

**LAPORAN RESMI
PRAKTIKUM SISTEM
OPERASI LAPORAN II**



JUDUL: 50 COMMAND REDHAT SERVER

Disusun Oleh :

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```
[student@workstation ~]$ sudo su
[sudo] password for student:
[root@workstation student]#
```

5. exit "Digunakan untuk menutup terminal."

```
[student@workstation ~]$ exit
[root@workstation student]# exit
exit
[student@workstation ~]$
```

6. id "Menampilkan informasi tentang identitas pengguna."

```
[student@workstation ~]$ id
uid=1000(student) gid=1000(student) groups=1000(student),10(wheel) context=unconfined u:unconfined f:unconfined t:s0-s0:c0.c1023
```

7. ifconfig "Menampilkan informasi antarmuka jaringan."

```
[student@workstation ~]$ ifconfig
cni-podman0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.88.0.1 netmask 255.255.0.0 broadcast 10.88.255.255
    inet6 fe80::24cb:71ff:fee5:a73b prefixlen 64 scopeid 0x20<link>
    ether 26:cb:71:e5:a7:3b txqueuelen 1000 (Ethernet)
    RX packets 431 bytes 21356 (20.8 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 825 bytes 52078 (50.8 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 172.25.250.9 netmask 255.255.255.0 broadcast 172.25.250.255
    inet6 fe80::5054:ff:fe00:fa09 prefixlen 64 scopeid 0x20<link>
    ether 52:54:00:00:fa:09 txqueuelen 1000 (Ethernet)
    RX packets 1287 bytes 393065 (383.8 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 875 bytes 90854 (88.7 KiB)
    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>
```

8. hostname -I "Digunakan untuk menampilkan alamat IP yang terkait dengan host atau sistem."

```
[student@workstation ~]$ hostname -I
172.25.250.9 10.88.0.1
```

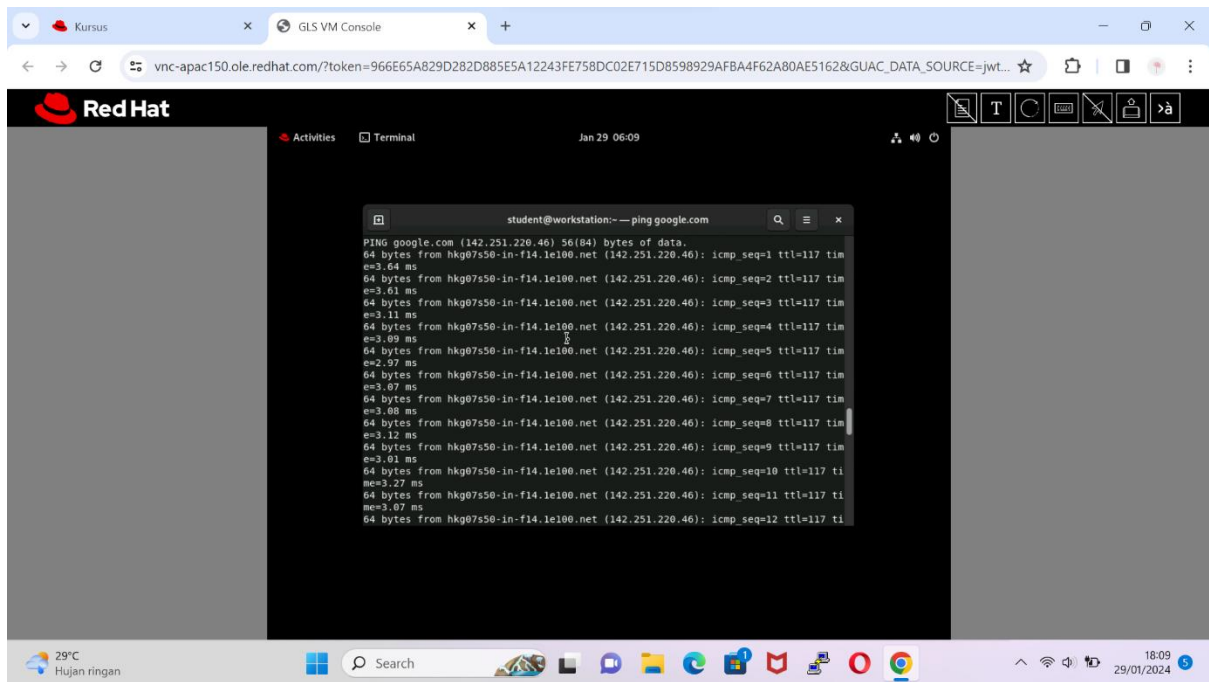
9. whoami "Menampilkan nama pengguna saat ini."

