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NIM : L200180106

## MODUL 5

```
Terminal - root@kayonpc21: /home/kayon-pc21
File Edit View Terminal Tabs Help
kayon-pc21@kayonpc21:~$ sudo su
[sudo] password for kayon-pc21:
root@kayonpc21: /home/kayon-pc21# echo halo dunia
halo dunia
root@kayonpc21: /home/kayon-pc21# date
Rab Okt  9 16:40:32 WIB 2019
root@kayonpc21: /home/kayon-pc21# hostname
kayonpc21
root@kayonpc21: /home/kayon-pc21# arch
x86_64
root@kayonpc21: /home/kayon-pc21# uname -a
Linux kayonpc21 5.0.0-31-generic #33-18.04.1-Ubuntu SMP Tue Oct 1 10:20:39 UTC 2019 x86_64 x86_64 x86_64 GNU/Linux
root@kayonpc21: /home/kayon-pc21# dmesg | more
[ 0.000000] microcode: microcode updated early to revision 0x27, date = 2019-
02-26
[ 0.000000] Linux version 5.0.0-31-generic (build@lgw01-amd64-046) (gcc vers
ion 7.4.0 (Ubuntu 7.4.0-1ubuntu1-18.04.1)) #33-18.04.1-Ubuntu SMP Tue Oct 1 10:2
0:39 UTC 2019 (Ubuntu 5.0.0-31.32-18.04.1-generic 5.0.21)
[ 0.000000] Command line: BOOT_IMAGE=/boot/vmlinuz-5.0.0-31-generic root=UUID
=825fa07-6c79-4d0d-80d9-4392dbfae110 ro quiet splash vt.handoff=1
[ 0.000000] KERNEL supported cpus:
[ 0.000000] Intel GenuineIntel
[ 0.000000] AMD AuthenticAMD
[ 0.000000] Hygon HygonGenuine
[ 0.000000] Centaur CentaurHauls
[ 0.000000] x86/fpu: Supporting XSAVE feature 0x001: 'x87 floating point regi
sters'
[ 0.000000] x86/fpu: Supporting XSAVE feature 0x002: 'SSE registers'
[ 0.000000] x86/fpu: Supporting XSAVE feature 0x004: 'AVX registers'
[ 0.000000] x86/fpu: xstate_offset[2]: 576, xstate_sizes[2]: 256
[ 0.000000] x86/fpu: Enabled xstate features 0x7, context size is 832 bytes,
using 'standard' format.
[ 0.000000] BIOS-provided physical RAM map:
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000dfff] usable
[ 0.000000] BIOS-e820: [mem 0x0000000000000d800-0x0000000000000ffff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000e000-0x0000000000000ffff] reserved
--More--
```

```
Terminal - root@kayonpc21:/home/kayon-pc21
File Edit View Terminal Tabs Help

root@kayonpc21:/home/kayon-pc21# uptime
16:49:21 up 14 min, 1 user, load average: 0,05, 0,16, 0,23
root@kayonpc21:/home/kayon-pc21# whoami
root
root@kayonpc21:/home/kayon-pc21# who
kayon-pc21 tty7      2019-10-09 23:35 (:0)
root@kayonpc21:/home/kayon-pc21# id
uid=0(root) gid=0(root) groups=0(root)
root@kayonpc21:/home/kayon-pc21# last
kayon-pc tty7      :0      Wed Oct 9 23:35   gone - no logout
reboot system boot 5.0.0-31-generic Wed Oct 9 23:34   still running
kayon-pc tty7      :0      Tue Oct 8 17:23 - 17:31 (00:07)
reboot system boot 5.0.0-31-generic Tue Oct 8 17:22 - 17:31 (00:09)
kayon-pc tty7      :0      Tue Oct 8 16:18 - 17:20 (01:02)
reboot system boot 5.0.0-31-generic Tue Oct 8 16:17 - 17:20 (01:03)
kayon-pc tty7      :0      Tue Oct 8 14:56 - 15:33 (00:37)
reboot system boot 5.0.0-31-generic Tue Oct 8 14:55 - 15:34 (00:38)

wtmp begins Tue Oct 8 14:54:59 2019
root@kayonpc21:/home/kayon-pc21# finger

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

apt install finger

root@kayonpc21:/home/kayon-pc21# w
16:49:44 up 14 min, 1 user, load average: 0,05, 0,14, 0,22
USER      TTY      FROM          LOGIN@   IDLE   JCPU   PCPU   WHAT
kayon-pc tty7      :0            23:35    7      8.05s  0.01s  /bin/sh /etc/xdg/xfce4/xinitrc -- /etc/X11/xinit/xserverrc
root@kayonpc21:/home/kayon-pc21# top

top - 16:51:14 up 16 min, 1 user, load average: 0,01, 0,10, 0,19
Tasks: 191 total, 1 running, 140 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0,1 us, 0,3 sy, 0,0 ni, 99,6 id, 0,0 wa, 0,0 hi, 0,0 si, 0,0 st
KiB Mem : 8183648 total, 6395128 free, 489436 used, 1219084 buff/cache
KiB Swap: 947828 total, 947828 free, 0 used, 7325416 avail Mem

  PID USER      PR  NI  VIRT  RES  SHR  S  %CPU  %MEM     TIME+ COMMAND
 5942 root        20   0   51672 4072 3304 R   0,7   0,1   0:00.35 top
    5 root        20   0     0     0   0 I   0,3   0,0   0:00.00 kworker/0:0-eve
5623 kayon-p+  20   0 583404 39552 29428 S   0,3   0,5   0:03.50 xfce4-terminal
    1 root        20   0 225404 9188  6708 S   0,0   0,1   0:01.17 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
    6 root        0 -20   0     0   0 I   0,0   0,0   0:00.00 kworker/0:0H-kb
    8 root        0 -20   0     0   0 I   0,0   0,0   0:00.00 mm_percpu_wq
    9 root        20   0     0     0   0 S   0,0   0,0   0:00.00 ksoftirqd/0
   10 root        20   0     0     0   0 I   0,0   0,0   0:00.35 rcu_sched
   11 root        rt    0     0     0   0 S   0,0   0,0   0:00.00 migration/0
   12 root       -51   0     0     0   0 S   0,0   0,0   0:00.00 idle_inject/0
   14 root        20   0     0     0   0 S   0,0   0,0   0:00.00 cpuhp/0
   15 root        20   0     0     0   0 S   0,0   0,0   0:00.00 cpuhp/1
