criou, quando tamanho e permissão

```
Arquivos Terminal 04/04/2023 22:17:22
jane@jane-laptop: ~/Videos/Seguros/Videos/Seguros-Digitais
ls -la
total 4
drwxr-xr-x 2 jane jane 4096 mar 8 22:13 README.md
drwxr-xr-x 2 jane jane 4096 mar 8 22:18 videos
jane@jane-laptop:~/Videos/Seguros/Videos/Seguros-Digitais$ ls -la
total 4
drwxr-xr-x 2 jane jane 4096 mar 8 22:13 README.md
drwxr-xr-x 2 jane jane 4096 mar 8 22:18 videos
jane@jane-laptop:~/Videos/Seguros/Videos/Seguros-Digitais$
```

Is -a: exibe informações sobre diretórios ocultos

```
Arquivos Terminal 04/04/2023 22:18:04
jane@jane-laptop: ~/Videos/Seguros/Videos/Seguros-Digitais
ls -la
total 4
drwxr-xr-x 2 jane jane 4096 mar 8 22:13 README.md
drwxr-xr-x 2 jane jane 4096 mar 8 22:18 videos
jane@jane-laptop:~/Videos/Seguros/Videos/Seguros-Digitais$ ls -la -l
total 28
drwxr-xr-x 4 jane jane 4096 mar 8 22:14 .
drwxr-xr-x 3 jane jane 4096 mar 8 22:12 ..
drwxr-xr-x 2 jane jane 4096 mar 8 22:13 .git
drwxr-xr-x 2 jane jane 4096 mar 8 22:18 README.md
drwxr-xr-x 2 jane jane 4096 mar 8 22:18 videos
jane@jane-laptop:~/Videos/Seguros/Videos/Seguros-Digitais$
```

Is -F: classifica os arquivos

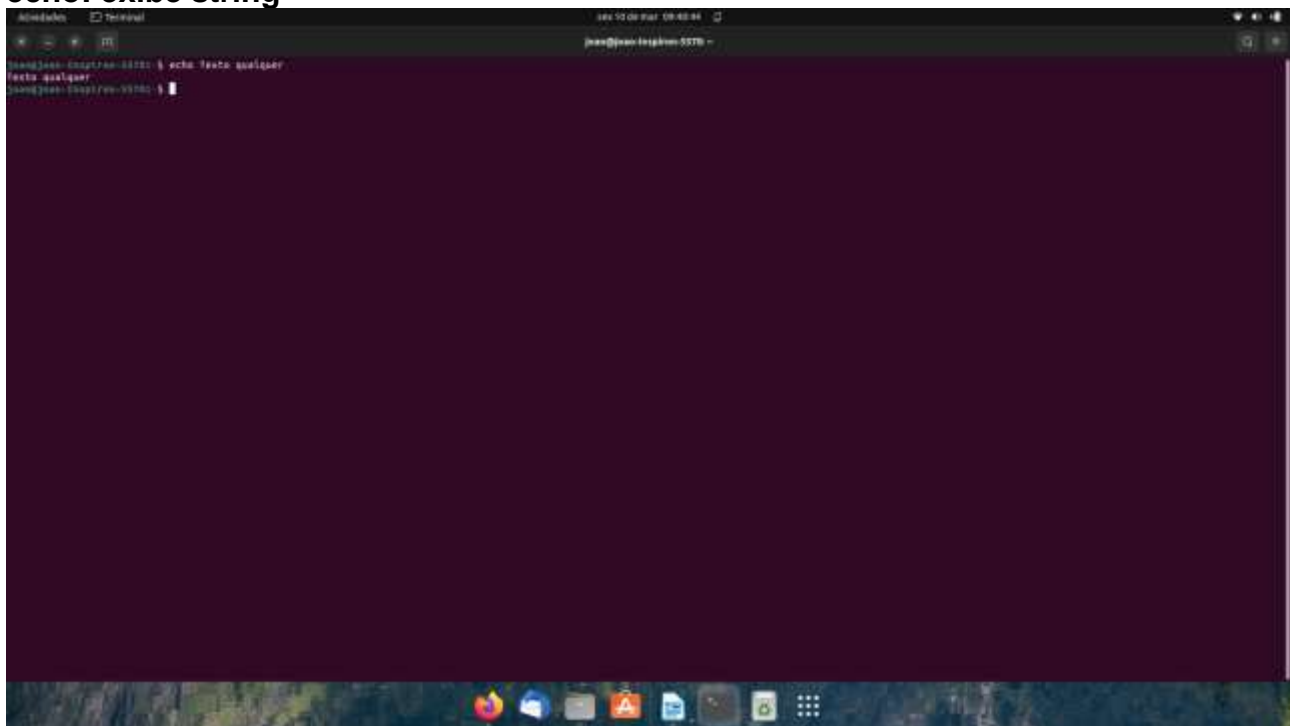






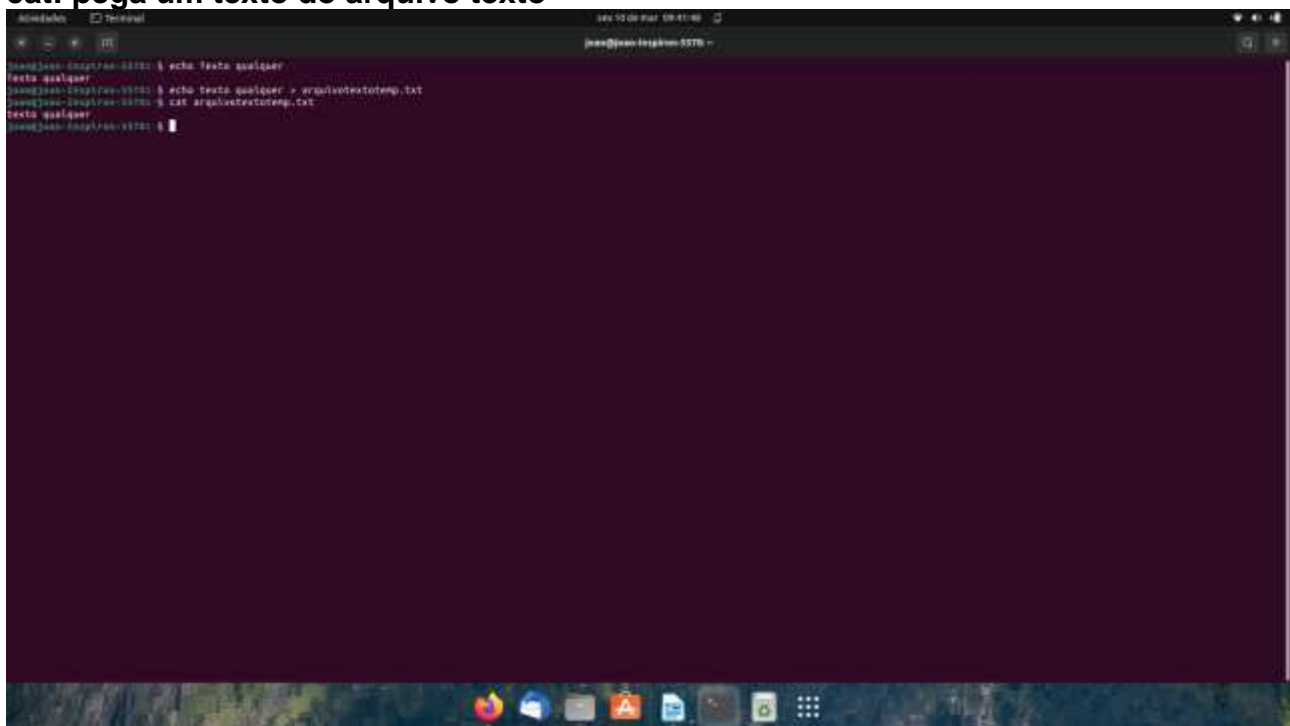
## Capítulo 4:

