

**Universidade Federal de Uberlândia  
Faculdade de Engenharia Mecânica**

**Sistemas Digitais**

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## Comandos do linux

**ls** – Lista arquivos e diretórios

```
artur@artur-Virtual-Machine:~/Desktop/sdg$ ls
SEII-Artur-Martins-Alves
artur@artur-Virtual-Machine:~/Desktop/sdg$
```

**man** – Descreve o “manual” de um comando

```
LS(1)                                User Commands                                LS(1)

NAME
  Visual Studio Code directory contents

SYNOPSIS
  ls [OPTION]... [FILE]...

DESCRIPTION
  List information about the FILES (the current directory by default).
  Sort entries alphabetically if none of -cftuvSUX nor --sort is speci-
  fied.

  Mandatory arguments to long options are mandatory for short options
  too.
```

**Clear** – Limpa a tela de comandos prévios

**mkdir** – Cria diretório

**cd** – Acessa um determinado diretório

**pwd** – Mostra o diretório completo.

```
artur@artur-Virtual-Machine: ~/Desktop/sdg
artur@artur-Virtual-Machine:~/Desktop/sdg$ pwd
/home/artur/Desktop/sdg
artur@artur-Virtual-Machine:~/Desktop/sdg$
```

**whoami** - Mostra o usuário do linux.

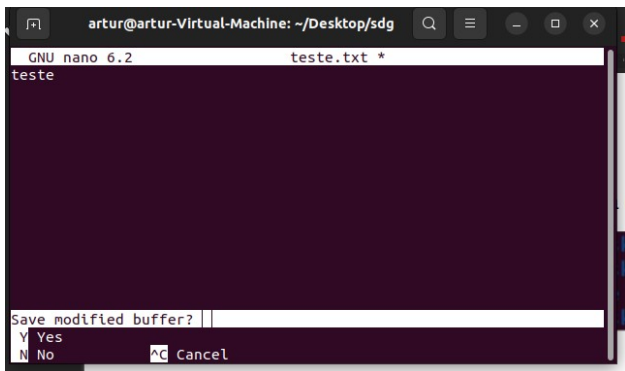
```
artur@artur-Virtual-Machine:~/Desktop/sdg$ whoami
artur
artur@artur-Virtual-Machine:~/Desktop/sdg$
```

Para criar pastas com nome composto basta usar o comando **mkdir** porém utilizar aspas.

```
artur@artur-Virtual-Machine:~/Desktop/sdg$ mkdir 'teste sdg'
artur@artur-Virtual-Machine:~/Desktop/sdg$ ls
SEII-Artur-Martins-Alves  'teste sdg'
artur@artur-Virtual-Machine:~/Desktop/sdg$
```

**Touch** – cria arquivo.

**nano** – Edita arquivo de texto.



**Cat** – Usado para ver conteúdo de arquivos

```
artur@artur-Virtual-Machine:~/Desktop/sdg$ pwd
/home/artur/Desktop/sdg
artur@artur-Virtual-Machine:~/Desktop/sdg$ whoami
artur
artur@artur-Virtual-Machine:~/Desktop/sdg$ mkdir 'teste sdg'
artur@artur-Virtual-Machine:~/Desktop/sdg$ ls
SEII-Artur-Martins-Alves  'teste sdg'
artur@artur-Virtual-Machine:~/Desktop/sdg$ touch teste.txt
artur@artur-Virtual-Machine:~/Desktop/sdg$ nano teste.txt
artur@artur-Virtual-Machine:~/Desktop/sdg$ cat teste.txt
teste
artur@artur-Virtual-Machine:~/Desktop/sdg$
```