   16 root       -51   0     0     0   0 S   0,0   0,0   0:00.00 idle_inject/1
   17 root        rt    0     0     0   0 S   0,0   0,0   0:00.00 migration/1
   18 root        20   0     0     0   0 S   0,0   0,0   0:00.00 ksoftirqd/1
   20 root        0 -20   0     0   0 I   0,0   0,0   0:00.00 kworker/1:0H-kb
   21 root        20   0     0     0   0 S   0,0   0,0   0:00.00 cpuhp/2
   22 root       -51   0     0     0   0 S   0,0   0,0   0:00.00 idle_inject/2
   23 root        rt    0     0     0   0 S   0,0   0,0   0:00.00 migration/2
   24 root        20   0     0     0   0 S   0,0   0,0   0:00.00 ksoftirqd/2
   26 root        0 -20   0     0   0 I   0,0   0,0   0:00.00 kworker/2:0H-kb
   27 root        20   0     0     0   0 S   0,0   0,0   0:00.00 cpuhp/3
   28 root       -51   0     0     0   0 S   0,0   0,0   0:00.00 idle_inject/3
   29 root        rt    0     0     0   0 S   0,0   0,0   0:00.00 migration/3
   30 root        20   0     0     0   0 S   0,0   0,0   0:00.01 ksoftirqd/3
   32 root        0 -20   0     0   0 I   0,0   0,0   0:00.00 kworker/3:0H-kb
   33 root        20   0     0     0   0 S   0,0   0,0   0:00.00 kdevtmpfs
   34 root        0 -20   0     0   0 I   0,0   0,0   0:00.00 netns
   35 root        20   0     0     0   0 S   0,0   0,0   0:00.00 rcu_tasks_kthre
   36 root        20   0     0     0   0 S   0,0   0,0   0:00.03 kauditd
   37 root        20   0     0     0   0 S   0,0   0,0   0:00.00 khungtaskd
   38 root        20   0     0     0   0 S   0,0   0,0   0:00.00 oom_reaper
   39 root        0 -20   0     0   0 I   0,0   0,0   0:00.00 writeback
   40 root        20   0     0     0   0 S   0,0   0,0   0:00.00 kcompactd0
   41 root        25   5     0     0   0 S   0,0   0,0   0:00.00 ksmd

root@kayonpc21:/home/kayon-pc21#
```

```
Terminal - root@kayonpc21:/home/kayon-pc21
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Tasks: 191 total, 1 running, 140 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0,1 us, 0,3 sy, 0,0 ni, 99,6 id, 0,0 wa, 0,0 hi, 0,0 si, 0,0 st
KiB Mem : 8183648 total, 6395128 free, 489436 used, 1219084 buff/cache
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  PID USER      PR  NI  VIRT  RES  SHR  S  %CPU  %MEM     TIME+ COMMAND
 5942 root        20   0   51672 4072 3304 R   0,7   0,1   0:00.35 top
    5 root        20   0     0     0   0 I   0,3   0,0   0:00.00 kworker/0:0-eve
5623 kayon-p+  20   0 583404 39552 29428 S   0,3   0,5   0:03.50 xfce4-terminal
    1 root        20   0 225404 9188  6708 S   0,0   0,1   0:01.17 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
    6 root        0 -20   0     0   0 I   0,0   0,0   0:00.00 kworker/0:0H-kb
    8 root        0 -20   0     0   0 I   0,0   0,0   0:00.00 mm_percpu_wq
    9 root        20   0     0     0   0 S   0,0   0,0   0:00.00 ksoftirqd/0
   10 root        20   0     0     0   0 I   0,0   0,0   0:00.35 rcu_sched
   11 root        rt    0     0     0   0 S   0,0   0,0   0:00.00 migration/0
   12 root       -51   0     0     0   0 S   0,0   0,0   0:00.00 idle_inject/0
   14 root        20   0     0     0   0 S   0,0   0,0   0:00.00 cpuhp/0
   15 root        20   0     0     0   0 S   0,0   0,0   0:00.00 cpuhp/1
   16 root       -51   0     0     0   0 S   0,0   0,0   0:00.00 idle_inject/1
   17 root        rt    0     0     0   0 S   0,0   0,0   0:00.00 migration/1
   18 root        20   0     0     0   0 S   0,0   0,0   0:00.00 ksoftirqd/1
   20 root        0 -20   0     0   0 I   0,0   0,0   0:00.00 kworker/1:0H-kb
   21 root        20   0     0     0   0 S   0,0   0,0   0:00.00 cpuhp/2
   22 root       -51   0     0     0   0 S   0,0   0,0   0:00.00 idle_inject/2
   23 root        rt    0     0     0   0 S   0,0   0,0   0:00.00 migration/2
   24 root        20   0     0     0   0 S   0,0   0,0   0:00.00 ksoftirqd/2
   26 root        0 -20   0     0   0 I   0,0   0,0   0:00.00 kworker/2:0H-kb
   27 root        20   0     0     0   0 S   0,0   0,0   0:00.00 cpuhp/3
   28 root       -51   0     0     0   0 S   0,0   0,0   0:00.00 idle_inject/3
   29 root        rt    0     0     0   0 S   0,0   0,0   0:00.00 migration/3
   30 root        20   0     0     0   0 S   0,0   0,0   0:00.01 ksoftirqd/3
   32 root        0 -20   0     0   0 I   0,0   0,0   0:00.00 kworker/3:0H-kb
   33 root        20   0     0     0   0 S   0,0   0,0   0:00.00 kdevtmpfs
   34 root        0 -20   0     0   0 I   0,0   0,0   0:00.00 netns
   35 root        20   0     0     0   0 S   0,0   0,0   0:00.00 rcu_tasks_kthre
   36 root        20   0     0     0   0 S   0,0   0,0   0:00.03 kauditd
   37 root        20   0     0     0   0 S   0,0   0,0   0:00.00 khungtaskd
   38 root        20   0     0     0   0 S   0,0   0,0   0:00.00 oom_reaper