### echo: exibe string

A terminal window titled 'Terminal' with a dark background. The prompt is 'jane@jane-laptop: ~'. The user enters 'echo texto qualquer' and the terminal outputs 'texto qualquer'.

```
jane@jane-laptop: ~  
jane@jane-laptop:~$ echo texto qualquer  
texto qualquer  
jane@jane-laptop:~$
```

### cat: pega um texto do arquivo texto

A terminal window titled 'Terminal' with a dark background. The prompt is 'jane@jane-laptop: ~'. The user enters 'echo texto qualquer', then 'echo texto qualquer > arquivo\_texto\_temp.txt', and finally 'cat arquivo\_texto\_temp.txt'. The terminal outputs 'texto qualquer' for the last command.

```
jane@jane-laptop: ~  
jane@jane-laptop:~$ echo texto qualquer  
texto qualquer  
jane@jane-laptop:~$ echo texto qualquer > arquivo_texto_temp.txt  
jane@jane-laptop:~$ cat arquivo_texto_temp.txt  
texto qualquer  
jane@jane-laptop:~$
```

### cut: corta uma frase

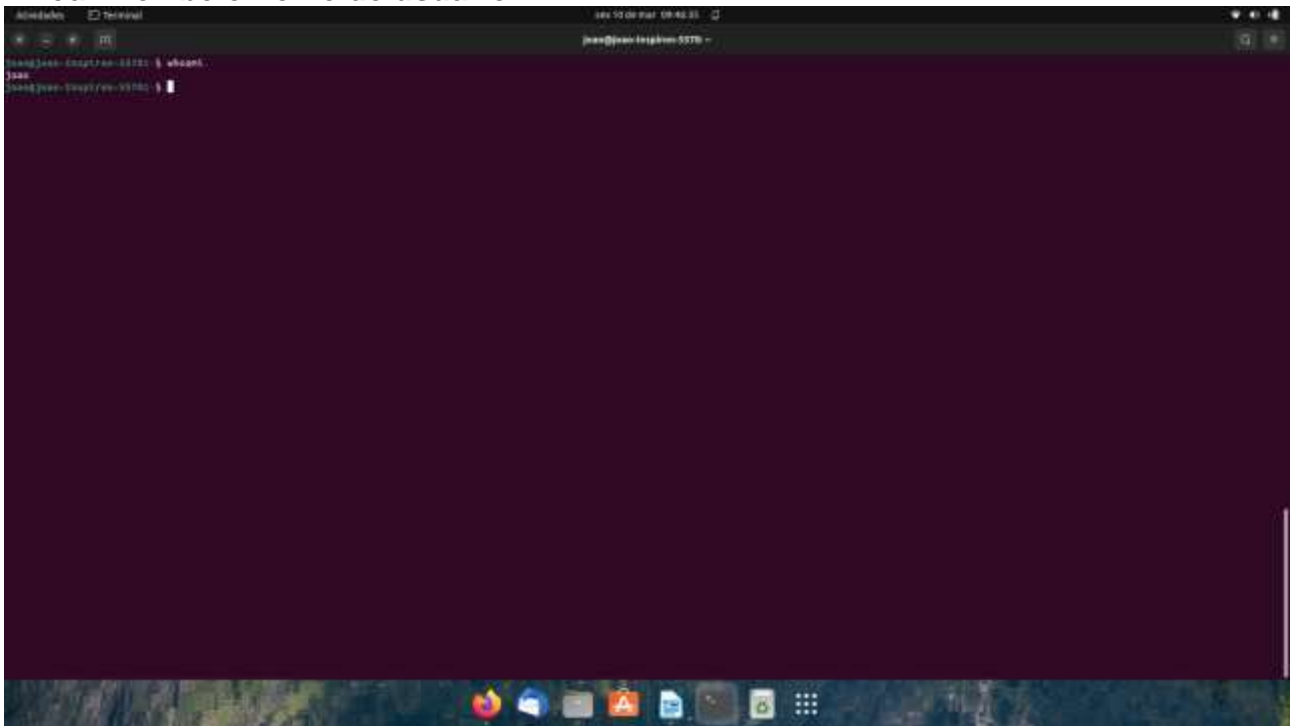
```
Almôndadox 10:43:12
jane@jane-laptop:~$ echo texto qualquer
texto qualquer
jane@jane-laptop:~$ echo texto qualquer > arquivotextotemp.txt
jane@jane-laptop:~$ cat arquivotextotemp.txt
texto qualquer
jane@jane-laptop:~$ echo "hello word"|cat -c 1-5
hello
jane@jane-laptop:~$
```

seq: exibe uma sequencia numerica

```
Almôndadox 10:43:41
jane@jane-laptop:~$ echo texto qualquer
texto qualquer
jane@jane-laptop:~$ echo texto qualquer > arquivotextotemp.txt
jane@jane-laptop:~$ cat arquivotextotemp.txt
texto qualquer
jane@jane-laptop:~$ echo "hello word"|cat -c 1-5
hello
jane@jane-laptop:~$ seq 10
1
2
3
4
5
6
7
8
9
10
jane@jane-laptop:~$
```

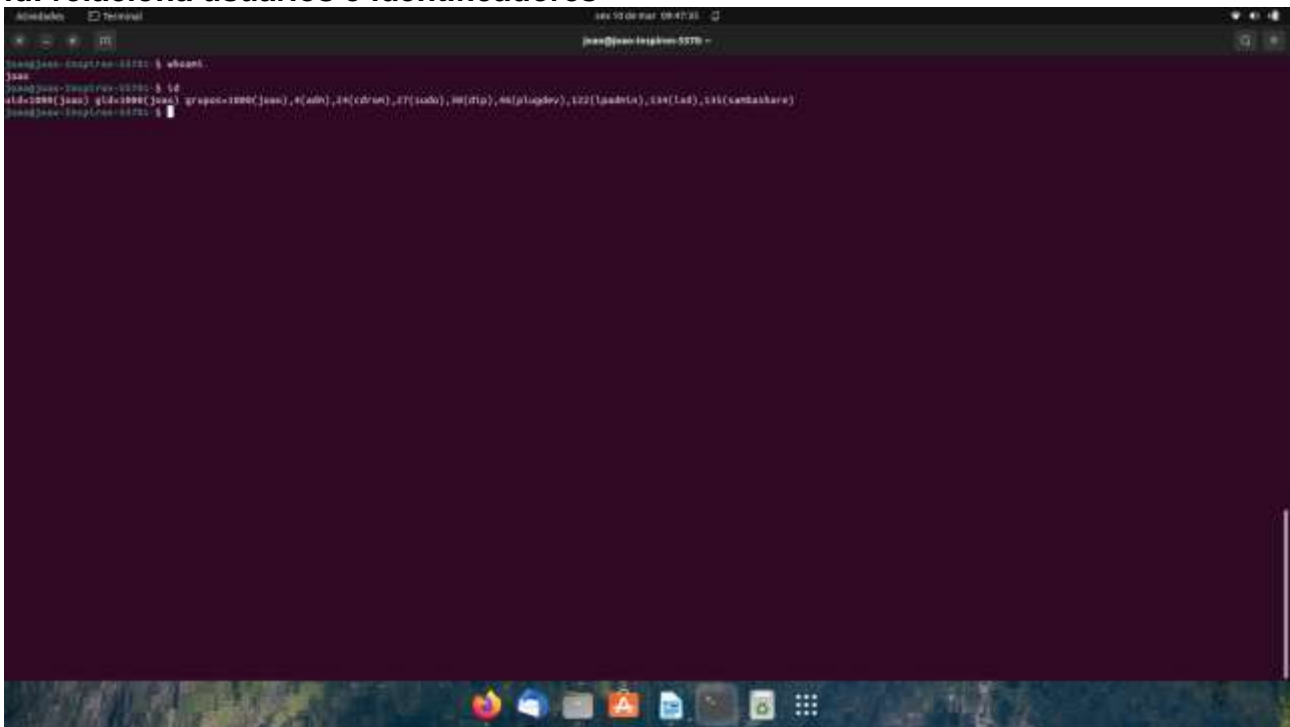
## Capítulo 5

whoami:exibe o nome de usuario

A terminal window titled 'Almalyah' with a dark purple background. The prompt is 'root@kali:~#'. The user enters 'whoami' and the output is 'root'. The terminal window is part of a desktop environment with a taskbar at the bottom showing various application icons.

```
Almalyah [~] root@kali:~# whoami
root
root@kali:~#
```

