

Linux Commands 5

```
root@DESKTOP-M3TSUJI:/home# ls -l
total 100
drwxr-xr-x 2 root root 4096 Mar 17 2022 complStop
-rw-r--r-- 1 cdac_kh root 21 Mar 14 2022 duck.txt
drwxr-xr-x 3 root root 4096 Mar 12 2022 dusri
drwxr-xr-x 2 root root 4096 Mar 11 2022 dusri.txt
drwxr-xr-x 3 root root 4096 Mar 17 2022 education
-rw-r--r-- 1 root root 0 Mar 14 2022 fly.tar
-rw-r--r-- 1 root root 28 Mar 14 2022 great
-rw-r--r-- 1 root root 0 Mar 14 2022 great.sh
drwxr-xr-x 3 root root 4096 Mar 17 2022 ground
drwxr-xr-x 3 root root 4096 Mar 17 2022 india
drwxr-xr-x 3 root root 4096 Apr 12 14:10 infobell
drwxr-xr-x 2 root root 4096 Apr 12 15:04 infobell1
drwxr-xr-x 3 root root 4096 Mar 17 2022 laalu
-rw-r--r-- 1 root root 10240 Mar 12 2022 new.tar
-rw-r--r-- 1 root root 17 Mar 12 2022 new3.txt
-rw-r--r-- 1 root root 0 Mar 12 2022 new4.txt
-rw-r--r-- 1 root root 0 Mar 12 2022 new5.txt
drwxr-xr-x 2 root root 4096 Mar 19 2022 newbuddy
-rw-r--r-- 1 root root 21 Mar 11 2022 rename.txt
drwxr-xr-x 7 cdac_kh cdac_kh 4096 Mar 11 2022 renamecdac
drwxr-xr-x 2 root root 4096 Mar 17 2022 satham
-rw-r--r-- 1 root root 137 Mar 14 2022 scripting.sh
-rwxrwxrwx 1 root root 68 Mar 12 2022 shell.sh
-rw-r--r-- 1 root root 7899 Mar 10 2022 temp.txt
-rw-r--r-- 1 root root 133 Mar 14 2022 test.sh
-rw-r--r-- 1 root root 19 Mar 14 2022 tulip.sh
root@DESKTOP-M3TSUJI:/home# chown cdac_kh new5.txt
```

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```

```
root@DESKTOP-M3TSUJI:/home# ps
PID TTY          TIME CMD
780 pts/0      00:00:00 sudo
781 pts/0      00:00:00 su
782 pts/0      00:00:00 bash
789 pts/0      00:00:00 ps
root@DESKTOP-M3TSUJI:/home# ls
complStop  dusri  education  great  ground  infobell  laalu  new3.txt  new5.txt  rename.txt  satham  shell.sh  temp.txt.save  tulip.sh
duck.txt  dusri.txt  fly.tar  great.sh  india  infobell1  new.tar  new4.txt  newbuddy  renamecdac  scripting.sh  temp.txt  test.sh
root@DESKTOP-M3TSUJI:/home# nano temp.txt
```

```
GNU nano 4.8 temp.txt
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
    with -l, scale sizes by SIZE when printing them; e.g., '--block-size=M'; 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

[ Read 213 lines ]
^G Get Help      ^O Write Out     ^W Where Is      ^K Cut Text      ^J Justify       ^C Cur Pos
^X Exit          ^R Read File     ^A Replace        ^U Paste Text    ^I To Spell      ^_ Go To Line
^M-U Undo        ^M-A Mark Text   ^M-G Copy Text    ^M-] To Bracket  ^M-^ Where Was
```

```
root@DESKTOP-M3TSUJI:/home# hostname -a
DESKTOP-M3TSUJI
root@DESKTOP-M3TSUJI:/home# history
87 cat s5.txt
88 ls
89 ls -l
90 chmod 444 s5.txt
91 ls -l
92 ls -l
93 sudo apt install mlocate
94 ls
95 cd /
96 apt install mlocate
97 locate -i "mani"
98 find / -name "*.txt"
99 find / -mmin -1
100 find / -mmin -1
101 find / -mmin -7
102 find / -mmin 7
103 sudo find / -mmin 4
104 sudo find / -mmin 4
105 ls *le*
106 ls
107 ls *le.txt
108 ls f???
