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Kelas : SK3A

Mata Kuliah : Sistem Operasi

Dosen Pengampu : Adi Hermansyah, M.T

50 Command Line diLinux Beserta Fungsinya

1. pwd : Menampilkan Posisi Direktori Saat Ini.

2. ls : Menampilkan Daftar File Dan Folder.

```
[student@workstation ~]$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos
```

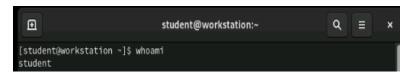
3. ls -a : Menampilkan Semua File Termasuk Yang Tersembunyi

```
[student@workstation ~]$ ls -a
...bashrc .jupyter .ssh Desktop Templates
...cache local .tmux.conf Documents Videos
.ansible .config .mozilla .var Downloads
.bash_history .dotnet .npm .venv .Music
.bash_logout .grading .pki .viminfo .Pictures
.bash_profile .jpython .rht-labs-dle.log .vscde .Public
```

4. ls -l : Menampilkan Daftar File Dengan Detail

```
[student@workstation ~]$ ls -l
total 0
drwxr-xr-x. 2 student student 6 Mar 7
                                       2024 bestson
drwxr-xr-x. 2 student student 6 Mar
drwxr-xr-x. 2 student student 6 Mar
                                       2024
drwxr-xr-x. 2 student student 6 Mar 7
drwxr-xr-x. 2 student student 6 Mar
                                       2024
drwxr-xr-x. 2 student student 6 Mar 7
                                       2024 Buhille
drwxr-xr-x. 2 student student 6 Mar 7
                                       2024 Template
drwxr-xr-x. 2 student student 6 Mar
                                       2024
[student@workstation ~]$
```

5. whoami: Menampilkan nama user



6. date : Menampilkan tanggal dan waktu

```
[student@workstation ~]$ date
Fri Sep 12 05:17:1∰ UTC 2025
```

7. cal : Menampilkan kalender

```
[student@workstation ~]$ cal

September 2025

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

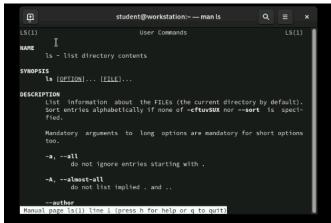
21 22 23 24 25 26 27

28 29 30
```

8. echo "Hello Linux" : Menampilkan teks kelayar

```
[student@workstation ~]$ echo "Hello Linux"
Hello Linux
```

9. man ls: Melihat manual command ls



10. uname -a : Menampilkan informasi system

```
E student@workstation:~ Q ≡ x

[student@workstation ~]$ uname -a
Linux workstation 5.14.0-362.8.1.el9_3.x86_64 #1 SMP PREEMPT_DYNAMIC Tue Oct 3 1
1:12:36 EDT 2023 x86_64 x86_64 x86_64 GNU/Linux
```

11. uptime: Menampilkan lama system berjalan

```
[student@workstation ~]$ uptime
05:19:36 up 3:34, 2 users, load average: 0.01, 0.02, 0.00
[student@workstation ~]$ free -h
total used free shared buff/cache available
Mem: 5.5Gi 1.4Gi 3.5Gi 22Mi 939Mi 4.1Gi
Swap: 0B 0B 0B
```

12. free -h: menampilkan penggunaan RAM

```
[student@workstation ~]$ free -h
                                                                         available
                                         free
                                                    shared buff/cache
               total
                            used
Mem:
               5.5Gi
                            1.4Gi
                                        3.5Gi
                                                                 939Mi
                                                                             4.1Gi
Swap:
                  0B
                              0B
                                           0B
```

13. df -h : menampilkan informasi penggunaan ruang disk (storage) dalam format yang mudah dibaca manusia (human-readable)

```
student@workstation
                     Used Avail Use% Mounted on
Filesystem
               Size
devtmpfs
               4.0M
                       0 4.0M
                                 0% /dev
tmpfs
               2.8G
                      84K 2.8G
                                  1% /dev/shm
tmpfs
               1.26
                      18M 1.1G
                      15G 4.3G 78% /
/dev/vda4
                20G
/dev/vda3
               536M 221M 316M 42% /boot
/dev/vda2
               200M
                     7.0M
                          193M
                                 4% /boot/efi
                     104K 566M 1% /run/user/1080
tmpfs
               566M
/dev/sr0
               536K 536K
                              0 100% /run/media/meta-data
[student@workstation ~]$ ps
                    TIME CMD
   PID TTY
  2796 pts/0
                00:00:00 bash
   2937 pts/0
                00:00:00 ps
```

