

Noor Aniq W,
L200180191

MODUL 5

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Terminal - root@kayon-pc4: /home/kayon-pc4
File Edit View Terminal Tabs Help

kayon-pc4@kayon-pc4:~$ sudo su
[sudo] password for kayon-pc4:
root@kayon-pc4: /home/kayon-pc4# echo
kayon-pc4
root@kayon-pc4: /home/kayon-pc4# echo halo dunia
halo dunia
root@kayon-pc4: /home/kayon-pc4# date
Rab Okt  9 16:40:19 WIB 2019
root@kayon-pc4: /home/kayon-pc4# hostname
kayon-pc4
root@kayon-pc4: /home/kayon-pc4# arch
x86_64
root@kayon-pc4: /home/kayon-pc4# uname -a
Linux kayon-pc4 4.18.0-22-generic #23-18.04.1-Ubuntu SMP Thu Jun 6 08:37:25 UTC 2019 x86_64 x86_64 x86_64 GNU/Linux
root@kayon-pc4: /home/kayon-pc4# uptime
 16:44:21 up 11 min,  1 user,  load average: 0,04, 0,51, 0,53
root@kayon-pc4: /home/kayon-pc4# whoami
root
root@kayon-pc4: /home/kayon-pc4# who
kayon-pc4 tty7      2019-10-09 23:33 (:0)
root@kayon-pc4: /home/kayon-pc4# id
uid=0(root) gid=0(root) groups=0(root)
root@kayon-pc4: /home/kayon-pc4# last
kayon-pc tty7      :0          Wed Oct  9 23:33   gone - no logout
reboot system boot 4.18.0-22-generi Wed Oct  9 23:33   still running
kayon-pc tty7      :0          Tue Oct  8 17:37 - 17:41 (00:03)
reboot system boot 4.18.0-22-generi Tue Oct  8 17:37 - 17:41 (00:04)
kayon-pc tty7      :0          Tue Oct  8 17:31 - 17:31 (00:00)
reboot system boot 4.18.0-22-generi Tue Oct  8 17:30 - 17:31 (00:00)
kayon-pc tty7      :0          Tue Oct  8 23:15 - 17:30 (-5:45)
reboot system boot 4.18.0-22-generi Tue Oct  8 23:14 - 17:30 (-5:44)
kayon-pc tty7      :0          Tue Oct  8 15:16 - 15:23 (00:06)
reboot system boot 4.18.0-22-generi Tue Oct  8 15:14 - 15:24 (00:10)
kayon-pc tty7      :0          Tue Oct  8 15:05 - 15:09 (00:04)
reboot system boot 4.18.0-22-generi Tue Oct  8 15:05 - 15:24 (00:19)
kayon-pc tty7      :0          Tue Oct  8 14:55 - 15:03 (00:07)
reboot system boot 4.18.0-22-generi Tue Oct  8 14:54 - 15:03 (00:08)

wtmp begins Tue Oct  8 14:51:00 2019
root@kayon-pc4: /home/kayon-pc4# finger

Command 'finger' not found, but can be installed with:

apt install finger

root@kayon-pc4: /home/kayon-pc4# w
16:44:09 up 11 min,  1 user,  load average: 0,02, 0,43, 0,50
USER      TTY      FROM          LOGIN@   IDLE   JCPU   PCPU WHAT
kayon-pc  tty7     :0            23:33    ?      8.94s  0.02s /bin/sh /etc/xd
root@kayon-pc4: /home/kayon-pc4# top
top - 16:45:23 up 12 min,  1 user,  load average: 0,01, 0,40, 0,49
Tasks: 188 total,  1 running, 138 sleeping,  0 stopped,  0 zombie
%Cpu(s):  0,2 us,  0,6 sy,  0,0 ni, 99,3 id,  0,0 wa,  0,0 hi,  0,0 si,  0,0 st
KiB Mem : 8106416 total, 5167032 free, 406668 used, 2532716 buff/cache
KiB Swap: 947080 total, 947080 free,  0 used, 7389288 avail Mem

