



UNIVERSIDADE FEDERAL DE UBERLÂNDIA

FACULDADE DE ENGENHARIA MECÂNICA

Graduação em Engenharia Mecatrônica



Relatório Semana 01

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Comandos do linux:

ls: Lista arquivos e diretórios presentes no diretório atual:

```
jmcxavier@jmcxavier-Aspire-A515-54: ~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ ls
Semana01  Semana01.txt
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$
```

mkdir: Cria um diretório

cd: Direciona para um diretório

pwd: exibe o diretório atual

whoami: exibe o nome do usuário logado

```
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ mkdir semana01_teste
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ cd semana01_teste
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01/semana01_teste$ pwd
/home/jmcxavier/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01/semana01_teste
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01/semana01_teste$ whoami
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01/semana01_teste$
```

Redirecionadores: “> (sobrescrever)”: Envia um comando para um arquivo sobrescrevendo o tudo que se tem no arquivo, caso não exista o arquivo, ele será criado:

“>>(Adicionar)”: Adiciona ao conteúdo existente o comentário:

```
jmcxavier@jmcxavier-Aspire-A515-54: ~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana...
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01/semana01_teste$ echo "Olá, Mundo!" > saudacao.txt
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01/semana01_teste$ echo "Como vai?" >> saudacao.txt
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01/semana01_teste$
```

Abrir ▾

saudacao.txt

~/Github/SEII-Joao-Marcos-de-C...ier/Semana01/semana01_teste

Olá, Mundo!

Como vai?

Criando uma pasta com nome composto dividido por espaço: basta colocar “ ” no nome, senão será criado duas pastas de nomes simples. Para acessar, basta usar “\”:

```
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ mkdir "JOAO MARCOS"
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ cd JOAO\ MARCOS
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01/JOAO MARCOS$
```

cat: usado para visualizar, criar, concatenar e redirecionar arquivos:

```
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ cat
> new.txt
Add frase ao arquivo e ctrl+ d p/ sair
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ cat
new.txt
Add frase ao arquivo e ctrl+ d p/ sair
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ cat
> new2.txt
segundo arquivo p demonstração
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ cat
new.txt new2.txt
Add frase ao arquivo e ctrl+ d p/ sair
segundo arquivo p demonstração
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$
```

touch: cria um arquivo vazio:

nano: abre um arquivo para edição:

```
jmcxavier@jmcxavier-Aspire-A515-54: ~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01
jmcxavier@jmcxavier-Aspire-A515-54: ~/Github/SEII-Jo... x jmcxavier@jmcxavier-Aspire-A515-54: ~/Github/SEII-Jo... x
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ touc
h new3.txt
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ nano
new3.txt
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$
```

```
jmcxavier@jmcxavier-Aspire-A515-54: ~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01
jmcxavier@jmcxavier-Aspire-A515-54: ~/Github/SEII-Jo... x jmcxavier@jmcxavier-Aspire-A515-54: ~/Github/SEII-Jo... x
GNU nano 7.2 new3.txt *
área de edição do nano
```

mv: pode mover um arquivo, renomear um arquivo e mover e renomear um arquivo.

cp: copia arquivos e diretórios

```
jmcxavier@jmcxavier-Aspire-A515-54: ~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ mv new4.txt new3.txt
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ cp new3.txt newcopia.txt
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ ls
'JOAO MARCOS'  new3.txt      new.txt      semana01_teste
new2.txt      newcopia.txt  Semana01     Semana01.txt
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$
```