**mv** – usado para alterar o nome de um arquivo.

```
artur@artur-Virtual-Machine:~/Desktop/sdg$ mkdir 'teste sdg'
artur@artur-Virtual-Machine:~/Desktop/sdg$ ls
SEII-Artur-Martins-Alves  'teste sdg'
artur@artur-Virtual-Machine:~/Desktop/sdg$ touch teste.txt
artur@artur-Virtual-Machine:~/Desktop/sdg$ nano teste.txt
artur@artur-Virtual-Machine:~/Desktop/sdg$ cat teste.txt
teste
artur@artur-Virtual-Machine:~/Desktop/sdg$ mv teste.txt modifica.txt
artur@artur-Virtual-Machine:~/Desktop/sdg$ ls]
Command 'ls]' not found, did you mean:
  command 'lsd' from snap lsd (0.16.0)
  command 'lsc' from deb livescript (1.6.1+dfsg-2)
  command 'lsw' from deb suckless-tools (46-1)
  command 'lsh' from deb lsh-client (2.1-13)
  command 'ls' from deb coreutils (8.32-4.1ubuntu1.2)
  command 'lsm' from deb lsm (1.0.4-2)
See 'snap info <snapname>' for additional versions.
artur@artur-Virtual-Machine:~/Desktop/sdg$ ls
modifica.txt  SEII-Artur-Martins-Alves  'teste sdg'
artur@artur-Virtual-Machine:~/Desktop/sdg$
```

**Cp** – copia um arquivo para um diretório específico.

**Find** – Acha um arquivo a partir do nome.

**Head** – Mostra as primeiras linhas de um arquivo de texto.

**tail** – Mostra as ultimas linhas de um arquivo de texto.

**Less** – Mostra o arquivo em partes, sem necessitar carrega-lo todo na memória.

**Rm** – remove um arquivo.

```
artur@artur-Virtual-Machine: ~/Desktop/sdg$ cat teste.txt
teste
artur@artur-Virtual-Machine: ~/Desktop/sdg$ mv teste.txt modifica.txt
artur@artur-Virtual-Machine: ~/Desktop/sdg$ ls]
Command 'ls]' not found, did you mean:
  command 'lsd' from snap lsd (0.16.0)
  command 'lsc' from deb livescript (1.6.1+dfsg-2)
  command 'lsw' from deb suckless-tools (46-1)
  command 'lsh' from deb lsh-client (2.1-13)
  command 'ls' from deb coreutils (8.32-4.1ubuntu1.2)
  command 'lsm' from deb lsm (1.0.4-2)
See 'snap info <snapname>' for additional versions.
artur@artur-Virtual-Machine: ~/Desktop/sdg$ ls
modifica.txt  SEII-Artur-Martins-Alves  'teste sdg'
artur@artur-Virtual-Machine: ~/Desktop/sdg$ rmdir 'teste sdg'
artur@artur-Virtual-Machine: ~/Desktop/sdg$ ls
modifica.txt  SEII-Artur-Martins-Alves
artur@artur-Virtual-Machine: ~/Desktop/sdg$ rm modifica.txt
artur@artur-Virtual-Machine: ~/Desktop/sdg$ ls
SEII-Artur-Martins-Alves
artur@artur-Virtual-Machine: ~/Desktop/sdg$
```

**Rmdir** - remove um diretório.

```
SEII-Artur-Martins-Alves teste sdg
artur@artur-Virtual-Machine: ~/Desktop/sdg$ touch teste.txt
artur@artur-Virtual-Machine: ~/Desktop/sdg$ nano teste.txt
artur@artur-Virtual-Machine: ~/Desktop/sdg$ cat teste.txt
teste
artur@artur-Virtual-Machine: ~/Desktop/sdg$ mv teste.txt modifica.txt
artur@artur-Virtual-Machine: ~/Desktop/sdg$ ls]
Command 'ls]' not found, did you mean:
  command 'lsd' from snap lsd (0.16.0)
  command 'lsc' from deb livescript (1.6.1+dfsg-2)
  command 'lsw' from deb suckless-tools (46-1)
  command 'lsh' from deb lsh-client (2.1-13)
  command 'ls' from deb coreutils (8.32-4.1ubuntu1.2)
  command 'lsm' from deb lsm (1.0.4-2)
See 'snap info <snapname>' for additional versions.
artur@artur-Virtual-Machine: ~/Desktop/sdg$ ls
modifica.txt  SEII-Artur-Martins-Alves  'teste sdg'
artur@artur-Virtual-Machine: ~/Desktop/sdg$ rmdir 'teste sdg'
artur@artur-Virtual-Machine: ~/Desktop/sdg$ ls
modifica.txt  SEII-Artur-Martins-Alves
artur@artur-Virtual-Machine: ~/Desktop/sdg$
```