  PID USER      PR  NI   VIRT   RES   SHR  S  %CPU  %MEM     TIME+ COMMAND
 873 root        20   0 346196 56024 40240 S   0,3   0,7   0:09.09 Xorg
 887 root       -51   0   0       0       0 S   0,3   0,0   0:00.63 irq/29-nvi+
8085 kayon-p+  20   0 582432 38720 29464 S   0,3   0,5   0:00.68 xfce4-term+
9410 root       20   0 51652  4124  3472 R   0,3   0,1   0:00.05 top
   1 root       20   0 225548  9400  6824 S   0,0   0,1   0:01.48 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_gp
   5 root       20   0   0       0       0 I   0,0   0,0   0:00.01 kworker/0:0+
   6 root       0 -20   0       0       0 I   0,0   0,0   0:00.00 kworker/0:0+
   8 root       0 -20   0       0       0 I   0,0   0,0   0:00.00 mm_percpu +
   9 root       20   0   0       0       0 S   0,0   0,0   0:00.07 ksoftirqd/0
  10 root       20   0   0       0       0 I   0,0   0,0   0:00.32 rcu_sched
  11 root       20   0   0       0       0 I   0,0   0,0   0:00.00 rcu_bh
  12 root      rt    0   0       0       0 S   0,0   0,0   0:00.00 migration/0
  13 root      rt    0   0       0       0 S   0,0   0,0   0:00.00 watchdog/0
  14 root       20   0   0       0       0 S   0,0   0,0   0:00.00 cpuhp/0
root@kayon-pc4: /home/kayon-pc4# echo $SHELL
/bin/bash
root@kayon-pc4: /home/kayon-pc4# echo {con, pre} {sent,fer} {s,ed}
{con, pre} sent fer s ed
root@kayon-pc4: /home/kayon-pc4# man ls
root@kayon-pc4: /home/kayon-pc4# man ls
root@kayon-pc4: /home/kayon-pc4# man who
root@kayon-pc4: /home/kayon-pc4# who can tell me about linux
who: extra operand 'me'
Try 'who --help' for more information.
root@kayon-pc4: /home/kayon-pc4# last
kayon-pc tty7      :0          Wed Oct  9 23:33   gone - no logout
reboot system boot 4.18.0-22-generi Wed Oct  9 23:33   still running
kayon-pc tty7      :0          Tue Oct  8 17:37 - 17:41 (00:03)
reboot system boot 4.18.0-22-generi Tue Oct  8 17:37 - 17:41 (00:04)
kayon-pc tty7      :0          Tue Oct  8 17:31 - 17:31 (00:00)
```

```
Terminal - root@kayon-pc4: /home/kayon-pc4
File Edit View Terminal Tabs Help

root@kayon-pc4: /home/kayon-pc4# w
16:45:09 up 11 min,  1 user,  load average: 0,02, 0,43, 0,50
USER      TTY      FROM          LOGIN@   IDLE   JCPU   PCPU WHAT
kayon-pc  tty7     :0            23:33    ?      8.94s  0.02s /bin/sh /etc/xd
root@kayon-pc4: /home/kayon-pc4# top
top - 16:45:23 up 12 min,  1 user,  load average: 0,01, 0,40, 0,49
Tasks: 188 total,  1 running, 138 sleeping,  0 stopped,  0 zombie
%Cpu(s):  0,2 us,  0,6 sy,  0,0 ni, 99,3 id,  0,0 wa,  0,0 hi,  0,0 si,  0,0 st
KiB Mem : 8106416 total, 5167032 free, 406668 used, 2532716 buff/cache
KiB Swap: 947080 total, 947080 free,  0 used, 7389288 avail Mem