rm; rmdir; rm -rf: Remove arquivos, diretórios e diretórios com arquivos:

```
jmcxavier@jmcxavier-Aspire-A515-54: ~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ la
'JOAO MARCOS'  new3.txt      new.txt      semana01_teste
new2.txt      newcopia.txt  Semana01     Semana01.txt
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ mkdir diretorio_p_excluir
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ la
diretorio_p_excluir  new2.txt      newcopia.txt  Semana01     Semana01.txt
'JOAO MARCOS'      new3.txt      new.txt      semana01_teste
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ cd diretorio_p_excluir/
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01/diretorio_p_excluir$ touch arquivo_excluir1
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01/diretorio_p_excluir$ touch arquivo_excluir2
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01/diretorio_p_excluir$ rm arquivo_excluir1
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01/diretorio_p_excluir$ la
arquivo_excluir2
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01/diretorio_p_excluir$ cd ..
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ la
diretorio_p_excluir  new2.txt      newcopia.txt  Semana01     Semana01.txt
'JOAO MARCOS'      new3.txt      new.txt      semana01_teste
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ rm -rf diretorio_p_excluir/
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ la
'JOAO MARCOS'  new3.txt      new.txt      semana01_teste
new2.txt      newcopia.txt  Semana01     Semana01.txt
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$
```

hostname: usado para exibir ou alterar o hostname do sistema (identificador único para o sistema em uma rede) . hostname -i mostra o ip

```
jmcxavier@jmcxavier-Aspire-A515-54: ~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ host
name
jmcxavier-Aspire-A515-54
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ host
name -i
```

ip a: exibe informações detalhadas de todas as interfaces de redes disponíveis:

```
jmcxavier@jmcxavier-Aspire-A515-54: ~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ 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 noprefixroute
        valid_lft forever preferred_lft forever
2: enp1s0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc pfifo_fast state DOWN group default qlen 1000
    link/ether 70:69:79:ab:33:58 brd ff:ff:ff:ff:ff:ff
3: wlp2s0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue state UP group default qlen 1000
    link/ether a4:63:a1:6b:fc:46 brd ff:ff:ff:ff:ff:ff
    inet 192.168.1.4/24 brd 192.168.1.255 scope global dynamic noprefixroute wlp2s0
        valid_lft 78828sec preferred_lft 78828sec
    inet6 2804:1c50:197:9000:1e6:e427:200f:781d/64 scope global temporary dynamic
        valid_lft 258805sec preferred_lft 78706sec
    inet6 2804:1c50:197:9000:855d:7d20:beec:2d2f/64 scope global dynamic mngtmpaddr noprefixroute
        valid_lft 258805sec preferred_lft 172405sec
    inet6 fe80::ed06:e53e:3228:17db/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$
```

grep: procura por padrões específicos em arquivos e exibe as linhas correspondentes:

```
jmcxavier@jmcxavier-Aspire-A515-54: ~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ grep
"fg" new3.txt
fg
afg
fg
fg
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$
```

ping: Mostra vários parâmetros utilizados em Arquitetura de Redes como: TTL (tempo de vida de um pacote) Latência (tempo de ida e resposta de um pacote) e a quantidade de pacotes enviados e recebidos:

```
jmcxavier@jmcxavier-Aspire-A515-54: ~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ ping google.com
PING google.com (2800:3f0:4001:81c::200e) 56 data bytes
64 bytes from 2800:3f0:4001:81c::200e: icmp_seq=1 ttl=116 time=29.2 ms
64 bytes from 2800:3f0:4001:81c::200e: icmp_seq=2 ttl=116 time=26.2 ms
64 bytes from 2800:3f0:4001:81c::200e: icmp_seq=3 ttl=116 time=27.3 ms
64 bytes from 2800:3f0:4001:81c::200e: icmp_seq=4 ttl=116 time=25.5 ms
64 bytes from 2800:3f0:4001:81c::200e: icmp_seq=5 ttl=116 time=27.6 ms
64 bytes from 2800:3f0:4001:81c::200e: icmp_seq=6 ttl=116 time=27.9 ms
64 bytes from 2800:3f0:4001:81c::200e: icmp_seq=7 ttl=116 time=28.3 ms
64 bytes from 2800:3f0:4001:81c::200e: icmp_seq=8 ttl=116 time=26.5 ms
64 bytes from 2800:3f0:4001:81c::200e: icmp_seq=9 ttl=116 time=26.5 ms
64 bytes from 2800:3f0:4001:81c::200e: icmp_seq=10 ttl=116 time=27.6 ms
64 bytes from 2800:3f0:4001:81c::200e: icmp_seq=11 ttl=116 time=30.4 ms
64 bytes from 2800:3f0:4001:81c::200e: icmp_seq=12 ttl=116 time=28.4 ms
64 bytes from 2800:3f0:4001:81c::200e: icmp_seq=13 ttl=116 time=33.2 ms
64 bytes from 2800:3f0:4001:81c::200e: icmp_seq=14 ttl=116 time=27.6 ms
64 bytes from 2800:3f0:4001:81c::200e: icmp_seq=15 ttl=116 time=24.7 ms
^C
--- google.com ping statistics ---
15 packets transmitted, 15 received, 0% packet loss, time 14025ms
rtt min/avg/max/mdev = 24.683/27.783/33.239/2.007 ms
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$
```