```
[student@workstation ~]$ whoami
student
```

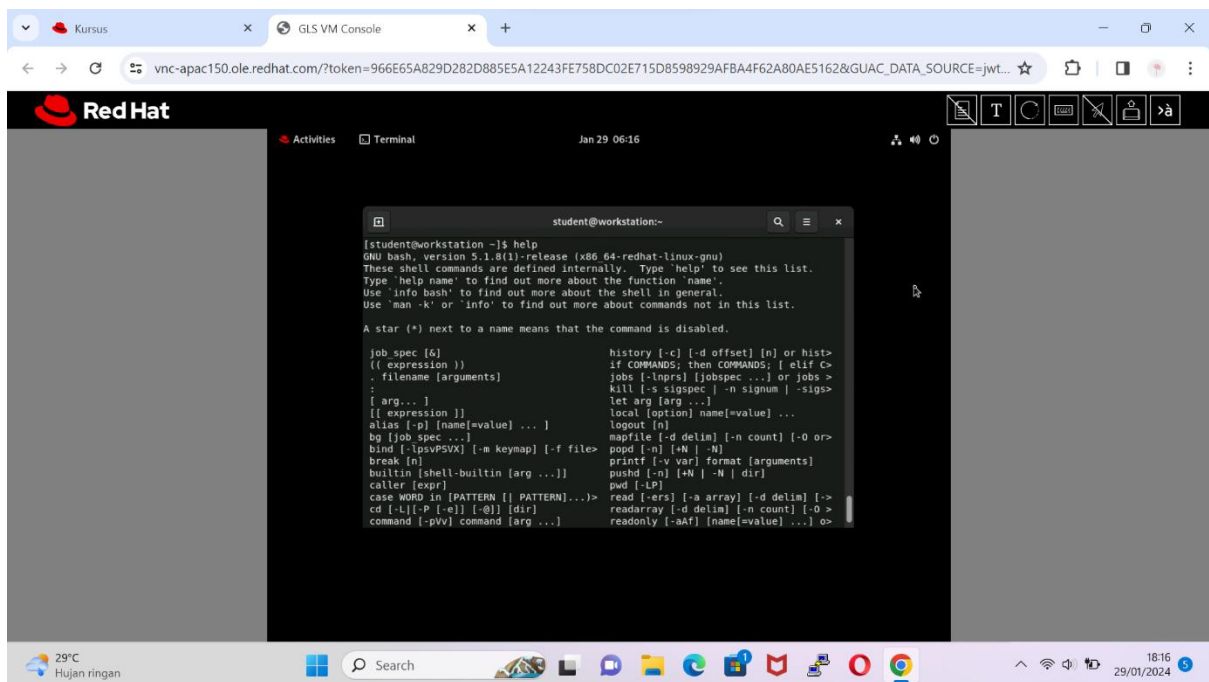
10. netstat "Digunakan untuk menampilkan informasi berbagai aspek koneksi jaringan"

```
[student@workstation ~]$ netstat
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address          Foreign Address         State
Active UNIX domain sockets (w/o servers)
Proto RefCnt Flags     Type       State          I-Node  Path
unix  2      [ ]      DGRAM          30713         /run/user/1000/systemd/notify
unix  3      [ ]      DGRAM          10144        /run/systemd/notify
unix  18     [ ]      DGRAM          10159        /run/systemd/journal/
dev-log
unix  9      [ ]      DGRAM          10161        /run/systemd/journal/
socket
unix  2      [ ]      DGRAM          15288        /run/chrony/chronyd.s
ock
unix  3      [ ]      STREAM  CONNECTED      35062
unix  3      [ ]      STREAM  CONNECTED      34588
unix  3      [ ]      STREAM  CONNECTED      35006
unix  3      [ ]      STREAM  CONNECTED      34906
unix  3      [ ]      STREAM  CONNECTED      31700        /run/systemd/journal/
stdout
unix  3      [ ]      STREAM  CONNECTED      33824        /run/dbus/system_bus
socket
```

11. ping google.com "Menguji koneksi jaringan."



12. `help` "Digunakan untuk menampilkan bantuan atau petunjuk singkat terkait dengan perintah yang dijalankan di dalam shell bash."



13. `cd "nama file"` "Digunakan untuk berpindah dari satu direktori ke direktori lain di dalam sistem file."



14. `cd -` "Kembali ke direktori induk (parent directory)."



15. mkdir "Membuat direktori baru."

