nix

```
Xshell 7 (Build 0141)
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Type `help' to learn how to use Xshell prompt.
[C:\~]$
Host 'ec2-13-236-207-27.ap-southeast-2.compute.amazonaws.com' resolved to 13.236.2
07.27.
Connecting to 13.236.207.27:22...
Connection established.
To escape to local shell, press 'Ctrl+Alt+]'.
WARNING! The remote SSH server rejected X11 forwarding request.
        ####
                     Amazon Linux 2023
        #####\
         \###|
           \#/
                     https://aws.amazon.com/linux/amazon-linux-2023
            V~' ->
        /m/
Last login: Wed Dec 6 12:40:20 2023 from 171.88.111.180
[ec2-user@ip-172-31-19-79 \sim]$ sudo -s
[root@ip-172-31-19-79 ec2-user]# cd ...
[root@ip-172-31-19-79 home]# ls
aaa.tar ec2-user
[root@ip-172-31-19-79 home]# tar -xvf aaa.tar
./b.txt
[root@ip-172-31-19-79 home]# ls
aaa.tar b.txt ec2-user
[root@ip-172-31-19-79 home]# cat b.txt
[root@ip-172-31-19-79 home]# find / -name 'install l*'
/usr/lib/python3.9/site-packages/setuptools/_distutils/command/__pycache__/install_
lib.cpython-39.opt-1.pyc
/usr/lib/python3.9/site-packages/setuptools/_distutils/command/__pycache__/install_
lib.cpython-39.pyc
/usr/lib/python3.9/site-packages/setuptools/_distutils/command/install_lib.py
/usr/lib/python3.9/site-packages/setuptools/command/_pycache_/install_lib.cpython
-39.opt-1.pyc
/usr/lib/python3.9/site-packages/setuptools/command/ pycache /install lib.cpython
-39.pyc
/usr/lib/python3.9/site-packages/setuptools/command/install_lib.py
/usr/lib64/python3.9/distutils/command/__pycache__/install_lib.cpython-39.opt-2.pyc
/usr/lib64/python3.9/distutils/command/_pycache__/install_lib.cpython-39.opt-1.pyc/usr/lib64/python3.9/distutils/command/_pycache__/install_lib.cpython-39.pyc
/usr/lib64/python3.9/distutils/command/install_lib.py
[root@ip-172-31-19-79 home]# find / -perm -777 -type d -ls
                                                          40 Dec 5 17:55 /dev/mqueue
    11669
               0 drwxrwxrwt
                               2 root
                                          root
                               2 root
                                                          40 Dec
        1
               0 drwxrwxrwt
                                           root
                                                                  5 17:55 /dev/shm
        1
               0 drwxrwxrwt
                             11 root
                                                         220 Dec 6 12:49 /tmp
                                           root
                                                          40 Dec 5 17:55 /tmp/system
               0 drwxrwxrwt
                               2 root
                                           root
d-private-131edf5d0f2442059730e15cb7e60678-chronyd.service-AiApIA/tmp
                                                          40 Dec 5 17:55 /tmp/system
       18
               0 drwxrwxrwt
                               2 root
                                           root
d-private-131edf5d0f2442059730e15cb7e60678-systemd-logind.service-a08Ghc/tmp
       14
               0 drwxrwxrwt
                               2 root
                                           root
                                                          40 Dec 5 17:55 /tmp/system
d-private-131edf5d0f2442059730e15cb7e60678-dbus-broker.service-MLKvLR/tmp
               0 drwxrwxrwt
                               2 root
                                           root
                                                          40 Dec 5 17:55 /tmp/system
       12
d-private-131edf5d0f2442059730e15cb7e60678-policy-routes@enX0.service-5MRXrE/tmp
                                                          40 Dec 5 17:55 /tmp/system
                               2 root
        7
               0 drwxrwxrwt
                                          root
d-private-131edf5d0f2442059730e15cb7e60678-systemd-resolved.service-mSBPCh/tmp