free-h & free-m: usados para exibir informações sobre o uso de memória do sistema:

```
jmcxavier@jmcxavier-Aspire-A515-54: ~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ free -h
             total        usada        livre      compart.  buff/cache  disponível
Mem.:          19Gi         3,9Gi         13Gi          1,3Gi         3,1Gi         15Gi
Swap:           8,0Gi           0B          8,0Gi
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ free -m
             total        usada        livre      compart.  buff/cache  disponível
Mem.:        19821         3953         14304          1297          3221         15868
Swap:         8191           0          8191
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$
```

top: exibe uma lista dinâmica de processos em execução, ordenados pela CPU

“q” para sair; “k” para matar um processo (solicita PID); “r” altera prioridade;

htop: semelhante ao top, porém oferece uma interface interativa:


```
jmcxavier@jmcxavier-Aspire-A515-54: ~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01
top - 15:54:21 up 2:23, 1 user, load average: 0,08, 0,21, 0,24
Tarefas: 283 total, 1 em exec., 282 dormindo, 0 parado, 0 zumbi
%CPU(s): 0,7 us, 0,2 sy, 0,0 ni, 99,0 id, 0,2 wa, 0,0 hi, 0,0 si, 0,0 st
MB mem : 19821,5 total, 14289,0 free, 3967,4 used, 3240,3 buff/cache
MB swap: 8192,0 total, 8192,0 free, 0,0 used. 15854,1 avail mem
```