   39 root        0 -20   0     0   0 I   0,0   0,0   0:00.00 writeback
   40 root        20   0     0     0   0 S   0,0   0,0   0:00.00 kcompactd0
   41 root        25   5     0     0   0 S   0,0   0,0   0:00.00 ksmd

root@kayonpc21:/home/kayon-pc21#
```

```
Terminal - root@kayonpc21: /home/kayon-pc21
File Edit View Terminal Tabs Help
LS(1) User Commands LS(1)

NAME
ls - list directory contents

SYNOPSIS
ls [OPTION]... [FILE]...

DESCRIPTION
List information about the FILES (the current directory by default). Sort entries alphabetically if none of -cftwsuX nor --sort is specified.
Mandatory arguments to long options are mandatory for short options too.

-a, --all
do not ignore entries starting with .

-A, --almost-all
do not list implied . and ..

--author
with -l, print the author of each file

-b, --escape
print C-style escapes for nongraphic characters

--block-size=SIZE
scale sizes by SIZE before printing them; e.g., '--block-size=M' prints sizes in units of 1,048,576 bytes; see SIZE format below

-B, --ignore-backups
do not list implied entries ending with ~

-c
with -lt: sort by, and show, ctime (time of last modification of file status information); with -l: show ctime and sort by name; otherwise: sort by ctime, newest first

-C
list entries by columns

--color[=WHEN]
colorize the output; WHEN can be 'always' (default if omitted), 'auto', or 'never'; more info below

-d, --directory
list directories themselves, not their contents

-D, --dired
generate output designed for Emacs' dired mode

Manual page ls(1) line 1 (press h for help or q to quit)
```

```
Terminal - root@kayonpc21: /home/kayon-pc21
File Edit View Terminal Tabs Help
WHO(1) User Commands WHO(1)

NAME
who - show who is logged on

SYNOPSIS
who [OPTION]... [ FILE | ARG1 ARG2 ]

DESCRIPTION
Print information about users who are currently logged in.

-a, --all
same as -b -d --login -p -r -t -T -u

-b, --boot
time of last system boot

-d, --dead
print dead processes

-E, --heading
print line of column headings

--iprs
print ips instead of hostnames. with --login, canonicalizes based on stored IP, if available, rather than stored hostname

-l, --login
print system login processes

--lscdps
attempt to canonicalize hostnames via DNS

-m
only hostname and user associated with stdin

-p, --process
print active processes spawned by init

-q, --count
all login names and number of users logged on

-r, --runlevel
print current runlevel

-s, --short
print only name, line, and time (default)

Manual page who(1) line 1 (press h for help or q to quit)
```

```
Terminal - root@kayonpc21:/home/kayon-pc21
File Edit View Terminal Tabs Help

15 root 20 0 0 0 0 0 0 0 0:00.00 cpuhp/1
16 root -51 0 0 0 0 0 0 0 0:00.00 idle_inject/1
17 root rt 0 0 0 0 0 0 0 0:00.00 migration/1
18 root 20 0 0 0 0 0 0 0 0:00.00 ksoftirqd/1
20 root 0 -20 0 0 0 0 0 0 0:00.00 kworker/1:0H-kb
21 root 20 0 0 0 0 0 0 0 0:00.00 cpuhp/2
22 root -51 0 0 0 0 0 0 0 0:00.00 idle_inject/2
23 root rt 0 0 0 0 0 0 0 0 0:00.00 migration/2
24 root 20 0 0 0 0 0 0 0 0:00.00 ksoftirqd/2
26 root 0 -20 0 0 0 0 0 0 0:00.00 kworker/2:0H-kb
27 root 20 0 0 0 0 0 0 0 0:00.00 cpuhp/3
28 root -51 0 0 0 0 0 0 0 0:00.00 idle_inject/3
29 root rt 0 0 0 0 0 0 0 0 0:00.00 migration/3
30 root 20 0 0 0 0 0 0 0 0:00.01 ksoftirqd/3
32 root 0 -20 0 0 0 0 0 0 0:00.00 kworker/3:0H-kb
33 root 20 0 0 0 0 0 0 0 0:00.00 kdevtmpfs
34 root 0 -20 0 0 0 0 0 0 0:00.00 netns
35 root 20 0 0 0 0 0 0 0 0:00.00 rcu_tasks_kthre
36 root 20 0 0 0 0 0 0 0 0:00.03 kauditd
37 root 20 0 0 0 0 0 0 0 0:00.00 khungtaskd
38 root 20 0 0 0 0 0 0 0 0:00.00 oom_reaper
39 root 0 -20 0 0 0 0 0 0 0:00.00 writeback
40 root 20 0 0 0 0 0 0 0 0:00.00 kcompactd0
41 root 25 5 0 0 0 0 0 0 0:00.00 ksm

root@kayonpc21:/home/kayon-pc21# echo $SHELL
/bin/bash
root@kayonpc21:/home/kayon-pc21# echo {con,pre}{sent,fer}{s,ed}
consents consented confers conferred presents presented prefers preferred
root@kayonpc21:/home/kayon-pc21# man ls
root@kayonpc21:/home/kayon-pc21# man who
root@kayonpc21:/home/kayon-pc21# who can tell me about linux
who: extra operand 'me'
Try 'who --help' for more information.
root@kayonpc21:/home/kayon-pc21# last
kayon-pc tty7 :0 Wed Oct 9 23:35 gone - no logout
reboot system boot 5.0.0-31-generic Wed Oct 9 23:34 still running
kayon-pc tty7 :0 Tue Oct 8 17:23 - 17:31 (00:07)
reboot system boot 5.0.0-31-generic Tue Oct 8 17:22 - 17:31 (00:09)
kayon-pc tty7 :0 Tue Oct 8 16:18 - 17:20 (01:02)
reboot system boot 5.0.0-31-generic Tue Oct 8 16:17 - 17:20 (01:03)
kayon-pc tty7 :0 Tue Oct 8 14:56 - 15:33 (00:37)
reboot system boot 5.0.0-31-generic Tue Oct 8 14:55 - 15:34 (00:38)

wtmp begins Tue Oct 8 14:54:59 2019
root@kayonpc21:/home/kayon-pc21# clear