**rm -rf** – remove um diretório e força a remoção recursiva.

**Hostname** – retorna o nome do seu dispositivo na rede.

```
artur@artur-Virtual-Machine: ~/Desktop/sdg
artur@artur-Virtual-Machine: ~/Desktop/sdg$ hostname
artur-Virtual-Machine
artur@artur-Virtual-Machine: ~/Desktop/sdg$
```

**Ip -a** – retorna todas as informações relacionadas a ip do computador.

```
artur@artur-Virtual-Machine: ~/Desktop/sdg
artur@artur-Virtual-Machine:~/Desktop/sdg$ hostname
artur-Virtual-Machine
artur@artur-Virtual-Machine:~/Desktop/sdg$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000
    link/ether 00:15:5d:00:67:01 brd ff:ff:ff:ff:ff:ff
    inet 172.22.51.172/20 brd 172.22.63.255 scope global dynamic noprefixroute eth0
        valid_lft 80488sec preferred_lft 80488sec
    inet6 fe80::f9cf:409f:7337:71f7/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
artur@artur-Virtual-Machine:~/Desktop/sdg$
```

**Ip a | grep inet** – Retorna a lista de ip's conectados na rede.

```
artur@artur-Virtual-Machine:~/Desktop/sdg$ ip a | grep inet
inet 127.0.0.1/8 scope host lo
inet6 ::1/128 scope host
inet 172.22.51.172/20 brd 172.22.63.255 scope global dynamic noprefixroute eth0
inet6 fe80::f9cf:409f:7337:71f7/64 scope link noprefixroute
artur@artur-Virtual-Machine:~/Desktop/sdg$
```

**Ping** - faz um ping em um servidor determinado.

```
artur@artur-Virtual-Machine:~/Desktop/sdg$ ping google.com
PING google.com (172.217.29.174) 56(84) bytes of data.
64 bytes from gru10s02-in-f174.1e100.net (172.217.29.174): icmp_seq=1 ttl=57 time=18.8 ms
64 bytes from gru10s02-in-f174.1e100.net (172.217.29.174): icmp_seq=2 ttl=57 time=20.9 ms
```

**Free -h & free -m** – retorna o uso de memória do dispositivo livre.

```
artur@artur-Virtual-Machine:~/Desktop/sdg$ free -h
              total        used        free      shared  buff/cache   available
Mem:           9,2Gi         2,3Gi         2,5Gi         122Mi         4,4Gi         6,5Gi
Swap:          3,8Gi           0B         3,8Gi
artur@artur-Virtual-Machine:~/Desktop/sdg$
```

**Top** - Gerenciador de tarefas do linux.

```
artur@artur-Virtual-Machine: ~/Desktop/sdg/SEII-Artur-Mar...
top - 16:04:45 up 43 min, 1 user, load average: 0,11, 0,56, 0,56
Tasks: 233 total, 1 running, 232 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0,2 us, 0,0 sy, 0,0 ni, 99,8 id, 0,0 wa, 0,0 hi, 0,0 si, 0,0 st
MiB Mem : 7612,7 total, 672,1 free, 1837,4 used, 5103,2 buff/cache
MiB Swap: 3898,0 total, 3897,0 free, 1,0 used, 5303,3 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM    TIME+  COMMAND
 848 root        20   0   558156 264316 125200 S   1,0   3,4   0:12.35 Xorg
1082 artur       20   0   5415744 458400 164940 S   0,7   5,9   0:30.34 gnome-s+
60761 artur     20   0   1483680 311956 155624 S   0,7   4,0   0:04.99 soffice+
 600 root        20   0    6784    4588   3328 S   0,3   0,1   0:00.07 apache2
3458 artur     20   0   3005816 327932 149060 S   0,3   4,2   0:15.46 firefox
   1 root        20   0   168036   12800   8064 S   0,0   0,2   0:03.27 systemd
   2 root        20   0         0         0     0 S   0,0   0,0   0:00.00 kthreadd
   3 root        0 -20         0         0     0 I   0,0   0,0   0:00.00 rcu_gp
   4 root        0 -20         0         0     0 I   0,0   0,0   0:00.00 rcu_par+
   5 root        0 -20         0         0     0 I   0,0   0,0   0:00.00 slub_fl+
   6 root        0 -20         0         0     0 I   0,0   0,0   0:00.00 netns
   8 root        0 -20         0         0     0 I   0,0   0,0   0:00.00 kworker+
  10 root        0 -20         0         0     0 I   0,0   0,0   0:00.00 mm_perc+
  11 root        20   0         0         0     0 I   0,0   0,0   0:00.00 rcu_tas+
  12 root        20   0         0         0     0 I   0,0   0,0   0:00.00 rcu_tas+
  13 root        20   0         0         0     0 I   0,0   0,0   0:00.00 rcu_tas+
  14 root        20   0         0         0     0 S   0,0   0,0   0:00.30 ksofttr+
```



