



UNIVERSIDADE FEDERAL DE UBERLÂNDIA-UFU
FACULDADE DE ENGENHARIA MECÂNICA
ENGENHARIA MECATRÔNICA
SISTEMAS DIGITAIS PARA MECATRÔNICA



Relatório Semana 1

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Capítulo 1

Echo: Imprime uma frase no shell

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ echo teste
teste
```

Cat: Concatena arquivos

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ cat /etc/shells
# /etc/shells: valid login shells
/bin/sh
/bin/bash
/usr/bin/bash
/bin/rbash
/usr/bin/rbash
/usr/bin/sh
/bin/dash
/usr/bin/dash
```

History: Lista historico de comandos

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ history
1  ls
2  sudo ./VBoxLinuxAdditions.run
3  sudo reboot
4  echo
5  cd ./UFU
6  cd SEII-GabrielRodriguesBarbosa/
7  echo 'teste'
8  echo 'teste'
9  echo teste
```

History | grep: procura no histórico uma palavra

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ history | grep cd
5  cd ./UFU
6  cd SEII-GabrielRodriguesBarbosa/
18 history | grep cd
```

History -c : limpa o historico

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ history -c
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$
```

Sudo: coloca o usuário como administrador

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ sudo apt-update
[sudo] password for gabriel:
```

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

Capítulo 3

ls: exibe os arquivos do diretório atual

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ ls
README.md  Semana01
```

ls -l: exibe os arquivos uma entrada por linha

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ ls -l
README.md
Semana01
```

ls -l: imprime informações exatas

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ ls -l
total 8
-rw-rw-r-- 1 gabriel gabriel 123 mar  8 23:33 README.md
drwxrwxr-x 2 gabriel gabriel 4096 mar  8 23:32 Semana01
```

ls -ld: exibe informações do diretório atual

ls -a: apresenta arquivos ocultos

ls -F: classifica os arquivos

ls -s: lista os arquivos em tamanho em blocos

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ ls -ld
drwxrwxr-x 4 gabriel gabriel 4096 mar  8 23:33 .
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ ls -a
.  ..  .git  README.md  Semana01
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ ls -F
README.md  Semana01/
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ ls -s
total 8
4 README.md  4 Semana01
```

ls -h: exibe os arquivos com o tamanho em unidades

ls -R: exibe recursivamente o conteúdo

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ ls -h
README.md  Semana01
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ ls -R
.:
README.md  Semana01

./Semana01:
teste
```

cd ~ : vai rapidamente para o diretório home

cd .. : volta um diretório

pwd: exibe diretório atual

cp -r: copia hierarquias de arquivos~

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ cd ~
gabriel@gabriel-VirtualBox:~$ cd ..
gabriel@gabriel-VirtualBox:/home$ pwd
/home
gabriel@gabriel-VirtualBox:/home$ cp -r
```

touch: cria arquivos vazios.



rm: apaga arquivos.



Capítulo 4

echo: Exibe a string

cut: Seleciona uma parte da frase

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ echo 'Hello World'
Hello World
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ echo 'Hello World' | cut -c 1-5
Hello
```

seq: imprime sequência de números

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ seq 5
1
2
3
4
5
```

Capítulo 5

compgen: exibe todos os comandos disponíveis

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ compgen
```

whoami: exibe nome do usuário atual.

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ whoami
gabriel
```

id: Relaciona usuários e identificadores

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ id
uid=1000(gabriel) gid=1000(gabriel) groups=1000(gabriel),4(adn),24(cdrom),27(sudo),30(dip),46(plugdev),122(lpadmin),135(lxd),136(sambashare)
```

passwd: Usado para mudar a senha

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ passwd
Changing password for gabriel.
Current password:
```

users: Exibe os usuários logados

```
gabriel@gabriel-VirtualBox:~$ users
gabriel
```

finger: infos dos usuários cadastrados

```
gabriel@gabriel-VirtualBox:~$ finger gabriel
Login: gabriel                      Name: gabriel
Directory: /home/gabriel           Shell: /bin/bash
On since Sun Mar 12 17:14 (-03) on tty2 from tty2
      1 hour 2 minutes idle
No mail.
No Plan.
```

uname: Mostra informações do SO

free: mostra o uso de memória

```
gabriel@gabriel-VirtualBox:~$ uname
Linux
gabriel@gabriel-VirtualBox:~$ free
              total        used        free      shared  buff/cache   available
Mem:           4016928      1934312        618516         53052       1464100       1778804
Swap:          3991548         110684       3880864
```