  PID USER      PR  NI   VIRT   RES   SHR  S  %CPU  %MEM     TIME+ COMMAND
 873 root        20   0 346196 56024 40240 S   0,3   0,7   0:09.09 Xorg
 887 root       -51   0   0       0       0 S   0,3   0,0   0:00.63 irq/29-nvi+
8085 kayon-p+  20   0 582432 38720 29464 S   0,3   0,5   0:00.68 xfce4-term+
9410 root       20   0 51652  4124  3472 R   0,3   0,1   0:00.05 top
   1 root       20   0 225548  9400  6824 S   0,0   0,1   0:01.48 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_gp
   5 root       20   0   0       0       0 I   0,0   0,0   0:00.01 kworker/0:0+
   6 root       0 -20   0       0       0 I   0,0   0,0   0:00.00 kworker/0:0+
   8 root       0 -20   0       0       0 I   0,0   0,0   0:00.00 mm_percpu +
   9 root       20   0   0       0       0 S   0,0   0,0   0:00.07 ksoftirqd/0
  10 root       20   0   0       0       0 I   0,0   0,0   0:00.32 rcu_sched
  11 root       20   0   0       0       0 I   0,0   0,0   0:00.00 rcu_bh
  12 root      rt    0   0       0       0 S   0,0   0,0   0:00.00 migration/0
  13 root      rt    0   0       0       0 S   0,0   0,0   0:00.00 watchdog/0
  14 root       20   0   0       0       0 S   0,0   0,0   0:00.00 cpuhp/0
root@kayon-pc4: /home/kayon-pc4# echo $SHELL
/bin/bash
root@kayon-pc4: /home/kayon-pc4# echo {con, pre} {sent,fer} {s,ed}
{con, pre} sent fer s ed
root@kayon-pc4: /home/kayon-pc4# man ls
root@kayon-pc4: /home/kayon-pc4# man ls
root@kayon-pc4: /home/kayon-pc4# man who
root@kayon-pc4: /home/kayon-pc4# who can tell me about linux
who: extra operand 'me'
Try 'who --help' for more information.
root@kayon-pc4: /home/kayon-pc4# last
kayon-pc tty7      :0          Wed Oct  9 23:33   gone - no logout
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reboot system boot 4.18.0-22-generi Tue Oct  8 17:37 - 17:41 (00:04)
kayon-pc tty7      :0          Tue Oct  8 17:31 - 17:31 (00:00)
```

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Terminal - root@kayon-pc4: /home/kayon-pc4
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reboot system boot 4.18.0-22-generic Tue Oct 8 14:54 - 15:03 (00:08)

wtmp begins Tue Oct 8 14:51:00 2019
root@kayon-pc4:/home/kayon-pc4# apt install finger
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  linux-headers-4.15.0-60 linux-headers-4.15.0-60-generic linux-image-4.15.0-60-generic linux-modules-4.15.0-60-generic linux-modules-extra-4.15.0-60-generic
Use 'sudo apt autoremove' to remove them.
The following NEW packages will be installed:
  finger
0 upgraded, 1 newly installed, 0 to remove and 143 not upgraded.
Need to get 15,6 kB of archives.
After this operation, 48,1 kB of additional disk space will be used.
Get:1 http://id.archive.ubuntu.com/ubuntu bionic/universe amd64 finger amd64 0.17-15.1 [15,6 kB]
Fetched 15,6 kB in 1s (15,2 kB/s)
Selecting previously unselected package finger.
(Reading database ... 341727 files and directories currently installed.)
Preparing to unpack .../finger_0.17-15.1_amd64.deb ...
Unpacking finger (0.17-15.1) ...
Setting up finger (0.17-15.1) ...
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...
root@kayon-pc4:/home/kayon-pc4# finger
Login      Name      Tty      Idle      Login Time   Office      Office Phone
kayon-pc4  kayon-pc4  tty7          Oct 9 23:33 (:0)
root@kayon-pc4:/home/kayon-pc4# fdisk
fdisk: bad usage
Try 'fdisk --help' for more information.
root@kayon-pc4:/home/kayon-pc4# users
kayon-pc4
root@kayon-pc4:/home/kayon-pc4# cat /etc/fstab
#
# /etc/fstab: static file system information.
#
# Use 'blkid' to print the universally unique identifier for a
# device; this may be used with UUID= as a more robust way to name devices
# that works even if disks are added and removed. See fstab(5).
#
# <file system> <mount point> <type> <options>      <dump> <pass>
# / was on /dev/sda4 during installation
UUID=f54d95e-1e39-4b5b-a064-bbb20bad9787 /      ext4    errors=remount-ro 0    1
/swapfile none    swap    sw              0    0
root@kayon-pc4:/home/kayon-pc4# cal 2000
      2000
      Januari      Februari      Maret
Mi Se Sa Ra Ka Ju Sa  Mi Se Sa Ra Ka Ju Sa  Mi Se Sa Ra Ka Ju 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
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
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
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
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
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
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
8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
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24 25 26 27 28 29 30 31
25 26 27 28 29 30 31
26 27 28 29 30 31
27 28 29 30 31
28 29 30 31
29 30 31
30 31
31
root@kayon-pc4:/home/kayon-pc4#
```