```
[student@workstation Music]$ mkdir ines  
[student@workstation Music]$ ls  
ines
```

16. rmdir "Menghapus direktori kosong."

```
[student@workstation Music]$ rmdir ines  
[student@workstation Music]$ ls
```

17. ssh student@servera "Cara untuk melakukan koneksi ke server dengan menggunakan protokol Secure Shell (SSH)."

```
[student@workstation Music]$ ssh student@servera  
Warning: Permanently added 'servera' (ED25519) to the list of known hosts.  
Activate the web console with: systemctl enable --now cockpit.socket  
  
Register this system with Red Hat Insights: insights-client --register  
Create an account or view all your systems at https://red.ht/insights-dashboard  
[student@servera ~]$
```

18. lab start logs-preserve "Untuk mengecek lab system"

```
[student@workstation ~]$ lab start logs-preserve  
  
Starting lab.  
  
· Checking lab systems ..... SUCCESS  
· Backing up log config on servera ..... SUCCESS
```

19. sudo -i "Digunakan untuk membuka sesi shell interaktif dengan hak istimewa superuser (root)."

```
[student@workstation ~]$ sudo -i  
[sudo] password for student:  
[root@workstation ~]#
```

20. sudo adduser user "Digunakan untuk menambahkan pengguna baru ke sistem."

```
[root@workstation ~]# sudo adduser user1  
[root@workstation ~]#
```

21. `sudo nano "nama file"` "Digunakan untuk membuka teks editor nano dengan hak akses superuser (root). "



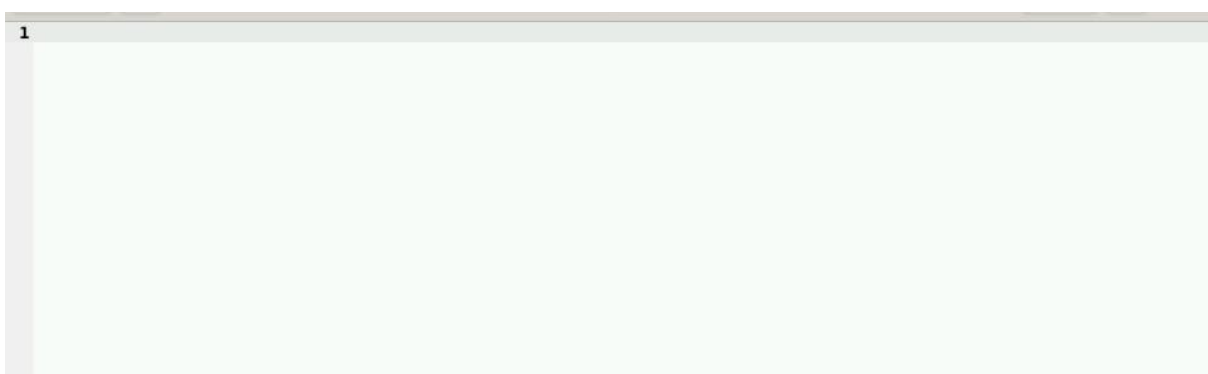
22. `pwd` "Menampilkan direktori kerja saat ini."

```
[student@workstation ~]$ pwd
/home/student
```

23. `w` "Menampilkan informasi pengguna yang sedang masuk dan aktivitas mereka."

```
[student@workstation ~]$ w
00:26:04 up 11 min,  1 user,  load average: 0.00, 0.01, 0.00
USER      TTY      LOGIN@  IDLE   JCPU   PCPU   WHAT
student   :1        00:15   ?xdm?  15.24s  0.00s  /usr/libexec/gdm-x-session --re
```

24. `sudo gedit "nama file"` "Digunakan untuk membuka teks editor Gedit dengan hak akses superuser (root)."



25. sudo systemctl reboot "Me-restart sistem."