Capítulo 6

ps: Mostra todos os comandos em execução

```
gabriel@gabriel-VirtualBox:~$ ps
  PID TTY          TIME CMD
 19368 pts/0    00:00:00 bash
 20149 pts/0    00:00:00 ps
```

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

```
gabriel@gabriel-VirtualBox:~$ ps -u
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
gabriel   1232  0.0  0.1 171036 5540 tty2    Ssl+ 17:14   0:00 /usr/libexec/gdm-wayland-session env GNOME_SHELL_SESSION_MODE=ubuntu /usr/bin/gnome-session --session=ubuntu
gabriel   1237  0.0  0.1 231680 13560 tty2    Sl+  17:14   0:00 /usr/libexec/gnome-session-binary --session=ubuntu
gabriel   19368  0.0  0.1 39932  5576 pts/0    Ss   18:14   0:00 bash
gabriel   20150  0.0  0.0 21324 3064 pts/0    R+   18:20   0:00 ps -u
gabriel@gabriel-VirtualBox:~$ ps -r
  PID TTY      STAT TIME COMMAND
 20151 pts/0    R+    0:00 ps -r
gabriel@gabriel-VirtualBox:~$ ps -m
  PID TTY          TIME CMD
 19368 pts/0    00:00:00 bash
  - - - - -
 20152 pts/0    00:00:00 ps
  - - - - -
gabriel@gabriel-VirtualBox:~$
```

pstree: Comandos em execução dispostos em árvore

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ pstree
systemd──┬─ModemManager──2*[{ModemManager}]
          ├──NetworkManager──2*[{NetworkManager}]
          ├──VBoxDRMClient──4*[{VBoxDRMClient}]
          ├──VBoxService──8*[{VBoxService}]
          ├──accounts-daemon──2*[{accounts-daemon}]
          ├──acpid
          ├──avahi-daemon──avahi-daemon
          └─colord──2*[{colord}]
```

top: informações sobre os processos em execução

```
top - 18:23:58 up 1:09, 1 user, load average: 0.63, 0.77, 0.87
Tasks: 238 total, 1 running, 237 sleeping, 0 stopped, 0 zombie
%Cpu(s): 1.0 us, 6.8 sy, 0.0 ni, 92.2 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 3922.8 total, 557.1 free, 1920.7 used, 1445.0 buff/cache
MiB Swap: 3898.0 total, 3789.9 free, 108.1 used. 1699.4 avail Mem

  PID USER      PR  NI   VIRT   RES   SHR S  %CPU  %MEM    TIME+  COMMAND
 1345 gabriel   20   0 5705956 453796 107564 S   20.9   11.3  10:47.79 gnome-shell
 19350 gabriel   20   0 568260  57108  44424 S    5.3    1.4   0:08.51 gnome-terminal-
```


kill: Mata um determinado processo

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ kill -l
 1) SIGHUP      2) SIGINT      3) SIGQUIT     4) SIGILL      5) SIGTRAP
 6) SIGABRT     7) SIGBUS      8) SIGFPE      9) SIGKILL     10) SIGUSR1
11) SIGSEGV     12) SIGUSR2    13) SIGPIPE    14) SIGALRM     15) SIGTERM
16) SIGSTKFLT   17) SIGCHLD    18) SIGCONT     19) SIGSTOP     20) SIGTSTP
21) SIGTTIN     22) SIGTTOU    23) SIGURG      24) SIGXCPU     25) SIGXFSZ
26) SIGVTALRM   27) SIGPROF    28) SIGWINCH    29) SIGIO        30) SIGPWR
31) SIGSYS      34) SIGRTMIN   35) SIGRTMIN+1  36) SIGRTMIN+2  37) SIGRTMIN+3
38) SIGRTMIN+4  39) SIGRTMIN+5 40) SIGRTMIN+6  41) SIGRTMIN+7  42) SIGRTMIN+8
43) SIGRTMIN+9  44) SIGRTMIN+10 45) SIGRTMIN+11 46) SIGRTMIN+12 47) SIGRTMIN+13
48) SIGRTMIN+14 49) SIGRTMIN+15 50) SIGRTMAX-14 51) SIGRTMAX-13 52) SIGRTMAX-12
53) SIGRTMAX-11 54) SIGRTMAX-10 55) SIGRTMAX-9  56) SIGRTMAX-8  57) SIGRTMAX-7
58) SIGRTMAX-6  59) SIGRTMAX-5  60) SIGRTMAX-4  61) SIGRTMAX-3  62) SIGRTMAX-2
63) SIGRTMAX-1  64) SIGRTMAX
```