109 ls f???*
110 ls ??le*
111 ls ??le.txt
112 ls m*
113 ls [mani]
114 ls [mani]*
115 ls *[file.txt]*
116 vim file.txt
117 cat file.txt
118 cd cdac
119 touch dbda.txt
120 ls -l
121 umask 0777
122 touch dbdal.txt
123 ls -l
```

```

1064 chown cdac_kh new5.txt
1065 ls -l
1066 jobs -l
1067 ls
1068 alias r = 'rename'
1069 clear
1070 htop -d
1071 clear
1072 htop --d
1073 htop --delay
1074 clear
1075 ps
1076 ls
1077 nano temp.txt
1078 cd home
1079 ps
1080 ls
1081 nano temp.txt
1082 cd home
1083 useradd xyz
1084 ls
1085 hostname -a
1086 history
root@DESKTOP-M3TSUJI:/home# top
top - 15:54:00 up 5:28, 0 users, load average: 0.00, 0.00, 0.00
Tasks: 8 total, 1 running, 7 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.0 us, 0.0 sy, 0.0 ni,100.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 3812.5 total, 3456.9 free, 88.0 used, 267.5 buff/cache
MiB Swap: 1024.0 total, 1024.0 free, 0.0 used, 3517.3 avail Mem

```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1	root	20	0	2108	1484	1104	S	0.0	0.0	0:00.93	init
792	root	20	0	2108	384	0	S	0.0	0.0	0:00.00	init
793	root	20	0	2108	384	0	S	0.0	0.0	0:00.03	init
794	cdac_kh	20	0	10040	5008	3356	S	0.0	0.1	0:00.03	bash
848	root	20	0	11024	4584	3896	S	0.0	0.1	0:00.01	sudo
849	root	20	0	9988	3648	3232	S	0.0	0.1	0:00.00	su
850	root	20	0	8964	3952	3260	S	0.0	0.1	0:00.02	bash
867	root	20	0	10896	3732	3204	R	0.0	0.1	0:00.02	top

```

root@DESKTOP-M3TSUJI:/home# ping google.com
PING google.com (142.250.183.142) 56(84) bytes of data:
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=1 ttl=119 time=27.4 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=2 ttl=119 time=25.4 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=3 ttl=119 time=25.7 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=4 ttl=119 time=24.8 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=5 ttl=119 time=25.4 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=6 ttl=119 time=24.6 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=7 ttl=119 time=26.4 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=8 ttl=119 time=24.9 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=9 ttl=119 time=25.9 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=10 ttl=119 time=25.6 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=11 ttl=119 time=25.6 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=12 ttl=119 time=22.8 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=13 ttl=119 time=24.4 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=14 ttl=119 time=25.0 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=15 ttl=119 time=25.7 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=16 ttl=119 time=26.0 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=17 ttl=119 time=25.3 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=18 ttl=119 time=25.5 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=19 ttl=119 time=24.7 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=20 ttl=119 time=25.2 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=21 ttl=119 time=25.8 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=22 ttl=119 time=24.5 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=23 ttl=119 time=24.6 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=24 ttl=119 time=25.0 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=25 ttl=119 time=24.6 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=26 ttl=119 time=24.6 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=27 ttl=119 time=25.0 ms