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Terminal - root@kayon-pc4: /home/kayon-pc4
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# device; this may be used with UUID= as a more robust way to name devices
# that works even if disks are added and removed. See fstab(5).
#
# <file system> <mount point> <type> <options>      <dump> <pass>
# / was on /dev/sda4 during installation
UUID=f54d95e-1e39-4b5b-a064-bbb20bad9787 /      ext4    errors=remount-ro 0    1
/swapfile none    swap    sw              0    0
root@kayon-pc4:/home/kayon-pc4# cal 2000
      2000
      Januari      Februari      Maret
Mi Se Sa Ra Ka Ju Sa  Mi Se Sa Ra Ka Ju Sa  Mi Se Sa Ra Ka Ju 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
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
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
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
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
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
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
8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
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26 27 28 29 30 31
27 28 29 30 31
28 29 30 31
29 30 31
30 31
31
root@kayon-pc4:/home/kayon-pc4#
```

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Terminal - root@kayon-pc4: /home/kayon-pc4
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24 25 26 27 28 29 30

root@kayon-pc4:/home/kayon-pc4# cal 10 2007
  Oktober 2007
Mi Se Sa Ra Ka Ju 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

root@kayon-pc4:/home/kayon-pc4# cal 12 2019
  Desember 2019
Mi Se Sa Ra Ka Ju 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

root@kayon-pc4:/home/kayon-pc4# bc -l
bc: invalid option -- '1'
usage: bc [options] [file ...]
  -h --help            print this usage and exit
  -i --interactive     force interactive mode
  -l --mathlib         use the predefined math routines
  -q --quiet           don't print initial banner
  -s --standard       non-standard bc constructs are errors
  -w --warn           warn about non-standard bc constructs
  -v --version         print version information and exit
root@kayon-pc4:/home/kayon-pc4# bc -l
bc 1.07.1
Copyright 1991-1994, 1997, 1998, 2000, 2004, 2006, 2008, 2012-2017 Free Software Foundation, Inc.
This is free software with ABSOLUTELY NO WARRANTY.
For details type 'warranty'.
quit
root@kayon-pc4:/home/kayon-pc4# dmesg # more
[ 0.000000] microcode: microcode updated early to revision 0x27, date = 2019-02-26
[ 0.000000] Linux version 4.18.0-22-generic (build@lgw01-amd64-033) (gcc version 7.3.0 (Ubuntu 7.3.0-16ubuntu3)) #23-18.04.1-Ubuntu SMP Thu Jun 6 08:37:25 UTC 2019 (Ubuntu 4.18.0-22.23-18.04.1-generic 4.18.20)
[ 0.000000] Command line: BOOT_IMAGE=/boot/vmlinuz-4.18.0-22-generic root=UUID=fc54d95e-1e39-4b5b-a064-bbb20bad9787 ro quiet splash vt.handoff=1
[ 0.000000] KERNEL supported cpus:
[ 0.000000] Intel GenuineIntel
[ 0.000000] AMD AuthenticAMD
```

```
Terminal - root@kayon-pc4: /home/kayon-pc4
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[ 1063.311346] sd 6:0:0:0: [sdb] Attached SCSI removable disk
root@kayon-pc4:/home/kayon-pc4# echo 5+4
5+4
root@kayon-pc4:/home/kayon-pc4# pwd
/home/kayon-pc4
root@kayon-pc4:/home/kayon-pc4# history
1 clear
2 apt update
3 apt-get upgrade
4 clear
5 apt autoremove
6 apt upgrade
7 apt autoremove
8 apt autoclean
9 nano /etc/bash.bashrc
10 clear
11 apt install ssh
12 clear
13 apt install ssh
14 service ssh restart
15 apt install ubiquity-slideshow-xubuntu
16 apt install -f
17 clear
18 nano /etc/lsb-release
19 clear
20 cler
21 clear
22 lsb release -a
23 clear
24 apt purge pinguybuilder
25 clear
26 apt autoremove
27 clear
28 apt autoclean
29 clear
30 k4jb
31 cd ..
32 ls
33 rm -rf PinguyBuilder/*
34 ls
35 rm -rf PinguyBuilder
36 ls
37 cd master/
38 ls
39 rm -rf pinguybuilder_5.1-0_all.deb
40 clear
```

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Terminal - root@kayon-pc4: /home/kayon-pc4
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830 dmesg # more
831 echo 5+4
832 pwd
833 history
root@kayon-pc4:/home/kayon-pc4# tail -f /var/log/message
tail: cannot open '/var/log/message' for reading: No such file or directory
tail: no files remaining
root@kayon-pc4:/home/kayon-pc4# ^C
root@kayon-pc4:/home/kayon-pc4# lsmod
Module              Size  Used by
nls_iso8859_1       16384  1
uas                 24576  0
usb_storage         69632  2 uas
ufs                 77824  0
qnx4                16384  0
hfsplus            106496  0
hfs                 57344  0
minix               32768  0
ntfs                102400  0
msdos               20480  0
jfs                 188416  0
xfs                 1290240  0
cpuid               16384  0
snd_hda_codec_hdmi  49152  1
joydev              24576  0
input_leds          16384  0
eeepc_wmi            16384  0
asus_wmi             28672  1 eeepc_wmi
sparse_keymap       16384  1 asus_wmi
wmi_bmf             16384  0
gpio_ich            16384  0
intel_rapl          20480  0
x86_pkg_temp_thermal 16384  0
intel_powerclamp    16384  0
coretemp            16384  0
kvm_intel           208896  0
kvm                 626688  1 kvm_intel
irqbypass           16384  1 kvm
crc16dif_pclmul     16384  0
crc32_pclmul        16384  0
ghash_clmulni_intel 16384  0
pcbc                16384  0
snd_seq_midi        16384  0
snd_seq_midi_event  16384  1 snd_seq_midi
snd_hda_codec_realtek 106496  1
snd_hda_codec_generic 73728  1 snd_hda_codec_realtek
```