Capítulo 9

hostname: descobre o nome do pc

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ hostname
gabriel-VirtualBox
```

arp: Infos de MAC e ip

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ arp
Address          HWtype  HWaddress      Flags Mask    Iface
_gateway         ether    52:54:00:12:35:02    C             enp0s3
```

ifconfig: Fornece as infos do endereço IP

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
    inet 10.0.2.15  netmask 255.255.255.0  broadcast 10.0.2.255
    inet6 fe80::8e36:58b6:2c11:97c6  prefixlen 64  scopeid 0x20<link>
    ether 08:00:27:36:78:fc  txqueuelen 1000  (Ethernet)
    RX packets 63571  bytes 75172839 (75.1 MB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 16216  bytes 4148588 (4.1 MB)
    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 Loopback)
    RX packets 1783  bytes 192515 (192.5 KB)
    RX errors 0  dropped 0  overruns 0  frame 0
    TX packets 1783  bytes 192515 (192.5 KB)
    TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
```

ping: mostra a latência para conectar com algum servidor

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ ping www.globo.com
PING home.cache.aws.cloud.globo (186.192.81.5) 56(84) bytes of data:
64 bytes from 186-192-81-5.prt.globo.com (186.192.81.5): icmp_seq=1 ttl=246 time=15.1 ms
64 bytes from 186-192-81-5.prt.globo.com (186.192.81.5): icmp_seq=2 ttl=246 time=14.3 ms
64 bytes from 186-192-81-5.prt.globo.com (186.192.81.5): icmp_seq=3 ttl=246 time=14.3 ms
64 bytes from 186-192-81-5.prt.globo.com (186.192.81.5): icmp_seq=4 ttl=246 time=14.6 ms
64 bytes from 186-192-81-5.prt.globo.com (186.192.81.5): icmp_seq=5 ttl=246 time=14.0 ms
64 bytes from 186-192-81-5.prt.globo.com (186.192.81.5): icmp_seq=6 ttl=246 time=14.3 ms
```

host: descobre o endereço de IP de um determinado servidor

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ host www.globo.com
www.globo.com is an alias for home.cache.aws.cloud.globo.
home.cache.aws.cloud.globo has address 186.192.81.5
```

dig: Infos de domínios

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ dig www.globo.com

;<<>> DiG 9.18.1-1ubuntu1.3-Ubuntu <<>> www.globo.com
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 60838
;; flags: qr rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 1, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
;; EDNS: version: 0, flags:; udp: 65494
;; QUESTION SECTION:
;www.globo.com.                IN      A

;; ANSWER SECTION:
www.globo.com.                331     IN      CNAME   home.cache.aws.cloud.globo.
home.cache.aws.cloud.globo. 19      IN      A       186.192.81.5

;; AUTHORITY SECTION:
aws.cloud.globo.              331     IN      SOA      ns-179.awsdns-22.com. supso.g.globo. 1 7200 900 1209600 86400

;; Query time: 39 msec
;; SERVER: 127.0.0.53#53(127.0.0.53) (UDP)
;; WHEN: Sun Mar 12 18:30:52 -03 2023
;; MSG SIZE rcvd: 159
```

nslookup: mais informações de domínios

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ nslookup www.globo.com
Server:                127.0.0.53
Address:               127.0.0.53#53