               0 drwxrwxrwt
                               2 root
                                           root
                                                          40 Dec 5 17:55 /tmp/.font-
unix
               0 drwxrwxrwt
                               2 root
                                           root
                                                          40 Dec 5 17:55 /tmp/.XIM-u
nix
        3
               0 drwxrwxrwt
                                                          40 Dec 5 17:55 /tmp/.ICE-u
                               2 root
                                           root
```

```
0 drwxrwxrwt
                              2 root
                                         root
                                                        40 Dec 5 17:55 /tmp/.X11-u
nix
  8524849
              16 drwxrwxrwt
                              8 root
                                         root
                                                     16384 Dec 6 12:49 /var/tmp
  8519829
               0 drwxrwxrwt
                              2 root
                                         root
                                                         6 Dec 5 17:55 /var/tmp/sy
stemd-private-131edf5d0f2442059730e15cb7e60678-systemd-resolved.service-Xk4DnC/tmp
               0 drwxrwxrwt
                                                         6 Dec 5 17:55 /var/tmp/sy
     1047
                              2 root
                                         root
stemd-private-131edf5d0f2442059730e15cb7e60678-policy-routes@enX0.service-Lw1cSf/tm
р
  9506449
                                                         6 Dec 5 17:55 /var/tmp/sy
               0 drwxrwxrwt
                              2 root
                                         root
stemd-private-131edf5d0f2442059730e15cb7e60678-dbus-broker.service-UXmggw/tmp
  9506456
               0 drwxrwxrwt
                              2 root
                                         root
                                                         6 Dec 5 17:55 /var/tmp/sy
stemd-private-131edf5d0f2442059730e15cb7e60678-systemd-logind.service-PpQxG9/tmp
  9506482
               0 drwxrwxrwt
                                                         6 Dec 5 17:55 /var/tmp/cl
                              2 root
oud-init
                                                         6 Dec 5 17:55 /var/tmp/sy
   999267
               0 drwxrwxrwt
                              2 root
                                         root
stemd-private-131edf5d0f2442059730e15cb7e60678-chronyd.service-1Vascr/tmp
[root@ip-172-31-19-79 home]# ls
aaa.tar b.txt ec2-user
[root@ip-172-31-19-79 home]# cat b.txt
уууууууу
[root@ip-172-31-19-79 home]# grep y b.txt -color
b.txt
[root@ip-172-31-19-79 home]# touch a.txt
[root@ip-172-31-19-79 home]# ls
a.txt aaa.tar b.txt ec2-user
[root@ip-172-31-19-79 home]# cat a.txt
[root@ip-172-31-19-79 home]# vim a.txt
[root@ip-172-31-19-79 home]# cat a.txt
VVV
уууууу
уууууууу
[root@ip-172-31-19-79 home]# cat /etc/passwd > a.txt
[root@ip-172-31-19-79 home]# cat a.txt
root:x:0:0:root:/root:/bin/bash
bin:x:1:1:bin:/bin:/sbin/nologin
daemon:x:2:2:daemon:/sbin:/sbin/nologin
adm:x:3:4:adm:/var/adm:/sbin/nologin
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
sync:x:5:0:sync:/sbin:/bin/sync
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
operator:x:11:0:operator:/root:/sbin/nologin
games:x:12:100:games:/usr/games:/sbin/nologin
ftp:x:14:50:FTP User:/var/ftp:/sbin/nologin
nobody:x:65534:65534:Kernel Overflow User:/:/sbin/nologin
dbus:x:81:81:System message bus:/:/sbin/nologin
systemd-network:x:192:192:systemd Network Management:/:/usr/sbin/nologin
systemd-oom:x:999:999:systemd Userspace 00M Killer:/:/usr/sbin/nologin
systemd-resolve:x:193:193:systemd Resolver:/:/usr/sbin/nologin
sshd:x:74:74:Privilege-separated SSH:/usr/share/empty.sshd:/sbin/nologin
rpc:x:32:32:Rpcbind Daemon:/var/lib/rpcbind:/sbin/nologin