```

```
Terminal - root@kayonpc21:/home/kayon-pc21
File Edit View Terminal Tabs Help

root@kayonpc21:/home/kayon-pc21# fdisk -l
Disk /dev/sda: 465.8 GiB, 500107862016 bytes, 976773168 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 4096 bytes
I/O size (minimum/optimal): 4096 bytes / 4096 bytes
Disklabel type: dos
Disk identifier: 0x80e075a7

Device Boot Start End Sectors Size Id Type
/dev/sda1 * 2048 206847 204800 100M 7 HPFS/NTFS/exFAT
/dev/sda2 206848 417794047 417587200 199,1G 7 HPFS/NTFS/exFAT
/dev/sda3 417794048 935813119 518019072 247G 7 HPFS/NTFS/exFAT
/dev/sda4 935813120 976771071 40957952 19,5G 83 Linux

root@kayonpc21:/home/kayon-pc21# users
kayon-pc21
root@kayonpc21:/home/kayon-pc21# cat/etc/fstab
bash: cat/etc/fstab: No such file or directory
root@kayonpc21:/home/kayon-pc21# 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 1 2 3 4 5 1 2 3 4 1 2 3 4
2 3 4 5 6 7 8 6 7 8 9 10 11 12 5 6 7 8 9 10 11
9 10 11 12 13 14 15 13 14 15 16 17 18 19 12 13 14 15 16 17 18
16 17 18 19 20 21 22 20 21 22 23 24 25 26 19 20 21 22 23 24 25
23 24 25 26 27 28 29 27 28 29 26 27 28 29 30 31
30 31

    April      Mei      Juni
Mi Se Sa Ra Ka Ju Sa Mi Se Sa Ra Ka Ju Sa Mi Se Sa Ra Ka Ju Sa
1 1 2 3 4 5 6 1 2 3 1 2 3
2 3 4 5 6 7 8 7 8 9 10 11 12 13 4 5 6 7 8 9 10
9 10 11 12 13 14 15 14 15 16 17 18 19 20 11 12 13 14 15 16 17
16 17 18 19 20 21 22 21 22 23 24 25 26 27 18 19 20 21 22 23 24
23 24 25 26 27 28 29 28 29 30 31 25 26 27 28 29 30
30

    Juli      Agustus      September
Mi Se Sa Ra Ka Ju Sa Mi Se Sa Ra Ka Ju Sa Mi Se Sa Ra Ka Ju Sa
1 1 2 3 4 5 1 2
2 3 4 5 6 7 8 6 7 8 9 10 11 12 3 4 5 6 7 8 9
9 10 11 12 13 14 15 13 14 15 16 17 18 19 10 11 12 13 14 15 16
16 17 18 19 20 21 22 20 21 22 23 24 25 26 17 18 19 20 21 22 23
```

```
Terminal - root@kayonpc21:/home/kayon-pc21
File Edit View Terminal Tabs Help
/dev/sda4 935813120 976771071 40957952 19,5G 83 Linux

root@kayonpc21:/home/kayon-pc21# users
kayon-pc21
root@kayonpc21:/home/kayon-pc21# cat/etc/fstab
bash: cat/etc/fstab: No such file or directory
root@kayonpc21:/home/kayon-pc21# 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             1 2 3 4 5             1 2 3 4
 2 3 4 5 6 7 8 6 7 8 9 10 11 12 5 6 7 8 9 10 11
 9 10 11 12 13 14 15 13 14 15 16 17 18 19 12 13 14 15 16 17 18
16 17 18 19 20 21 22 20 21 22 23 24 25 26 19 20 21 22 23 24 25
23 24 25 26 27 28 29 27 28 29 26 27 28 29 30 31
30 31

  April      Mei      Juni
Mi Se Sa Ra Ka Ju Sa Mi Se Sa Ra Ka Ju Sa Mi Se Sa Ra Ka Ju Sa
  1             1 2 3 4 5 6             1 2 3
 2 3 4 5 6 7 8 7 8 9 10 11 12 13 4 5 6 7 8 9 10
 9 10 11 12 13 14 15 14 15 16 17 18 19 20 11 12 13 14 15 16 17
16 17 18 19 20 21 22 21 22 23 24 25 26 27 18 19 20 21 22 23 24
23 24 25 26 27 28 29 28 29 30 31 25 26 27 28 29 30
30

  Juli      Agustus      September
Mi Se Sa Ra Ka Ju Sa Mi Se Sa Ra Ka Ju Sa Mi Se Sa Ra Ka Ju Sa
  1             1 2 3 4 5             1 2
 2 3 4 5 6 7 8 6 7 8 9 10 11 12 3 4 5 6 7 8 9
 9 10 11 12 13 14 15 13 14 15 16 17 18 19 10 11 12 13 14 15 16
16 17 18 19 20 21 22 20 21 22 23 24 25 26 17 18 19 20 21 22 23
23 24 25 26 27 28 29 27 28 29 30 31 24 25 26 27 28 29 30
30 31

  Oktober      November      Desember
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 1 2 3 4 1 2
 8 9 10 11 12 13 14 5 6 7 8 9 10 11 3 4 5 6 7 8 9
15 16 17 18 19 20 21 12 13 14 15 16 17 18 10 11 12 13 14 15 16
22 23 24 25 26 27 28 19 20 21 22 23 24 25 17 18 19 20 21 22 23
29 30 31 26 27 28 29 30 24 25 26 27 28 29 30
31

root@kayonpc21:/home/kayon-pc21#
```

```
Terminal - root@kayonpc21:/home/kayon-pc21
File Edit View Terminal Tabs Help
16 17 18 19 20 21 22 21 22 23 24 25 26 27 18 19 20 21 22 23 24
23 24 25 26 27 28 29 28 29 30 31 25 26 27 28 29 30
30

  Juli      Agustus      September
Mi Se Sa Ra Ka Ju Sa Mi Se Sa Ra Ka Ju Sa Mi Se Sa Ra Ka Ju Sa
  1             1 2 3 4 5             1 2
 2 3 4 5 6 7 8 6 7 8 9 10 11 12 3 4 5 6 7 8 9
 9 10 11 12 13 14 15 13 14 15 16 17 18 19 10 11 12 13 14 15 16
16 17 18 19 20 21 22 20 21 22 23 24 25 26 17 18 19 20 21 22 23
23 24 25 26 27 28 29 27 28 29 30 31 24 25 26 27 28 29 30
30 31

  Oktober      November      Desember
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 1 2 3 4 1 2
 8 9 10 11 12 13 14 5 6 7 8 9 10 11 3 4 5 6 7 8 9
15 16 17 18 19 20 21 12 13 14 15 16 17 18 10 11 12 13 14 15 16
22 23 24 25 26 27 28 19 20 21 22 23 24 25 17 18 19 20 21 22 23
29 30 31 26 27 28 29 30 24 25 26 27 28 29 30
31

root@kayonpc21:/home/kayon-pc21# cal 9 1752
  September 1752
Mi Se Sa Ra Ka Ju Sa
  1 2 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29 30

root@kayonpc21:/home/kayon-pc21# 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@kayonpc21:/home/kayon-pc21# 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'.