14. ps : Menampilkan proses yang sedang berjalan

```
Estudent@workstation ~]$ ps
PID TTY TIME CMD
3711 pts/0 00:00:00 bash
3743 pts/0 00:00:00 ps
[student@workstation ~]$ ■
```

15. top: Menampilkan proses system secara real-time

```
ⅎ
                                    student@workstation:~ - top
                                                                                      Q
                                                                                             ≡
top - 05:28:27 up 3:43, 2 users, load average: 0.32, 0.18, 0.07
Tasks: 223 total, 1 running, 222 sleeping, 0 stopped, 0 zombie
%Cpu(s): 1.1 us, 0.2 sy, 0.0 ni, 98.6 id, 0.0 wa, 0.1 hi, 0.0 si, 0.0 st
MiB Mem : 5657.4 total, 3522.0 free, 1475.4 used, 942.0 buff/cache
                   0.0 total,
                                       0.0 free,
                                                                          4181.9 avail Me∰m
MiB Swap:
                                                           0.0 used.
                             0 4822968 250652 127080 S
                                                                                           gnome-s+
                                                                                 0:22.67
                             0 813828 76292
                                                                                 0:07.12 Xorg
    1291 student
                                                    48780 S
                                686948
                                           47480
                                                    37432 S
                                                                                 0:00.22 gnome-t+
    2966 student
    1758 student
                                 665100
                                           31996
                                                    22064 S
                                                                                 0:00.45 gsd-xse+
        1 root
                                 173028
                                                                 0.0
                                                                                 0:01.57 systemd
                                                                                 0:00.01 kthreadd
                        0 -20
                                                                                 0:00.00 rcu_gp
        3 root
                                                                 0.0
                                                                         0.0
                                                                                 0:00.00 rcu_par+
                                                                                 0:00.00 slub_fl+
        5 root
                                                                 0.0
                                                                         0.0
                                                                                 0:00.00 netns
                                                                                 0:00.00 kworker+
                                                                 0.0
       10 root
                                                                                 0:00.00 mm_perc+
                                                                         0.0
                                                                                 0:00.16 kworker+
                                                                                 0:00.00 rcu_tas+
       12 root
                                                                 0.0
                                                                         0.0
                                                                                 0:00.00 rcu_tas+
                                                                                 0:00.00 rcu_tas+
       14 root
                                                                                 0:00.00 ksoftir+
       15 root
```

16. hostname : Menampilkan nama computer

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

[student@workstation ~]$ hostname
```

17. who: Menampilkan siapa saja user dan grup

```
| student | seato | 2025-09-12 01:45 (login screen) | student :0 | 2025-09-12 01:45 (:0) |
```

18. id : Menampilkan informasi user dan grup

```
[student@workstation ~]$ id
uid=1000(student) gid=1000(student) groups=1000(student),10(wheel) context=unconfine
d_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
```

19. groups: Menampilkan grup yang diikuti user

```
[student@workstation ~]$ groups
student wheel
```

20. lsblk : Menampilkan daftar partisi disk

21. echo \$HOME: Menampilkan direktori home

```
[student@workstation ~]$ echo $HOME
/home/student
```

22. echo \$PATH: menampilkan PATH environment

```
[student@workstation ~]$ echo $PATH
/home/student/.local/bin:/home/student/bin:/sbin:/bin:/usr/sbin:/usr/bin:/usr/lo
cal/sbin:/usr/local/bin:/home/student/.venv/labs/bin
[student@workstation ~]$
```

23. Uname -r : Menampilkan versi kernel linux

```
student@workstation:~ Q = ×

[student@workstation ~]$ uname -r
5.14.0-362.8.1.el9_3.x86_64
```

24. ls --help : Menampilkan bantuan singkat tentang command ls