PID	USUARIO	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TEMPO+	COMANDO
2227	jmcxavi+	20	0	5095604	309536	131924	S	3,3	1,5	4:42.14	gnome-shell
5340	jmcxavi+	20	0	702636	62580	46948	S	2,7	0,3	0:10.74	gnome-terminal-
223	root	-51	0	0	0	0	S	1,0	0,0	0:01.27	irq/135-ELAN0504:00
4627	jmcxavi+	20	0	1157,7g	261380	126540	S	0,3	1,3	3:06.20	chrome
1	root	20	0	23260	13824	9216	S	0,0	0,1	0:04.12	systemd
2	root	20	0	0	0	0	S	0,0	0,0	0:00.01	kthreadd
3	root	20	0	0	0	0	S	0,0	0,0	0:00.00	pool_workqueue_rel+
4	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kworker/R-rcu_g
5	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kworker/R-rcu_p
6	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kworker/R-slub_
7	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kworker/R-nets
9	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kworker/0:0H-event+
10	root	20	0	0	0	0	I	0,0	0,0	0:00.61	kworker/0:1-events
12	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kworker/R-mm_pe
13	root	20	0	0	0	0	I	0,0	0,0	0:00.00	rcu_tasks_kthread
14	root	20	0	0	0	0	I	0,0	0,0	0:00.00	rcu_tasks_rude_kth+
15	root	20	0	0	0	0	I	0,0	0,0	0:00.00	rcu_tasks_trace_kt+
16	root	20	0	0	0	0	S	0,0	0,0	0:00.06	ksoftirqd/0
17	root	20	0	0	0	0	I	0,0	0,0	0:04.06	rcu_preempt
18	root	rt	0	0	0	0	S	0,0	0,0	0:00.02	migration/0
19	root	-51	0	0	0	0	S	0,0	0,0	0:00.00	idle_inject/0
20	root	20	0	0	0	0	S	0,0	0,0	0:00.00	cpuhp/0
21	root	20	0	0	0	0	S	0,0	0,0	0:00.00	cpuhp/1
22	root	-51	0	0	0	0	S	0,0	0,0	0:00.00	idle_inject/1
23	root	rt	0	0	0	0	S	0,0	0,0	0:00.17	migration/1
24	root	20	0	0	0	0	S	0,0	0,0	0:00.07	ksoftirqd/1
26	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kworker/1:0H-event+
27	root	20	0	0	0	0	S	0,0	0,0	0:00.00	cpuhp/2
28	root	-51	0	0	0	0	S	0,0	0,0	0:00.00	idle_inject/2
29	root	rt	0	0	0	0	S	0,0	0,0	0:00.17	migration/2
30	root	20	0	0	0	0	S	0,0	0,0	0:00.04	ksoftirqd/2
32	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kworker/2:0H-event+
33	root	20	0	0	0	0	S	0,0	0,0	0:00.00	cpuhp/3
34	root	-51	0	0	0	0	S	0,0	0,0	0:00.00	idle_inject/3
35	root	rt	0	0	0	0	S	0,0	0,0	0:00.17	migration/3
36	root	20	0	0	0	0	S	0,0	0,0	0:00.03	ksoftirqd/3
38	root	0	-20	0	0	0	I	0,0	0,0	0:00.00	kworker/3:0H-event+
39	root	20	0	0	0	0	S	0,0	0,0	0:00.00	cpuhp/4

```
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ htop
Comando 'htop' não encontrado, mas poder ser instalado com:
sudo snap install htop # version 3.3.0, or
sudo apt install htop # version 3.2.2-2
Veja 'snap info htop' para versões adicionais.
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$
```

ps: exibe uma lista de processos em execução no terminal no momento em que o comando é executado