```
Terminal - root@kayon-pc4: /home/kayon-pc4
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root@kayon-pc4:/home/kayon-pc4# ps -axu
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root         1  0.0  0.1 225548 9404 ?        Ss   16:33   0:01 /sbin/init splash
root         2  0.0  0.0      0   0 ?        S    16:33   0:00 [kthreadd]
root         3  0.0  0.0      0   0 ?        I<   16:33   0:00 [rcu_gp]
root         4  0.0  0.0      0   0 ?        I<   16:33   0:00 [rcu_par_gp]
root         5  0.0  0.0      0   0 ?        I    16:33   0:00 [kworker/0:0-eve]
root         6  0.0  0.0      0   0 ?        I<   16:33   0:00 [kworker/0:0H-kb]
root         8  0.0  0.0      0   0 ?        I<   16:33   0:00 [mm_percpu_wq]
root         9  0.0  0.0      0   0 ?        S    16:33   0:00 [ksoftirqd/0]
root        10  0.0  0.0      0   0 ?        I    16:33   0:00 [rcu_sched]
root        11  0.0  0.0      0   0 ?        I    16:33   0:00 [rcu_bh]
root        12  0.0  0.0      0   0 ?        S    16:33   0:00 [migration/0]
root        13  0.0  0.0      0   0 ?        S    16:33   0:00 [watchdog/0]
root        14  0.0  0.0      0   0 ?        S    16:33   0:00 [cpuhp/0]
root        15  0.0  0.0      0   0 ?        S    16:33   0:00 [cpuhp/1]
root        16  0.0  0.0      0   0 ?        S    16:33   0:00 [watchdog/1]
root        17  0.0  0.0      0   0 ?        S    16:33   0:00 [migration/1]
root        18  0.0  0.0      0   0 ?        S    16:33   0:00 [ksoftirqd/1]
root        19  0.0  0.0      0   0 ?        I    16:33   0:00 [kworker/1:0-cgr]
root        20  0.0  0.0      0   0 ?        I<   16:33   0:00 [kworker/1:0H-kb]
root        21  0.0  0.0      0   0 ?        S    16:33   0:00 [cpuhp/2]
root        22  0.0  0.0      0   0 ?        S    16:33   0:00 [watchdog/2]
root        23  0.0  0.0      0   0 ?        S    16:33   0:00 [migration/2]
root        24  0.0  0.0      0   0 ?        S    16:33   0:00 [ksoftirqd/2]
root        26  0.0  0.0      0   0 ?        I<   16:33   0:00 [kworker/2:0H-kb]
root        27  0.0  0.0      0   0 ?        S    16:33   0:00 [cpuhp/3]
root        28  0.0  0.0      0   0 ?        S    16:33   0:00 [watchdog/3]
root        29  0.0  0.0      0   0 ?        S    16:33   0:00 [migration/3]
root        30  0.0  0.0      0   0 ?        S    16:33   0:00 [ksoftirqd/3]
root        31  0.0  0.0      0   0 ?        I    16:33   0:00 [kworker/3:0-mm_]
root        32  0.0  0.0      0   0 ?        I<   16:33   0:00 [kworker/3:0H-kb]
root        33  0.0  0.0      0   0 ?        S    16:33   0:00 [kdevtmpfs]
root        34  0.0  0.0      0   0 ?        I<   16:33   0:00 [netns]
root        35  0.0  0.0      0   0 ?        S    16:33   0:00 [rcu_tasks_kthre]
root        36  0.0  0.0      0   0 ?        S    16:33   0:00 [kauditd]
root        40  0.0  0.0      0   0 ?        S    16:33   0:00 [khungtaskd]
root        41  0.0  0.0      0   0 ?        S    16:33   0:00 [oom_reaper]
root        42  0.0  0.0      0   0 ?        I<   16:33   0:00 [writeback]
root        43  0.0  0.0      0   0 ?        S    16:33   0:00 [kcompactd0]
root        44  0.0  0.0      0   0 ?        SN   16:33   0:00 [ksmd]
root        45  0.0  0.0      0   0 ?        SN   16:33   0:00 [khugepaged]
root        46  0.0  0.0      0   0 ?        I<   16:33   0:00 [crypto]
root        47  0.0  0.0      0   0 ?        I<   16:33   0:00 [kintegrityd]
root        48  0.0  0.0      0   0 ?        I<   16:33   0:00 [kblockd]
root        50  0.0  0.0      0   0 ?        I<   16:33   0:00 [ata sff]
```