```
file-type (--file-type), classify (-f)
print the index number of each file

-I, --ignore-PATTEN
do not list implied entries matching shell PATTEN
default to 1024-byte blocks for disk usage;
used only with -s and per directory totals
use a long listing format

-L, --dereference
use a long listing format
when showing file information for a symbolic
link, show information for the file the link
references rather than for the link itself
fill width with a comes separated list of entries
-n, --literal
-n, --literal
-n, --iteral
-n, --iter
```

```
--hetp display this help and exit
--version output version information and exit

The SIZE argument is an integer and optional unit (example: 18K is 10+1024).

Units are K,M,G,T,P,E,Z,Y (powers of 1024) or KB,MB,... (powers of 1000).

Binary prefixes can be used, too: KiB=K, MIB=M, and so on.

The TIME_STYLE argument can be full-iso, long-iso, iso, locale, or +FORMAT.
FORMAT is interpreted like in date(1). If FORMAT is FORMATICHEWline>FORMAT2, then FORMATI applies to non-recent files and FORMATI to recent files.

TIME_STYLE prefixed with 'posix-' takes effect only outside the POSIX locale.

Also the TIME_STYLE environment variable sets the default style to use.

Using color to distinguish file types is disabled both by default and with --color-anever. With --color-anto, is emits color codes only when standard output is connected to a terminal. The LS_COLORS environment variable can change the settings. Use the directors command to set it.

Exit status:

0 if OK,

1 if minor problems (e.g., cannot access subdirectory),

2 if serious trouble (e.g., cannot access command-line argument).

GNU coreutils online help: <a href="https://www.gnu.org/software/coreutils/">https://www.gnu.org/software/coreutils/</a>>

Report any translation bugs to <a href="https://www.gnu.org/software/coreutils/">https://www.gnu.org/software/coreutils/</a>>

Full documentation <a href="https://www.gnu.org/software/coreutils/">https://www.gnu.org/software/coreutils/</a>>

Full documentation <a href="https://www.gnu.org/software/coreutils/">https://www.gnu.org/software/coreutils/</a>>

Full documentation <a href="https://www.gnu.org/software/coreutils/">https://www.gnu.org/software/coreutils/</a>
```

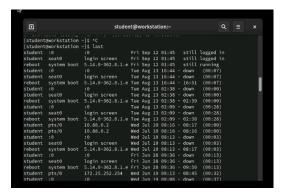
25. man date : Melihat manual penggunaan command date



26. alias : Menampilkan daftar alias command

```
[student@workstation ~]$ alias
alias egrep='egrep --color=auto'
alias fgrep='fgrep --color=auto'
alias l.='ls -d .* --color=auto'
alias l.='ls -l --color=auto'
alias l.='ls -l --color=auto'
alias ls='ls --color=auto'
alias xzegrep='xzegrep --color=auto'
alias xzegrep='xzfgrep --color=auto'
alias xzgrep='xzgrep --color=auto'
alias zgrep='zegrep --color=auto'
alias zfgrep='zegrep --color=auto'
alias zfgrep='zegrep --color=auto'
alias zfgrep='zegrep --color=auto'
alias zgrep='zgrep --color=auto'
alias zgrep='zgrep --color=auto'
[student@workstation ~]$
```

27. last : Menampilkan riwayat login user



28. w → Menampilkan user login dan aktivitasnya.

```
□ student@workstation:- Q ≡ x

[student@workstatson ~15 w
10:44:54 up 8:59, 2 users, load average: 8.00, 8.00, 8.00 0.00
USER TTV LOGHM IDLE JCPU PCPU WHAT
student seat0 01:45 8.00s 0.08s 0.88s /usr/libexec/gdm-x-session --re
student :0 01:45 7.xdm? 31:30 0.88s /usr/libexec/gdm-x-session --re
```

29. uname -o → Menampilkan nama sistem operasi.

```
[student@workstation ~]$ uname −o
GNU/Linux
```

30. echo \$SHELL → Menampilkan shell yang digunakan (misal: bash, zsh).

