

Nama : Muhammad Dharul Khadafie

Kelas : C

NIM : L2001800112

MODUL 5

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Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help
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        : 798.222
cache size     : 6144 KB
physical id    : 0
siblings       : 4
core id        : 2
cpu cores      : 4
apicid         : 4
initial apicid : 4
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_lld
bugs           : cpu_meltdown spectre_v1 spectre_v2 spec_store_bypass l1tf mds swapgs
bogomips       : 6585.30
clflush size   : 64
cache_alignmen : 64
address sizes  : 39 bits physical, 48 bits virtual
power managemen:

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        : 798.290
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_lld
bugs           : cpu_meltdown spectre_v1 spectre_v2 spec_store_bypass l1tf mds swapgs
bogomips       : 6585.30
clflush size   : 64
cache_alignmen : 64
address sizes  : 39 bits physical, 48 bits virtual
power managemen:

processor      : 1
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        : 798.253
cache size     : 6144 KB
physical id    : 0
siblings       : 4
core id        : 1
cpu cores      : 4
apicid         : 2
initial apicid : 2
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_lld
bugs           : cpu_meltdown spectre_v1 spectre_v2 spec_store_bypass l1tf mds swapgs
bogomips       : 6585.30
clflush size   : 64
cache_alignmen : 64
address sizes  : 39 bits physical, 48 bits virtual
power managemen:

processor      : 2
vendor_id      : GenuineIntel
```

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Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help

root 385 0.0 0.0 0 0 7 I< 10:32 0:00 [kworker/1:1H-kb]
root 418 0.0 0.2 111260 16968 ? S< 10:32 0:00 /lib/systemd/systemd-journald
root 434 0.0 0.0 0 0 7 I 10:32 0:00 [kworker/0:2-cgr]
root 435 0.0 0.0 97704 1940 ? Ss 10:32 0:00 /sbin/lvmtd -f
root 442 0.0 0.0 48372 6552 ? Ss 10:32 0:00 /lib/systemd/systemd-udev
systemd+ 454 0.0 0.0 143984 3260 ? Ssl 10:32 0:00 /lib/systemd/systemd-timesyncd
systemd+ 455 0.0 0.0 70756 5156 ? Ss 10:32 0:00 /lib/systemd/systemd-resolved
root 479 0.0 0.0 0 0 7 S 10:32 0:00 [UVM global queue]
root 486 0.0 0.0 0 0 7 S 10:32 0:00 [UVM deferred re]
root 481 0.0 0.0 0 0 7 S 10:32 0:00 [UVM Tools Event]
root 506 0.0 0.0 0 0 7 S 10:32 0:00 [irq/27-mei_me]
root 538 0.0 0.0 0 0 7 I< 10:32 0:00 [led_workqueue]
root 550 0.0 0.0 0 0 7 I 10:32 0:00 [kworker/2:3-eve]
root 784 0.0 0.2 173168 17244 ? Ssl 10:32 0:00 /usr/bin/python3 /usr/bin/network-dispatcher --run-startup-triggers
root 787 0.0 0.1 503056 11216 ? Ssl 10:32 0:00 /usr/lib/udisks2/udisksd
root 795 0.0 0.0 295280 7164 ? Ssl 10:32 0:00 /usr/lib/accounts-service/accounts-daemon
root 797 0.0 0.0 110472 3492 ? Ssl 10:32 0:00 /usr/sbin/irqbalance --foreground
syslog 800 0.0 0.0 263032 4652 ? Ssl 10:32 0:00 /usr/sbin/rsyslogd -n
root 801 0.0 0.0 78664 6228 ? Ss 10:32 0:00 /lib/systemd/systemd-logind
root 802 0.0 0.0 38892 3336 ? Ss 10:32 0:00 /usr/sbin/cron -f
avahi 804 0.0 0.0 47252 3300 ? Ss 10:32 0:00 avahi-daemon: running [kayonpc22.local]
message+ 805 0.0 0.0 51412 5860 ? Ss 10:32 0:00 /usr/bin/dbus-daemon --system --address=systemd: --nofork --nopidfile --systemd-activation --syslog-only
nvidia+ 806 0.0 0.0 17320 1748 ? Ss 10:32 0:00 /usr/bin/nvidia-persistenced --user nvidia-persistenced --no-persistence-mode --verbose
avahi 814 0.0 0.0 47072 336 ? S 10:32 0:00 avahi-daemon: chroot helper
root 838 0.0 0.0 45224 5344 ? Ss 10:32 0:00 /sbin/apa-supplcament -u -s -0 /run/apa-supplcament
root 839 0.0 0.1 360592 9660 ? Ssl 10:32 0:00 /usr/sbin/ModemManager --filter-policy=strict
root 842 0.0 0.0 4548 780 ? Ss 10:32 0:00 /usr/sbin/acpid
root 844 0.0 0.1 107436 9500 ? Ssl 10:32 0:00 /usr/sbin/thermald --no-daemon --dbus-enable
root 845 0.0 0.2 488160 16224 ? Ssl 10:32 0:00 /usr/sbin/NetworkManager --no-daemon
root 847 0.0 0.0 23500 2680 ? Ss 10:32 0:00 /usr/sbin/anacron -dsq
root 866 0.0 0.1 30328 9312 ? Ssl 10:32 0:00 /usr/lib/policykit-1/polkitd --no-debug
root 890 0.0 0.2 194816 20064 ? Ssl 10:32 0:00 /usr/bin/python3 /usr/share/unattended-upgrades/unattended-upgrade-shutdown --wait-for-signal
root 901 0.0 0.0 364228 6984 ? Slsl 10:32 0:00 /usr/sbin/lightdm
root 908 0.0 0.0 72292 5824 ? Ss 10:32 0:00 /usr/sbin/sshd -D
root 915 1.0 0.9 419292 75384 tty7 Ssl+ 10:32 0:32 /usr/lib/xorg/Xorg -core :0 -seat seat0 -auth /var/run/lightdm/root/:0 -nolisten tcp vt7 -novtswitch
root 957 0.1 0.0 0 0 ? S 10:32 0:03 [irq/28-nvidia]
root 958 0.0 0.0 0 0 ? S 10:32 0:00 [nvidia]
root 959 0.1 0.0 0 0 ? S 10:32 0:03 [nv_queue]
whoopsie 1034 0.0 0.1 377084 11848 ? Ssl 10:32 0:00 /usr/bin/whoopsie -f
kernoops 1040 0.0 0.0 56936 2480 ? Ss 10:32 0:00 /usr/sbin/kerneloops --test
kernoops 1043 0.0 0.0 56936 2436 ? Ss 10:32 0:00 /usr/sbin/kerneloops
root 1073 0.0 0.0 25856 7164 ? Sl 10:32 0:00 lightdm --session-child 13 20
kayon-pc 1080 0.0 0.0 77048 8100 ? Ss 10:32 0:00 /lib/systemd/systemd --user
kayon-pc 1081 0.0 0.0 113928 2580 ? S 10:32 0:00 (sd-pam)
kayon-pc 1095 0.0 0.0 285712 6372 ? Sl 10:32 0:00 /usr/bin/gnome-keyring-daemon --daemonize --login
kayon-pc 1098 0.0 0.0 4624 1700 ? Ss 10:32 0:00 /bin/sh /etc/xdg/xfce4/xinitrc -- /etc/X11/xinit/xserverrc

[8.png - Image Viewer [8/10]] Music - File Manager Terminal - root@kayonpc22: /... Terminal - root@kayonpc22: /... 05 Nov, 11:21

Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help

kayon-pc 1209 0.1 0.2 191532 22252 ? S 10:32 0:05 xfwm4 --replace
kayon-pc 1213 0.1 0.3 407932 28940 ? Sl 10:32 0:03 xfce4-panel
kayon-pc 1215 0.0 0.4 50320 35144 ? Sl 10:32 0:01 Thunar --daemon
kayon-pc 1217 0.0 0.6 583432 56700 ? Sl 10:32 0:02 xfdesktop
kayon-pc 1218 0.0 0.2 384964 17096 ? Ssl 10:32 0:00 xfsettingsd
kayon-pc 1221 0.0 0.4 732216 39060 ? Sl 10:32 0:00 nm-applet
kayon-pc 1222 0.0 0.6 680508 56348 ? Sl 10:32 0:00 /usr/bin/python3 /usr/bin/blueman-applet
kayon-pc 1226 0.0 0.2 408392 22988 ? Sl 10:32 0:00 light-locker
kayon-pc 1230 0.0 0.4 526336 32544 ? Sl 10:32 0:00 /usr/bin/python3 /usr/share/system-config-printer/applet.py
kayon-pc 1236 0.0 0.2 360808 22164 ? Ssl 10:32 0:00 xfce4-power-manager
kayon-pc 1242 0.0 0.1 322112 15472 ? Sl 10:32 0:00 /usr/lib/policykit-1-gnome/polkit-gnome-authentication-agent-1
kayon-pc 1244 0.0 0.0 107904 5192 ? Sl 10:32 0:00 /usr/lib/dconf/dconf-service
kayon-pc 1247 0.0 0.0 349192 5956 ? Ssl 10:32 0:00 /usr/lib/at-spi2-core/at-spi-bus-launcher
kayon-pc 1248 0.0 0.3 508792 27004 ? Sl 10:32 0:00 update-notifier
kayon-pc 1259 0.0 0.0 49920 4128 ? S 10:32 0:00 /usr/bin/dbus-daemon --config-file=/usr/share/defaults/at-spi2/accessibility.conf --nofork --print-address 3
kayon-pc 1265 0.0 0.0 220784 6936 ? Ss 10:32 0:00 /usr/lib/at-spi2-core/at-spi2-registryd --use-gnome-session
root 1268 0.0 0.1 322860 8928 ? Ssl 10:32 0:00 /usr/lib/upower/upowerd
kayon-pc 1271 0.0 0.0 292432 7256 ? Ssl 10:32 0:00 /usr/lib/gvfs/gvfsd
kayon-pc 1276 0.0 0.0 416112 5376 ? Sl 10:32 0:00 /usr/lib/gvfs/gvfsd-fuse /run/user/1000/gvfs -f -o big_writes
kayon-pc 1277 0.0 0.3 472336 31892 ? Ssl 10:32 0:00 /usr/lib/x86_64-linux-gnu/xfce4/notifyd/xfce4-notifyd
kayon-pc 1293 0.0 0.4 484964 37408 ? Sl 10:32 0:01 /usr/lib/x86_64-linux-gnu/xfce4/panel/wrapper-2.0 /usr/lib/x86_64-linux-gnu/xfce4/panel/plugins/libwhiskermenu.so 1 12582937 whi
kayon-pc 1307 0.0 0.1 177144 14412 ? S 10:32 0:00 /usr/lib/x86_64-linux-gnu/xfce4/panel/wrapper-1.0 /usr/lib/x86_64-linux-gnu/xfce4/panel/plugins/libsystray.so 4 12582938 systray
kayon-pc 1308 0.0 0.3 404056 31344 ? Sl 10:32 0:00 /usr/lib/x86_64-linux-gnu/xfce4/panel/wrapper-2.0 /usr/lib/x86_64-linux-gnu/xfce4/panel/plugins/libnotification-plugin.so 5 1258
kayon-pc 1310 0.0 0.3 480192 28240 ? Sl 10:32 0:00 /usr/lib/x86_64-linux-gnu/xfce4/panel/wrapper-2.0 /usr/lib/x86_64-linux-gnu/xfce4/panel/plugins/libindicator-plugin.so 6 1258294
kayon-pc 1319 0.0 0.4 555892 33392 ? Sl 10:32 0:00 /usr/lib/x86_64-linux-gnu/xfce4/panel/wrapper-2.0 /usr/lib/x86_64-linux-gnu/xfce4/panel/plugins/libstatusnotifier.so 7 12582941
kayon-pc 1311 0.0 0.3 406348 31864 ? Sl 10:32 0:00 /usr/lib/x86_64-linux-gnu/xfce4/panel/wrapper-2.0 /usr/lib/x86_64-linux-gnu/xfce4/panel/plugins/libxfce4-powermanager.so 8 125829
kayon-pc 1312 0.0 0.4 708280 35800 ? Sl 10:32 0:02 /usr/lib/x86_64-linux-gnu/xfce4/panel/wrapper-2.0 /usr/lib/x86_64-linux-gnu/xfce4/panel/plugins/libpulseaudio-plugin.so 9 125829
kayon-pc 1318 0.0 0.1 574768 11536 ? Ssl 10:32 0:00 /usr/lib/pulseaudio --start --log-target=ssyslog
rtkit 1321 0.0 0.0 183500 2932 ? Sml 10:32 0:00 /usr/lib/rtkit/rtkit-daemon
kayon-pc 1371 0.0 0.0 373588 7508 ? Ssl 10:32 0:00 /usr/lib/x86_64-linux-gnu/indicator-messages/indicator-messages-service
root 1374 0.0 0.0 25988 6420 ? S 10:32 0:00 /sbin/dhclient -d -q -sf /usr/lib/NetworkManager/nm-dhcp-helper -pf /run/dhclient-enp3s0.pid -lf /var/lib/NetworkManager/dhclien
kayon-pc 1383 0.0 0.0 306908 8040 ? Ssl 10:32 0:00 /usr/lib/gvfs/gvfs-udisks2-volume-monitor
kayon-pc 1387 0.0 0.0 379280 7696 ? Ssl 10:32 0:00 /usr/lib/gvfs/gvfs-afc-volume-monitor
kayon-pc 1392 0.0 0.0 289268 6736 ? Ssl 10:32 0:00 /usr/lib/gvfs/gvfs-gphoto2-volume-monitor
kayon-pc 1396 0.0 0.0 274512 5920 ? Ssl 10:32 0:00 /usr/lib/gvfs/gvfs-goa-volume-monitor
kayon-pc 1402 0.0 0.0 276340 6096 ? Ssl 10:32 0:00 /usr/lib/gvfs/gvfs-mtp-volume-monitor
kayon-pc 1411 0.0 0.0 368444 6964 ? Sl 10:32 0:00 /usr/lib/gvfs/gvfsd-trash --spawner :1.18 /org/gtk/gvfs/exec_spaw/0
kayon-pc 2090 0.0 0.0 82724 6956 ? Ss 10:33 0:00 /usr/lib/bluetooth/obexd
root 2755 0.0 0.1 374164 13776 ? Ssl 10:33 0:00 /usr/lib/packagekit/packagekitd
kayon-pc 2814 0.0 0.0 204836 4836 ? Ssl 10:33 0:00 /usr/lib/gvfs/gvfsd-metadata
root 3542 0.0 0.0 0 0 ? I 10:37 0:00 [kworker/2:0-cgr]
root 3543 0.0 0.1 108148 8192 ? Ss 10:37 0:00 /usr/sbin/cupsd -l
root 3544 0.0 0.1 303520 10972 ? Ssl 10:37 0:00 /usr/sbin/cups-browsed
kayon-pc 3610 1.0 0.6 597512 51236 ? Sl 10:42 0:23 /usr/bin/xfce4-terminal
root 3694 0.0 0.0 0 0 ? I 10:47 0:01 [kworker/u8:2-ov]
root 3697 0.0 0.0 0 0 ? I 10:47 0:00 [kworker/3:2-cgr]
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Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help
root 4171 0.0 0.0 47236 3648 pts/1 R+ 11:21 0:00 ps -aux
root@kayonpc22: /home/kayon-pc22# 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 8 Series/C220 Series Chipset Family PCI Express Root Port #5 (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@kayonpc22: /home/kayon-pc22# free
             total        used        free      shared  buff/cache   available
Mem:      8103648    4655528    6645592        21560     989528    7342912
Swap:      947028            0     947028
root@kayonpc22: /home/kayon-pc22# 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        : 798.268
cache size     : 6144 KB
physical id    : 0
siblings       : 4
core id        : 4
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 aos xsave avx f16c rdrand lahf_lm abm cpuid_fault epb invpcid single_pti ssbd ibrs ibpb stibp tpr shadow vmci flexpriority ept vpid ept_ad fsqbsbase tsc_adjust bmi1 avx2 smep bmi2 erms