64 bytes from bom07s31-in-f14.1e100.net (142.250.183.142): icmp_seq=28 ttl=119 time=24.6 ms
^Z
[1]+  Stopped                  ping google.com

```

```
root@DESKTOP-M3TSUJI:/home# type -a kill
kill is a shell builtin
kill is /usr/bin/kill
kill is /bin/kill
root@DESKTOP-M3TSUJI:/home# kill -l
1) SIGHUP      2) SIGINT      3) SIGQUIT      4) SIGILL      5) SIGTRAP
6) SIGABRT     7) SIGBUS      8) SIGFPE      9) SIGKILL     10) SIGUSR1
11) SIGSEGV    12) SIGUSR2     13) SIGPIPE    14) SIGALRM     15) SIGTERM
16) SIGSTKFLT  17) SIGCHLD     18) SIGCONT    19) SIGSTOP     20) SIGTSTP
21) SIGTTIN    22) SIGTTOU     23) SIGURG     24) SIGXCPU     25) SIGXFSZ
26) SIGVTALRM  27) SIGPROF     28) SIGWINCH   29) SIGIO       30) SIGPWR
31) SIGSYS     34) SIGRTMIN    35) SIGRTMIN+1  36) SIGRTMIN+2  37) SIGRTMIN+3
38) SIGRTMIN+4 39) SIGRTMIN+5  40) SIGRTMIN+6  41) SIGRTMIN+7  42) SIGRTMIN+8
43) SIGRTMIN+9 44) SIGRTMIN+10 45) SIGRTMIN+11 46) SIGRTMIN+12 47) SIGRTMIN+13
48) SIGRTMIN+14 49) SIGRTMIN+15 50) SIGRTMAX-14 51) SIGRTMAX-13 52) SIGRTMAX-12
53) SIGRTMAX-11 54) SIGRTMAX-10 55) SIGRTMAX-9  56) SIGRTMAX-8  57) SIGRTMAX-7
58) SIGRTMAX-6  59) SIGRTMAX-5 60) SIGRTMAX-4 61) SIGRTMAX-3 62) SIGRTMAX-2
63) SIGRTMAX-1  64) SIGRTMAX
root@DESKTOP-M3TSUJI:/home# dig google.com +short
142.250.183.142
root@DESKTOP-M3TSUJI:/home# dig google.com +trace

; <<>> DiG 9.16.1-Ubuntu <<>> google.com +trace
;; global options: +cmd
.                73552    IN      NS      a.root-servers.net.
.                73552    IN      NS      b.root-servers.net.
.                73552    IN      NS      c.root-servers.net.
.                73552    IN      NS      d.root-servers.net.
.                73552    IN      NS      e.root-servers.net.
.                73552    IN      NS      f.root-servers.net.
.                73552    IN      NS      g.root-servers.net.
.                73552    IN      NS      h.root-servers.net.
.                73552    IN      NS      i.root-servers.net.
.                73552    IN      NS      j.root-servers.net.
.                73552    IN      NS      k.root-servers.net.
.                73552    IN      NS      l.root-servers.net.
.                73552    IN      NS      m.root-servers.net.
.                73552    IN      RRSIG   NS 8 0 518400 20230426050000 20230413040000 60955 . mNizrxKw+S8RH+Wa72cj631r+psjD38s0dh/UTaZg18EceDuPmwwzWbJ
Pc+a071bAmTVLEHTctcpvxSLRn5i+qExagOURvLVNXmX1254hEB6NmeL fukAGpLFsKf1rBxAL7xXUxBg+j6zniwu6u5QqvDSWHwAQc0J9dfG89zA NnTnevUfeI3fWz0mr4ifi+Vum2Zkke5JSwwmZkZYW
EjRP97AKnrD97aj 60Dx1mo4H+cMerbeGYPclpS+deBOWfiEqCMQTYJb6UxZXrbeRshzLTng eVxqAYdL2UUr9GXJ34YwLpT0YfgSFrVAdJsq+n3rTjJUPgBNLRVJlqcv +XF/yA==
;; Received 525 bytes from 172.25.80.1#53(172.25.80.1) in 900 ms
```

```
.                73552    IN      NS      m.root-servers.net.
.                73552    IN      RRSIG   NS 8 0 518400 20230426050000 20230413040000 60955 . mNizrxKw+S8RH+Wa72cj631r+psjD38s0dh/UTaZg18EceDuPmwwzWbJ
Pc+a071bAmTVLEHTctcpvxSLRn5i+qExagOURvLVNXmX1254hEB6NmeL fukAGpLFsKf1rBxAL7xXUxBg+j6zniwu6u5QqvDSWHwAQc0J9dfG89zA NnTnevUfeI3fWz0mr4ifi+Vum2Zkke5JSwwmZkZYW
EjRP97AKnrD97aj 60Dx1mo4H+cMerbeGYPclpS+deBOWfiEqCMQTYJb6UxZXrbeRshzLTng eVxqAYdL2UUr9GXJ34YwLpT0YfgSFrVAdJsq+n3rTjJUPgBNLRVJlqcv +XF/yA==
;; Received 525 bytes from 172.25.80.1#53(172.25.80.1) in 900 ms

com.             172800   IN      NS      l.gtld-servers.net.