```
Terminal - root@kayon-pc4: /home/kayon-pc4
File Edit View Terminal Tabs Help
root 21828 0.0 0.0 0 0 7 S 16:36 0:00 [jfsSync]
root@kayon-pc4:/home/kayon-pc4# lspci
00:00.0 Host bridge: Intel Corporation 4th Gen Core Processor DRAM Controller (rev 06)
00:01.0 PCI bridge: Intel Corporation Xeon E3-1200 v3/4th Gen Core Processor PCI Express x16 Controller (rev 06)
00:14.0 USB controller: Intel Corporation 8 Series/C220 Series Chipset Family USB xHCI (rev 05)
00:16.0 Communication controller: Intel Corporation 8 Series/C220 Series Chipset Family MEI Controller #1 (rev 04)
00:1a.0 USB controller: Intel Corporation 8 Series/C220 Series Chipset Family USB EHCI #2 (rev 05)
00:1b.0 Audio device: Intel Corporation 8 Series/C220 Series Chipset High Definition Audio Controller (rev 05)
00:1c.0 PCI bridge: Intel Corporation 8 Series/C220 Series Chipset Family PCI Express Root Port #1 (rev d5)
00:1c.2 PCI bridge: Intel Corporation 8 Series/C220 Series Chipset Family PCI Express Root Port #3 (rev d5)
00:1c.5 PCI bridge: Intel Corporation 82801 PCI Bridge (rev d5)
00:1d.0 USB controller: Intel Corporation 8 Series/C220 Series Chipset Family USB EHCI #1 (rev 05)
00:1f.0 ISA bridge: Intel Corporation H81 Express LPC Controller (rev 05)
00:1f.2 SATA controller: Intel Corporation 8 Series/C220 Series Chipset Family 6-port SATA Controller 1 [AHCI mode] (rev 05)
00:1f.3 SMBus: Intel Corporation 8 Series/C220 Series Chipset Family SMBus Controller (rev 05)
01:00.0 VGA compatible controller: NVIDIA Corporation GM107 [GeForce GTX 750 Ti] (rev a2)
01:00.1 Audio device: NVIDIA Corporation Device 0fbc (rev a1)
03:00.0 Ethernet controller: Realtek Semiconductor Co., Ltd. RTL8111/8168/8411 PCI Express Gigabit Ethernet Controller (rev 11)
04:00.0 PCI bridge: ASMedia Technology Inc. ASM1083/1085 PCIe to PCI Bridge (rev 04)
root@kayon-pc4:/home/kayon-pc4# free
              total        used        free      shared  buff/cache   available
Mem:           8106416       977620       4234344          59144       2894452       6766344
Swap:           947080              0          947080
root@kayon-pc4:/home/kayon-pc4# cat /proc/cpuinfo
processor       : 0
vendor_id      : GenuineIntel
cpu family     : 6
model          : 60
model name     : Intel(R) Core(TM) i5-4590 CPU @ 3.30GHz
stepping       : 3
microcode      : 0x27
cpu MHz        : 2145.960
cache size     : 6144 KB
physical id    : 0
siblings       : 4
core id        : 0
cpu cores      : 4
apicid         : 0
initial apicid : 0
fpu            : yes
fpu_exception  : yes
cpuid level    : 13
wp             : yes
flags           : 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 syscall nx pdpe1gb rdtscp lm constant_tsc arch_perfmon
pebs bts rep good nopl xtopology nonstop_tsc cpuid aperfperf pni pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3 sdbg fma cx16 xtpr pdcm pcid sse4_1 sse4_2 x2apic movbe popcnt tsc_deadli
ne timer aes xsave avx f16c rdrand lahf_lm abm cpuid_fault epb invpcid_single pti ssbd ibrs ibpb stibp tpr_shadow vmni flexpriority ept vpid fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms invpcid
root@kayon-pc4:/home/kayon-pc4#
```

```
Terminal - root@kayon-pc4: /home/kayon-pc4
File Edit View Terminal Tabs Help
bogomips       : 6585.41
clflush size   : 64
cache alignme  : 64
address sizes  : 39 bits physical, 48 bits virtual
power managem  :

processor       : 3
vendor_id      : GenuineIntel
cpu family     : 6
model          : 60
model name     : Intel(R) Core(TM) i5-4590 CPU @ 3.30GHz
stepping       : 3
microcode      : 0x27
cpu MHz        : 2175.523
cache size     : 6144 KB
physical id    : 0
siblings       : 4
core id        : 3
cpu cores      : 4
apicid         : 6
initial apicid : 6
fpu            : yes
fpu_exception  : yes
cpuid level    : 13
wp             : yes
flags           : 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 syscall nx pdpe1gb rdtscp lm constant_tsc arch_perfmon
pebs bts rep good nopl xtopology nonstop_tsc cpuid aperfperf pni pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3 sdbg fma cx16 xtpr pdcm pcid sse4_1 sse4_2 x2apic movbe popcnt tsc_deadli
ne timer aes xsave avx f16c rdrand lahf_lm abm cpuid_fault epb invpcid_single pti ssbd ibrs ibpb stibp tpr_shadow vmni flexpriority ept vpid fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms invpcid
bugs           : cpu_meltdown spectre_v1 spectre_v2 spec_store_bypass l1tf mds
bogomips       : 6585.41
clflush size   : 64
cache alignme  : 64
address sizes  : 39 bits physical, 48 bits virtual
power managem  :

root@kayon-pc4:/home/kayon-pc4# finger root
Login: root                                Name: root
Directory: /root                           Shell: /bin/bash
Never logged in.
No mail.
No Plan.
root@kayon-pc4:/home/kayon-pc4# echo 5+4 # bc -l
5+4
root@kayon-pc4:/home/kayon-pc4#
```