[8.png - Image Viewer [8/10]] Music - File Manager Terminal - root@kayonpc22: /... Terminal - root@kayonpc22: /... 05 Nov, 11:23

Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help
root 44 0.0 0.0 0 0 ? I< 10:32 0:00 [kintegrityd]
root 45 0.0 0.0 0 0 ? I< 10:32 0:00 [kblockd]
root 46 0.0 0.0 0 0 ? I< 10:32 0:00 [tpm_dev_wq]
root 47 0.0 0.0 0 0 ? I< 10:32 0:00 [ata_sff]
root 48 0.0 0.0 0 0 ? I< 10:32 0:00 [md]
root 49 0.0 0.0 0 0 ? I< 10:32 0:00 [edac-poller]
root 50 0.0 0.0 0 0 ? I< 10:32 0:00 [devfreq_wq]
root 51 0.0 0.0 0 0 ? I 10:32 0:00 [kworker/3:1-eve]
root 52 0.0 0.0 0 0 ? S 10:32 0:00 [watchdog]
root 54 0.0 0.0 0 0 ? I 10:32 0:00 [kworker/1:1-cgr]
root 56 0.0 0.0 0 0 ? S 10:32 0:00 [kswapd0]
root 59 0.0 0.0 0 0 ? I< 10:32 0:00 [kworker/u9:0]
root 60 0.0 0.0 0 0 ? S 10:32 0:00 [ecryptfs-kthrea]
root 149 0.0 0.0 0 0 ? I< 10:32 0:00 [kthrotld]
root 150 0.0 0.0 0 0 ? I< 10:32 0:00 [acpi_thermal_pm]
root 151 0.0 0.0 0 0 ? I< 10:32 0:00 [ip6_addrconf]
root 162 0.0 0.0 0 0 ? I< 10:32 0:00 [kstrp]
root 181 0.0 0.0 0 0 ? I< 10:32 0:00 [charger_manager]
root 233 0.0 0.0 0 0 ? S 10:32 0:00 [scsi_ah_0]
root 235 0.0 0.0 0 0 ? I< 10:32 0:00 [scsi_tm_f_0]
root 236 0.0 0.0 0 0 ? S 10:32 0:00 [scsi_ah_1]
root 237 0.0 0.0 0 0 ? I< 10:32 0:00 [scsi_tm_f_1]
root 238 0.0 0.0 0 0 ? S 10:32 0:00 [scsi_ah_2]
root 239 0.0 0.0 0 0 ? I< 10:32 0:00 [scsi_tm_f_2]
root 240 0.0 0.0 0 0 ? S 10:32 0:00 [scsi_ah_3]
root 241 0.0 0.0 0 0 ? I< 10:32 0:00 [scsi_tm_f_3]
root 242 0.0 0.0 0 0 ? S 10:32 0:00 [scsi_ah_4]
root 243 0.0 0.0 0 0 ? I< 10:32 0:00 [scsi_tm_f_4]
root 244 0.0 0.0 0 0 ? S 10:32 0:00 [scsi_ah_5]
root 245 0.0 0.0 0 0 ? I< 10:32 0:00 [scsi_tm_f_5]
root 247 0.0 0.0 0 0 ? I 10:32 0:01 [kworker/u8:5-ev]
root 249 0.0 0.0 0 0 ? S 10:32 0:00 [nv_queue]
root 250 0.0 0.0 0 0 ? S 10:32 0:00 [nv_queue]
root 255 0.0 0.0 0 0 ? S 10:32 0:00 [nvidia-modeset/]
root 256 0.0 0.0 0 0 ? S 10:32 0:00 [nvidia-modeset/]
root 258 0.0 0.0 0 0 ? I< 10:32 0:00 [kworker/2:1H-kb]
root 263 0.0 0.0 0 0 ? I< 10:32 0:00 [kworker/0:1H-kb]
root 369 0.0 0.0 0 0 ? I< 10:32 0:00 [kworker/0:1H-kb]
root 371 0.0 0.0 0 0 ? S 10:32 0:00 [jbd2/sda4-8]
root 372 0.0 0.0 0 0 ? I< 10:32 0:00 [ext4-rsv-conver]
root 385 0.0 0.0 0 0 ? I< 10:32 0:00 [kworker/1:1H-kb]
root 418 0.0 0.2 111260 16968 ? Scs 10:32 0:00 /lib/systemd/systemd-journald
root 434 0.0 0.0 0 0 ? I 10:32 0:00 [kworker/0:2-cgr]
root 435 0.0 0.0 97704 1940 ? Ss 10:32 0:00 /sbin/lmnetad -f
root 442 0.0 0.0 48372 6552 ? Ss 10:32 0:00 /lib/systemd/systemd-udev
systemd+ 454 0.0 0.0 143984 3260 ? Ssl 10:32 0:00 /lib/systemd/systemd-svncd
[8.png - Image Viewer [8/10]] Music - File Manager Terminal - root@kayonpc22: /... Terminal - root@kayonpc22: /... 05 Nov, 11:21
```



```
Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help
r8169 86016 0
realtek 20480 0
wmi 28672 2 asus_wmi,wmi_bmf
video 49152 1 asus_wmi
root@kayonpc22: /home/kayon-pc22# ps -axu
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root         1  0.0  0.1 225316 9152 ?        Ss   10:32   0:01 /sbin/init splash
root         2  0.0  0.0      0  0 ?        S    10:32   0:00 [kthreadd]
root         3  0.0  0.0      0  0 ?        I<   10:32   0:00 [rcu_gp]
root         4  0.0  0.0      0  0 ?        I<   10:32   0:00 [rcu_par_gp]
root         6  0.0  0.0      0  0 ?        I<   10:32   0:00 [kworker/0:0H-kb]
root         8  0.0  0.0      0  0 ?        I<   10:32   0:00 [mm_percpu_wq]
root         9  0.0  0.0      0  0 ?        S    10:32   0:00 [ksoftirqd/0]
root        10  0.2  0.0      0  0 ?        I    10:32   0:00 [rcu_sched]
root        11  0.0  0.0      0  0 ?        S    10:32   0:00 [migration/0]
root        12  0.0  0.0      0  0 ?        S    10:32   0:00 [idle_inject/0]
root        13  0.0  0.0      0  0 ?        I    10:32   0:00 [kworker/0:1-mm_]
root        14  0.0  0.0      0  0 ?        S    10:32   0:00 [cpuhp/0]
root        15  0.0  0.0      0  0 ?        S    10:32   0:00 [cpuhp/1]
root        16  0.0  0.0      0  0 ?        S    10:32   0:00 [idle_inject/1]
root        17  0.0  0.0      0  0 ?        S    10:32   0:00 [migration/1]
root        18  0.0  0.0      0  0 ?        S    10:32   0:00 [ksoftirqd/1]
root        19  0.0  0.0      0  0 ?        I    10:32   0:00 [kworker/1:0-eve]
root        20  0.0  0.0      0  0 ?        I<   10:32   0:00 [kworker/1:0H-kb]
root        21  0.0  0.0      0  0 ?        S    10:32   0:00 [cpuhp/2]
root        22  0.0  0.0      0  0 ?        S    10:32   0:00 [idle_inject/2]
root        23  0.0  0.0      0  0 ?        S    10:32   0:00 [migration/2]
root        24  0.0  0.0      0  0 ?        S    10:32   0:00 [ksoftirqd/2]
root        26  0.0  0.0      0  0 ?        I<   10:32   0:00 [kworker/2:0H-kb]
root        27  0.0  0.0      0  0 ?        S    10:32   0:00 [cpuhp/3]
root        28  0.0  0.0      0  0 ?        S    10:32   0:00 [idle_inject/3]
root        29  0.0  0.0      0  0 ?        S    10:32   0:00 [migration/3]
root        30  0.0  0.0      0  0 ?        S    10:32   0:00 [ksoftirqd/3]
root        32  0.0  0.0      0  0 ?        I<   10:32   0:00 [kworker/3:0H-kb]
root        33  0.0  0.0      0  0 ?        S    10:32   0:00 [kdevtmpfs]
root        34  0.0  0.0      0  0 ?        I<   10:32   0:00 [netns]
root        35  0.0  0.0      0  0 ?        S    10:32   0:00 [rcu_tasks_kthre]
root        36  0.0  0.0      0  0 ?        S    10:32   0:00 [kauditd]
root        37  0.0  0.0      0  0 ?        S    10:32   0:00 [khungtaskd]
root        38  0.0  0.0      0  0 ?        S    10:32   0:00 [oom_reaper]
root        39  0.0  0.0      0  0 ?        I<   10:32   0:00 [writeback]
root        40  0.0  0.0      0  0 ?        S    10:32   0:00 [kcompactd0]
root        41  0.0  0.0      0  0 ?        SN   10:32   0:00 [ksmd]
root        42  0.0  0.0      0  0 ?        SN   10:32   0:00 [khugepaged]
root        43  0.0  0.0      0  0 ?        I<   10:32   0:00 [crypto]
root        44  0.0  0.0      0  0 ?        I<   10:32   0:00 [kintegrityd]

[8.png - Image Viewer [8/10]] Music - File Manager Terminal - root@kayonpc22: /... Terminal - root@kayonpc22: /...
05 Nov, 11:21

Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help
snd_timer 36864 2 snd_seq,snd_pcm
mei_me 40960 0
mei 100496 1 mei_me
snd 86016 15 snd_hda_codec_generic,snd_seq,snd_seq_device,snd_hda_codec_hdmi,snd_hwdep,snd_hda_intel,snd_hda_codec,snd_hda_codec_realtek,snd_timer,snd_pcm,snd_rawmidi
soundcore 16384 1 snd
lpc_ich 24576 0
mac_hid 16384 0
nvidia_uvm 819200 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
raid0_pq 114688 1 btrfs
libcrc32c 16384 1 btrfs
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
ipmi_devintf 20480 0
ahci 40960 1
ipmi_msghandler 102400 2 ipmi_devintf,nvidia
libahci 32768 1 ahci
r8169 86016 0
realtek 20480 0
wmi 28672 2 asus_wmi,wmi_bmf
video 49152 1 asus_wmi
root@kayonpc22: /home/kayon-pc22#
```

```
Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help
root@kayonpc22: /home/kayon-pc22# pwd
/home/kayon-pc22
root@kayonpc22: /home/kayon-pc22# history

964 dir
965 date
966 hostname
967 arch
968 uname -a
969 dmesg | more
970 uptime
971 whoami
972 who
973 id
974 last
975 finger
976 w
977 top
978 echo $SHELL
979 echo {con,pre}{sent,fer}{s,ed}
980 man ls
981 man who
982 who can tell me about linux
983 last
984 clear
985 fdisk -l
986 fdisk -l
987 clear
988 fdisk -l
989 users
990 cat /etc/fstab
991 cal 2000
992 cal 9 1752
993 cal 10 2007
994 bc -l
995 clear
996 bc -l
997 echo 5+4 | bc -l
998 yes please
999 clear
1000 bc -l
1001 echo 5+4 | bc -l
1002 yes please
1003 pwd
1004 history
1005 clear
1006 pwd
1007 history
root@kayonpc22: /home/kayon-pc22#
```



```
Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help
root@kayonpc22:/home/kayon-pc22# 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'.
warranty
bc 1.07.1
Copyright 1991-1994, 1997, 1998, 2000, 2004, 2006, 2008, 2012-2017 Free Software Foundation, Inc.

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  it under the terms of the GNU General Public License as published by
  the Free Software Foundation; either version 3 of the License , or
  (at your option) any later version.

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  GNU General Public License for more details.

  You should have received a copy of the GNU General Public License
  along with this program. If not, write to

    The Free Software Foundation, Inc.
    51 Franklin Street, Fifth Floor
    Boston, MA 02110-1335 USA

quit
root@kayonpc22:/home/kayon-pc22# echo 5+4 | bc -l
9
root@kayonpc22:/home/kayon-pc22#
```

```
Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help

  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 3 4 5 1 2
2 3 4 5 6 7 8 8 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@kayonpc22:/home/kayon-pc22# 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@kayonpc22:/home/kayon-pc22# 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@kayonpc22:/home/kayon-pc22# bc -l
```

```
Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help

 9 root 20 0 0 0 0 0 0 0:00.00 ksoftirqd/0
10 root 20 0 0 0 0 1 0 0:05.12 rcu_sched
11 root rt 0 0 0 0 0 0 0:00.00 migration/0
12 root -51 0 0 0 0 0 0 0:00.00 idle_inject/0
13 root 20 0 0 0 0 1 0 0:00.16 kworker/0:1-eve
14 root 20 0 0 0 0 0 0 0:00.00 cpuhp/0
15 root 20 0 0 0 0 0 0 0:00.00 cpuhp/1
16 root -51 0 0 0 0 0 0 0:00.00 idle_inject/1
17 root rt 0 0 0 0 0 0 0:00.00 migration/1
18 root 20 0 0 0 0 0 0 0:00.00 ksoftirqd/1
19 root 20 0 0 0 0 1 0 0:00.08 kworker/1:0-eve
20 root 0 -20 0 0 0 1 0 0:00.00 kworker/1:0H-kb
21 root 20 0 0 0 0 0 0 0:00.00 cpuhp/2