**Ps** – Mostra os processos rodando na instancia do terminal.

```
artur@artur-Virtual-Machine:~/Desktop/sdg/SEII-Artur-Martins-Alves/semana01$ ps
  PID TTY          TIME CMD
 3449 pts/0    00:00:00 bash
 68230 pts/0    00:00:00 ps
artur@artur-Virtual-Machine:~/Desktop/sdg/SEII-Artur-Martins-Alves/semana01$
```

**Kill** – Finaliza um determinado processo.

**Df -h** – Mostra as partições e configurações de disco.

```
artur@artur-Virtual-Machine:~/Desktop/sdg/SEII-Artur-Martins-Alves/semana01$ df
-h
Filesystem      Size  Used Avail Use% Mounted on
tmpfs            391M  1,6M  390M   1% /run
/dev/sda3        39G   19G   19G  50% /
tmpfs            2,0G    0  2,0G   0% /dev/shm
tmpfs            5,0M    0  5,0M   0% /run/lock
/dev/sda2        512M   6,1M  506M   2% /boot/efi
tmpfs            391M  112K  391M   1% /run/user/1000
artur@artur-Virtual-Machine:~/Desktop/sdg/SEII-Artur-Martins-Alves/semana01$
```

**Ncdu** – Mostra os arquivos ou pastas que ocupam maior espaço no disco.

```
ncdu 1.15.1 ~ Use the arrow keys to navigate, press ? for help
--- /home/artur/Desktop/sdg/SEII-Artur-Martins-Alves/semana01 -----
816,0 KiB [#####] semana01sdg.odt
 4,0 KiB [          ] ~/.lock.semana01sdg.odt#
 4,0 KiB [          ] empty.txt
```

**Uname** – Mostra o sistema operacional em uso.

```
Selecting previously unselected package ncdu.
(Reading database ... 214197 files and directories currently installed.)
Preparing to unpack .../ncdu_1.15.1-1_amd64.deb ...
Unpacking ncdu (1.15.1-1) ...
Setting up ncdu (1.15.1-1) ...
Processing triggers for man-db (2.10.2-1) ...
artur@artur-Virtual-Machine:~/Desktop/sdg/SEII-Artur-Martins-Alves/semana01$ ncdu
artur@artur-Virtual-Machine:~/Desktop/sdg/SEII-Artur-Martins-Alves/semana01$ uname
Linux
artur@artur-Virtual-Machine:~/Desktop/sdg/SEII-Artur-Martins-Alves/semana01$
```