```
Starting Accounts Service...
Starting Switcheroo Control Proxy service...
Starting User Login Management...
Starting Disk Manager...
Starting Daemon for power management...
OK 1 Started Avahi mDNS/DNS-SD Stack.
OK 1 Started System Logging Service.
OK 1 Started RealtimeKit Scheduling Policy Service.
OK 1 Started Switcheroo Control Proxy service.
OK 1 Started NTP client/server.
OK 1 Started User Login Management.
Starting File System Check on /dev/vda2...
OK 1 Finished File System Check on /dev/vda2.
Mounting EFI System Partition Automount...
OK 1 Mounted EFI System Partition Automount.
OK 1 Started Daemon for power management.
OK 1 Started Authorization Manager.
Starting Modem Manager...
Starting firewalld - dynamic firewall daemon...
OK 1 Started Accounts Service.
OK 1 Started Power Profiles daemon.
OK 1 Started Disk Manager.
5.1517551 NET: Registered PF_QIPCRTR protocol family
OK 1 Started Modem Manager.
OK 1 Started firewalld - dynamic firewall daemon.
5.5131701 cloud-init[991]: Cloud-init v. 21.1-19.el9 running 'init-local' at Mon, 29 Jan 2024 05:14:19 +0000. Up 5.48 seconds.
OK 1 Finished Initial cloud-init job (pre-networking).
OK 1 Reached target Preparation for Network.
Starting Network Manager...
OK 1 Started Network Manager.
OK 1 Reached target Network.
Starting Network Manager Wait Online...
Starting CUPS Scheduler...
Starting GSSAPI Proxy Daemon...
Starting Enable periodic ufw entitlement certificates...
Starting Hostname Service...
OK 1 Started Enable periodic ufw of entitlement certificates..
OK 1 Started GSSAPI Proxy Daemon.
OK 1 Reached target NFS client services.
OK 1 Started CUPS Scheduler.
OK 1 Started Hostname Service.
OK 1 Listening on Load/Save RF Watch Status /dev/rfkill Watch.
Starting Network Manager Script Dispatcher Service...
OK 1 Started Network Manager Script Dispatcher Service.
OK 1 Finished Network Manager Wait Online.
Starting Initial cloud-init (metadata service crawler)...
```

26. ps "Menampilkan proses yang berjalan."

```
[student@workstation ~]$ ps
  PID TTY          TIME CMD
  3112 pts/0        00:00:00 bash
  3363 pts/0        00:00:00 ps
```

27. passwd "Mengganti kata sandi pengguna."

```
[student@workstation ~]$ passwd
Changing password for user student.
Current password:
New password:
BAD PASSWORD: The password contains the user name in some form
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
```

28. who "Menampilkan pengguna yang sedang masuk."

```
[student@workstation ~]$ who
student  :1                2024-01-29 00:15 (:1)
```


29. uptime "Menampilkan informasi waktu aktif sistem."

```
[student@workstation ~]$ uptime
00:35:16 up 21 min,  1 user,  load average: 0.00, 0.00, 0.00
```

30. crontab "Menjadwalkan tugas-tugas yang akan dijalankan secara berkala."

```
[student@workstation ~]$ crontab
crontab: usage error: file name or - (for stdin) must be specified
Usage:
crontab [options] file
crontab [options]
crontab -n [hostname]

Options:
-u <user>   define user
-e          edit user's crontab
-l          list user's crontab
-r          delete user's crontab
-i          prompt before deleting
-n <host>   set host in cluster to run users' crontabs
-c          get host in cluster to run users' crontabs
-T <file>   test a crontab file syntax
-s          selinux context
-V          print version and exit
-x <mask>   enable debugging

Default operation is replace, per 1003.2
```

31. lsof "Menampilkan file yang sedang digunakan oleh proses."

