#### LAPORAN RESMI

# PRAKTIKUM SISTEM OPERASI



# JUDUL: 50 COMMAND REDHAT SERVER

# **Disusun Oleh:**

TANGGAL PRAKTIKUM : 29 Januari 2024

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#### 50 command linux menggunakan RedHat

Perintah Linux pada Red Hat atau distribusi Linux lainnya adalah instruksi yang diberikan oleh pengguna untuk berinteraksi dengan sistem operasi Linux.

command tersebut memungkinkan pengguna untuk melakukan berbagai tugas, mulai dari mengelola file dan direktori, menginstal dan mengelola paket perangkat lunak, konfigurasi jaringan, manajemen pengguna, hingga pemeliharaan sistem. Contoh command yang umum digunakan di Red Hat antara lain ls untuk menampilkan isi direktori, yum untuk mengelola paket, systemctl untuk mengelola layanan, dan masih banyak lagi.

#### **COMMAND**

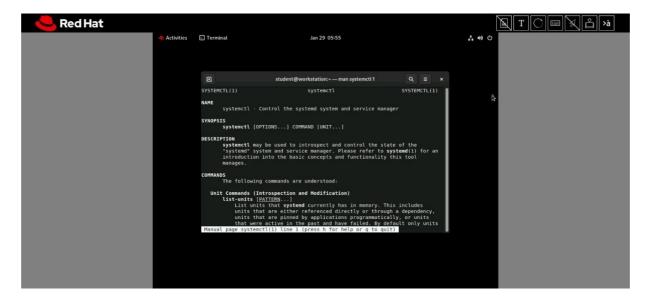
1. **Is** "Menampilkan daftar file dan direktori."



2. Date "Menampilkan Tanggal dan Waktu Sekarang."



3. Man systemctl "Digunakan untuk menampilkan manual atau dokumentasi."



4. **Sudo su** "Digunakan untuk beralih ke akun pengguna superuser atau root."



5. exit "Digunakan untuk menutup terminal."

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

6. id "Menampilkan informasi tentang identitas pengguna."

```
[student@workstation -]$ id
uid=]000[student] gid=]000[student] groups=]000[student],]0(wheel) context=uncon
fined_u:unconfined_riuncorfined_t:g0-s0:c0.c1023
```

7. **ifconfig** "Menampilkan informasi antarmuka jaringan."

```
[student@norksiation_1]s ifconfig
cni-podmane: flaps=10.52mp MemoDoxST, RUMNING MULTICAST> mtu 1500
into 10.80.0.1 netwask 255.255.0.0 broadcast 10.80.255.255
into fe80: 246.0.71friesin373b prefixlen del scopeid 0x20elink>
ether 20:0.0716.5107.3b txqueuelen 1000 (Ethernet)
RX packets 431 bytes 21356 (20.8 kiB)
RX errors 0 dropped 0 o@erruns 0 frame 0
IX packets 205 bytes 320% (20.8 kiB)
IX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
ethe: flaps=103-UB.000ACAST_RUMNING.HULTICAST> mtu 1500
inet 172.25.250.9 netwask 255.255.255.0 broadcast 172.25.250.255
inet fe80:15084:fif:fe80:fa09 prefixlen 64 scopeid 0x20elink>
RX packets 1257 bytes 33005 (38.8 kiB)
RX errors 0 dropped 0 overruns 0 frame 0
IX packets 1257 bytes 39005 (38.8 kiB)
RX errors 0 dropped 0 overruns 0 frame 0
IX packets 325 bytes 90054 (68.7 kiB)
IX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
lo: flaps=7au-pLorDeACK,RUMNING. mtu 65356
inet 127.0.0.1 netwask 255.0.0.0
inet 5::1 prefixlen 128 scopeid 0x10-host>
```

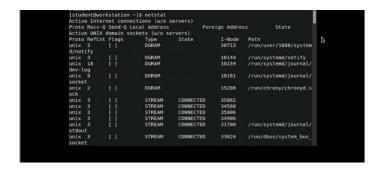
8. **hostname -I** "Digunakan untuk menampilkan alamat IP yang terkait dengan host atau sistem."