22 root -51 0 0 0 0 0 0 0:00.00 idle_inject/2
23 root rt 0 0 0 0 0 0 0:00.00 migration/2
24 root 20 0 0 0 0 0 0 0:00.00 ksoftirqd/2
26 root 0 -20 0 0 0 1 0 0:00.00 kworker/2:0H-kb
27 root 20 0 0 0 0 0 0 0:00.00 cpuhp/3
28 root -51 0 0 0 0 0 0 0:00.00 idle_inject/3
29 root rt 0 0 0 0 0 0 0:00.01 migration/3
30 root 20 0 0 0 0 0 0 0:00.02 ksoftirqd/3
32 root 0 -20 0 0 0 1 0 0:00.00 kworker/3:0H-kb
33 root 20 0 0 0 0 0 0 0:00.00 kdevtmpfs
34 root 0 -20 0 0 0 1 0 0:00.00 netns
35 root 20 0 0 0 0 0 0 0:00.00 rcu_tasks_kthre
36 root 20 0 0 0 0 0 0 0:00.00 kauditd
37 root 20 0 0 0 0 0 0 0:00.00 khungtaskd
38 root 20 0 0 0 0 0 0 0:00.00 oom_reaper
39 root 0 -20 0 0 0 1 0 0:00.00 writeback
40 root 20 0 0 0 0 0 0 0:00.00 kcompactd0
41 root 25 5 0 0 0 0 0 0:00.00 kswapd

root@kayonpc22:/home/kayon-pc22# echo $SHELL
/bin/bash
root@kayonpc22:/home/kayon-pc22# echo {con,pre}{sent,fer}{s,ed}
consents consented confers conferred presents presented prefers preferred
root@kayonpc22:/home/kayon-pc22# man ls
root@kayonpc22:/home/kayon-pc22# man ls
root@kayonpc22:/home/kayon-pc22# man who
root@kayonpc22:/home/kayon-pc22# who can tell me about linux
who: extra operand 'me'
Try 'who --help' for more information.
root@kayonpc22:/home/kayon-pc22# last

wtmp begins Tue Nov 5 10:37:27 2019
root@kayonpc22:/home/kayon-pc22#

[8.png - Image Viewer [8/10]] [Music - File Manager] Terminal - root@kayonpc22: /... 05 Nov, 11:11

Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help

root@kayonpc22:/home/kayon-pc22# fdisk -l
Disk /dev/sda: 465,0 GiB, 500107862016 bytes, 97673168 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: 0x80e875a7

Device Boot Start End Sectors Size Id Type
/dev/sda1 * 2048 206847 204800 100M 7 HPFS/NTFS/exFAT
/dev/sda2 206848 409602047 409395200 195,2G 7 HPFS/NTFS/exFAT
/dev/sda3 409602048 935813119 526211072 250,9G 7 HPFS/NTFS/exFAT
/dev/sda4 935813120 976771071 409557952 19,5G 83 Linux

root@kayonpc22:/home/kayon-pc22# users
kayon-pc22
root@kayonpc22:/home/kayon-pc22# 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=6cd2aa32-9538-4579-810c-a56b05fb1bce / ext4 errors=remount-ro 0 1
/swapfile none swap sw 0 0
root@kayonpc22:/home/kayon-pc22# 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 6 1 2 3 4 5 6 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 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
```



```
Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help

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@kayonpc22: /home/kayon-pc22# 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@kayonpc22: /home/kayon-pc22# 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@kayonpc22: /home/kayon-pc22#

[8.png - Image Viewer [8/10]] Music - File Manager Terminal - root@kayonpc22: /... 05 Nov, 11:13
Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help

-r, --runlevel
    print current runlevel

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

-t, --time
    print last system clock change

-T, -w, --msg
    add user's message status as +, - or ?

-u, --users
    list users logged in

--message
    same as -T

--writable
    same as -T

--help
    display this help and exit

--version
    output version information and exit

If FILE is not specified, use /var/run/utmp. /var/log/utmp as FILE is common. If ARG1 ARG2 given, -m presumed: 'am i' or 'mon likes' are usual.

AUTHOR
    Written by Joseph Arceneaux, David MacKenzie, and Michael Stone.

REPORTING BUGS
    GNU coreutils online help: <http://www.gnu.org/software/coreutils/>
    Report translation bugs to <http://translationproject.org/team/>

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SEE ALSO
    Full documentation at: <http://www.gnu.org/software/coreutils/who>
    or available locally via: info '(coreutils) who invocation'

GNU coreutils 8.28                                January 2018                                WHO(1)
Manual page who(1) line 40/83 (END) (press h for help or q to quit)
```

```
Terminal - root@kayonpc22: /home/kayon-pc22
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
  -H, --heading
    print line of column headings
  -i, --ips
    print ips instead of hostnames. with --lookup, canonicalizes based on stored IP, if available, rather than stored hostname
  -l, --login
    print system login processes
  --lookup
    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 1/83 49% (press h for help or q to quit)

Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help
set output width to COLS. 0 means no limit
-x list entries by lines instead of by columns
-X sort alphabetically by entry extension
-Z, --context
  print any security context of each file
-l list one file per line. Avoid '\n' with -q or -b
--help display this help and exit
--version
  output version information and exit
The SIZE argument is an integer and optional unit (example: 10K is 10*1024). Units are K,M,G,T,P,E,Z,Y (powers of 1024) or KB,MB,... (powers of 1000).
Using color to distinguish file types is disabled both by default and with --color=never. With --color=auto, ls emits color codes only when standard output is connected to a terminal. The LS_COLORS environment variable can change the settings. Use the dircolors 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).
AUTHOR
  Written by Richard M. Stallman and David MacKenzie.
REPORTING BUGS
  GNU coreutils online help: <http://www.gnu.org/software/coreutils/>
  Report ls translation bugs to <http://translationproject.org/team/>
COPYRIGHT
  Copyright © 2017 Free Software Foundation, Inc. License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>.
  This is free software: you are free to change and redistribute it. There is NO WARRANTY, to the extent permitted by law.
SEE ALSO
  Full documentation at: <http://www.gnu.org/software/coreutils/ls>
  or available locally via: info '(coreutils) ls invocation'
GNU coreutils 8.28 January 2018 LS(1)
Manual page ls(1) line 164/207 (END) (press h for help or q to quit)
```

```
Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help

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

-f
    do not sort, enable -aU, disable -ls --color

-F, --classify
    append indicator (one of */=>@|) to entries

--file-type
    likewise, except do not append '*'

--format=WORD
    across -x, commas -m, horizontal -x, long -l, single-column -l, verbose -l, vertical -C

--full-time
    like -l --time-style=full-iso

-g
    like -l, but do not list owner

--group-directories-first
    group directories before files;
    can be augmented with a --sort option, but any use of --sort=none (-U) disables grouping

-G, --no-group
    in a long listing, don't print group names

-h, --human-readable
    with -l and/or -s, print human readable sizes (e.g., 1K 234M 2G)

--si
    likewise, but use powers of 1000 not 1024

-H, --dereference-command-line
    follow symbolic links listed on the command line

--dereference-command-line-symlink-to-dir
    follow each command line symbolic link
    that points to a directory

--hide=PATTERN
    do not list implied entries matching shell PATTERN (overridden by -a or -A)

Manual page ls(1) line 41 (press h for help or q to quit)

Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help

--hide=PATTERN
    do not list implied entries matching shell PATTERN (overridden by -a or -A)

--hyperLink=WHEN
    hyperLink file names; WHEN can be 'always' (default if omitted), 'auto', or 'never'

--indicator-style=WORD
    append indicator with style WORD to entry names: none (default), slash (-p), file-type (--file-type), classify (-F)

-i, --inode
    print the index number of each file

-I, --ignore=PATTERN
    do not list implied entries matching shell PATTERN

-k, --kibibytes
    default to 1024-byte blocks for disk usage

-l
    use a long listing format

-L, --dereference
    when showing file information for a symbolic link, show information for the file the link references rather than for the link itself

-m
    fill width with a comma separated list of entries

-n, --numeric-uid-gid
    like -l, but list numeric user and group IDs

-N, --literal
    print entry names without quoting

-o
    like -l, but do not list group information

-p, --indicator-style=slash
    append / indicator to directories

-q, --hide-control-chars
    print ? instead of nongraphic characters

--show-control-chars
    show nongraphic characters as-is (the default, unless program is 'ls' and output is a terminal)

-Q, --quote-name
    Manual page ls(1) line 81 (press h for help or q to quit)
```

```
Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help

--show-control-chars
show nongraphic characters as-is (the default, unless program is 'ls' and output is a terminal)

-Q, --quote-name
enclose entry names in double quotes

--quoting-style=WORD
use quoting style WORD for entry names: literal, locale, shell, shell-always, shell-escape, shell-escape-always, c, escape

-r, --reverse
reverse order while sorting

-R, --recursive
list subdirectories recursively

-S, --size
print the allocated size of each file, in blocks

-s
sort by file size, largest first

--sort=WORD
sort by WORD instead of name: none (-U), size (-S), time (-t), version (-v), extension (-x)

--time=WORD
with -l, show times as WORD instead of default modification time: atime or access or use (-u); ctime or status (-c); also use specified time as sort key if --sort=time (newest first)

--time-style=STYLE