Non-authoritative answer:
www.globo.com  canonical name = home.cache.aws.cloud.globo.
Name:   home.cache.aws.cloud.globo
Address: 186.192.81.5
```

traceroute: Exibe os caminhos do servidor até um destino

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ traceroute www.globo.com
traceroute to www.globo.com (186.192.81.5), 30 hops max, 60 byte packets
 1  _gateway (10.0.2.2)  8.521 ms  7.890 ms  7.418 ms
 2  _gateway (10.0.2.2)  6.840 ms  6.414 ms  5.924 ms
```

tracpath: simplificação do comando anterior

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ tracpath www.globo.com
1?: [LOCALHOST] pmtu 1500
1:  _gateway 6.388ms
1:  _gateway 0.482ms
2:  _gateway 2.212ms reached
Resume: pmtu 1500 hops 2 back 1
```


Capítulo 10

apt update: atualiza pacotes

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ sudo apt update
Hit:1 http://br.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://br.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:3 http://br.archive.ubuntu.com/ubuntu jammy-backports InRelease [107 kB]
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:5 http://br.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [943 kB]
Get:6 http://security.ubuntu.com/ubuntu jammy-security/main i386 Packages [270 kB]
Get:7 http://br.archive.ubuntu.com/ubuntu jammy-updates/main i386 Packages [455 kB]
Get:8 http://br.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [204 kB]
Get:9 http://br.archive.ubuntu.com/ubuntu jammy-updates/main amd64 DEP-11 Metadata [101 kB]
Get:10 http://br.archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata [13,6 kB]
Get:11 http://br.archive.ubuntu.com/ubuntu jammy-updates/universe i386 Packages [603 kB]
Get:12 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [687 kB]
Get:13 http://br.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [883 kB]
Get:14 http://br.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [174 kB]
Get:15 http://br.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 DEP-11 Metadata [269 kB]
Get:16 http://br.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [18,0 kB]
Get:17 http://br.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 DEP-11 Metadata [940 B]
Get:18 http://br.archive.ubuntu.com/ubuntu jammy-backports/main amd64 DEP-11 Metadata [7.996 B]
Get:19 http://br.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 DEP-11 Metadata [12,4 kB]
Get:20 http://security.ubuntu.com/ubuntu jammy-security/main Translation-en [141 kB]
Get:21 http://security.ubuntu.com/ubuntu jammy-security/main amd64 DEP-11 Metadata [41,6 kB]
Get:22 http://security.ubuntu.com/ubuntu jammy-security/main amd64 c-n-f Metadata [8.832 B]
Get:23 http://security.ubuntu.com/ubuntu jammy-security/universe i386 Packages [515 kB]
Get:24 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [702 kB]
Get:25 http://security.ubuntu.com/ubuntu jammy-security/universe Translation-en [112 kB]
Get:26 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 DEP-11 Metadata [17,0 kB]
Get:27 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 c-n-f Metadata [13,6 kB]
Fetched 6.529 kB in 10s (683 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
57 packages can be upgraded. Run 'apt list --upgradable' to see them.
```

apt upgrade: atualiza pacotes do sistema

```
gabriel@gabriel-VirtualBox:~/UFU/SEII-GabrielRodriguesBarbosa$ sudo apt upgrade
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following packages will be upgraded:
  evince evince-common fonts-opensymbol gir1.2-pango-1.0 isc-dhcp-client isc-dhcp-common libevdocu
  libpangoft2-1.0-0 libpangoxft-1.0-0 libqmi-glib5 libqmi-proxy libreoffice-base-core libreoffice-c
  libreoffice-impress libreoffice-math libreoffice-ogltrans libreoffice-pdfimport libreoffice-style
  libreoffice-writer libsasl2-2 libsasl2-modules libsasl2-modules-db libsasl2-modules-gssapi-mit l
  libuno-salhelpergcc3-3 modemmanager python3-lldb python3-macaronbakery python3-software-propertie
  ubuntu-advantage-tools uno-libs-private ure
57 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
2 standard LTS security updates
Need to get 59,5 MB/114 MB of archives.
After this operation, 1.060 kB of additional disk space will be used.
```