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

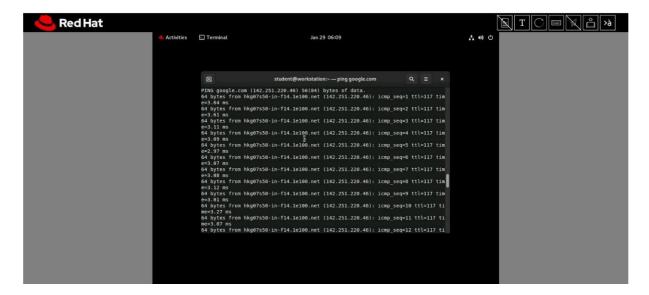
9. whoami "Menampilkan nama pengguna saat ini."

```
[student@workstation -]$ whgami
student
```

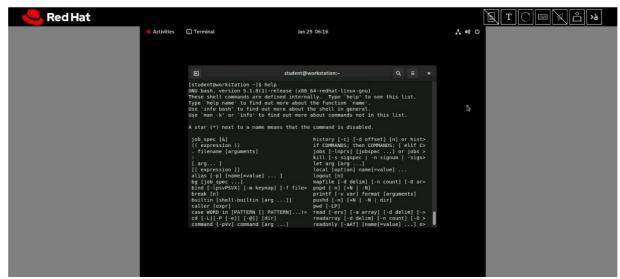
 $10.\$ netstat "Digunakan untuk menampilkan informasi berbagai aspek koneksi jaringan"



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



12. **Help** "Digunakan untuk menampilkan bantuan atau petunjuk singkat terkait dengan perintahyang dijalankan di dalam shell bash."



13. **cd "nama file**" "Digunakan untuk berpindah dari satu direktori ke direktori lain di dalamsistem file."



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



15. mkdir "Membuat direktori baru."



16. rmdir "Menghapus direktori kosong."



17. **ssh student@servera** "Cara untuk melakukan koneksi ke server dengan menggunakanprotokol 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 ~]$
```

 $18. \ \textbf{lab start logs-preserve} \ "Untuk mengecek lab system"$ 

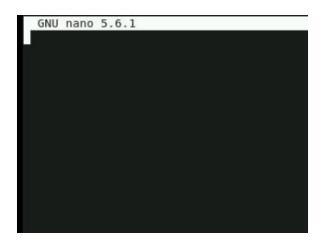
19. **sudo -i** "Digunakan untuk membuka sesi shell interaktif dengan hak istimewa superuser(root)."

```
[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 aksessuperuser (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 aksessuperuser (root)."

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

```
Starting facounts Scruics...
Starting Deer Login Hanagerest...
Starting Deer Login Hanagerest...
Starting Dearn for power nanagement...

(OR 1) Started System Logging Scruice.

(OR 1) Started Suitchero Control Proxy scruice.

(OR 1) Started System Logging Scruice.

(OR 1) Started Hir Pollent/scruer.

(OR 1) Started Hir Pollent/scruer.

(OR 1) Finished Hir System Check on AdvovdaZ...

(OR 1) Finished File System Check on AdvovdaZ...

(OR 1) Finished File System Check on AdvovdaZ...

(OR 1) Finished File System Check on AdvovdaZ...

(OR 1) Started System Starting International System Check on AdvovdaZ...

(OR 1) Started Deen for power nanagement.

(OR 1) Started Deen fanager...

(OR 1) Started File System Service.

(OR 1) Started Mount Banager.

(OR 1) Started Mount Banager.

(OR 1) Started Mount Banager.

(OR 1) Reached target Freparation for Network.

(OR 1) Starting Hetwork Hanager Beritlement certificates...

(OR 1) Started Mount Service.

(OR 1) Started Charles Service.

(OR 1) Started Hours Hanager Script Dispatcher Service.

(OR 1) Started Hours Hanager Script Dispatcher Service.

(OR 1) Started Mount Service.
```

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 :1 202<u>4</u>-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
 -1
            list user's crontab
            delete user's crontab
 -r
 -i
            prompt before deleting
 -n <host> set host in cluster to run users' crontabs
            get host in cluster to run users' crontabs
 - C
 -T <file> test a crontab file syntax
            selinux context
 - 5
            print version and exit
 - V
 -x <mask> enable debugging
Default operation is replace, per 1003.2
```

31. **Isof** "Menampilkan file yang sedang digunakan oleh proses."