with -l, show times using style STYLE: full-iso, long-iso, iso, locale, or +FORMAT; FORMAT is interpreted like 'date'; if FORMAT is FORMAT1-newline-FORMAT2, then FORMAT1 applies to non-recent files and FORMAT2 to recent files; if STYLE is prefixed with 'posix-', STYLE takes effect only outside the POSIX locale

-t
sort by modification time, newest first

-T, --tabsize=COLS
assume tab stops at each COLS instead of 8

-u
with -lt: sort by, and show, access time; with -l: show access time and sort by name; otherwise: sort by access time, newest first

-U
do not sort; list entries in directory order

-v
natural sort of (version) numbers within text

-w, --width=COLS
set output width to COLS. 0 means no limit

Manual page ls(1) line 121 (press h for help or q to quit)

Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help

kayon-pc22@kayonpc22:~$ sudo su
[sudo] password for kayon-pc22:
root@kayonpc22: /home/kayon-pc22# date
Sat Nov 5 11:03:33 WIB 2019
root@kayonpc22: /home/kayon-pc22# hostname
kayonpc22
root@kayonpc22: /home/kayon-pc22# arch
x86_64
root@kayonpc22: /home/kayon-pc22# uname -a
Linux kayonpc22 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@kayonpc22: /home/kayon-pc22# 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 version 7.4.0 (Ubuntu 7.4.0-1ubuntu1-18.04.1)) #33-18.04.1-Ubuntu SMP Tue Oct 1 10:20:39 UTC 2019 (Ubuntu 5.0.0-31.33-18.04.1-generic 5.0.21)
[ 0.000000] Command line: BOOT_IMAGE=/boot/vmlinuz-5.0.0-31-generic root=UUID=6cd2aa32-9538-4579-818c-a56b05fb1bce 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 registers'
[ 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 0x0000000000000000-0x0000000000000d7fff] usable
[ 0.000000] BIOS-e820: [mem 0x0000000000000d800-0x0000000000000fffff] reserved
[ 0.000000] BIOS-e820: [mem 0x00000000000000000-0x0000000000000fffff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000100000-0x0000000000000cb09fff] usable
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb10fff] ACPI NVS
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb11fff] usable
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb14fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb17fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb1cfff] usable
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb1dfff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb1efff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb1ffff] ACPI data
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb20fff] ACPI NVS
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb21fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb22fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb23fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb24fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb25fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb26fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb27fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb28fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb29fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb2afff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb2bfff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb2cfff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb2dfff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb2efff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb2ffff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb30fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb31fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb32fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb33fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb34fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb35fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb36fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb37fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb38fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb39fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb3afff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb3bfff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb3cfff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb3dfff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb3efff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb3ffff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x0000000000000cb40fff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000000000000-0x00
```



```
Terminal - root@kayonpc22:/home/kayon-pc22
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 -cftuvSUX 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@kayonpc22:/home/kayon-pc22
File Edit View Terminal Tabs Help
USER TTY FROM LOGING IDLE JCPU PCPU WHAT
kayon-pc tty7 :0 17:32 ? 11.44s 0.02s /bin/sh /etc/xdg/xfce4/xinitrc -- /etc/X11/xinit/xserverrc
root@kayonpc22:/home/kayon-pc22# top

top - 11:05:52 up 33 min, 1 user, load average: 0.16, 0.04, 0.02
Tasks: 182 total, 1 running, 134 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.7 us, 0.3 sy, 0.2 ni, 97.5 id, 1.2 wa, 0.0 hi, 0.1 si, 0.0 st
KiB Mem : 8103648 total, 6677400 free, 440956 used, 905292 buff/cache
KiB Swap: 947028 total, 947028 free, 0 used, 7367600 avail Mem

  PID USER      PR  NI  VIRT  RES  SHR  S  %CPU  %MEM    TIME+  COMMAND
 3830 root        20   0 51672 4092 3404 R   6.2   0.1   0:00.01 top
    1 root        20   0 225316 9152 6816 S   0.0   0.1   0:01.19 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   0:05.12 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
   13 root        20   0      0      0 0 I   0.0   0.0   0:00.16 kworker/0:1-eve
   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
   19 root        20   0      0      0 0 I   0.0   0.0   0:00.00 kworker/1:0-eve
   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   0:00.01 migration/3
   30 root        20   0      0      0 0 S   0.0   0.0   0:00.02 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   0:00.00 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
```

```
Terminal - root@kayonpc22: /home/kayon-pc22
[ 0.000000] BIOS-e820: [mem 0x0000000001000000-0x00000000cb609fff] usable
[ 0.000000] BIOS-e820: [mem 0x00000000cb60a000-0x00000000cb610fff] ACPI NVS
[ 0.000000] BIOS-e820: [mem 0x00000000cb611000-0x00000000cb6a1fff] usable
[ 0.000000] BIOS-e820: [mem 0x00000000cb6a2000-0x00000000cb6e9fff] reserved
[ 0.000000] BIOS-e820: [mem 0x00000000cb6e9500-0x00000000dd7c7fff] usable
[ 0.000000] BIOS-e820: [mem 0x00000000dd7c8000-0x00000000dd9d0fff] reserved
[ 0.000000] BIOS-e820: [mem 0x00000000dd9d1000-0x00000000dd9e9fff] ACPI data
[ 0.000000] BIOS-e820: [mem 0x00000000dd9ea000-0x00000000ddff2cfff] ACPI NVS
[ 0.000000] BIOS-e820: [mem 0x00000000ddff2d00-0x00000000ddffecfff] reserved
[ 0.000000] BIOS-e820: [mem 0x00000000ddffef00-0x00000000de00ffff] usable
[ 0.000000] BIOS-e820: [mem 0x00000000de010000-0x00000000fbffff] reserved
[ 0.000000] BIOS-e820: [mem 0x00000000fec00000-0x00000000fec00fff] reserved
[ 0.000000] BIOS-e820: [mem 0x00000000fed00000-0x00000000fed03fff] reserved
[ 0.000000] BIOS-e820: [mem 0x00000000fed1c000-0x00000000fed1ffff] reserved
[ 0.000000] BIOS-e820: [mem 0x00000000fee00000-0x00000000fee00fff] reserved
[ 0.000000] BIOS-e820: [mem 0x00000000fee01000-0x00000000fee00fff] reserved
[ 0.000000] BIOS-e820: [mem 0x00000000ff000000-0x00000000ffffffff] reserved
[ 0.000000] BIOS-e820: [mem 0x0000000100000000-0x000000021e000000] usable
[ 0.000000] NX (Execute Disable) protection: active
[ 0.000000] SMBIOS 2.7 present.
[ 0.000000] DMI: ASUS/TEK COMPUTER INC. B2AD D310312510MT_ED3/B2AD_D310312510MT_ED3, BIOS 0802 07/28/2015
[ 0.000000] tsc: Fast TSC calibration using PIT
[ 0.000000] tsc: Detected 3292.650 MHz processor
[ 0.001566] e820: update [mem 0x00000000-0x00000000] usable ==> reserved
[ 0.001567] e820: remove [mem 0x000a0000-0x0000ffff] usable
[ 0.001572] last_pfn = 0x21f000 max_arch_pfn = 0x400000000
[ 0.001576] MTRR default type: uncachable
root@kayonpc22: /home/kayon-pc22# uptime
11:04:47 up 32 min, 1 user, load average: 0.00, 0.00, 0.01
root@kayonpc22: /home/kayon-pc22# whoami
root
root@kayonpc22: /home/kayon-pc22# who
kayon-pc22 tty7 2019-11-05 17:32 (:0)
root@kayonpc22: /home/kayon-pc22# id
uid=0(root) gid=0(root) groups=0(root)
root@kayonpc22: /home/kayon-pc22# last
wtmp begins Tue Nov 5 10:37:27 2019
root@kayonpc22: /home/kayon-pc22# finger
Login Name Tty Idle Login Time Office Office Phone
kayon-pc22 kayon-pc22 tty7 Nov 5 17:32 (:0)
root@kayonpc22: /home/kayon-pc22# w
11:05:03 up 32 min, 1 user, load average: 0.00, 0.00, 0.01
USER TTY FROM LOGIN# IDLE JCPU PCPU WHAT
kayon-pc tty7 :0 17:32 ? 11.44s 0.02s /bin/sh /etc/xdg/xfce4/xinitrc -- /etc/X11/xinit/xserverrc
root@kayonpc22: /home/kayon-pc22#

[Screenshot_2019-10-08_17...] Terminal - root@kayonpc22: /...
Terminal - root@kayonpc22: /home/kayon-pc22
File Edit View Terminal Tabs Help
invpcid xsaveopt dtherm ida arat pln pts md_clear flush_lld
bugs : cpu_meltdown spectre_v1 spectre_v2 spec_store_bypass l1tf mds swapgs
bogomips : 6585.30
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 : 798.290
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 aperfmperf 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 opt vpid opt_ad fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms
invpcid xsaveopt dtherm ida arat pln pts md_clear flush_lld
bugs : cpu_meltdown spectre_v1 spectre_v2 spec_store_bypass l1tf mds swapgs
bogomips : 6585.30
clflush_size : 64
cache_alignment : 64
address sizes : 39 bits physical, 48 bits virtual
power management:

root@kayonpc22: /home/kayon-pc22# finger root
Login: root Name: root
Directory: /root Shell: /bin/bash
Never logged in.
No mail.
No Plan.
root@kayonpc22: /home/kayon-pc22#
```