```
359680 16808392 /usr/lib64/libgssapi_krb5.so.2.2
lsof 3259 student mem REG 252,4
617376 16808083 /usr/lib64/libpcre2-8.so.0.10.2
lsof 3259 student mem REG 252,4
2389384 16807982 /usr/lib64/libc.so.6
lsof 3259 student mem REG 252,4
197136 16808406 /usr/lib64/libtirpc.so.3.0.0
lsof 3259 student mem REG 252,4
172632 16808086 /usr/lib64/libselinux.so.1
lsof 3259 student mem REG 252,4
910704 16807978 /usr/lib64/ld-linux-x86-64.so.2
lsof 3259 student 4r FIFO 0,13
0t0 35687 pipe
lsof 3259 student 7w FIFO 0,13
0t0 35688 pipe
kworker/u 3260 root cwd unknown
/proc/3260/cwd (readlink: Permission denied)
kworker/u 3260 root rtd unknown
/proc/3260/root (readlink: Permission denied)
kworker/u 3260 root txt unknown
/proc/3260/exe (readlink: Permission denied)
kworker/u 3260 root NOFD
/proc/3260/fd (opendir: Permission denied)
[student@workstation ~]$ lsof
```


32. ps aux "Menampilkan daftar semua proses yang sedang berjalan."

```
[student@workstation ~]$ ps aux
USER          PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root           1  0.0  0.2 172068 16356 ?        Ss   00:14   0:01 /usr/lib/syst
root           2  0.0  0.0      0     0 ?        S    00:14   0:00 [kthreadd]
root           3  0.0  0.0      0     0 ?        I<   00:14   0:00 [rcu_gp]
root           4  0.0  0.0      0     0 ?        I<   00:14   0:00 [rcu_par_gp]
root           5  0.0  0.0      0     0 ?        I    00:14   0:00 [kworker/0:0-
root           6  0.0  0.0      0     0 ?        I<   00:14   0:00 [kworker/0:0H
root           9  0.0  0.0      0     0 ?        I<   00:14   0:00 [mm_percpu_wq
root          10  0.0  0.0      0     0 ?        S    00:14   0:00 [rcu_tasks_kt
root          11  0.0  0.0      0     0 ?        S    00:14   0:00 [rcu_tasks_ru
root          12  0.0  0.0      0     0 ?        S    00:14   0:00 [rcu_tasks_tr
root          13  0.0  0.0      0     0 ?        S    00:14   0:00 [ksoftirqd/0]
root          14  0.0  0.0      0     0 ?        I    00:14   0:00 [rcu_preempt]
root          15  0.0  0.0      0     0 ?        S    00:14   0:00 [migration/0]
root          16  0.0  0.0      0     0 ?        S    00:14   0:00 [cpuhp/0]
root          17  0.0  0.0      0     0 ?        S    00:14   0:00 [cpuhp/1]
root          18  0.0  0.0      0     0 ?        S    00:14   0:00 [migration/1]
root          19  0.0  0.0      0     0 ?        S    00:14   0:00 [ksoftirqd/1]
root          21  0.0  0.0      0     0 ?        I<   00:14   0:00 [kworker/1:0H
root          22  0.0  0.0      0     0 ?        S    00:14   0:00 [cpuhp/2]
root          23  0.0  0.0      0     0 ?        S    00:14   0:00 [migration/2]
root          24  0.0  0.0      0     0 ?        S    00:14   0:00 [ksoftirqd/2]
```

33. du "Menampilkan penggunaan disk suatu direktori."

```
[student@workstation ~]$ du
20      ./ssh
4        ./config/containers
4        ./config/dconf
4        ./config/ibus/bus
4        ./config/ibus
4        ./config/pulse
4        ./config/evolution/sources
4        ./config/evolution
0        ./config/goa-1.0
4        ./config/gtk-3.0
0        ./config/gnome-session/saved-session
0        ./config/gnome-session
4        ./config/cloud-init
56       ./config
60       ./venv/labs/bin/__pycache__
224      ./venv/labs/bin
4        ./venv/labs/lib/python3.9/site-packages/wheel/cli/__pycache__
28       ./venv/labs/lib/python3.9/site-packages/wheel/cli
28       ./venv/labs/lib/python3.9/site-packages/wheel/vendored/packaging/__pyca
che__
64       ./venv/labs/lib/python3.9/site-packages/wheel/vendored/packaging
4        ./venv/labs/lib/python3.9/site-packages/wheel/vendored/__pycache__
68       ./venv/labs/lib/python3.9/site-packages/wheel/vendored
```

34. locate "nama file" "Mencari file dalam database lokal."