```
359680
          16808392 /usr/lib64/libgssapi krb5.so.2.2
lsof
         3259
                                     student mem
                                                        REG
                                                                          252,4
         16808083 /usr/lib64/libpcre2-8.so.0.10.2
 617376
lsof
         3259
                                                        REG
                                                                          252,4
                                     student mem
         16807982 /usr/lib64/libc.so.6
2389384
lsof
         3259
                                     student mem
                                                        REG
                                                                          252,4
         16808406 /usr/lib64/libtirpc.so.3.0.0
 197136
                                                                          252,4
lsof
         3259
                                     student mem
                                                        REG
         16808086 /usr/lib64/libselinux.so.1
 172632
                                                        REG
                                                                          252,4
lsof
                                     student mem
 910704
         16807978 /usr/lib64/ld-linux-x86-64.so.2
          3259
                                                        FIF0
                                                                           0,13
lsof
                                     student
                                                41
    oto
              35687 pipe
lsof
          3259
                                     student
                                                7w
                                                        FIF0
                                                                           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)
                                        root NOFD
kworker/u 3260
                    /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
                                                                  TIME COMMAND
                                VSZ
                                      RSS TTY
                                                    STAT START
root
                  0.0
                                                          00:14
                                                                  0:01 /usr/lib/syst
                1
                        0.2 172068 16356
                                                    Ss
                                                                  0:00 [kthreadd]
root
                                        0
                                                    S
                                                          00:14
                2
                   0.0
                        0.0
                                  0
root
                   0.0
                                  0
                                        0
                                                    1<
                                                          00:14
                                                                        [rcu gp]
                3
                        0.0
                                                                  0:00
                                                                  0:00 [rcu par gp]
root
                4
                   0.0
                        0.0
                                  0
                                        0
                                                    T<
                                                          00:14
                5
                                        0 ?
                                                          00:14
                                                                  0:00 [kworker/0:0-
root
                   0.0
                        0.0
                                  0
                                                    I
                6
                                  0
                                        0 ?
                                                    I<
                                                          00:14
                                                                  0:00 [kworker/0:0H
root
                   0.0
                        0.0
               9
                   0.0
                                  0
                                        0 ?
                                                    Te
                                                          00:14
                                                                  0:00 [mm percpu wq
root
                        0.0
                                                                  0:00 [rcu tasks kt
               10
                   0.0
                                  0
                                        0 ?
                                                    S
                                                          00:14
root
                        0.0
                                                                  0:00 [rcu tasks ru
root
                   0.0
                        0.0
                                  0
                                        0 ?
                                                    5
                                                          00:14
               11
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]
                                        0 ?
                                                                  0:00 [migration/0]
root
              15
                   0.0
                        0.0
                                  0
                                                    S
                                                          00:14
                                        0 ?
                                                                  0:00 [cpuhp/0]
root
              16
                   0.0
                        0.0
                                  0
                                                    S
                                                          00:14
                                        0 ?
root
               17
                   0.0
                        0.0
                                  0
                                                    S
                                                          00:14
                                                                  0:00 [cpuhp/1]
                                        0 ?
root
              18
                   0.0
                        0.0
                                  0
                                                    5
                                                          00:14
                                                                  0:00 [migration/1]
                                        0 ?
root
               19
                   0.0
                        0.0
                                  0
                                                    5
                                                          00:14
                                                                  0:00 [ksoftirqd/1]
                                        0 ?
                                                    I<
root
               21
                   0.0
                        0.0
                                  0
                                                          00:14
                                                                  0:00 [kworker/1:0H
                                         0 ?
root
               22
                   0.0
                        0.0
                                  0
                                                    S
                                                          00:14
                                                                  0:00 [cpuhp/2]
                                         0 ?
root
               23
                   0.0
                        0.0
                                  0
                                                          00:14
                                                                  0:00 [migration/2]
                                         0 ?
                                                                  0:00 [ksoftirqd/2]
root
               24
                   0.0
                        0.0
                                                          00:14
```

33. du "Menampilkan penggunaan disk suatu direktori."