Fungsi perintah:

Echo halo dunia 'enter'	= menampilkan kalimat 'halo dunia'
Date 'enter'	= menampilkan tanggal dan jam
Hostname 'enter'	= menampilkan username device
Arch 'enter'	= menampilkan info arsitektur mesin
Uname -a 'enter'	= menampilkan info kernel versi system
Dmesg more 'enter'	= menampilkan proses terakhir
Uptime 'enter'	= menampilkan waktu lama aktif
Whoami 'enter'	= menampilkan username dan pengguna
Who 'enter'	= menampilkan waktu sistem booting
id 'enter'	= menampilkan user, grup, id
Last 'enter'	= menampilkan user yang masuk terakhir kali
Finger 'enter'	= melihat users
W 'enter'	= menampilkan siapa yang login dan aktifitas
Top 'enter'	= melihat power pada linux
Echo \$SHELL	= menulis program shell
Echo {con,pre} {sent,fer} {s,ed} 'enter'	= menulis perintah
man ls 'enter'	= melihat content dari suatu direktori
man who 'enter'	= menampilkan manual user
Who can tell me about linux 'enter'	= menampilkan user command
Last 'enter'	= menampilkan semua user semenjak file dibuat
Clear 'enter'	= membersihkan terminal
Fdisk -l 'enter'	= menampilkan disk
Users 'enter'	= menampilkan users yang aktif
Cat /etc/ fstab 'enter'	= menampilkan directory
Cal 2000 'enter'	= menampilkan kalender tahun 2000
Cal 9 1752 'enter'	= menampilkan kalender bulan september tahun 1752