libstoragemgmt:x:997:997:daemon account for libstoragemgmt:/:/usr/sbin/nologin
systemd-coredump:x:996:996:systemd Core Dumper:/:/usr/sbin/nologin
systemd-timesync:x:995:995:systemd Time Synchronization:/:/usr/sbin/nologin
chrony:x:994:994:chrony system user:/var/lib/chrony:/sbin/nologin
ec2-instance-connect:x:993:993::/home/ec2-instance-connect:/sbin/nologin
rpcuser:x:29:29:RPC Service User:/var/lib/nfs:/sbin/nologin
tcpdump:x:72:72::/:/sbin/nologin
ec2-user:x:1000:1000:EC2 Default User:/home/ec2-user:/bin/bash
[root@ip-172-31-19-79 home]# cat /etc/passwd >> b.txt
[root@ip-172-31-19-79 home]# cat b.txt
уууууууу
root:x:0:0:root:/root:/bin/bash
bin:x:1:1:bin:/bin:/sbin/nologin
daemon:x:2:2:daemon:/sbin:/sbin/nologin
adm:x:3:4:adm:/var/adm:/sbin/nologin
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
sync:x:5:0:sync:/sbin:/bin/sync
```

```
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
operator:x:11:0:operator:/root:/sbin/nologin
games:x:12:100:games:/usr/games:/sbin/nologin
ftp:x:14:50:FTP User:/var/ftp:/sbin/nologin
nobody:x:65534:65534:Kernel Overflow User:/:/sbin/nologin
dbus:x:81:81:System message bus:/:/sbin/nologin
systemd-network:x:192:192:systemd Network Management:/:/usr/sbin/nologin
systemd-oom:x:999:999:systemd Userspace 00M Killer:/:/usr/sbin/nologin
systemd-resolve:x:193:193:systemd Resolver:/:/usr/sbin/nologin
sshd:x:74:74:Privilege-separated SSH:/usr/share/empty.sshd:/sbin/nologin
rpc:x:32:32:Rpcbind Daemon:/var/lib/rpcbind:/sbin/nologin
libstoragemgmt:x:997:997:daemon account for libstoragemgmt:/:/usr/sbin/nologin
systemd-coredump:x:996:996:systemd Core Dumper:/:/usr/sbin/nologin
systemd-timesync:x:995:995:systemd Time Synchronization:/:/usr/sbin/nologin
chrony:x:994:994:chrony system user:/var/lib/chrony:/sbin/nologin
ec2-instance-connect:x:993:993::/home/ec2-instance-connect:/sbin/nologin
rpcuser:x:29:29:RPC Service User:/var/lib/nfs:/sbin/nologin
tcpdump:x:72:72::/:/sbin/nologin
ec2-user:x:1000:1000:EC2 Default User:/home/ec2-user:/bin/bash
[root@ip-172-31-19-79 home]# ps -ef
             PID
                    PPID
                          C STIME TTY
                                                 TIME CMD
UID
               1
                       0
                          0 Dec05 ?
                                            00:00:04 /usr/lib/systemd/systemd --swit
root
root
               2
                       0
                          0 Dec05 ?
                                            00:00:00 [kthreadd]
               3
                       2
                          0 Dec05 ?
                                            00:00:00 [rcu_gp]
root
               4
                       2
                          0 Dec05 ?
                                            00:00:00 [rcu_par_gp]
root
               5
                          0 Dec05 ?
                                            00:00:00 [slub_flushwq]
root
                       2
root
               6
                          0 Dec05 ?
                                            00:00:00 [netns]
                       2
                          0 Dec05 ?
               8
                                            00:00:00 [kworker/0:0H-events_highpri]
root
              10
                       2
                          0 Dec05 ?
root
                                            00:00:00 [mm_percpu_wq]
              11
                       2
                          0 Dec05 ?
                                            00:00:00 [rcu_tasks_kthread]
root
                                            00:00:00 [rcu_tasks_rude_kthread]
                       2 0 Dec05 ?
root
              12
              13
                       2
                          0 Dec05 ?
                                            00:00:00 [rcu tasks trace kthread]
root
                       2 0 Dec05 ?
root
              14
                                            00:00:00 [ksoftirqd/0]
                       2 0 Dec05 ?