ps aux: exibe os processos independentemente ao terminal:

```
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ ps
  PID TTY          TIME CMD
  5347 pts/0    00:00:00 bash
  6606 pts/0    00:00:00 ps
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ ps aux
USER          PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root           1  0.0  0.0  23260 13824 ?        Ss   13:30   0:04 /sbin/init splash
root           2  0.0  0.0      0     0 ?        S    13:30   0:00 [kthreadd]
root           3  0.0  0.0      0     0 ?        S    13:30   0:00 [pool_workqueue_release]
root           4  0.0  0.0      0     0 ?        I<   13:30   0:00 [kworker/R-rcu_g]
root           5  0.0  0.0      0     0 ?        I<   13:30   0:00 [kworker/R-rcu_p]
root           6  0.0  0.0      0     0 ?        I<   13:30   0:00 [kworker/R-slab_]
root           7  0.0  0.0      0     0 ?        I<   13:30   0:00 [kworker/R-netns]
root           9  0.0  0.0      0     0 ?        I<   13:30   0:00 [kworker/0:0H-events_hig
root          10  0.0  0.0      0     0 ?        I    13:30   0:00 [kworker/0:1-events]
root          12  0.0  0.0      0     0 ?        I<   13:30   0:00 [kworker/R-mm_pe]
root          13  0.0  0.0      0     0 ?        I    13:30   0:00 [rcu_tasks_kthread]
root          14  0.0  0.0      0     0 ?        I    13:30   0:00 [rcu_tasks_rude_kthread]
root          15  0.0  0.0      0     0 ?        I    13:30   0:00 [rcu_tasks_trace_kthread]
root          16  0.0  0.0      0     0 ?        S    13:30   0:00 [ksoftirqd/0]
root          17  0.0  0.0      0     0 ?        I    13:30   0:04 [rcu_preempt]
root          18  0.0  0.0      0     0 ?        S    13:30   0:00 [migration/0]
root          19  0.0  0.0      0     0 ?        S    13:30   0:00 [idle_inject/0]
root          20  0.0  0.0      0     0 ?        S    13:30   0:00 [cpuhp/0]
root          21  0.0  0.0      0     0 ?        S    13:30   0:00 [cpuhp/1]
root          22  0.0  0.0      0     0 ?        S    13:30   0:00 [idle_inject/1]
root          23  0.0  0.0      0     0 ?        S    13:30   0:00 [migration/1]
root          24  0.0  0.0      0     0 ?        S    13:30   0:00 [ksoftirqd/1]
root          26  0.0  0.0      0     0 ?        I<   13:30   0:00 [kworker/1:0H-events_hig
root          27  0.0  0.0      0     0 ?        S    13:30   0:00 [cpuhp/2]
root          28  0.0  0.0      0     0 ?        S    13:30   0:00 [idle_inject/2]
root          29  0.0  0.0      0     0 ?        S    13:30   0:00 [migration/2]
root          30  0.0  0.0      0     0 ?        S    13:30   0:00 [ksoftirqd/2]
root          32  0.0  0.0      0     0 ?        I<   13:30   0:00 [kworker/2:0H-events_hig
root          33  0.0  0.0      0     0 ?        S    13:30   0:00 [cpuhp/3]
root          34  0.0  0.0      0     0 ?        S    13:30   0:00 [idle_inject/3]
root          35  0.0  0.0      0     0 ?        S    13:30   0:00 [migration/3]
root          36  0.0  0.0      0     0 ?        S    13:30   0:00 [ksoftirqd/3]
root          38  0.0  0.0      0     0 ?        I<   13:30   0:00 [kworker/3:0H-events_hig
root          39  0.0  0.0      0     0 ?        S    13:30   0:00 [cpuhp/4]
root          40  0.0  0.0      0     0 ?        S    13:30   0:00 [idle_inject/4]
root          41  0.0  0.0      0     0 ?        S    13:30   0:00 [migration/4]
root          42  0.0  0.0      0     0 ?        S    13:30   0:00 [ksoftirqd/4]
root          44  0.0  0.0      0     0 ?        I<   13:30   0:00 [kworker/4:0H-events_hig
```

kill: envia sinais para processos. Normalmente usado para encerrar processos:

df -h: exibe informações do disco. A saída -h formata a saída em kb, Gb, Mb;

ndcu: igual ao df -h, porém com interface interativa. necessita permissão SUDO para instalação.

uname: exibe informações sobre o sistema:

-s: Nome do kernel

-r: versão do kernel

-a: informações completas


```

jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ df -h
Sist. Arq.      Tam. Usado Disp. Uso% Montado em
tmpfs           2,0G  2,1M  2,0G   1% /run
/dev/nvme0n1p5  40G   18G  21G  46% /
tmpfs           9,7G   98M  9,6G   1% /dev/shm
tmpfs           5,0M   8,0K  5,0M   1% /run/lock
efivarfs        184K   80K  100K  45% /sys/firmware/efi/efivars
/dev/nvme0n1p1  96M   57M   40M  59% /boot/efi
tmpfs           2,0G  132K  2,0G   1% /run/user/1000
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ uname
Linux
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ uname -s
Linux
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ uname -r
6.8.0-40-generic
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ uname -a
Linux jmcxavier-Aspire-A515-54 6.8.0-40-generic #40-Ubuntu SMP PREEMPT_DYNAMIC Fri Jul  5 10:34:03 UTC 2024 x86_64 x86_64 x86_64 GNU/Linux