Cal 10 2007 'enter'	= menampilkan kalender bulan oktober tahun 2007
bc -l	= menampilkan tahun update software
echo 5+4 bc -l	= penjumlahan
yes please 'enter'	= menampilkan tulisan "please" secara terus menerus
pwd 'enter'	= menampilkan direktori anda sekarang
History 'enter'	= menampilkan perintah yang terakhir digunakan
tail -f /var/log/message 'enter'	= menampilkan bagian terakhir dari file yang diberikan
lsmod 'enter'	= menampilkan kernel yang sudah di load
ps -aux 'enter'	= menampilkan proses
lspci 'enter'	= menampilkan pci
Free 'enter'	= melihat free ram
Cat /proc/cpuinfo 'enter'	= menampilkan cpu info
Finger root 'enter'	= menampilkan informasi net
Reboot 'enter'	= merestart komputer

Tugas

1. Jelaskan distro linux yang ada saat ini.

Jawab :

a) **UBUNTU**

Ubuntu Canonical's merupakan distro linux yang sudah sangat populer di kalangan pengguna linux. Ubuntu dibangun berdasarkan arsitektur Debian, dan Ubuntu telah berhasil menyeimbangkan stabilitas dan fitur-fitur baru seperti tidak ada distro lain didalamnya. Itu sebabnya ubuntu menjadi distro linux yang popularitas tak tertandingi. Jika Anda menjalankan komputer dengan kemampuan hardware yang terbatas, Anda harus mencoba citarasa Ubuntu seperti Ubuntu MATE, Xubuntu, atau Lubuntu.