```
[student@workstation ~]$ locate Music
/home/student/Music
```

35. df "Menampilkan informasi penggunaan disk."

```
[student@workstation ~]$ df
Filesystem      1K-blocks    Used Available Use% Mounted on
devtmpfs        2846028      0    2846028  0% /dev
tmpfs           2902336      84    2902252  1% /dev/shm
tmpfs           1160936    17680    1143256  2% /run
/dev/vda4       9756652 5981824    3774828 62% /
/dev/vda3        506528   186984     319544 37% /boot
/dev/vda2        204580     7148     197432  4% /boot/efi
tmpfs           580464     104     580360  1% /run/user/1000
/dev/sr0         492       492        0 100% /run/media/student/config-2
```

36. find "nama file" "Mencari file atau direktori."

```
[student@workstation ~]$ find Music
Music
```

37. cal "Menampilkan kalender."

```
[student@workstation ~]$ cal
      January 2024
Su Mo Tu We Th Fr Sa
      1  2  3  4  5  6
 7  8  9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 30 31
```

38. dig "Menampilkan informasi DNS."

```
[student@workstation ~]$ dig

; <<>> DiG 9.16.23-RH <<>>
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 19828
;; flags: qr rd ra; QUERY: 1, ANSWER: 13, AUTHORITY: 0, ADDITIONAL: 27

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
; COOKIE: c0728d60b06b8331b01ee1de65b73dac8a768748fe16d043 (good)
;; QUESTION SECTION:
;                               IN      NS

;; ANSWER SECTION:
.           514992 IN      NS      h.root-servers.net.
.           514992 IN      NS      e.root-servers.net.
.           514992 IN      NS      k.root-servers.net.
.           514992 IN      NS      d.root-servers.net.
.           514992 IN      NS      i.root-servers.net.
.           514992 IN      NS      g.root-servers.net.
.           514992 IN      NS      a.root-servers.net.
.           514992 IN      NS      l.root-servers.net.
.           514992 IN      NS      j.root-servers.net.
```

39. top "Digunakan untuk memantau aktivitas sistem secara real-time."

```
[student@workstation ~]$ top
```

top - 00:56:06 up 41 min, 1 user, load average: 0.00, 0.00, 0.00
Tasks: 212 total, 1 running, 211 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.1 us, 0.1 sy, 0.0 ni, 99.8 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 5668.6 total, 4289.6 free, 761.9 used, 617.1 buff/cache
MiB Swap: 0.0 total, 0.0 free, 0.0 used. 4644.1 avail Mem

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
3339	student	20	0	226052	4368	3540	R	0.3	0.1	0:00.02	top
1	root	20	0	172068	16356	10344	S	0.0	0.3	0:01.54	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	20	0	0	0	0	I	0.0	0.0	0:00.00	kworker+
6	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker+
9	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	mm_perc+
10	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_tas+
11	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_tas+
12	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_tas+
13	root	20	0	0	0	0	S	0.0	0.0	0:00.00	ksoftir+
14	root	20	0	0	0	0	I	0.0	0.0	0:00.04	rcu_pre+
15	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migrati+

40. free "Menampilkan penggunaan memori."

```
[student@workstation ~]$ free
```

	total	used	free	shared	buff/cache	available
Mem:	5804672	780516	4392064	22824	632092	4755148
Swap:	0	0	0			

41. route "Menampilkan dan mengonfigurasi routing tabel."

```
[student@workstation ~]$ route
```

Kernel IP routing table

Destination	Gateway	Genmask	Flags	Metric	Ref	Use	Iface
default	bastion.lab.exa	0.0.0.0	UG	100	0	0	eth0
10.88.0.0	0.0.0.0	255.255.0.0	U	0	0	0	cni-podm
an0							
172.25.250.0	0.0.0.0	255.255.255.0	U	100	0	0	eth0

42. history "Menampilkan riwayat perintah shell."