```
[student@workstation ~]$ echo $SHELL /bin/bash [student@workstation ~]$
```

31. history | head → Menampilkan beberapa command pertama di riwayat.

32. history | tail → Menampilkan beberapa command terakhir di riwayat.

```
Istudent@workstation ~]$ history | tail
54 man date
55 alias
56 history
57 man ls
58 ps
59 w
60 uname -o
61 echo $SHELL
62 history | head
63 history | tail
```

33. cal $-y \rightarrow$ Menampilkan kalender 1 tahun penuh.





34. printenv → Menampilkan semua environment variable.

```
: Could not activate remote peer.
[student@workstation ~]$ printenv
SHELL=/bin/bash
SESSION_MANAGER=local/unix:@/tmp/.ICE-unix/1421,unix/unix:/tmp/.ICE-unix/1421
COLORTERH=truecolor
HISTCONTROL=ignoredups
XDG_MENU_PREFIX=gnome-
HISTSIZE=ISTONED
HOSTINAME=workstation
SSH_AUTH_SOCK=/run/user/1800/keyring/ssh
XMODIFIERS=efim=ibus
DESKTOP_SESSION=gnome
PWD=/home/Student
             GMAME-student
G_SESSION_DESKTOP=gnome
G_SESSION_TYPE=x11
STEMD_EXEC_PID=1444
UTHORITY=[run/user/1000/gdm/Xauthority
NDOWPATH=2
M_LANG=C_UTF-8
ME=/home/student
```

:RSION=6402 _TERMINAL_SCREEN=/org/gnome/Terminal/screen/e2c89504_3e86_44de_8761_b5dc7

35. lspci → Menampilkan daftar perangkat PCI (misalnya VGA, sound card).

```
[student@workstation ~]$ lspci
00:00.0 Host bridge: Intel Corporation 440FX - 82441FX PMC [Natoma] (rev 02)
00:01.0 ISA bridge: Intel Corporation 82371SB PIIX3 ISA [Natoma/Triton II]
00:01.1 IDE interface: Intel Corporation 82371SB PIIX3 IDE [Natoma/Triton II]
00:01.2 USB controller: Intel Corporation 82371SB PIIX3 USB [Natoma/Triton II]
rev 01)
00:01.3 Bridge: Intel Corporation 82371AB/EB/MB PIIX4 ACPI (rev 03)
00:02.0 VGA compatible controller: Device 1234:1111 (rev 02)
00:03.0 Ethernet controller: Red Hat, Inc. Virtio network device
00:04.0 SCSI storage controller: Red Hat, Inc. Virtio block device
00:05.0 Unclassified device [00ff]: Red Hat, Inc. Virtio memory balloon
00:06.0 Unclassified device [00ff]: Red Hat, Inc. Virtio RNG
```

36. free \rightarrow Menampilkan penggunaan RAM (tanpa format human-readable).

```
student@wcrkstation ~]$ free
                                          free
               total
                             used
                                                    shared
                                                            buff/cache
                                                                          available
                                      3600988
                                                                 957948
Mem:
             5793156
                          1523820
                                                     22652
                                                                            4269336
wap:
```

```
37. alias ll='ls -lh' \rightarrow Membuat alias sederhana untuk ls -lh. [student@workstation ~]$ alias ll='ls-lh' [student@workstation ~]$ alias
       alias egrep='egrep --color=auto'
alias fgrep='fgrep --color=auto'
       alias grep='grep --color=auto'
alias l.='ls -d .* --color=auto'
alias ll='ls-lh'
       alias ls='ls --color=auto'
alias xzegrep='xzegrep --color=auto'
       alias xzfgrep='xzfgrep --color=auto'
       alias xzgrep='xzgrep --color=auto'
       alias zegrep='zegrep --color=auto'
       alias zfgrep='zfgrep --color=auto'
       alias zgrep='zgrep --color=auto'
       [student@workstation ~]$ alias ll
       alias ll='ls-lh'
       [student@workstation ~]$
```

38. unalias $11 \rightarrow Menghapus$ alias yang sudah dibuat.

```
[student@workstation ~]$ unalias ll
[student@workstation ~]$ alias ll
bash: alias: ll: not found
[student@workstation ~]$
```

39. seq 1 10 → Menampilkan angka 1 sampai 10 berurutan.