apt install: instalador de pacotes

```
gabriel@gabriel-VirtualBox: ~/UFU/SEII-GabrielRodriguesBarbosa$ sudo apt install vim
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  vim-runtime
Suggested packages:
  ctags vim-doc vim-scripts
The following NEW packages will be installed:
  vim vim-runtime
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.
Need to get 8.552 kB of archives.
After this operation, 37,6 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://br.archive.ubuntu.com/ubuntu jammy-updates/main amd64 vim-runtime all 2:8.2.3995-1ubuntu2.3 [6.825 kB]
Get:2 http://br.archive.ubuntu.com/ubuntu jammy-updates/main amd64 vim amd64 2:8.2.3995-1ubuntu2.3 [1.727 kB]
Fetched 8.552 kB in 3s (2.631 kB/s)
Selecting previously unselected package vim-runtime.
(Reading database ... 198938 files and directories currently installed.)
Preparing to unpack .../vim-runtime_2%3a8.2.3995-1ubuntu2.3_all.deb ...
Adding 'diversion of /usr/share/vim/vim82/doc/help.txt to /usr/share/vim/vim82/doc/help.txt.vim-tiny by vim-runtime'
Adding 'diversion of /usr/share/vim/vim82/doc/tags to /usr/share/vim/vim82/doc/tags.vim-tiny by vim-runtime'
Unpacking vim-runtime (2:8.2.3995-1ubuntu2.3) ...
Selecting previously unselected package vim.
Preparing to unpack .../vim_2%3a8.2.3995-1ubuntu2.3_amd64.deb ...
Unpacking vim (2:8.2.3995-1ubuntu2.3) ...
Setting up vim-runtime (2:8.2.3995-1ubuntu2.3) ...
Setting up vim (2:8.2.3995-1ubuntu2.3) ...
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vim (vim) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vimdiff (vimdiff) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/rvim (rvim) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/rview (rview) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vi (vi) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/view (view) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/ex (ex) in auto mode
Processing triggers for man-db (2.10.2-1) ...
```

apt remove: deleta um pacote

```
gabriel@gabriel-VirtualBox: ~/UFU/SEII-GabrielRodriguesBarbosa$ sudo apt remove vim
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following package was automatically installed and is no longer required:
  vim-runtime
Use 'sudo apt autoremove' to remove it.
The following packages will be REMOVED:
  vim
0 upgraded, 0 newly installed, 1 to remove and 0 not upgraded.
After this operation, 4.011 kB disk space will be freed.
Do you want to continue? [Y/n] y
(Reading database ... 200879 files and directories currently installed.)
Removing vim (2:8.2.3995-1ubuntu2.3) ...
update-alternatives: using /usr/bin/vim.tiny to provide /usr/bin/vi (vi) in auto mode
update-alternatives: using /usr/bin/vim.tiny to provide /usr/bin/view (view) in auto mode
update-alternatives: using /usr/bin/vim.tiny to provide /usr/bin/ex (ex) in auto mode
update-alternatives: using /usr/bin/vim.tiny to provide /usr/bin/rview (rview) in auto mode
```


Capítulo 14

uname: Informações da distribuição

```
gabriel@gabriel-VirtualBox: ~/UPU/SE11-GabrielRodriguesBarbosa$ uname -a
Linux gabriel-VirtualBox 5.19.0-35-generic #36-22.04.1-Ubuntu SMP PREEMPT_DYNAMIC Fri Feb 17 15:17:25 UTC 2 x86_64 x86_64 x86_64 GNU/Linux
```