id: relaciona usuarios e identificadores

A terminal window titled 'Almalyah' with a dark purple background. The prompt is 'root@kali:~#'. The user enters 'id' and the output is 'uid=0(root) gid=0(root) groups=0(root)'. The terminal window is part of a desktop environment with a taskbar at the bottom showing various application icons.

```
Almalyah [~] root@kali:~# id
uid=0(root) gid=0(root) groups=0(root)
root@kali:~#
```

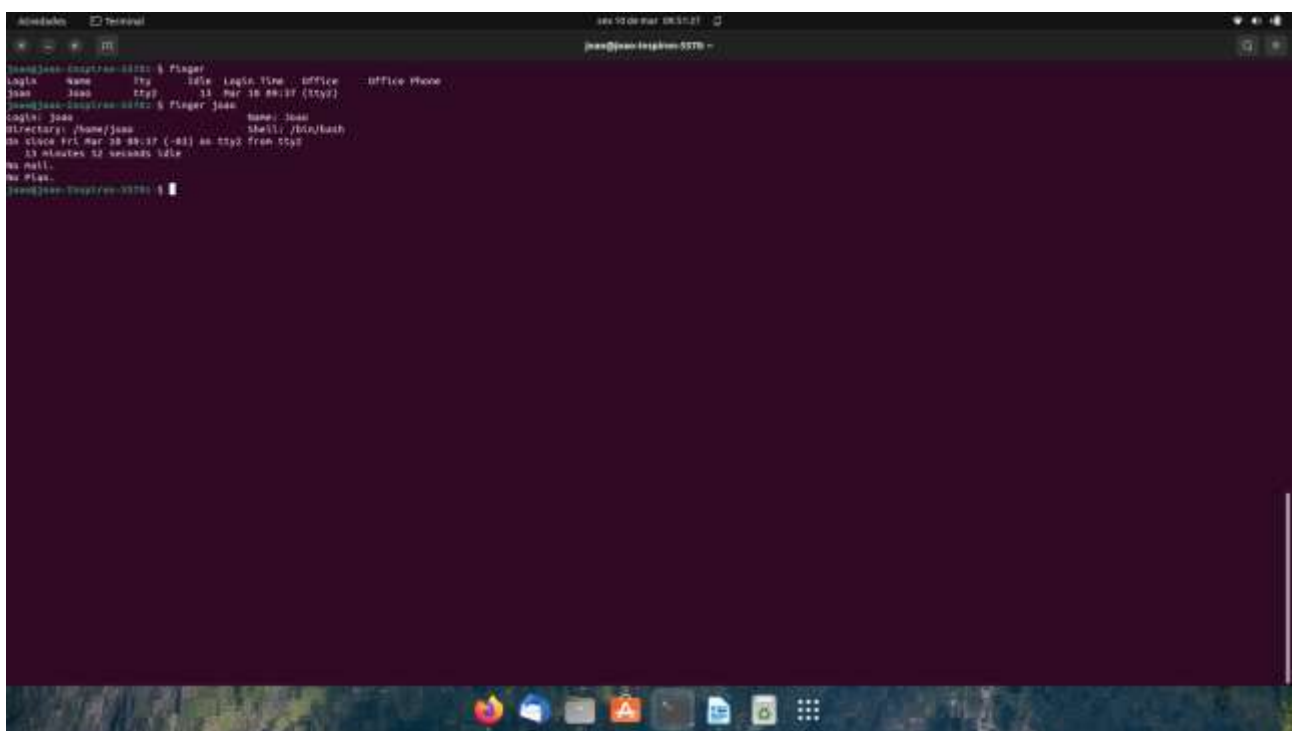
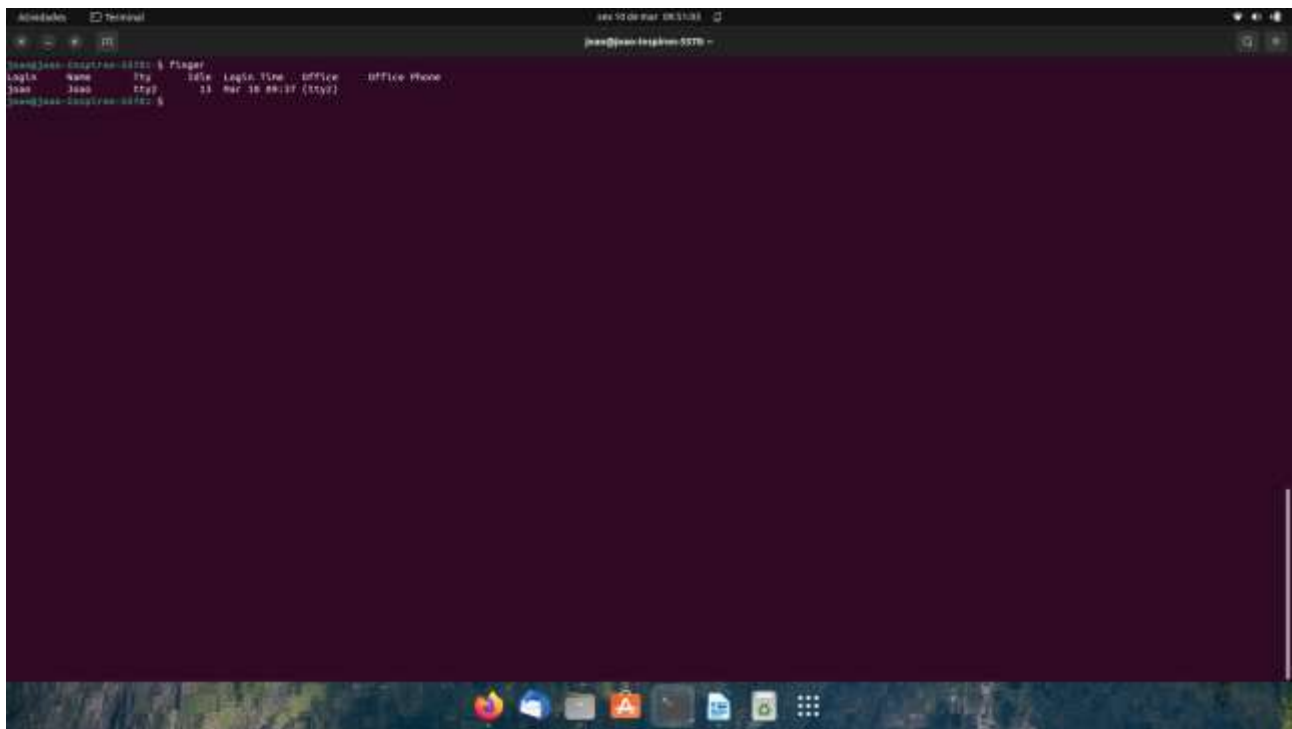
passwd: muda a senha

```
Alimadado Terminal
10/10/2023 08:48:51
jane@jane-laptop: ~$
jane@jane-laptop:~$ sudo -i
jane
jane@jane-laptop:~$ id
uid=1000(jane) gid=1000(jane) grupos=1000(jane),4(adm),24(cdrom),27(sudo),30(dip),44(plugdev),122(lpadmin),134(lxd),141(sambashare)
jane@jane-laptop:~$ passwd
mudando senha para jane.
nova senha:
confirmação:
jane@jane-laptop:~$
```