```





```
Terminal - root@kayonpc21:/home/kayon-pc21
File Edit View Terminal Tabs Help
780 mkdir informatika
781 rmdir informatika
782 which mkdir
783 whereis mkdir
784 whereis mkdir
785 whereis mkdir
786 tree
787 free
788 pstree
789 w
790 yes please
791 halt
792 echo halo dunia
793 date
794 hostname
795 arch
796 uname -a
797 dmesg | more
798 uptime
799 whoami
800 who
801 id
802 last
803 finger
804 w
805 top
806 echo $SHELL
807 echo {con,pre}{sent,fer}{s,ed}
808 man ls
809 man who
810 who can tell me about linux
811 last
812 clear
813 fdisk -l
814 users
815 cat/etc/fstab
816 cal 2000
817 cal 9 1752
818 cal 10 2007
819 bc -l
820 echo 5+4 | bc-l
821 yes please
822 pwd
823 history
root@kayonpc21:/home/kayon-pc21#
```

```
Terminal - root@kayonpc21:/home/kayon-pc21
File Edit View Terminal Tabs Help
o23 history
root@kayonpc21:/home/kayon-pc21# tail -f /var/log/message
tail: cannot open '/var/log/message' for reading: No such file or directory
tail: no files remaining
root@kayonpc21:/home/kayon-pc21# lsmod
Module                  Size  Used by
ufs                     81920  0
qnx4                    16384  0
hfsplus                 110592  0
hfs                     61440  0
minix                   36864  0
ntfs                    106496  0
mados                   20480  0
jfs                     188416  0
xfs                     1236992  0
intel_rapl              24576  0
x86_pkg_temp_thermal    20480  0
intel_powerclamp        20480  0
coretemp                20480  0
kvm_intel               241664  0
kvm                     630784  1 kvm_intel
irqbypass               16384  1 kvm
crc10dif_pclmul         16384  1
crc32_pclmul            16384  0
ghash_clmulni_intel     16384  0
aesni_intel             372736  0
snd_hda_codec_hdmi      53248  1
aes_x86_64              20480  1 aesni_intel
crypto_simd             16384  1 aesni_intel
snd_hda_codec_realtek   114688  1
cryptd                  24576  3 crypto_simd,ghash_clmulni_intel,aesni_intel
snd_hda_codec_generic   77824  1 snd_hda_codec_realtek
glue_helper             16384  1 aesni_intel
ledtrig_audio           16384  2 snd_hda_codec_generic,snd_hda_codec_realtek
snd_hda_intel           49152  2
snd_hda_codec           135168  4 snd_hda_codec_generic,snd_hda_codec_hdmi,snd_hda_intel,snd_hda_codec_realtek
snd_hda_core             86016  5 snd_hda_codec_generic,snd_hda_codec_hdmi,snd_hda_intel,snd_hda_codec,snd_hda_codec_realtek
intel_cstate            20480  0
joydev                  28672  0
input_leds              16384  0
intel_rapl_perf         16384  0
eeepc_wmi               16384  0
snd_hwdep               20480  1 snd_hda_codec
snd_pcm                 102400  4 snd_hda_codec_hdmi,snd_hda_intel,snd_hda_codec,snd_hda_core
asus_wmi                 28672  1 eeepc_wmi
snd_seq_midi            20480  0
```

```
Terminal - root@kayonpc21: /home/kayon-pc21
File Edit View Terminal Tabs Help
snd_timer 36864 2 snd_seq,snd_pcm
snd 86016 15 snd_hda_codec_generic,snd_seq,snd_seq_device,snd_hda_codec_hdmi,snd_hwdsp,snd_hda_intel,snd_hda_codec,snd_hda_codec_realtek,snd_timer,snd_pcm,snd_rawmidi
lpc_ich 24576 0
soundcore 16384 1 snd
mei_me 40960 0
mei 106496 1 mei_me
nvidia_uvm 819200 0
mac_hid 16384 0
sch_fq_codel 20480 2
parport_pc 36864 1
ppdev 24576 0
lp 20480 0
parport 53248 3 parport_pc,lp,ppdev
ip_tables 32768 0
x_tables 40960 1 ip_tables
autofs4 45056 2
btrfs 1175552 0
xor 24576 1 btrfs
zstd_compress 163840 1 btrfs
raid6_pq 114688 1 btrfs
libcrc32c 16384 2 btrfs,xfs
dm_mirror 24576 0
dm_region_hash 20480 1 dm_mirror
dm_log 20480 2 dm_region_hash,dm_mirror
hid_generic 16384 0
usbhid 53248 0
hid 126976 2 usbhid,hid_generic
nvidia_drm 49152 3
nvidia_modeset 1110016 3 nvidia_drm
nvidia 18792448 85 nvidia_uvm,nvidia_modeset
drm_kms_helper 180224 1 nvidia_drm
syscopyarea 16384 1 drm_kms_helper
sysfillrect 16384 1 drm_kms_helper
sysimgblt 16384 1 drm_kms_helper
fb_sys_fops 16384 1 drm_kms_helper
drm 483328 6 drm_kms_helper,nvidia_drm
ahci 40960 1
xhci 86016 0
libahci 32768 1 ahci
ipmi_devintf 20480 0
realtek 20480 0
ipmi_msghandler 102400 2 ipmi_devintf,nvidia
wmi 28672 2 asus_wmi,wmi_bmf
video 49152 1 asus_wmi
root@kayonpc21: /home/kayon-pc21#
```

```
Terminal - root@kayonpc21: /home/kayon-pc21
File Edit View Terminal Tabs Help
root@kayonpc21: /home/kayon-pc21# ps -aux
USER          PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root           1  0.0  0.1 225404 9188 ?        Ss   16:34   0:01 /sbin/init splash
root           2  0.0  0.0      0   0 ?        S    16:34   0:00 [kthreadd]
root           3  0.0  0.0      0   0 ?        I<   16:34   0:00 [rcu_gp]
root           4  0.0  0.0      0   0 ?        I<   16:34   0:00 [rcu_par_gp]
root           5  0.0  0.0      0   0 ?        I    16:34   0:00 [kworker/0:0-eve]
root           6  0.0  0.0      0   0 ?        I<   16:34   0:00 [kworker/0:0H-kb]
root           8  0.0  0.0      0   0 ?        I<   16:34   0:00 [mm_percpu_wq]
root           9  0.0  0.0      0   0 ?        S    16:34   0:00 [ksoftirqd/0]
root          10  0.0  0.0      0   0 ?        I    16:34   0:00 [rcu_sched]
root          11  0.0  0.0      0   0 ?        S    16:34   0:00 [migration/0]
root          12  0.0  0.0      0   0 ?        S    16:34   0:00 [idle_inject/0]
root          14  0.0  0.0      0   0 ?        S    16:34   0:00 [cpuhp/0]
root          15  0.0  0.0      0   0 ?        S    16:34   0:00 [cpuhp/1]
root          16  0.0  0.0      0   0 ?        S    16:34   0:00 [idle_inject/1]
root          17  0.0  0.0      0   0 ?        S    16:34   0:00 [migration/1]
root          18  0.0  0.0      0   0 ?        S    16:34   0:00 [ksoftirqd/1]
root          20  0.0  0.0      0   0 ?        I<   16:34   0:00 [kworker/1:0H-kb]
root          21  0.0  0.0      0   0 ?        S    16:34   0:00 [cpuhp/2]
root          22  0.0  0.0      0   0 ?        S    16:34   0:00 [idle_inject/2]
root          23  0.0  0.0      0   0 ?        S    16:34   0:00 [migration/2]
root          24  0.0  0.0      0   0 ?        S    16:34   0:00 [ksoftirqd/2]
root          26  0.0  0.0      0   0 ?        I<   16:34   0:00 [kworker/2:0H-kb]
root          27  0.0  0.0      0   0 ?        S    16:34   0:00 [cpuhp/3]
root          28  0.0  0.0      0   0 ?        S    16:34   0:00 [idle_inject/3]
root          29  0.0  0.0      0   0 ?        S    16:34   0:00 [migration/3]
root          30  0.0  0.0      0   0 ?        S    16:34   0:00 [ksoftirqd/3]
root          32  0.0  0.0      0   0 ?        I<   16:34   0:00 [kworker/3:0H-kb]
root          33  0.0  0.0      0   0 ?        S    16:34   0:00 [kdevtmpfs]
root          34  0.0  0.0      0   0 ?        I<   16:34   0:00 [netns]
root          35  0.0  0.0      0   0 ?        S    16:34   0:00 [rcu_tasks_kthre]
root          36  0.0  0.0      0   0 ?        S    16:34   0:00 [kauditd]
root          37  0.0  0.0      0   0 ?        S    16:34   0:00 [khungtaskd]
root          38  0.0  0.0      0   0 ?        S    16:34   0:00 [oom_reaper]