```
Terminal - root@kayon-pc4: /home/kayon-pc4

5+4
root@kayon-pc4:/home/kayon-pc4# ls
Desktop Documents Downloads Music Pictures Public Templates Videos
root@kayon-pc4:/home/kayon-pc4# ls -l
total 32
drwxr-xr-x 2 kayon-pc4 kayon-pc4 4096 Sep  4 10:09 Desktop
drwxr-xr-x 2 kayon-pc4 kayon-pc4 4096 Okt  9 17:22 Documents
drwxr-xr-x 2 kayon-pc4 kayon-pc4 4096 Sep  4 10:09 Downloads
drwxr-xr-x 2 kayon-pc4 kayon-pc4 4096 Sep  4 10:09 Music
drwxr-xr-x 2 kayon-pc4 kayon-pc4 4096 Sep  4 10:09 Pictures
drwxr-xr-x 2 kayon-pc4 kayon-pc4 4096 Sep  4 10:09 Public
drwxr-xr-x 2 kayon-pc4 kayon-pc4 4096 Sep  4 10:09 Templates
drwxr-xr-x 2 kayon-pc4 kayon-pc4 4096 Sep  4 10:09 Videos
root@kayon-pc4:/home/kayon-pc4# ls -l/home
ls: invalid option -- '/'
Try 'ls --help' for more information.
root@kayon-pc4:/home/kayon-pc4# ls -l#home
ls: invalid option -- '#'
Try 'ls --help' for more information.
root@kayon-pc4:/home/kayon-pc4# whatis ls
ls (1)                - list directory contents
root@kayon-pc4:/home/kayon-pc4# whatis mkdir
mkdir (1)             - make directories
mkdir (2)             - create a directory
root@kayon-pc4:/home/kayon-pc4# mkdir informatika
root@kayon-pc4:/home/kayon-pc4# rmdir
rmdir: missing operand
Try 'rmdir --help' for more information.
root@kayon-pc4:/home/kayon-pc4# rmdir informatika
root@kayon-pc4:/home/kayon-pc4# touch rpl.txt
root@kayon-pc4:/home/kayon-pc4# rm rpl.txt
root@kayon-pc4:/home/kayon-pc4# which mkdir
/bin/mkdir
root@kayon-pc4:/home/kayon-pc4# whereis ls
ls: /bin/ls /usr/share/man/man1/ls.1.gz
root@kayon-pc4:/home/kayon-pc4# df
Filesystem      1K-blocks    Used Available Use% Mounted on
udev             4012960         0   4012960   0% /dev
tmpfs            810644       1384    809260   1% /run
/dev/sda4        20027216  9596212  9390620   51% /
tmpfs            4053208     35548   4017660   1% /dev/shm
tmpfs            5120         4        5116   1% /run/lock
tmpfs            4053208         0   4053208   0% /sys/fs/cgroup
tmpfs            810640        28    810612   1% /run/user/1000
/dev/sdb1        15180528  4043728  11136800  27% /media/kayon-pc4/44FB-98C7
/dev/sda3        258189308  2208160  255981148  1% /media/kayon-pc4/4CD47110C46F44C
```