users: exibe usuarios existentes

```
Alimadado Terminal
10/10/2023 08:49:36
jane@jane-laptop: ~$
jane@jane-laptop:~$ users
jane
jane@jane-laptop:~$
```

finger: exibe informações sobre os usuarios



free: mostra uso de memoria

```
john@john-ThinkPad-1570: ~$ finger
      Name      tty      idle  Login time      Office      Office Phone
john  john      tty2      11 Mar 18 09:37 (tty2)
john@john-ThinkPad-1570: ~$ finger john
      Name      tty      idle  Login time      Office      Office Phone
john  john      tty2      11 Mar 18 09:37 (tty2)
john@john-ThinkPad-1570: ~$ finger john
      Name      tty      idle  Login time      Office      Office Phone
john  john      tty2      11 Mar 18 09:37 (tty2)
john@john-ThinkPad-1570: ~$ free
      total        used        free      shared  buff/cache   available
Mem:    883328k    34288k    264544k    8266k    490012k    317508k
Swap:      0          0          0
```

uname: mostra características do sistema operacional

```
john@john-ThinkPad-1570: ~$ uname
Linux
john@john-ThinkPad-1570: ~$ uname -r
4.18.0-15-generic
john@john-ThinkPad-1570: ~$ uname -m
x86_64
john@john-ThinkPad-1570: ~$
```

uptime: mostra a hora



[illegible]

**timeout:** executa um comando por um tempo específico

[illegible]

**w: mostra usuarios logados e suas ações**

```
Almalinux [~] ssh
jane@jane-logins-537b: ~
jane@jane-logins-537b: ~$ uname
Linux
jane@jane-logins-537b: ~$ uname -r
5.15.0-45-generic
jane@jane-logins-537b: ~$ uname -a
Linux 5.15.0-45-generic
jane@jane-logins-537b: ~$ uptime
10:01:47 up 24.61s, 1 user, load average: 1.16, 0.52, 0.30
jane@jane-logins-537b: ~$ cat /etc/passwd | grep www.google.com
www.google.com:(2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004)) 30 data bytes
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=1 ttl=64 time=43.9 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=2 ttl=64 time=43.8 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=3 ttl=64 time=42.9 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=4 ttl=64 time=45.3 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=5 ttl=64 time=45.9 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=6 ttl=64 time=42.6 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=7 ttl=64 time=43.7 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=8 ttl=64 time=42.3 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=9 ttl=64 time=44.9 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=10 ttl=64 time=43.3 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=11 ttl=64 time=44.9 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=12 ttl=64 time=44.9 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=13 ttl=64 time=43.5 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=14 ttl=64 time=42.6 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=15 ttl=64 time=43.2 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=16 ttl=64 time=42.6 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=17 ttl=64 time=43.1 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=18 ttl=64 time=43.1 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=19 ttl=64 time=42.2 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=20 ttl=64 time=44.0 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=21 ttl=64 time=43.4 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=22 ttl=64 time=44.2 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=23 ttl=64 time=44.2 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=24 ttl=64 time=43.9 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=25 ttl=64 time=44.4 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=26 ttl=64 time=44.3 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=27 ttl=64 time=42.9 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=28 ttl=64 time=42.6 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=29 ttl=64 time=43.6 ms
64 bytes from 2000:1f0:4004:000::2004 (2000:1f0:4004:000::2004): icmp_seq=30 ttl=64 time=44.0 ms
jane@jane-logins-537b: ~$ w
10:02:45 up 26.41s, 1 user, load average: 0.46, 0.44, 0.35
USERID TTY          BE          LOGIN@ 0K1020 3CPU  PCPU  0  QUE
Shao   tty2      ttty0      09:37   16:16   0.02s  0.03s /usr/libexec/gnome-session-binary --sessionbus
jane@jane-logins-537b: ~$
```

**whatis: mostra info sobre determinado comandos**

```
Almalinux [~] ssh
jane@jane-logins-537b: ~
jane@jane-logins-537b: ~$ whatis
whatis a qat?
jane@jane-logins-537b: ~$ whatis who
who (1) - show who is logged on
jane@jane-logins-537b: ~$ w
10:02:45 up 26.41s, 1 user, load average: 0.46, 0.44, 0.35
USERID TTY          BE          LOGIN@ 0K1020 3CPU  PCPU  0  QUE
Shao   tty2      ttty0      09:37   16:16   0.02s  0.03s /usr/libexec/gnome-session-binary --sessionbus
jane@jane-logins-537b: ~$
```

## Capítulo 6

ps: mostra comando e processos em execução

```
ps aux
ps aux | sort -n -k %cpu
ps aux | sort -n -k %mem
```

ps -u: processos de um determinado user

ps -r: processos por ordem de uso de CPU

ps -m: processos por ordem de uso de memória

pstree: exhibe a árvore de processos

```
ps aux
pstree -p
```

top: exhibe informações sobre processos, uso de memória ect, eu no lugar uso Btop