              15
                                            00:00:00 [rcu_preempt]
root
              16
                       2
                          0 Dec05
                                   ?
                                            00:00:00 [migration/0]
root
              18
                       2
                          0 Dec05
                                            00:00:00 [cpuhp/0]
root
                       2
root
              20
                          0 Dec05
                                            00:00:00 [kdevtmpfs]
                       2
                                                      [inet_frag_wq]
root
              21
                          0 Dec05 ?
                                            00:00:00
                       2
              22
                          0 Dec05 ?
                                            00:00:00 [kauditd]
root
              23
                       2
                          0 Dec05 ?
                                            00:00:00 [khungtaskd]
root
              24
                          0 Dec05 ?
                                            00:00:00 [oom reaper]
root
              27
                          0 Dec05 ?
                                            00:00:00 [writeback]
root
              28
                       2
                          0 Dec05 ?
                                            00:00:01 [kcompactd0]
root
                       2
              29
                          0 Dec05 ?
root
                                            00:00:00 [khugepaged]
                       2
              30
                          0 Dec05 ?
                                            00:00:00 [kintegrityd]
root
                       2
              31
                          0 Dec05 ?
                                            00:00:00 [kblockd]
root
                       2
              32
                          0 Dec05
                                            00:00:00 [blkcg_punt_bio]
root
                       2
              33
                          0 Dec05 ?
                                            00:00:00 [xen-balloon]
root
                       2
              34
                          0 Dec05 ?
                                            00:00:00 [tpm dev wq]
root
              35
                       2
                          0 Dec05 ?
                                            00:00:00 [md]
root
                       2 0 Dec05 ?
              36
                                            00:00:00 [edac-poller]
root
                       2
              37
                          0 Dec05 ?
                                            00:00:00 [watchdogd]
root
                       2
              38
                          0 Dec05 ?
                                            00:00:00 [kworker/0:1H-xfs-log/xvda1]
root
              73
                       2
                          0 Dec05 ?
                                            00:00:00 [kswapd0]
root
                          0 Dec05 ?
              76
                       2
                                            00:00:00 [xfsalloc]
root
                       2
root
              77
                          0 Dec05
                                            00:00:00 [xfs_mru_cache]
              80
                       2
                          0 Dec05
                                            00:00:00 [kthrotld]
root
                       2
              95
                          0 Dec05
                                            00:00:00 [xenbus]
root
                       2
                          0 Dec05 ?
              96
root
                                            00:00:00 [xenwatch]
                       2 0 Dec05 ?
                                            00:00:00 [nvme-wq]
             133
root
             135
                       2
                          0 Dec05 ?
                                            00:00:00 [nvme-reset-wq]
root
root
             137
                          0 Dec05 ?
                                            00:00:00 [nvme-delete-wq]
root
             160
                       2 0 Dec05 ?
                                            00:00:00 [mld]
                       2 0 Dec05 ?
root
             161
                                            00:00:00 [ipv6_addrconf]
                                            00:00:00 [kstrp]
                       2
                          0 Dec05 ?
             171
root
             180
                       2
                          0 Dec05 ?
                                            00:00:00 [zswap-shrink]
root
             181
                          0 Dec05 ?
                                            00:00:00 [kworker/u31:0]
root
```

```
975
                          0 Dec05 ?
                                            00:00:00 [xfs-buf/xvda1]
root
             976
                          0 Dec05 ?
                                            00:00:00 [xfs-conv/xvda1]
root
             977
                          0 Dec05 ?
                                            00:00:00 [xfs-reclaim/xvd]
root
             978
                       2 0 Dec05 ?
                                            00:00:00 [xfs-blockgc/xvd]
root
             979
                       2 0 Dec05 ?
                                            00:00:00 [xfs-inodegc/xvd]
root
             980
                       2
                          0 Dec05 ?
                                            00:00:00 [xfs-log/xvda1]
root
             981
                          0 Dec05 ?
                                            00:00:00 [xfs-cil/xvda1]
root
                       2
             982
                         0 Dec05 ?
                                            00:00:14 [xfsaild/xvda1]
root
                       1 0 Dec05 ?