```
[student@workstation ~]$ du
        ./.ssh
20
4
        ./.config/containers
4
        ./.config/dconf
4
        ./.config/ibus/bus
        ./.config/ibus
        ./.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
        ./.venv/labs/lib/python3.9/site-packages/wheel/vendored
68
```

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
                                   2846028
                                            0% /dev
                             0
tmpfs
                 2902336
                             84
                                   2902252
                                            1% /dev/shm
tmpfs
                1160936
                           17680
                                   1143256
                                           2% /run
                                   3774828 62% /
/dev/vda4
                9756652 5981824
/dev/vda3
                 506528 186984
                                   319544 37% /boot
/dev/vda2
                 204580
                                   197432
                                            4% /boot/efi
                            7148
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.
                                IN
                        514992
                                         NS
                                                 d.root-servers.net.
                                IN
                        514992
                                         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
                                         NS
                                 IN
                                                 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, %Cpu(s): 0.1 us, 0.1 sy, 0.0 ni, 99.8 id, 0.0 wa, 0.0 h 0 zombie 0.0 wa, 0.0 hi, 0.0 si, 761.9 used, 5668.6 total, 4289.6 free, MiB Mem : 617.1 buff/cache 4644.1 avail Mem MiB Swap: 0.0 total, 0.0 free, 0.0 used. PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND 3339 student 226052 4368 3540 R 0.3 0.1 0:00.02 top 20 0 1 root 16356 10344 S 0.0 0.3 0:01.54 systemd 20 172068 2 root 20 0 0 0 S 0.0 0:00.00 kthreadd 0 0.0 0 -20 0 0 0 I 0.0 0:00.00 rcu gp 3 root 0.0 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+ 0 -20 0 0 0 I 0.0 0.0 0:00.00 kworker+ 6 root 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+ 0 S 0.0 11 root 20 0 Θ 0 0.0 0:00.00 rcu tas+ 0 5 0.0 0:00.00 rcu tas+ 12 root 20 Θ 0 0 0.0 0 S 0.0 0.0 0:00.00 ksoftir+ 13 root 20 Θ 0 0 20 Θ 0 0 0 I 0.0 0.0 0:00.04 rcu pre+ 14 root 15 root 0 0 0 0 S 0.0 0.0 0:00.00 migrati+ rt

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."

Kernel IP rou	ting table						
Destination	Gateway	Genmask	Flags	Metric	Ref	Use	Iface
default	bastion.lab.exa	0.0.0.0	UG	100	Θ	Θ	eth0
10.88.0.0	0.0.0.0	255.255.0.0	U	Θ	Θ	Θ	cni-podm
an0							
172.25.250.0	0.0.0.0	255.255.255.0	U	100	Θ	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
     sudo su
   8
     id
   9 ipconfig
  10 ifconfig
      hostname -I
  11
  12 whoami
  13 netstart
  14 netstat
  15 msinfo32
  16 msinfo64
  17 msinfo32 /computer
  18 ping
      ping google.com
  19
  20
      help
  21
      echo
```

43. **useradd -D** "Digunakan untuk melihat atau mengonfigurasi default untuk pembuatanpengguna 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 perintahtersebut."

```
[student@workstation ~]$ killall -V
killall (PSmisc) 23.4
Copyright (C) 1993-2021 Werner Almesberger and Craig Small
PSmisc comes with ABSOLUTELY NO WARRANTY.
This is free software, and you are welcome to redistribute it under the terms of the GNU General Public License.
For more information about these matters, see the files named COPYING.
```

45. **timedatecti** "Perintah pada sistem operasi Linux yang digunakan untuk mengonfigurasidan menampilkan informasi waktu dan tanggal sistem."

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."

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. **Isblk** "Menampilkan informasi blok perangkat penyimpanan."

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