## **Capitulo 7:**

**chmod:** serve para modificar premissões em um determinado arquivo ou diretorio

**chown:** muda o dono de um arquivos

## **capitulo 8:**

**adduser:** adiciona um usuario

**usermod:** altera infos dos users

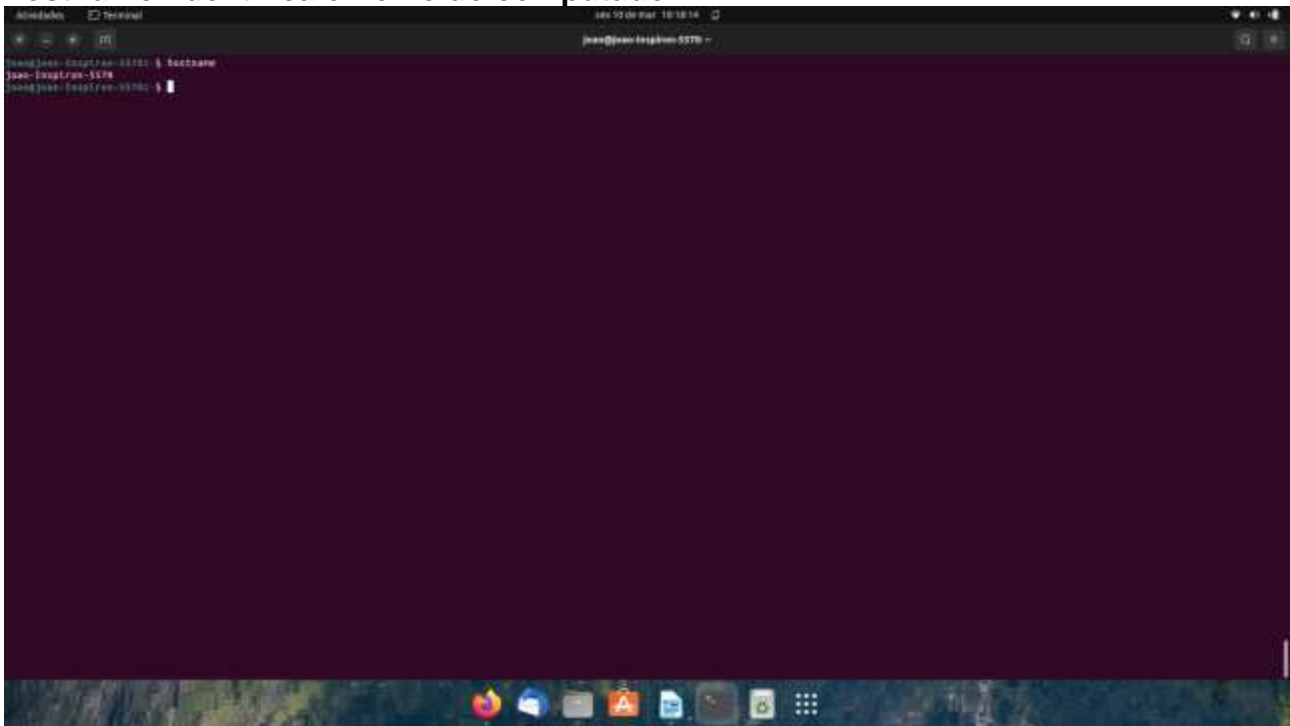
**groupadd:** cria grupo de users

**groupmod:** mesma coisa para users, mas agora para grupos

**groupdel:** apaga o grupo users

## Capítulo 9

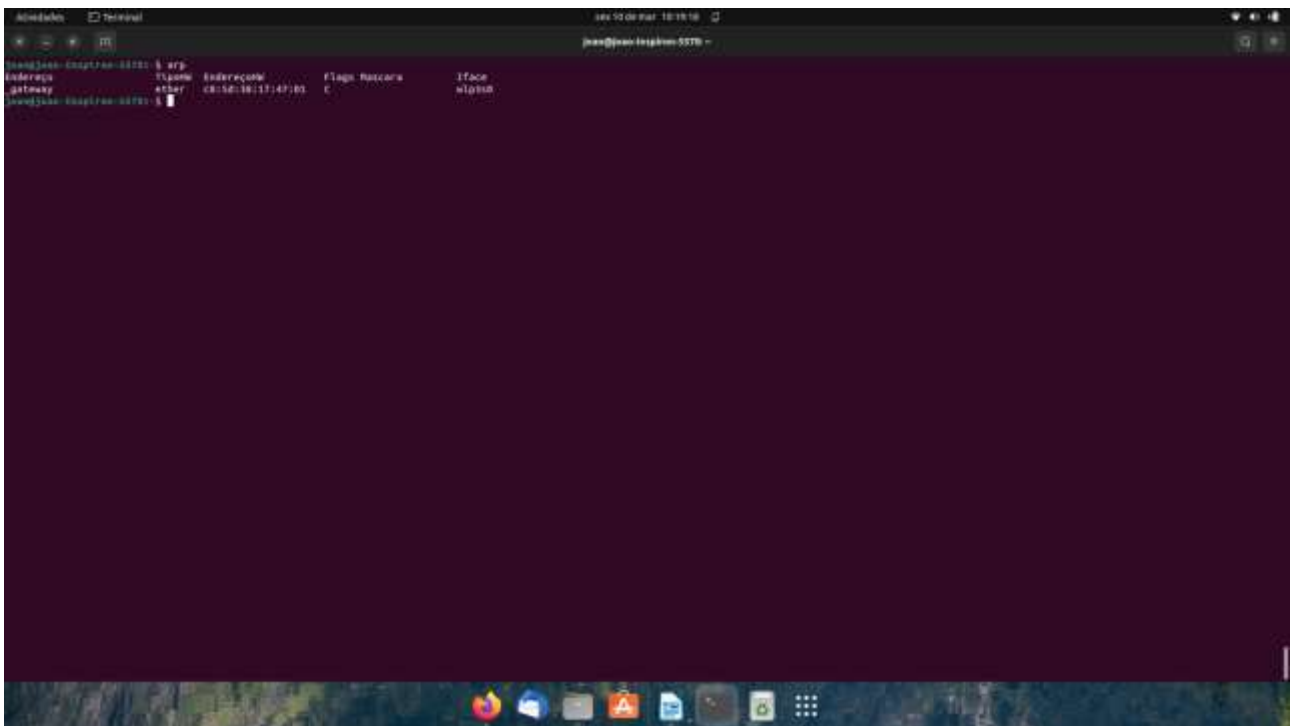
**hostname:** identifica o nome do computador



A terminal window titled 'Almalinux' with a dark purple background. The prompt is 'root@kali:~#'. The command 'hostname' has been entered, and the output is 'kali'. The terminal window is part of a desktop environment with a taskbar at the bottom showing various application icons.

```
Almalinux [~] root@kali:~# hostname
kali
root@kali:~#
```

**arp:** infos da rede



A terminal window titled 'Almalinux' with a dark purple background. The prompt is 'root@kali:~#'. The command 'arp' has been entered, and the output is a table showing network information. The table has five columns: 'endereço', 'nome', 'endereço', 'flags', and 'iface'. The first row shows 'gateway' with 'ether' as the name, 'C8:50:18:17:4F:85' as the address, 'C' as the flag, and 'wlp3s0' as the interface.

```
Almalinux [~] root@kali:~# arp
endereço  nome  endereço  flags  iface
gateway  ether  C8:50:18:17:4F:85  C      wlp3s0
root@kali:~#
```

**infoconfig:** informações da rede

```
root@kali:~# ifconfig
eth0: flags=4096<UP,BROADCAST,MULTICAST> mtu 1500
    ether 84:3f:ad:77:51:b4 txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (local loop)
    RX packets 884 bytes 107521 (107.5 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 884 bytes 107521 (107.5 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

wlan0: flags=4096<UP,BROADCAST,RUNNING,MULTICAST> mtu 1470
    inet 192.168.0.102 netmask 255.255.255.0 broadcast 192.168.0.255
    inet6 2004::40:a404:8c04:3740:8f0f:a04c:a070 prefixlen 64 scopeid 0x0<global>
    inet6 2004::40:a404:8c04:3740:8f0f:a04c:a070 prefixlen 64 scopeid 0x0<global>
    inet6 2004::40:a404:8c04:3740:8f0f:a04c:a070 prefixlen 64 scopeid 0x0<global>
    inet6 fe80::afcc:8b27:26cf:1969 prefixlen 64 scopeid 0x20<link>
    ether 84:32:a8:1c:a1:ec txqueuelen 1000 (Ethernet)
    RX packets 8875 bytes 9746881 (97.4 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 8388 bytes 833326 (812.1 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

root@kali:~#
```

ping: envia pacotes para determinado dominio para testar conexão

```
root@kali:~# ifconfig
eth0: flags=4096<UP,BROADCAST,MULTICAST> mtu 1500
    ether 84:3f:ad:77:51:b4 txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (local loop)
    RX packets 884 bytes 107521 (107.5 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 884 bytes 107521 (107.5 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

wlan0: flags=4096<UP,BROADCAST,RUNNING,MULTICAST> mtu 1470
    inet 192.168.0.102 netmask 255.255.255.0 broadcast 192.168.0.255
    inet6 2004::40:a404:8c04:3740:8f0f:a04c:a070 prefixlen 64 scopeid 0x0<global>
    inet6 2004::40:a404:8c04:3740:8f0f:a04c:a070 prefixlen 64 scopeid 0x0<global>
    inet6 2004::40:a404:8c04:3740:8f0f:a04c:a070 prefixlen 64 scopeid 0x0<global>
    inet6 fe80::afcc:8b27:26cf:1969 prefixlen 64 scopeid 0x20<link>
    ether 84:32:a8:1c:a1:ec txqueuelen 1000 (Ethernet)
    RX packets 8875 bytes 9746881 (97.4 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 8388 bytes 833326 (812.1 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

root@kali:~# ping google.com.br
PING google.com.br (2000:3fb:4004:800::2003) 32 data bytes
64 bytes from 2000:3fb:4004:800::2003 (2000:3fb:4004:800::2003): icmp_seq=1 ttl=54 time=35.5 ms
64 bytes from 2000:3fb:4004:800::2003 (2000:3fb:4004:800::2003): icmp_seq=2 ttl=54 time=36.5 ms
64 bytes from 2000:3fb:4004:800::2003 (2000:3fb:4004:800::2003): icmp_seq=3 ttl=54 time=36.0 ms
64 bytes from 2000:3fb:4004:800::2003 (2000:3fb:4004:800::2003): icmp_seq=4 ttl=54 time=36.5 ms
```