                                            00:00:03 /usr/lib/systemd/systemd-journa
root
            1055
            1709
                       1 0 Dec05 ?
                                            00:00:00 /usr/lib/systemd/systemd-udevd
root
systemd+
            1722
                       1 0 Dec05 ?
                                            00:00:00 /usr/lib/systemd/systemd-resolv
root
            1728
                       1 0 Dec05 ?
                                            00:00:00 /sbin/auditd
            1831
                       2 0 Dec05 ?
                                            00:00:00 [ata sff]
root
                       2 0 Dec05 ?
            1837
                                            00:00:00 [scsi eh 0]
root
                       2 0 Dec05 ?
                                            00:00:00 [cryptd]
            1848
root
            1861
                       2 0 Dec05 ?
                                            00:00:00 [scsi_tmf_0]
root
            1866
                       2 0 Dec05 ?
                                            00:00:00 [scsi_eh_1]
root
                                            00:00:00 [scsi_tmf_1]
root
            1868
                       2 0 Dec05 ?
                       2 0 Dec05 ?
root
            1928
                                            00:00:00 [rpciod]
                       2 0 Dec05 ?
            1930
                                            00:00:00 [xprtiod]
root
                       1 0 Dec05 ?
                                            00:00:00 /usr/bin/systemd-inhibit --what
            1939
root
            1942
                       1 0 Dec05 ?
                                            00:00:00 /usr/bin/lsmd -d
libstor+
            1946
                       1 0 Dec05 ?
                                            00:00:12 / usr/sbin/rngd - f - x pkcs11 - x
root
            1947
                       1 0 Dec05 ?
                                            00:00:00 /usr/sbin/sssd -i --logger=file
root
                       1 0 Dec05 ?
root
            1952
                                            00:00:00 /usr/lib/systemd/systemd-homed
                       1 0 Dec05 ?
            1958
                                            00:00:00 /usr/bin/dbus-broker-launch --s
dbus
systemd+
            1963
                       1 0 Dec05 ?
                                            00:00:00 /usr/lib/systemd/systemd-networ
dbus
            1973
                    1958 0 Dec05 ?
                                            00:00:00 dbus-broker --log 4 --controlle
root
            1977
                    1947
                          0 Dec05 ?
                                            00:00:00 /usr/libexec/sssd/sssd_be --dom
                    1947 0 Dec05 ?
root
            1981
                                            00:00:01 /usr/libexec/sssd/sssd_nss --ui
                       1 0 Dec05 ?
            1982
                                            00:00:00 /usr/sbin/gssproxy -D
root
            1988
                       1 0 Dec05 ?
                                            00:00:00 /usr/lib/systemd/systemd-logind
root
                                            00:00:00 /usr/sbin/acpid -f
                    1939 0 Dec05 ?
root
            2004
            2153
                       1 0 Dec05 ?
                                            00:00:02 /usr/bin/amazon-ssm-agent
root
                       1 0 Dec05 ?
            2158
                                            00:00:00 sshd: /usr/sbin/sshd -D [listen
root
                       1 0 Dec05 ?
                                            00:00:00 /usr/sbin/atd -f
            2167
root
            2168
                       1 0 Dec05 tty1
                                            00:00:00 /sbin/agetty -o -p -- \u --nocl
root
                                            00:00:00 /sbin/agetty -o -p -- \u --keep
            2169
                       1 0 Dec05 ttyS0
root
chrony
            2187
                       1
                          0 Dec05
                                            00:00:01 /usr/sbin/chronyd -F 2
            2581
                       1 0 Dec05 ?
root
                                            00:00:00 /usr/lib/systemd/systemd-userdb
                       1 0 09:40 ?
                                            00:00:00 /usr/lib/systemd/systemd --user
           25858
ec2-user
           25884
                                            00:00:00 (sd-pam)
                   25858 0 09:40 ?
ec2-user
                                            00:00:00 [kworker/u30:2-flush-202:0]
           30102
                       2
                         0 12:13 ?
root
           30511
                       2 0 12:30 ?