```

lscpu: exibe informações como arquitetura, número de CPUs e threads por núcleo:

```
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ lscpu
Architecture:                x86_64
  Modo(s) operacional da CPU: 32-bit, 64-bit
  Address sizes:              39 bits physical, 48 bits virtual
  Ordem dos bytes:           Little Endian
CPU(s):                      8
  Lista de CPU(s) on-line:   0-7
ID de fornecedor:            GenuineIntel
Nome do modelo:              Intel(R) Core(TM) i5-10210U CPU @ 1.60GHz
  Família da CPU:           6
  Modelo:                   142
  Thread(s) per núcleo:     2
  Núcleo(s) por soquete:    4
  Soquete(s):               1
  Step:                     12
CPU(s) scaling MHz:         69%
CPU MHz máx.:               4200,0000
CPU MHz mín.:               400,0000
BogoMIPS:                   4199,88
Opções:                     fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov
                             pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe sy
                             scall nx pdpe1gb rdtscp lm constant_tsc art arch_perfmon pebs
                             bts rep_good nopl xtopology nonstop_tsc cpuid aperfmperf pni
                             pclmulqdq dtes64 monitor ds_cpl vmx est tm2 ssse3 sdbg fma c
                             x16 xtpr pdcm pcid sse4_1 sse4_2 x2apic movbe popcnt tsc_dead
                             line_timer aes xsave avx f16c rdrand lahf_lm abm 3dnowprefetch
                             h cpuid_fault epb ssbd ibrs ibpb stibp ibrs_enhanced tpr_shad
                             ow flexpriority ept vpid ept_ad fsgsbase tsc_adjust bmi1 avx2
                             smep bmi2 erms invpcid mpx rdseed adx smap clflushopt intel_
                             pt xsaveopt xsavec xgetbv1 xsaves dtherm ida arat pln pts hwp
                             hwp_act_window hwp_epp vnmi md_clear flush_l1d arch_capabili
                             ties
Virtualization features:
  Virtualização:             VT-x
Caches (sum of all):
  L1d:                       128 KiB (4 instances)
  L1i:                       128 KiB (4 instances)
  L2:                        1 MiB (4 instances)
  L3:                        6 MiB (1 instance)
NUMA:
  Nó(s) de NUMA:             1
CPU(s) num per (0-NUMA-1):  8-7
```

lsusb: exibe uma lista de dispositivos USB

history: exibe o histórico de comandos executados no terminal

```
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ lsusb
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 001 Device 002: ID 248a:8514 Maxxter Wireless Receiver
Bus 001 Device 003: ID 0408:a061 Quanta Computer, Inc. HD User Facing
Bus 001 Device 004: ID 04ca:3015 Lite-On Technology Corp. Qualcomm Atheros QCA9377 Bluetooth
Bus 002 Device 001: ID 1d6b:0003 Linux Foundation 3.0 root hub
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$
jmcxavier@jmcxavier-Aspire-A515-54:~/Github/SEII-Joao-Marcos-de-Casto-Xavier/Semana01$ history
1  shutdown
2  shutdown -h now
3  shutdown -h now
4  apt install gdebi
5  sudo apt install gdebi
6  exit
7  whoami
8  ls
9  clear
10 ls
11 cd João/
12 ls
13 cd ..
14 cd ~
15 ls
16 João/
17 mkdir 'jmcxavier teste'
18 deldir 'jmcxavier teste'
19 rmdir 'jmcxavier teste' 'João'
20 sl
21 sudo apt install sl
22 sl
23 sudo apt update
24 apt list --upgradable
25 apt --help
26 shutdown -h now
27 sudo apt-get update
28 sudo apt-get upgrade
29 sudo apt-get install git-all
30 sudo apt-get remove git
31 git rev-parse --show-toplevel
32 ~git rev-parse --show-toplevel
33 cd
34 git rev-parse --show-toplevel
```