**Lsblk** – Mostra os arquivos em formato de árvore.

```
Try: sudo apt install <deb name>
artur@artur-Virtual-Machine:~/Desktop/sdg/SEII-Artur-Martins-Alves/semana01$ lsblk
NAME        MAJ:MIN RM   SIZE RO TYPE MOUNTPOINTS
fd0          2:0    1     4K  0 disk
loop0        7:0    0     4K  1 loop /snap/bare/5
loop2        7:2    0   313M  1 loop /snap/code/166
loop3        7:3    0   63,9M  1 loop /snap/core20/2105
loop4        7:4    0   63,9M  1 loop /snap/core20/2318
loop5        7:5    0   74,1M  1 loop /snap/core22/1033
loop6        7:6    0   74,2M  1 loop /snap/core22/1439
loop7        7:7    0  240,3M  1 loop /snap/firefox/3290
loop8        7:8    0  240,3M  1 loop /snap/firefox/3358
loop9        7:9    0  349,7M  1 loop /snap/gnome-3-38-2004/143
loop10       7:10   0   497M  1 loop /snap/gnome-42-2204/141
loop11       7:11   0  505,1M  1 loop /snap/gnome-42-2204/176
loop12       7:12   0   91,7M  1 loop /snap/gtk-common-themes/1535
loop13       7:13   0   12,3M  1 loop /snap/snap-store/959
loop14       7:14   0   40,4M  1 loop /snap/snapd/20671
loop15       7:15   0   38,8M  1 loop /snap/snapd/21759
loop16       7:16   0    452K  1 loop /snap/snapd-desktop-integration/83
loop17       7:17   0   313M  1 loop /snap/code/167
sda          8:0    0   40G  0 disk
├─sda1       8:1    0     1M  0 part
├─sda2       8:2    0   513M  0 part /boot/efi
└─sda3       8:3    0   39,5G  0 part /var/snap/firefox/common/host-hunspell
/
sr0         11:0    1  1024M  0 rom
artur@artur-Virtual-Machine:~/Desktop/sdg/SEII-Artur-Martins-Alves/semana01$
```

**History** – Mostra o histórico de comandos.

```
150 clear
151 ip -a | grep
152 ip -a | grep inet
153 ip a | grep inet
154 clear
155 ping google.com
156 clear
157 free -h
158 top
159 git status
160 git commit
161 git config --global user.email "artur_alves9@hotmail.com"
162 git config --local -l
163 git commit
164 git add semana01sdg.odt
165 git commit
166 git status
167 git commit
168 git status
169 git commit semana01sdg.odt
170 git status
171 git commit -m "arquivo"
172 git add semana01sdg.odt
173 git commit -m "arquivo"
174 git push
175 top
176 htop
177 ps
178 df -h
179 ncdu
180 sudo apt install ncdu
181 ncdu
182 uname
183 lsbk
184 lsblk
185 history
rtur@artur-Virtual-Machine:~/Desktop/sdg/SEII-Artur-Martins-Alves/semana01$
```



**Ln** – Faz uma ligação entre dois arquivos. Ou seja, o arquivo que será linkado ao original será essencialmente um ponteiro que irá apontar para o original, contendo as mesmas informações.

```
artur@artur-Virtual-Machine:~/Desktop/sdg/SEII-Artur-Martins-Alves/semana01$ echo "teste">> original.txt
artur@artur-Virtual-Machine:~/Desktop/sdg/SEII-Artur-Martins-Alves/semana01$ ln original.txt linkado.txt
artur@artur-Virtual-Machine:~/Desktop/sdg/SEII-Artur-Martins-Alves/semana01$ cat original.txt
teste
artur@artur-Virtual-Machine:~/Desktop/sdg/SEII-Artur-Martins-Alves/semana01$ cat linkado.txt
teste
artur@artur-Virtual-Machine:~/Desktop/sdg/SEII-Artur-Martins-Alves/semana01$ echo "mais info">> original.txt
artur@artur-Virtual-Machine:~/Desktop/sdg/SEII-Artur-Martins-Alves/semana01$ cat original.txt
teste
mais info
artur@artur-Virtual-Machine:~/Desktop/sdg/SEII-Artur-Martins-Alves/semana01$ cat linkado.txt
teste
mais info
artur@artur-Virtual-Machine:~/Desktop/sdg/SEII-Artur-Martins-Alves/semana01$
```

**Who** – Mostra todos os usuários que estão logados no linux.

**SU** – Muda de usuário.

**Sudo** - Super usuário. Permite utilizar comandos com permissões elevadas.

**Chow** - Muda o o usuário que é “dono” do arquivo.

**Chmod** – Muda a permissão de um arquivo.