host: informação sobre determinado host





```
18 errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[seu@seu-laptop:~]$ ping google.com.br
PING google.com.br (2000:1f0:4004:000::2003) (2000:1f0:4004:000::2003) 60 data bytes
64 bytes from 2000:1f0:4004:000::2003: (2000:1f0:4004:000::2003): icmp_seq=1 ttl=64 time=30.5 ms
64 bytes from 2000:1f0:4004:000::2003: (2000:1f0:4004:000::2003): icmp_seq=2 ttl=64 time=30.5 ms
64 bytes from 2000:1f0:4004:000::2003: (2000:1f0:4004:000::2003): icmp_seq=3 ttl=64 time=30.5 ms
64 bytes from 2000:1f0:4004:000::2003: (2000:1f0:4004:000::2003): icmp_seq=4 ttl=64 time=30.5 ms
64 bytes from 2000:1f0:4004:000::2003: (2000:1f0:4004:000::2003): icmp_seq=5 ttl=64 time=30.5 ms
^C
--- google.com.br ping statistics ---
6 packets transmitted, 5 received, 10.00% packet loss, time 300ms
rtt min/avg/max/mdev = 30.492/27.147/38.437/1.764 ms
[seu@seu-laptop:~]$ host google.com.br
google.com.br has address 142.251.129.67
google.com.br has IPv6 address 2000:1f0:4004:000::2003
google.com.br mail is handled by 8 smtp.google.com.
[seu@seu-laptop:~]$ dig google.com.br

; <<<< DIG 9.10.4-Zebatsu2.1-0basta <<<< google.com.br
;
global options: +cmd
;
Set answer:
;
;;HEADER;; opcode: QUERY, status: NOERROR, id: 10710
;
Flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1
;
;; OPT PSEUDOSECTION:
;
EDNS: version 0, flags: udp: 65494
;
;; QUESTION SECTION:
;
google.com.br.                2M      A
;
;; ANSWER SECTION:
google.com.br.                140     2M      A      142.251.129.67
;
;
Query time: 8 msec
;
SERVER: 127.0.0.1 (127.0.0.1) (UDP)
;
WHEN: Fri Mar 30 18:22:09 -03 2018
;
MSG SIZE  rcvd: 56

[seu@seu-laptop:~]$ nslookup
nslookup: comando não encontrado
[seu@seu-laptop:~]$ nslookup google.com.br
Server:      127.0.0.1
Address:     127.0.0.1#53

Non-authoritative answer:
Name:   google.com.br
Address: 142.251.129.67
Name:   google.com.br
Address: 2000:1f0:4004:000::2003

[seu@seu-laptop:~]$
```

traceroute: informa o caminho de um pacote ate um determinado host

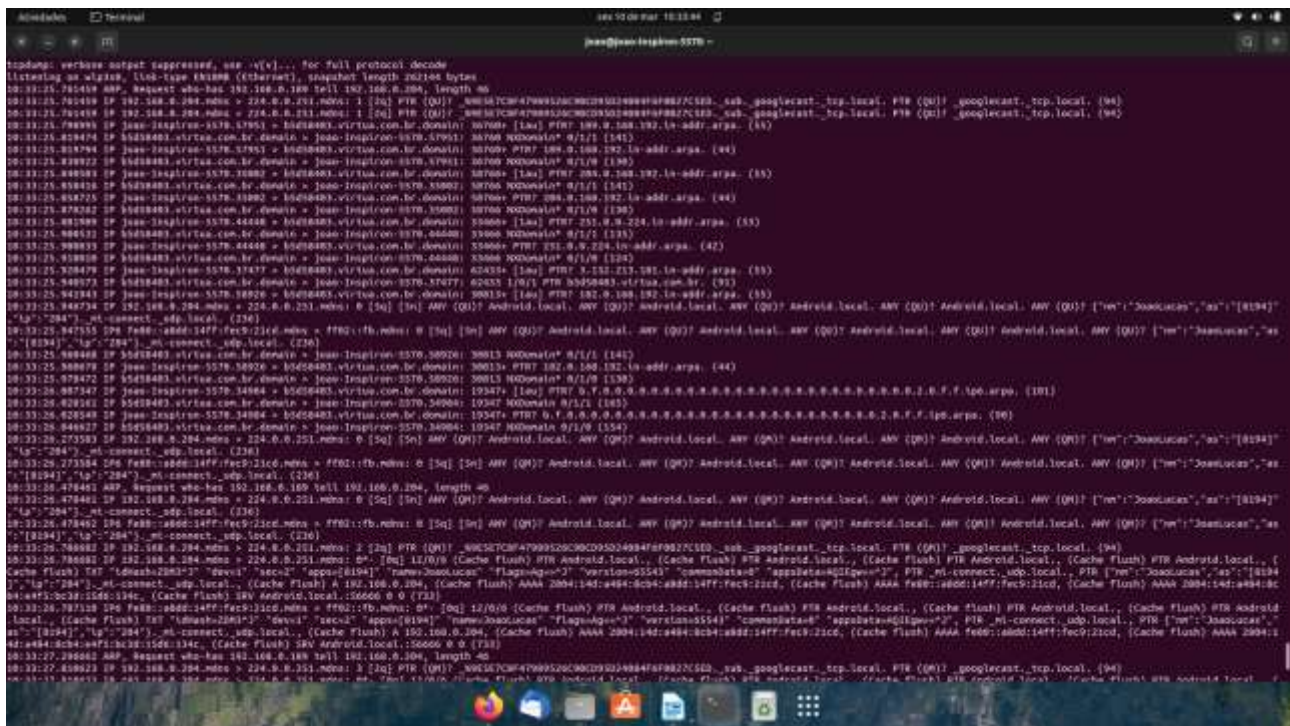
```
[seu@seu-laptop:~]$ traceroute google.com
traceroute to google.com (142.250.79.68), 30 hops max, 60 byte packets
 0  *gateway (192.168.0.1)  0.519 ms  0.429 ms  0.355 ms
 1  10.12.0.1 (10.12.0.1)  18.427 ms  18.419 ms  18.364 ms
 2  vishwanta.vishwa.com.br (170.155.74.105)  19.719 ms  19.161 ms  19.100 ms
 3  187.29.8.97 (187.29.8.97)  19.842 ms  201.19.0.16 (201.19.0.16)  18.079 ms  187.29.0.5 (187.29.0.5)  18.919 ms
 4  nrt-flg-10-core01-b3aa.embatel.net.br (200.244.00.93)  10.476 ms  nrt-flg-711-core01.5he.embatel.net.br (200.244.212.171)  18.428 ms  18.376 ms
 5  nrt-flg-711-core02.5aa.embatel.net.br (200.244.210.14)  10.319 ms  41.399 ms  pwr-054-agg03.rja.embatel.net.br (200.244.18.5)  41.343 ms
 6  nrt-bat03-tcore01.rja.embatel.net.br (200.244.216.11)  47.799 ms  nrt-0111-agg01.rja.embatel.net.br (200.244.18.6)  47.842 ms  41.343 ms
 7  pwr-054-agg03.rja.embatel.net.br (201.19.52.18)  47.360 ms  142.251.241.90 (142.251.241.90)  41.115 ms  nrt-0111-agg03.rja.embatel.net.br (200.244.18.6)  41.010 ms
 8  pwr-054-agg03.rja.embatel.net.br (201.19.52.18)  40.902 ms  40.899 ms  40.823 ms
 9  * * *
10  142.251.48.155 (142.251.48.155)  39.888 ms  142.251.48.157 (142.251.48.157)  40.036 ms  142.251.44.155 (142.251.44.155)  39.772 ms
11  * * 142.250.59.225 (142.250.59.225)  47.628 ms
12  * 142.250.19.117 (142.250.19.117)  47.464 ms  142.251.48.159 (142.251.48.159)  47.489 ms
13  * 142.251.48.155 (142.251.48.155)  47.385 ms *
14  * * *
15  * * *
16  * * *
17  * * *
18  * * *
19  * * *
20  * * *
21  * * *
22  * * *
23  * * *
24  * * *
25  * * *
26  * * *
27  * * *
28  * * *
29  * * *
30  * * *
```