root          39  0.0  0.0      0   0 ?        I<   16:34   0:00 [writeback]
root          40  0.0  0.0      0   0 ?        S    16:34   0:00 [kcompactd0]
root          41  0.0  0.0      0   0 ?        SN   16:34   0:00 [ksmd]
root          42  0.0  0.0      0   0 ?        SN   16:34   0:00 [khugepaged]
root          43  0.0  0.0      0   0 ?        I<   16:34   0:00 [crypto]
root          44  0.0  0.0      0   0 ?        I<   16:34   0:00 [kintegrityd]
root          45  0.0  0.0      0   0 ?        I<   16:34   0:00 [kblockd]
root          46  0.0  0.0      0   0 ?        I<   16:34   0:00 [tpm_dev_wq]
root          47  0.0  0.0      0   0 ?        I<   16:34   0:00 [ata_sff]
root          48  0.0  0.0      0   0 ?        I<   16:34   0:00 [md]
root          49  0.0  0.0      0   0 ?        I<   16:34   0:00 [nfsd, nfsd1, ...]
```



```
Terminal - root@kayonpc21:/home/kayon-pc21
File Edit View Terminal Tabs Help

root 6883 0.0 0.0 47236 3684 pts/0 R+ 17:08 0:00 ps -aux
root@kayonpc21:/home/kayon-pc21# 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 Family 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@kayonpc21:/home/kayon-pc21# free
              total        used        free      shared  buff/cache   available
Mem:           8183648      558432      6287076         9120       1260140       7258056
Swap:           947028           0         947028

root@kayonpc21:/home/kayon-pc21# 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        : 990.584
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 vmmi flexpriority ept vpid ept_ad fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms
invpcid xsaveopt dtherm ida arat pln pts md_clear flush_l1d
bugs           : cpu_meltdown spectre_v1 spectre_v2 spec_store_bypass l1tf mds swapgs
bogomips       : 6584.94
clflush size   : 64
cache alignment : 64
address sizes   : 39 bits physical, 48 bits virtual
power management:

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        : 928.869
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 vmmi flexpriority ept vpid ept_ad fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms
invpcid xsaveopt dtherm ida arat pln pts md_clear flush_l1d
bugs           : cpu_meltdown spectre_v1 spectre_v2 spec_store_bypass l1tf mds swapgs
bogomips       : 6584.94
clflush size   : 64
cache alignment : 64
address sizes   : 39 bits physical, 48 bits virtual
power management:

root@kayonpc21:/home/kayon-pc21#
```

```
Terminal - root@kayonpc21:/home/kayon-pc21
File Edit View Terminal Tabs Help

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 vmmi flexpriority ept vpid ept_ad fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms
invpcid xsaveopt dtherm ida arat pln pts md_clear flush_l1d
bugs           : cpu_meltdown spectre_v1 spectre_v2 spec_store_bypass l1tf mds swapgs
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power management:

processor       : 3
vendor_id      : GenuineIntel
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model          : 60
model name     : Intel(R) Core(TM) i5-4590 CPU @ 3.30GHz
stepping       : 3
microcode      : 0x27
cpu MHz        : 928.869
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 vmmi flexpriority ept vpid ept_ad fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms
invpcid xsaveopt dtherm ida arat pln pts md_clear flush_l1d
bugs           : cpu_meltdown spectre_v1 spectre_v2 spec_store_bypass l1tf mds swapgs
bogomips       : 6584.94
clflush size   : 64
cache alignment : 64
address sizes   : 39 bits physical, 48 bits virtual
power management:

root@kayonpc21:/home/kayon-pc21#
```

```
Terminal - root@kayonpc21: /home/kayon-pc21
File Edit View Terminal Tabs Help

cpu 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 mon
pobs bts rep good nopl xtopology nonstop tsc cpuid aperfperf pni pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3 sbdb 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 vmmi flexpriority ept vpid ept_ad fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms
invpcid xsaveopt dthera ida arat pln pts md clear flush lld
bugs : cpu_meltdown spectre_v1 spectre_v2 spec_store_bypass l1tf mds swapgs
bogomips : 6584.94
clflush size : 64
cache alignment : 64
address sizes : 39 bits physical, 48 bits virtual
power management:

root@kayonpc21:/home/kayon-pc21# ls
Desktop Documents Downloads Music Pictures Public snap Templates Videos
root@kayonpc21:/home/kayon-pc21# ls -l
total 36
drwxr-xr-x 2 kayon-pc21 kayon-pc21 4096 Sep  4 11:11 Desktop
drwxr-xr-x 2 kayon-pc21 kayon-pc21 4096 Okt  8 15:33 Documents
drwxr-xr-x 2 kayon-pc21 kayon-pc21 4096 Sep  4 11:11 Downloads
drwxr-xr-x 2 kayon-pc21 kayon-pc21 4096 Sep  4 11:11 Music
drwxr-xr-x 2 kayon-pc21 kayon-pc21 4096 Okt  9 17:15 Pictures
drwxr-xr-x 2 kayon-pc21 kayon-pc21 4096 Sep  4 11:11 Public
drwxr-xr-x 3 kayon-pc21 kayon-pc21 4096 Sep 14 10:34 snap
drwxr-xr-x 2 kayon-pc21 kayon-pc21 4096 Sep  4 11:11 Templates
drwxr-xr-x 2 kayon-pc21 kayon-pc21 4096 Sep  4 11:11 Videos
root@kayonpc21:/home/kayon-pc21# ls -l/home
ls: invalid option -- '/'
Try 'ls --help' for more information.
root@kayonpc21:/home/kayon-pc21# whatis ls
ls (1) - list directory contents
root@kayonpc21:/home/kayon-pc21# whatis mkdir
mkdir (1) - make directories
mkdir (2) - create a directory
root@kayonpc21:/home/kayon-pc21# mkdir informatika
root@kayonpc21:/home/kayon-pc21# rmdir informatika
Command 'rmdir' not found, did you mean:
  command 'rmdir' from deb coreutils
Try: apt install <deb name>
root@kayonpc21:/home/kayon-pc21#
```

```
Terminal - root@kayonpc21: /home/kayon-pc21
File Edit View Terminal Tabs Help

root@kayonpc21:/home/kayon-pc21# touch rpltxt
root@kayonpc21:/home/kayon-pc21# rm rpltxt
root@kayonpc21:/home/kayon-pc21# which mkdir
/bin/mkdir
root@kayonpc21:/home/kayon-pc21# whereis ls
ls: /bin/ls /usr/share/man/man1/ls.1.gz
root@kayonpc21:/home/kayon-pc21# df
Filesystem      1K-blocks    Used Available Use% Mounted on
udev            4009336      0   4009336   0% /dev
tmpfs           810368     1344    809024   1% /run
/dev/sda4       20026192 9340088   9645772  50% /
tmpfs           4051824      0   4051824   0% /dev/shm
tmpfs           4051824      0   4051824   0% /run/lock
tmpfs           4051824      0   4051824   0% /sys/fs/cgroup
tmpfs           810368     16    810348   1% /run/user/1000
root@kayonpc21:/home/kayon-pc21# du
4      ./informatika
4      ./snap/gnome-system-monitor
0      ./snap
44     ./gnome2/gtksourceview-1.0/language-specs
48     ./gnome2/gtksourceview-1.0
32     ./gnome2
4      ./gnupg/private-keys-v.1.d
0      ./gnupg
632    ./thumbnails/normal
636    ./thumbnails
0      ./config/ristretto
0      ./config/update-notifier
0      ./config/kicad
12     ./config/xfce4/terminal
0      ./config/xfce4/panel/launcher-12
0      ./config/xfce4/panel/launcher-14
0      ./config/xfce4/panel/launcher-15
0      ./config/xfce4/panel/launcher-13