com.             172800   IN      NS      m.gtld-servers.net.
com.             172800   IN      NS      d.gtld-servers.net.
com.             172800   IN      NS      e.gtld-servers.net.
com.             172800   IN      NS      j.gtld-servers.net.
com.             172800   IN      NS      i.gtld-servers.net.
com.             172800   IN      NS      c.gtld-servers.net.
com.             172800   IN      NS      b.gtld-servers.net.
com.             172800   IN      NS      g.gtld-servers.net.
com.             172800   IN      NS      h.gtld-servers.net.
com.             172800   IN      NS      f.gtld-servers.net.
com.             172800   IN      NS      k.gtld-servers.net.
com.             172800   IN      NS      a.gtld-servers.net.
com.             86400    IN      DS      30909 8 2 E2D3C916F6DEEAC73294E8268FB5885044A833FC5459588F4A9184CF C41A5766
com.             86400    IN      RRSIG   DS 8 1 86400 20230426050000 20230413040000 60955 . GYKV0QaHrS8r/SHDB/WaJ3maGnzp1G24R09Mbfn0+azzLb54ChLubNTG
99Kjk+LH7Mc4beaDUErGCyJPnedm5vBnG6awVgF+aRrks+27mDUMCKtS TgeORqKff8IdimVdHN/1vAltvdF1/pHPpmSFu8fTQviGKmT8j4zpr05 u/mxqAS36+Kz7vQc3HdQLGwSFUW/sPtZVESi9FKZ24
TZt9Gwrj2tXQ0u k8EtqVM1qg2uGUMFI+PUdxOEK9aFn390L8ntyK7IKwOgl/CwUg7irQvT ADcuB6yJ+ihrVz5L/ybRY5o6xJEwxhWjTzIFBUCRxCwUMSskvChdLcL/ k47U0sQ==
;; Received 1198 bytes from 192.112.36.4#53(g.root-servers.net) in 140 ms

google.com.      172800   IN      NS      ns2.google.com.
google.com.      172800   IN      NS      ns1.google.com.
google.com.      172800   IN      NS      ns3.google.com.
google.com.      172800   IN      NS      ns4.google.com.
CK8P0JMG874LJREF7EFN8430QVIT8BSM.com. 86400    IN      NSEC3 1 1 0 - CK8Q2D6NI4I7EQH8NA38NS61048UL8G5 NS SOA RRSIG DNSKEY NSEC3PARAM
CK8P0JMG874LJREF7EFN8430QVIT8BSM.com. 86400    IN      RRSIG   NSEC3 8 2 86400 20230420042251 20230413031251 36739 com. CiJ9PNMmxdzWhZn2zPGkwCeJXsw1yArgvtXdm0GshggD2t
xa3r04hNov jNLOEsieDaF06nGNvXABB1oB4IeCSkmDD0S5PIqM59v2pAmyHKiNGi/ B TJ/BREZ1RXHwnoFicNYHSrBLD/UGSa1phj2KLHCbiTEZvTTRBTJ0LHM+ 4bkbVp+HIELFeed8sTiLP/PQDIc1sYnk
HfWmFPq+cnYCbBw==
S84BKICB38P58340AKVNFNSKR90S9QC.com. 86400    IN      NSEC3 1 1 0 - S84BU064GQCVN69RJFU06LVC7FSLUNJ5 NS DS RRSIG
S84BKICB38P58340AKVNFNSKR90S9QC.com. 86400    IN      RRSIG   NSEC3 8 2 86400 20230417050135 20230410035135 36739 com. MSDa9zR30sIiB0IoX8LNe/0HL4U0bFBAogm4/batrftfR4j
HCMfGud242 x2NFJezoQAVNXMIgCthGvFLVfBme0rUxzZW++8T7AD5ZGhB23UKNtTnQ nB9Lwxr1xGgaSs8YSMHhabj6Ms+CDZLcfjNZUzzh3J6Tj0EC2KZVD30h+ XK++CbFonIqXMRaxfRwsuXRIqxHEza1
ypcFwxq9nyi/V0w==
;; Received 836 bytes from 192.48.79.38#53(j.gtld-servers.net) in 150 ms

google.com.      300      IN      A        142.250.183.174
```