tracpath: caminho

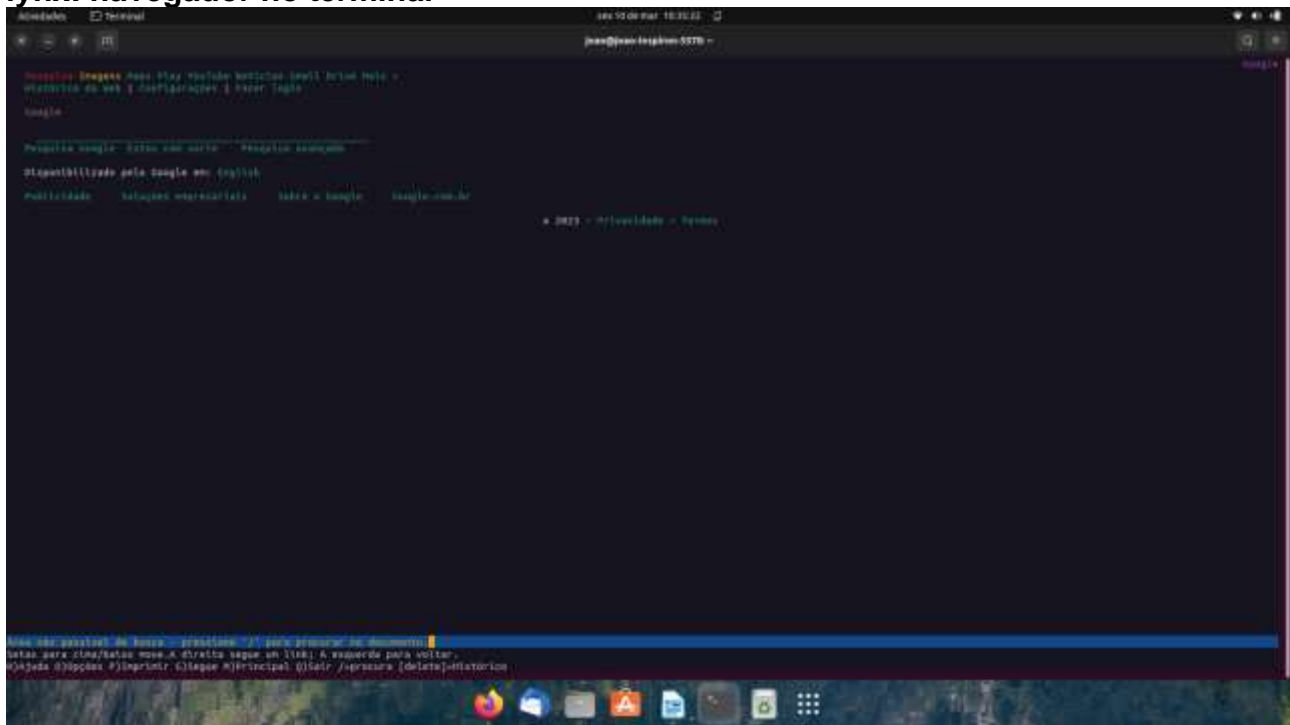








## lynx: navegador no terminal

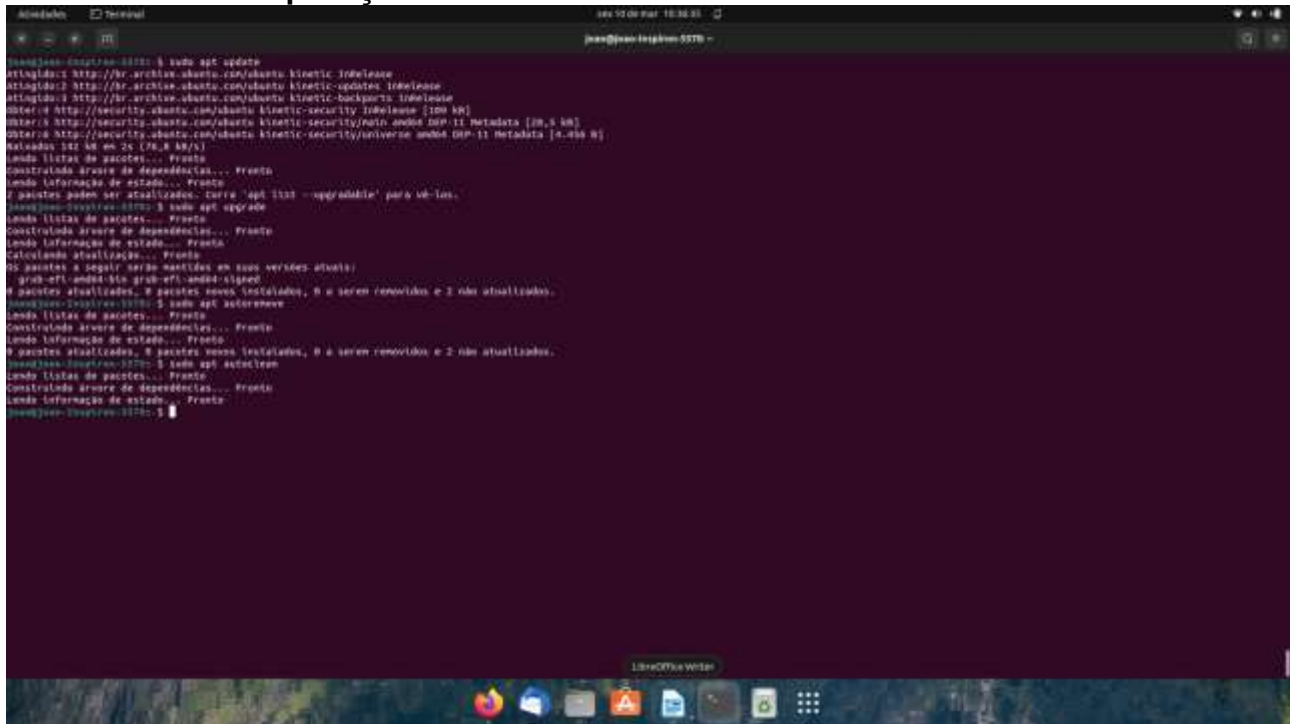


## Capítulo 10

**apt update:** atualiza a lista de repositórios e confere as aplicações

**apt upgrade:** atualiza as aplicações

**o restante exclui aplicações obsoletas**

A terminal window with a dark purple background and white text. The window title is "Terminal" and the prompt is "jane@jane-laptop: ~". The command "apt update" has been executed, and the output shows the process of updating package lists from various repositories, including the Ubuntu archive and security updates. It also shows the calculation of package dependencies and the status of packages to be upgraded. The output is as follows:

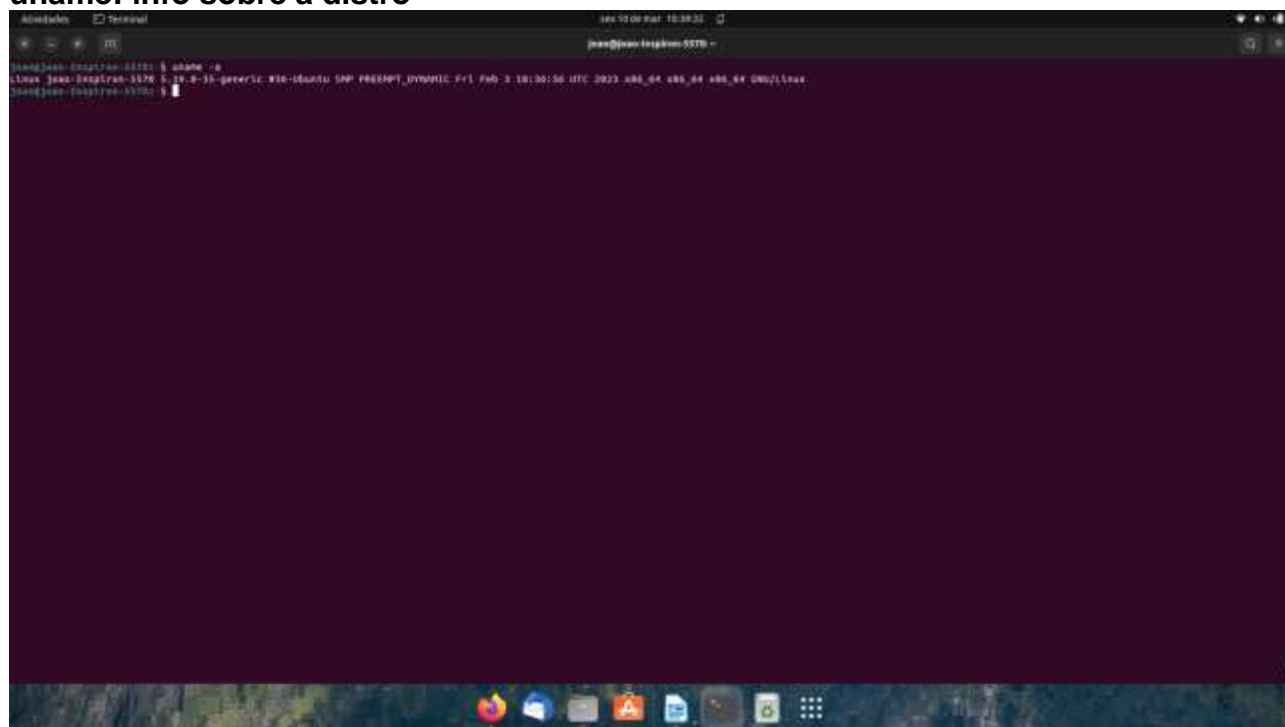
```
jane@jane-laptop:~$ apt update
Get:1 http://br.archive.ubuntu.com/ubuntu kinetic InRelease
Get:2 http://br.archive.ubuntu.com/ubuntu kinetic-updates InRelease
Get:3 http://br.archive.ubuntu.com/ubuntu kinetic-backports InRelease
Get:4 http://security.ubuntu.com/ubuntu kinetic-security InRelease [100 kB]
Get:5 http://security.ubuntu.com/ubuntu kinetic-security/main amd64 DEP-11 Metadata [0,0 kB]
Get:6 http://security.ubuntu.com/ubuntu kinetic-security/universe amd64 DEP-11 Metadata [0,0 kB]
Fetched 104 kB in 2s (36,8 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.
jane@jane-laptop:~$ apt upgrade
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
0 packages to be upgraded, 0 new ones to be installed, 0 to be removed and 0 not upgraded.
The following packages will be kept at their current version:
  grub-efi-amd64-bin grub-efi-amd64-signed
0 packages upgraded, 0 packages newly installed, 0 to be removed and 0 not upgraded.
jane@jane-laptop:~$ apt autoremove
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
0 packages upgraded, 0 packages newly installed, 0 to be removed and 0 not upgraded.
jane@jane-laptop:~$ apt install
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
```

**sudo apt install:** instala uma aplicação específica

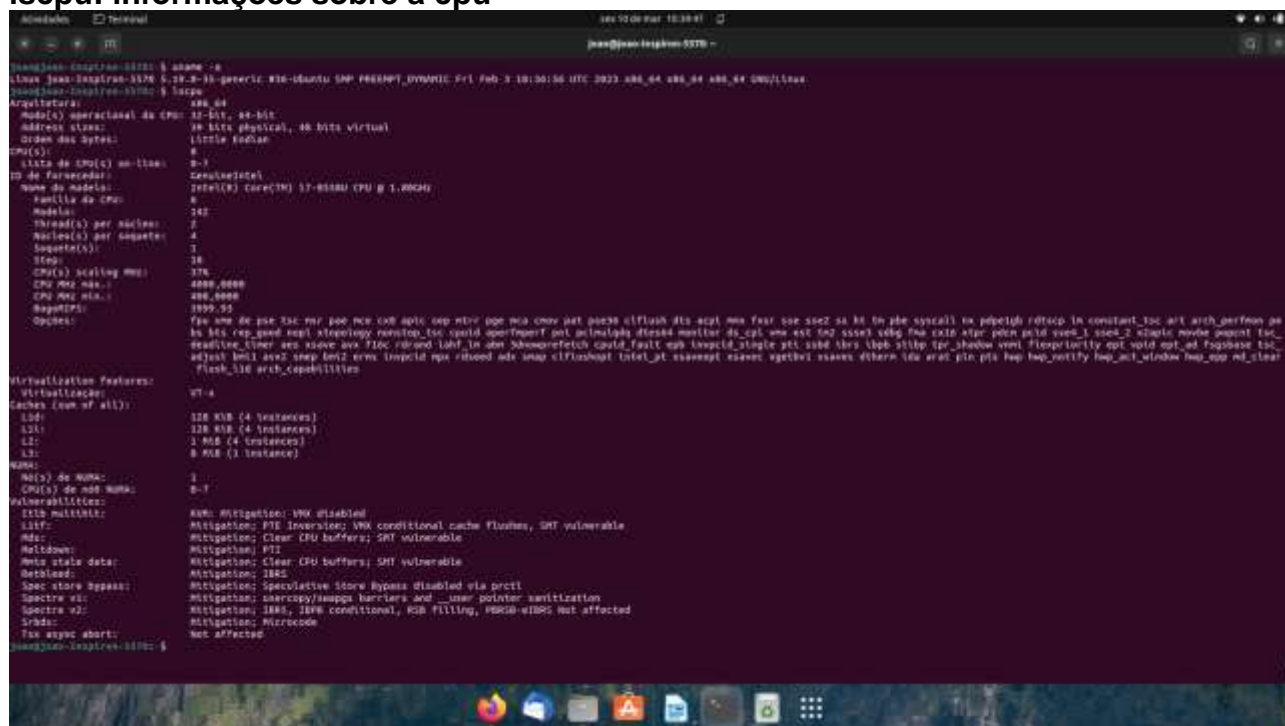
**apt remove:** exclui uma aplicação específica

## Capitulo 14

### uname: info sobre a distro



## lscpu: informações sobre a cpu



## lsusb: informações sobre dispositivos conectados