Untuk pengguna yang ingin menginstall OS Ubuntu di PC dan laptop, Ubuntu menjalankan desktop GNOME yang sangat sempurna. Dengan diperkenalkannya Snaps, menginstall aplikasi menjadi lebih nyaman. Ini juga memiliki komunitas pengguna yang berkembang dan forum yang sangat aktif sehingga Anda dapat menemukan jawaban untuk masalah apa pun. Secara keseluruhan, Ubuntu adalah distro Linux yang cukup mumpuni yang memungkinkan Anda multitask dan menyelesaikan pekerjaan Anda dengan efisien.

b) **LINUX MINT**

Linux Mint adalah salah satu distro Linux yang paling cepat berkembang. Dan linux mint ini terus menantang Ubuntu untuk menjadi yang terpopuler. Selain itu, Linux Mint telah memantapkan dirinya sebagai OS pengganti sempurna untuk sistem operasi Windows dengan pengalaman desktop yang hampir sempurna. Alasan lain mengapa saya menyebutnya distro Linux terbaik untuk pengguna baru adalah kemampuannya untuk memberikan pengalaman yang tidak biasa kepada pengguna. Ini berarti Anda tidak perlu menghabiskan banyak waktu untuk menginstall distro dan paket sebelum Anda dapat menyelesaikan beberapa pekerjaan nyata.

c) **CENTOS**

Banyak distro linux yang mengeluarkan sistem operasi khusus untuk server, namun disini saya akan memberikan distro linux yang terbaik untuk server Anda yaitu CentOS. CentOS juga terkenal sangat stabil dengan kinerja yang bagus. Faktor-faktor lain yang penting adalah dukungan perangkat keras, keamanan, efisiensi daya, dan kinerja yang dioptimalkan. Ada banyak opsi gratis dan berbayar untuk skenario seperti itu.

RHEL menikmati posisi yang sama di arena perusahaan yang dinikmati oleh Ubuntu di dunia desktop Linux. CentOS adalah cara untuk mendapatkan manfaat RHEL tanpa mengeluarkan biaya tunggal. Dengan kata lain, CentOS adalah komunitas yang didukung RHEL. Karena binernya kompatibel dengan RHEL dan repositorinya memiliki semua perangkat lunak yang sudah dicoba dan teruji, Anda dapat menggunakannya sebagai sistem atau server Anda. Ini juga terkenal sebagai sistem operasi untuk keperluan umum.

d) **KALI LINUX**

Distro Kali Linux hadir dengan ratusan tool yang berguna untuk analisis kerentanan, serangan nirkabel, aplikasi web, alat eksploitasi, pengujian tegangan, alat forensik, dll. Berdasarkan cabang Pengujian Debian, sebagian besar paket dalam distro diimpor dari Repositori Debian.

Selain desktop dengan fitur lengkap, Kali linux juga dapat diinstal di Raspberry Pi, Ordroid, Chromebook, BeagleBone, dll. Ini juga tersedia untuk smartphone Android dengan Kali NetHunter. Selain itu, jika Anda ingin mencari distro linux untuk peretasan etika, maka Ada pilihan populer lainnya seperti Parrot OS, BlackArch Linux, dll.

e) DEBIAN

Banyak distro Linux yang cocok untuk programmer sesuai dengan kebutuhan mereka. Mereka dapat menginstal semua alat yang dibutuhkan untuk programming, tetapi Debian GNU / Linux sering disarankan sebagai opsi terbaik. Cabang Uji Debian memiliki banyak koleksi paket yang memiliki reputasi untuk diuji secara teratur, diperbarui, dan kokoh. Stabilitas ini memungkinkan programmer untuk berfokus hanya mengurus pengembangan program. Namun, perlu diingat bahwa Debian hanya direkomendasikan untuk programmer yang sudah memiliki pengalaman bekerja dengan Linux. Jika Anda seorang pemula, Anda harus menggunakan rilis Ubuntu LTS atau beberapa distro Linux stabil lainnya.

2. Jelaskan 20 perintah yang sama diantara masing-masing distro.

Jawab :

- 1. sudo su** : Digunakan untuk login sebagai root/pengguna tertinggi
- 2. login** : Digunakan untuk login sebagai user lain, namun harus menjadi root dulu untuk bisa menjalankan perintah ini.
- 3. date** : Melihat tanggal dan waktu saat ini
- \$ cal [bulan] [tahun]** : Melihat bulan di tahun tertentu
- 4. hostname** : Melihat distro yang dipakai
- 5. who** : Mencetak semua nama pengguna yang sedang login
whoami : Mencetak pengguna saat ini dan nama ID
- 6. pwd** : Digunakan untuk memperlihatkan di direktori mana posisi kita berada sekarang.
- 7. man [syntax]** : Menampilkan bantuan untuk beberapa perintah
- 8. clear** : Membersihkan / menghapus perintah di terminal
- 9. apropos [syntax]** : Mengetahui perintah-perintah apa saja dilihat dari fungsinya secara massal.
- 10. whatis [syntax]** : Mendapatkan informasi dari perintah secara singkat.
- 11. ls [option]** : Perintah ini berfungsi untuk menampilkan isi dari suatu directory beserta atribut filenya.
- 12. touch [nama_file]** : Digunakan untuk membuat file baru.
- 13. mkdir [nama_direktori]** : Digunakan membuat sebuah directory.
- 14. cd [alamat_direktori]** : Digunakan untuk berpindah direktori
cd .. digunakan untuk keluar dari direktori
- 15. cp /[direktori]/[file_yang_ingin_dicopy] /[direktori tujuan]** : Digunakan untuk melakukan copy file.
- 16. mv** : Digunakan untuk melakukan memindahkan, cut atau rename file.
- 17. rm [nama_file]** : Digunakan untuk menghapus file.
- 18. more [nama_file]** : Digunakan untuk menampilkan isi sebuah file
- 19. cat > [nama_file]** : Kita akan menggunakan perintah cat yang telah tersedia secara default di shell linux.
- 20. dir** : Memiliki fungsi yang sama dengan perintah ls, yaitu menampilkan is direktori. Anda bisa membuka manual dari perintah dir. Pemberian option dan

argument sama dengan perintah ls.

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

Jawab :

Init 0 – System halt; sistem dapat dengan aman dimatikan/shutdown.

Init 1 – Single user; jarang digunakan / hanya satu user yg dapat digunakan.

Init 2 – Multiple users, tidak ada NFS (network filesystem), juga jarang digunakan.

Init 3 – Multiple users, baris perintah (yaitu, semua mode teks) antarmuka; runlevel standar untuk sebagian besar berbasis Linux perangkat keras server.

Init 4 – User-definabl

Init 5 – Multiple users, GUI (antarmuka pengguna grafis); runlevel standar untuk sebagian besar sistem berbasis Linux desktop.

Init 6 – Reboot, digunakan ketika restart sistem.

4. Jelaskan maksud dari perintah 'quota'.

Jawab :

Quota adalah nilai batas yang ditetapkan untuk mengelola akses ke sumber daya sistem dan jaringan atau jumlah penyimpanan yang digunakan oleh User atau Group tertentu.