40     ./config/xfce4/panel
76     ./config/xfce4/xfconf/xfce-perchannel-xml
80     ./config/xfce4/xfconf
4      ./config/xfce4/xfwm4
16     ./config/xfce4/desktop
160    ./config/xfce4
1016   ./config/libreoffice/4/user/database/biblio
1024   ./config/libreoffice/4/user/database
1152   ./config/libreoffice/4/user/backup
0      ./config/libreoffice/4/user/autotext
20     ./config/libreoffice/4/user/pack/database/biblio
```

```
Terminal - root@kayonpc21:/home/kayon-pc21
File Edit View Terminal Tabs Help
8 ./local/share/applications
4 ./local/share/xfpanel-switch
4 ./local/share/nano
12 ./local/share/keyrings
552 ./local/share/NetcadExamPlayer/QtWebEngine/Default/GPUCache
556 ./local/share/NetcadExamPlayer/QtWebEngine/Default
560 ./local/share/NetcadExamPlayer/QtWebEngine
564 ./local/share/NetcadExamPlayer
688 ./local/share
692 ./local
4 ./Public
944 ./cache/gstreamer-1.0
4 ./cache/obexd
820 ./cache/gnome-software/icons
476 ./cache/gnome-software/odrs
12 ./cache/gnome-software/screenshots/112x63
88 ./cache/gnome-software/screenshots/752x423
104 ./cache/gnome-software/screenshots
180 ./cache/gnome-software/fwupd/remotes.d/lvfs
184 ./cache/gnome-software/fwupd/remotes.d
188 ./cache/gnome-software/fwupd
36 ./cache/gnome-software/cssresource
1628 ./cache/gnome-software
12 ./cache/update-manager-core
16 ./cache/fontconfig
8 ./cache/sessions/thumbs-kayonpc21:0
16 ./cache/sessions
588 ./cache/thumbnails/Large
252 ./cache/thumbnails/normal
644 ./cache/thumbnails
4 ./cache/mozilla/firefox/znff6yxr.default
4 ./cache/mozilla/firefox/1noszcz6.default-release/cache2/ doomed
13812 ./cache/mozilla/firefox/1noszcz6.default-release/cache2/entries
13848 ./cache/mozilla/firefox/1noszcz6.default-release/cache2
260 ./cache/mozilla/firefox/1noszcz6.default-release/OfflineCache
4 ./cache/mozilla/firefox/1noszcz6.default-release/thumbnails
8552 ./cache/mozilla/firefox/1noszcz6.default-release/safebrowsing/google4
7184 ./cache/mozilla/firefox/1noszcz6.default-release/safebrowsing
13624 ./cache/mozilla/firefox/1noszcz6.default-release/startupCache
34924 ./cache/mozilla/firefox/1noszcz6.default-release
34932 ./cache/mozilla/firefox
34936 ./cache/mozilla
38412 ./cache
60140 .
root@kayonpc21:/home/kayon-pc21#
```

```
Terminal - root@kayonpc21:/home/kayon-pc21
File Edit View Terminal Tabs Help
38412 ./cache
60140 .
root@kayonpc21:/home/kayon-pc21# free
total used free shared buff/cache available
Mem: 8103648 560328 6260440 10160 1282880 7252244
Swap: 947028 0 947028
root@kayonpc21:/home/kayon-pc21# psfree
systemd -- ModemManager -- 2*[{ModemManager}]
-- NetworkManager -- dhcClient
-- 2*[{NetworkManager}]
-- Thunar
-- accounts-daemon -- 2*[{accounts-daemon}]
-- acpid
-- avahi-daemon -- avahi-daemon
-- cron
-- cups-browsed -- 2*[{cups-browsed}]
-- cupsd
-- dbus-daemon
-- gnome-keyring-d -- 3*[{gnome-keyring-d}]
-- irqbalance -- (irqbalance)
-- 2*[{kerneloops}]
-- lightdm -- Xorg -- (Xorg)
-- lightdm -- sh -- ssh-agent
-- xfce4-session -- applet.py -- (applet.py)
-- blueman-applet -- 3*[{blueman-applet}]
-- light-locker -- 3*[{light-locker}]
-- nm-applet -- 3*[{nm-applet}]
-- polkit-gnome-au -- 2*[{polkit-gnome-au}]
-- update-notifier -- 3*[{update-notifier}]
-- 2*[{xfce4-session}]
-- 2*[{lightdm}]
-- 2*[{lightdm}]
-- lvm2
-- networkd-dispatcher -- (networkd-dispatcher)
-- nvidia-persist
-- packagekitd -- 2*[{packagekitd}]
-- polkitd -- 2*[{polkitd}]
-- pulseaudio -- (pulseaudio)
-- rsyslogd -- 3*[{rsyslogd}]
-- rtkit-daemon -- 2*[{rtkit-daemon}]
-- sshd
-- systemd -- (sd-pam)
-- at-spi-bus-launcher -- dbus-daemon
-- 3*[{at-spi-bus-launcher}]
-- at-spi2-registr -- 2*[{at-spi2-registr}]
-- dbus-daemon
```

```
Terminal - root@kayonpc21: /home/kayon-pc21
File Edit View Terminal Tabs Help
└─3*[{at-spi-bus-laun}]
  └─2*[{at-spi2-registr}]
    └─dbus-daemon
      └─dconf-service—2*[{dconf-service}]
        └─gvfs-sfc-volume—3*[{gvfs-sfc-volume}]
          └─gvfs-goa-volume—2*[{gvfs-goa-volume}]
            └─gvfs-gphoto2-vo—2*[{gvfs-gphoto2-vo}]
              └─gvfs-mtp-volume—2*[{gvfs-mtp-volume}]
                └─gvfs-udisks2-vo—2*[{gvfs-udisks2-vo}]
                  └─gvfsd—gvfsd-trash—2*[{gvfsd-trash}]
                    └─2*[{gvfsd}]
                      └─gvfsd-fuse—5*[{gvfsd-fuse}]
                        └─indicator-messa—3*[{indicator-messa}]
                          └─obexd
                            └─xfce4-notifyd—2*[{xfce4-notifyd}]
                              └─xfceconfd
                                └─systemd-journal
                                  └─systemd-logind
                                    └─systemd-resolve
                                      └─systemd-timesyn—{systemd-timesyn}
                                        └─systemd-udev
                                          └─thermald—{thermald}
                                            └─udisksd—4*[{udisksd}]
                                              └─unattended-upgr—{unattended-upgr}
                                                └─upowerd—2*[{upowerd}]
                                                  └─whoopsie—2*[{whoopsie}]
                                                    └─wpa_supplicant
                                                      └─xfce4-panel—panel-1-whisker—oosplash—soffice.bin—7*[{soffice.bin}]
                                                        └─2*[{oosplash}]
                                                          └─2*[{panel-1-whisker}]
                                                            └─panel-4-systray
                                                              └─panel-5-notific—2*[{panel-5-notific}]
                                                                └─panel-6-indicat—2*[{panel-6-indicat}]
                                                                  └─panel-7-statusn—2*[{panel-7-statusn}]
                                                                    └─panel-8-power-m—2*[{panel-8-power-m}]
                                                                      └─panel-9-pulseau—2*[{panel-9-pulseau}]
                                                                        └─xfce4-screensho—2*[{xfce4-screensho}]
                                                                          └─2*[{xfce4-panel}]
                                                                            └─xfce4-power-man—2*[{xfce4-power-man}]
                                                                              └─xfce4-terminal—bash—sudo—su—bash—pstree
                                                                                └─2*[{xfce4-terminal}]
                                                                                  └─xfdesktop—2*[{xfdesktop}]
                                                                                    └─xfsettingsd—2*[{xfsettingsd}]
                                                                                      └─xfwm4
root@kayonpc21: /home/kayon-pc21#
```