```
Terminal - root@kayon-pc4: /home/kayon-pc4

5+4
root@kayon-pc4:/home/kayon-pc4# ls
Desktop Documents Downloads Music Pictures Public Templates Videos
root@kayon-pc4:/home/kayon-pc4# ls -l
total 32
drwxr-xr-x 2 kayon-pc4 kayon-pc4 4096 Sep  4 10:09 Desktop
drwxr-xr-x 2 kayon-pc4 kayon-pc4 4096 Okt  9 17:22 Documents
drwxr-xr-x 2 kayon-pc4 kayon-pc4 4096 Sep  4 10:09 Downloads
drwxr-xr-x 2 kayon-pc4 kayon-pc4 4096 Sep  4 10:09 Music
drwxr-xr-x 2 kayon-pc4 kayon-pc4 4096 Sep  4 10:09 Pictures
drwxr-xr-x 2 kayon-pc4 kayon-pc4 4096 Sep  4 10:09 Public
drwxr-xr-x 2 kayon-pc4 kayon-pc4 4096 Sep  4 10:09 Templates
drwxr-xr-x 2 kayon-pc4 kayon-pc4 4096 Sep  4 10:09 Videos
root@kayon-pc4:/home/kayon-pc4# ls -l/home
ls: invalid option -- '/'
Try 'ls --help' for more information.
root@kayon-pc4:/home/kayon-pc4# ls -l#home
ls: invalid option -- '#'
Try 'ls --help' for more information.
root@kayon-pc4:/home/kayon-pc4# whatis ls
ls (1)                - list directory contents
root@kayon-pc4:/home/kayon-pc4# whatis mkdir
mkdir (1)             - make directories
mkdir (2)             - create a directory
root@kayon-pc4:/home/kayon-pc4# mkdir informatika
root@kayon-pc4:/home/kayon-pc4# rmdir
rmdir: missing operand
Try 'rmdir --help' for more information.
root@kayon-pc4:/home/kayon-pc4# rmdir informatika
root@kayon-pc4:/home/kayon-pc4# touch rpl.txt
root@kayon-pc4:/home/kayon-pc4# rm rpl.txt
root@kayon-pc4:/home/kayon-pc4# which mkdir
/bin/mkdir
root@kayon-pc4:/home/kayon-pc4# whereis ls
ls: /bin/ls /usr/share/man/man1/ls.1.gz
root@kayon-pc4:/home/kayon-pc4# df
Filesystem      1K-blocks    Used Available Use% Mounted on
udev             4012960         0   4012960   0% /dev
tmpfs            810644       1384    809260   1% /run
/dev/sda4        20027216  9596212  9390620   51% /
tmpfs            4053208     35548   4017660   1% /dev/shm
tmpfs            5120         4        5116   1% /run/lock
tmpfs            4053208         0   4053208   0% /sys/fs/cgroup
tmpfs            810640        28    810612   1% /run/user/1000
/dev/sdb1        15180528  4043728  11136800  27% /media/kayon-pc4/44FB-98C7
/dev/sda3        258189308  2208160  255981148  1% /media/kayon-pc4/4CD47110C46F44C
```

FUNGSI

echo halo dunia = menampilkan teks halo dunia

date = menampilkan tanggal

hostname = menampilkan nama komputer

arch = menampilkan jenis arsitektur dari sebuah system

uname -a = informasi system kernel anda

dmesg | more = mencetak pesan waktu proses boot yang ditampilkan layar per layar

uptime = melihat jumlah waktu pemakaian komputer
whoami = mencetak pengguna saat ini
who = melihat nama login
id = menampilkan identitas user
last = menampilkan user yang login sebelumnya
finger = melihat informasi user
w = perintah untuk mengetahui siapa saja yang sedang aktif
top = melihat semua proses yang sedang berjalan dan diurutkan dari yang paling besar
echo \$SHELL = melihat isi variabel shell
echo {con,pre}{sent,fer}{s,ed} = menyusun banyak kata
man ls = menampilkan informasi perintah ls
man who = menampilkan informasi perintah who
who can tell me about linux =
last = menampilkan user yang login sebelumnya
clear = membersihkan terminal
fdisk -l = menampilkan partisi
users = menampilkan daftar user yang sedang aktif
cat /etc/fstab = melihat file system yang sudah disetup
cal 2000 = melihat kalender tahun 2000
cal 9 1752 = melihat kalender bulan 9 tahun 1752
cal 10 2007 = melihat kalender bulan 10 tahun 2007
bc -l = menampilkan versi bc
echo 5+4 |bc -l = menampilkan hasil penjumlahan 5+4
yes please = mencetak please hingga di interrupt
pwd = memperlihatkan di direktori mana posisi sekarang
history = menampilkan apa saja yang sudah diketik di terminal
tail -f /var/log/message = mendefinisikan sebuah data pada file menurut baris
lsmod = digunakan untuk (as root) melihat modul kernel yang di load
ps -axu = melihat seluruh proses yang dijalankan walaupun tanpa terminal control
lspci = melihat spesifikasi hardware komputer yang sedang digunakan
free = melihat free memori
cat /proc/cpuinfo = cpu info, melihat file proc directory yang bukan merupakan file nyata
finger root = melihat informasi finger root
reboot = merestart komputer
halt = mematikan komputer
ls = menampilkan isi dari suatu direktori beserta atribut file
ls -l = menampilkan isi direktori secara lengkap
ls -l/home = melihat semua file yang ada di home secara lengkap
what is ls = menampilkan deskripsi perintah ls
what is mkdir = menampilkan deskripsi perintah mkdir
mkdir informatika = membuat sebuah direktori informatika
rmdir informatika = menghapus direktori informatika
touch rpl.txt = membuat file baru bernama rpl.txt
rm rpl.txt = menghapus rpl.txt
which mkdir = mengetahui letak file perintah
where is ls = menampilkan lokasi file ls
du = menampilkan ringkasan penggunaan media penyimpanan
df = menampilkan penggunaan penyimpanan suatu disk
pstree = menampilkan semua proses pada sistem dalam bentuk hierarki