lscpu: Informações sobre processos

```
gabriel@gabriel-VirtualBox: ~/UPU/SE11-GabrielRodriguesBarbosa$ lscpu
Architecture: x86_64
CPU op-mode(s): 32-bit, 64-bit
Address sizes: 39 bits physical, 48 bits virtual
Byte Order: Little Endian
CPU(s): 5
On-line CPU(s) list: 0-4
Vendor ID: GenuineIntel
Model name: Intel(R) Core(TM) i7-10750H CPU @ 2.60GHz
CPU family: 6
Model: 165
Thread(s) per core: 1
Core(s) per socket: 5
Socket(s): 1
Stepping: 2
BogoMIPS: 5184.00
Flags: fpu_vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush mmx fxsr sse sse2 ht syscall nx rdtscp lm constant_tsc
sc_known_freq pni pclmulqdq ssse3 cx16 pcid sse4_1 sse4_2 movbe popcnt aes rdrand hypervisor lahf_lm abm 3dnowprefetch invpcid_single
eet clflushopt md_clear flush_lid arch_capabilities

Virtualization features:
Hypervisor vendor: KVM
Virtualization type: full
Caches (sum of all):
L1d: 160 KiB (5 instances)
L1i: 160 KiB (5 instances)
L2: 1,3 MiB (5 instances)
L3: 00 MiB (5 instances)
NUMA:
NUMA node(s): 1
NUMA node0 CPU(s): 0-4
Vulnerabilities:
Itlb multihit: Not affected
L1tf: Not affected
Mds: Not affected
Meltdown: Not affected
Mmio stale data: Vulnerable: Clear CPU buffers attempted, no microcode; SMT Host state unknown
Retbleed: Mitigation; Enhanced IBRS
Spec store bypass: Vulnerable
Spectre v1: Mitigation; usercopy/swapgs barriers and __user pointer sanitization
Spectre v2: Mitigation; Enhanced IBRS, RSB filling, PBR5B-eIBRS SW sequence
Srbds: Unknown: Dependent on hypervisor status
Tsx aborts: Not affected
```

lsusb: Informações de portas USB

lspci: Informações de portas PCI.

htop: Informações de memória

```
0[|||||] 2.0M 3[|||||]
1[|||||] 3.2M 4[|||||]
2[|||||] 1.9M Tasks: 134, 582 thr; 1 running
Mem[|||||] [2.03G/3.83G] Load average: 0.24 0.75 0.90
Swap[|||||] [142M/3.81G] Uptime: 01:33:25

PID USER PRI NI VIRT RES SHR S CPU% MEM% TIME+ Command
25495 gabriel 20 0 20888 5964 3756 R 0.0 0.1 0:00.18 htop
1 root 20 0 164M 12216 7224 S 0.0 0.3 0:03.92 /sbin/init splash
273 root 20 0 40144 16580 15120 S 0.0 0.4 0:01.35 /lib/systemd/systemd-journald
317 root 20 0 20852 5948 3516 S 0.0 0.1 0:00.38 /lib/systemd/systemd-udevd
556 systemd-o 20 0 14828 5556 4764 S 0.0 0.1 0:06.98 /lib/systemd/systemd-oomd
558 systemd-r 20 0 25392 12476 8408 S 0.0 0.3 0:01.23 /lib/systemd/systemd-resolved
674 systemd-t 20 0 89380 5856 5000 S 0.0 0.1 0:00.10 /lib/systemd/systemd-timesyncd
675 systemd-t 20 0 89380 5856 5000 S 0.0 0.1 0:00.00 /lib/systemd/systemd-timesyncd
677 root 20 0 2424 7092 6244 S 0.0 0.2 0:00.54 /usr/libexec/accounts-daemon
678 root 20 0 2812 1140 1052 S 0.0 0.0 0:00.46 /usr/sbin/acpid
681 avahi 20 0 7628 3364 3020 S 0.0 0.1 0:00.17 avahi-daemon: running [gabriel-VirtualBox.local]
682 root 20 0 18148 3012 2756 S 0.0 0.1 0:00.02 /usr/sbin/cron -f -P
683 messagebu 20 0 11120 6464 3940 S 0.0 0.2 0:03.38 @dbus-daemon --system --address=systemd: --nofork --nopidfile --systemd-activation --syslog-only
685 root 20 0 263M 15524 12452 S 0.0 0.4 0:00.80 /usr/sbin/NetworkManager --no-daemon
692 root 20 0 82764 3596 3260 S 0.0 0.1 0:00.23 /usr/sbin/irqbalance --foreground
```

hwinfo: utilizado para listar informações sobre todos os dispositivos de Hardware de seu computador.