Fungsi perintah diatas :

Echo : untuk menampilkan baris teks

Date : untuk menampilkan tanggal

Hostname : Melihat nama dari komputer yang sedang dipakai / aktif.

Arch : menampilkan procesor

Uname -a : menampilkan informasi system kernel

Dmesg : Mencetak pesan-pesan pada waktu proses boot

More : Untuk menampilkan sesuatu layar per layar

Uptime : Melihat jumlah waktu pemakaian komputer oleh seseorang, terhitung proses reboot terakhir

Whoami : Menampilkan nama dari yang Login saja, tanpa informasi yang lain.

Who : untuk menampilkan user

Id : Melihat ID yang ada di Linux, baik ID dari User, Grup, Device yang terpasang.

Last : Melihat user sebelumnya yang telah login di komputer.

Finger : Melihat informasi user yang telah ditambahkan oleh perintah “chfn”.

W : Melihat siapa saja yang sedang Login dengan informasi yang sangat lengkap.

Top : untuk melihat proses secara urut

Echo \$SHELL: untuk menampilkan shell yang sedang aktif saat itu

Man : digunakan untuk melihat manual dari command tertentu

Last : Melihat user sebelumnya yang telah login di komputer

Clear : untuk membersihkan terminal

Fdisk -l : untuk menampilkan partisi

Users : menampilkan nama pengguna

Cat : biasanya digunakan untuk melihat(tanpa edit) content dari sebuah file text

cat /proc/cpuinfo : Cpu info. Melihat file pada /proc directori yang bukan merupakan file nyata (not real files).

Cal : untuk menampilkan kalender

Bc -l : menampilkan versi bc

Yes : Cetak string sampai di interrupt

Pwd : untuk melihat direktori aktif

History : untuk melihat riwayat

Tail : mendefinisikan sebuah data pada file menurut barisnya

Lsmod : Untuk menampilkan module /driver yang diloat ke kernel

Ps -axu : Melihat seluruh proses yang dijalankan, walaupun tanpa terminal control, juga ditampilkan nama dari user untuk setiap proses.

Lspci : Menampilkan hardware yang terkoneksi ke komputer dengan basis PCI buss

Free : Melihat informasi penggunaan memory (RAM dan swap)

Reboot : untuk mulai ulang

Halt : Perintah yang hanya biasa dijalankan oleh super user atau anda harus login sebagai Root.perintah ini untuk memberikan kernel supaya mematikan system / shutdown



## TUGAS

1. Jelaskan distro linux yang ada saat ini ( minimal 5 ) !

- Red Hat

Red Hat ini merupakan salah satu Distro Linux yang dikembangkan oleh salah satu perusahaan bernama Red Hat Inc dan seringkali juga disebut Red Hat Linux namun pada tahun 2003 diganti menjadi Red Hat Enterprise Linux khusus untuk lingkungan perusahaan. Sistem operasi yang satu ini juga yang pertama kali mempopulerkan penggunaan sistem RPM Package Manager.

- CentOS

CentOS merupakan singkatan dari Community Enterprise Operating System dan merupakan salah satu contoh Distro Linux yang dikembangkan oleh The CentOS Project. Sistem operasi ini dibuat menggunakan kode sumber yang berasal dari Red Hat. Oleh karena itu, dalam hal produk CentOS ini sangatlah mirip dengan Red Hat Enterprise Linux.

- Debian

Debian adalah sistem operasi berbasis kernel Linux. Debian adalah 'kernel independen', yaitu sistem operasi Debian dikembangkan murni tanpa mendasarkan pada sistem operasi yang telah ada.

- Slackware

Slackware merupakan system operasi yang dibuat oleh Patrick Volkerding dari SlackwareLinux, Inc. Slackware merupakan salah satu distro awal, dan merupakan yang tertua yang masih dikelola. Tujuan utama Slackware adalah stabilitas dan kemudahan desain, serta menjadi distribusi Linux yang paling mirip Unix.

- Ubuntu

Ubuntu merupakan suatu sistem operasi yang berbasiskan pada Debian dan dikembangkan oleh suatu perusahaan dari Afrika Selatan yang bernama *Canonical ltd*. Asal penamaan dari Ubuntu ini juga berasal dari bahasa Afrika Selatan yang berarti kemanusiaan. Dengan sifatnya sebagai OS open source, Ubuntu sengaja diprioritaskan untuk kepentingan umum atau server.

2. Jelaskan 20 perintah yang sama di antara masing-masing distro

- a) Head = menampilkan beberapa baris awal pada file teks
- b) Nano = mengedit isi dari suatu file teks
- c) Vi = teks editor yang sangat ampuh yang hampir selalu terdapat dalam setiap instalasi Linux.
- d) Wc = menghitung jumlah baris, kata atau karakter dari sebuah file teks
- e) Man = menampilkan dokumentasi (manual pages) dari sebuah perintah
- f) Apropos= menampilkan dokumentasi (manual pages) yang berhubungan dengan kata kunci yang telah diberikan.
- g) Find = memindai dan mencari pada struktur direktori dari file
- h) Tar = mengextract sebuah file
- i) Gzip = melakukan kompresi pada file atau folder menjadi file dengan ekstensi.gz
- j) Date = menampilkan jam dan tanggal waktu sekarang.
- k) Cal = menampilkan kalender

- l) Touch = mengubah waktu modifikasi dari sebuah file atau membuat sebuah file kosong
- m) Ps = menampilkan proses yang berjalan pada sistem
- n) Kill = mematikan atau memberikan sinyal lain pada sebuah proses
- o) Su = super user
- p) Userdel = menghapus user dari sistem
- q) Passwd = mengganti password user
- r) Ifconfig = mengkonfigurasi interface jaringan
  - s) Halt = mematikan sistem
  - t) Reboot = merestart sistem

### 3. Jelaskan maksud perintah 'init 0', 'init 1', 'init 2', 'init 3', 'init 4', 'init 5', dan 'init 6'

- init 0 : Digunakan untuk maintenance, diagnostic hardware, booting selain dari disk misal dari cdroom. command : init 0, shutdown -i0
- init 1 : Single user mode, digunakan untuk menambahkan patches, backup/restore system. di level ini kita bisa menjalankan/access semua file tapi user lain tidak bisa login ke dalam sytem kita. command: init 1, shutdown -i1
- init 2 : Multiuser mode, biasanya untuk digunakan dalam network. tapi disini tidak ada resourches yang di share. command: init2, shutdown -i2
- init 3 : Memperluas multiuser mode, kita bisa membuat local resourches share pada network kita. sehingga kita bisa berbagi data dilevel ini dalam network. command:  
init 3, shutdown -i3
- init 4 : Untuk alternative multiuser mode tetapi saat ini belum bisa digunakan. command: init4, shutdown -i4
- init 5 : Untuk shutdown/ power off.command: init5, shutdown -i5
- init 6 : Menstop operating system kemudian reboot dan kembali ke initdefault nya yang ada di /etc/inittab.command: init 6, shutdown -i6

### 4. Jelaskan maksud dari perintah 'quota'

Perintah quota berfungsi untuk menampilkan statistik penggunaan disk, limit ruang kosong yang tersedia untuk sebuah user atau Perangkat administrasi sistem untuk membatasi dan memantau pemakaian suatu partisi oleh user atau group.