```
[student@workstation ~]$ history
 1  shutdown -h now
 2  ls
 3  atq
 4  date
 5  systemctl start ssh
 6  man systemctl
 7  sudo su
 8  id
 9  ipconfig
10  ifconfig
11  hostname -I
12  whoami
13  netstart
14  netstat
15  msinfo32
16  msinfo64
17  msinfo32 /computer
18  ping
19  ping google.com
20  help
21  echo
```

43. `useradd -D` "Digunakan untuk melihat atau mengonfigurasi default untuk pembuatan pengguna baru di sistem Linux."

```
[student@workstation ~]$ useradd -D
GROUP=100
HOME=/home
INACTIVE=-1
EXPIRE=
SHELL=/bin/bash
SKEL=/etc/skel
CREATE_MAIL_SPOOL=yes
```

44. `killall -V` "Digunakan untuk menampilkan informasi versi perangkat lunak (version) dari perintah tersebut."

```
[student@workstation ~]$ killall -V
killall (PSmisc) 23.4
Copyright (C) 1993-2021 Werner Almesberger and Craig Small

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the terms of the GNU General Public License.
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```

45. `timedatectl` "Perintah pada sistem operasi Linux yang digunakan untuk mengonfigurasi dan menampilkan informasi waktu dan tanggal sistem."


```
[student@workstation ~]$ timedatectl
      Local time: Mon 2024-01-29 01:19:11 EST
      Universal time: Mon 2024-01-29 06:19:11 UTC
          RTC time: Mon 2024-01-29 06:19:11
      Time zone: America/New_York (EST, -0500)
System clock synchronized: yes
          NTP service: active
      RTC in local TZ: no
```

46. `timedatectl list-timezones` "Menampilkan daftar zona waktu yang tersedia."

```
[student@workstation ~]$ timedatectl list-timezones
Africa/Abidjan
Africa/Accra
Africa/Addis_Ababa
Africa/Algiers
Africa/Asmara
Africa/Asmera
Africa/Bamako
Africa/Bangui
Africa/Banjul
Africa/Bissau
Africa/Blantyre
Africa/Brazzaville
Africa/Bujumbura
Africa/Cairo
Africa/Casablanca
Africa/Ceuta
Africa/Conakry
Africa/Dakar
Africa/Dar_es_Salaam
Africa/Djibouti
Africa/Douala
```

47. `timedatectl set-timezone "zona waktu yang kalian inginkan"` "Mengganti zona waktu sistem dengan yang diinginkan."

```
[student@workstation ~]$ timedatectl set-timezone Asia/Chungking
[student@workstation ~]$ timedatectl
      Local time: Mon 2024-01-29 14:22:29 CST
      Universal time: Mon 2024-01-29 06:22:29 UTC
          RTC time: Mon 2024-01-29 06:22:29
      Time zone: Asia/Chungking (CST, +0800)
System clock synchronized: yes
          NTP service: active
      RTC in local TZ: no
```

48. `fg` "Mengembalikan proses dari latar belakang ke depan."

```
[student@workstation ~]$ fg  
timedatectl list-timezones
```

```
Asia/Almaty  
Asia/Amman  
Asia/Anadyr  
Asia/Aqtau  
Asia/Aqtobe  
Asia/Ashgabat  
Asia/Ashkhabad  
Asia/Atyrau  
Asia/Baghdad  
Asia/Bahrain  
Asia/Baku  
Asia/Bangkok  
Asia/Barnaul  
Asia/Beirut  
Asia/Bishkek  
Asia/Brunei  
Asia/Calcutta  
Asia/Chita  
Asia/Choibalsan  
Asia/Chongqing  
Asia/Chungking
```

49. bg "Mengirim proses ke latar belakang."

```
[student@workstation ~]$ bg  
[2]+ timedatectl list-timezones &  
  
[2]+ Stopped timedatectl list-timezones
```

50. lsblk "Menampilkan informasi blok perangkat penyimpanan."

```
[student@workstation ~]$ lsblk  
NAME        MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS  
sr0          11:0    1   492K  0 rom  /run/media/student/config-2  
vda          252:0    0    10G  0 disk  
├─vda1       252:1    0     1M  0 part  
├─vda2       252:2    0   200M  0 part /boot/efi  
├─vda3       252:3    0   500M  0 part /boot  
└─vda4       252:4    0   9.3G  0 part /var/lib/containers/storage/overlay
```