```
[student@workstation ~]$ seq 1 10
1
2
3
4
5
6
7
8
9
```

40. yes Linux | head -n 5 \rightarrow Menampilkan kata *Linux* sebanyak 5 kali.

```
[student@workstation ~]$ yes linux x | head -n 5
linux x
linux x
linux x
```

41. last reboot → menampilkan riwayat kapan sistem pernah direboot.

```
| Student@workstation ~ | $ | sast reboot | system boot | 5.14.8-362.8.1.e Sun Sep 14 85:44 | still running | reboot | system boot | 5.14.8-362.8.1.e Tue Aug 13 16:44 - 16:51 (00:07) | reboot | system boot | 5.14.8-362.8.1.e Tue Aug 13 16:44 - 16:51 (00:07) | reboot | system boot | 5.14.8-362.8.1.e Tue Aug 13 82:93 - 02:39 (00:08) | reboot | system boot | 5.14.8-362.8.1.e Tue Aug 13 82:99 - 02:38 (00:28) | reboot | system boot | 5.14.8-362.8.1.e Tue Aug 13 82:99 - 02:38 (00:28) | reboot | system boot | 5.14.8-362.8.1.e Tue Aug 13 82:99 - 02:38 (00:28) | reboot | system boot | 5.14.8-362.8.1.e Tue Aug 10 88:13 - 08:17 (00:03) | reboot | system boot | 5.14.8-362.8.1.e Tue Aug 19 88:07 - 08:45 (00:37) | reboot | system boot | 5.14.8-362.8.1.e Tue Aug 17 11:01 - 12:51 (01:49) | reboot | system boot | 5.14.8-362.8.1.e Thu Mar | 7 13:50 - 12:51 (40+23:50) | reboot | system boot | 5.14.8-362.8.1.e Thu Mar | 7 12:56 - 13:00 (00:04) | reboot | system boot | 5.14.8-362.8.1.e Thu Mov | 9 09:55 - 10:06 (00:11) |
```

42. factor $100 \rightarrow$ menampilkan faktor bilangan 100.

```
student@workstation ~j$ factor 100
.00: 2 2 5 5
```

43. rev \rightarrow membalik urutan karakter dalam teks.

```
[student@workstation ~]$ rev
Hesti
itseH
```

44. echo "Halo Linux" > file1.txt: Membuat file baru bernama file1.txt dan menuliskan teks *Halo Linux* di dalamnya.

```
[student@workstation ~]$ echo "Hallo Linux" > file1.txt
[student@workstation ~]$ █
```

45. echo "Halo Dunia" > file2.txt: Membuat file baru bernama file2.txt dan menuliskan teks *Halo Dunia*.

```
[student@workstation ~]$ echo "Hallo Dunia" > file2.txt
[student@workstation ~]$
```

46. cmp file1.txt file2.txt: Membandingkan isi dua file secara biner (byte per byte).

```
r3tudent@workstation ~]$ cmp file1.txt file2.txt
file1.txt file2.txt differ: byte 7, line 1
[student@workstation ~]$ ■
```

47. diff file1.txt file2.txt: Membandingkan isi file baris demi baris.

```
[student@workstation ~]$ diff file1.txt file2.txt

Vel

< Hallo Linux

---

> Hallo Dunia
```

48. echo -e "\x48\x65\x6c\x6c\x6f Linux" > file.bin: embuat file biner dengan kode heksadesimal (\x48\x65...) yang sebenarnya merepresentasikan teks *Hello Linux*.

```
[student@workstation ~]$ echo -e "/x48/x65/x6c/x6c/x6f/ Linux" > file.bin [student@workstation ~]$ ■
```

49. strings file.bin: Menampilkan teks yang bisa dibaca dari file biner.

```
student@workstation ~]$ strings file.bin
x48/x65/x6c/x6c/x6f/ Linux
student@workstation ~]$
```

50. od -c file1.txt: Menampilkan isi file dalam format kode ASCII (octal/karakter)

```
[student@workstation ~]$ od ~c file1.txt
0000000 H a l l o L i n u x \n
0000014
[student@workstation ~]$
```