                                            00:00:00 [kworker/0:3-cgroup destroy]
root
root
           31175
                       2 0 12:46 ?
                                            00:00:00 [kworker/0:0-events_power_effic
                    2158 0 12:46 ?
root
           31202
                                            00:00:00 sshd: ec2-user [priv]
                   31202
                          0 12:46 ?
                                            00:00:00 sshd: ec2-user@pts/0
           31205
ec2-user
           31206
                   31205
                          0 12:46 pts/0
                                            00:00:00 -bash
ec2-user
           31229
                   31206
                          0 12:46 pts/0
                                            00:00:00 sudo -s
root
           31231
                   31229
                          0 12:46 pts/0
                                            00:00:00 /bin/bash
root
           31251
                         0 12:46 ?
                                            00:00:00 [kworker/u30:0-events unbound]
root
                       2
                    2581 0 12:54 ?
                                            00:00:00 systemd-userwork: waiting...
           31507
root
           31508
                    2581 0 12:54 ?
                                            00:00:00 systemd-userwork: waiting...
root
           31509
                    2581 0 12:55 ?
root
                                            00:00:00 systemd-userwork: waiting...
           31558
                       2 0 12:56 ?
                                            00:00:00 [kworker/0:1-events]
                   31231 0 12:56 pts/0
                                            00:00:00 ps -ef
           31559
root
[root@ip-172-31-19-79 home]# ps -ef | grep bash
ec2-user
           31206
                   31205 0 12:46 pts/0
                                            00:00:00 -bash
           31231
                   31229
                                            00:00:00 /bin/bash
root
                          0 12:46 pts/0
           31561
                   31231 0 12:57 pts/0
                                            00:00:00 grep --color=auto bash
[root@ip-172-31-19-79 home]# kill 3989
bash: kill: (3989) - No such process
[root@ip-172-31-19-79 home]# ls --help | more
Usage: ls [OPTION]... [FILE]...
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 ..
                            with -l, print the author of each file
    --author
-b, --escape
                            print C-style escapes for nongraphic characters
                            with -l, scale sizes by SIZE when printing them; e.g., '--block-size=M'; see SIZE format below
    --block-size=SIZE
                            do not list implied entries ending with ~
-B, --ignore-backups
                            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
                            colorize the output; WHEN can be 'always' (default
    --color[=WHEN]
                              if omitted), 'auto', or 'never'; more info below
-d, --directory
                            list directories themselves, not their contents
                            generate output designed for Emacs' dired mode
-D, --dired
- f
                            do not sort, enable -aU, disable -ls --color
-F, --classify
                            append indicator (one of */=>@|) to entries
                            likewise, except do not append '*'
    --file-type
    --format=WORD
                            across -x, commas -m, horizontal -x, long -l,
                              single-column -1, verbose -1, vertical -C
    --full-time
                            like -l --time-style=full-iso
                            like -l, but do not list owner
-g
    --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 -s, print sizes like 1K 234M 2G etc.
                            likewise, but use powers of 1000 not 1024
    --si
-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)
    --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)
                            print the index number of each file
-i, --inode
-I, --ignore=PATTERN
                            do not list implied entries matching shell PATTERN
-k, --kibibytes
                            default to 1024-byte blocks for disk usage;
                              used only with -s and per directory totals
-1
                            use a long listing format
                            when showing file information for a symbolic
-L, --dereference
                              link, show information for the file the link
                              references rather than for the link itself
                            fill width with a comma separated list of entries
- m
                            like -l, but list numeric user and group IDs
-n, --numeric-uid-gid
-N, --literal
                            print entry names without quoting
                            like -l, but do not list group information
-p, --indicator-style=slash
                            append / indicator to directories
                            print ? instead of nongraphic characters
-q, --hide-control-chars
    --show-control-chars
                            show nongraphic characters as-is (the default,
                              unless program is 'ls' and output is a terminal)
                            enclose entry names in double quotes
-Q, --quote-name
                            use quoting style WORD for entry names:
    --quoting-style=WORD
                              literal, locale, shell, shell-always,
                              shell-escape, shell-escape-always, c, escape
                              (overrides QUOTING_STYLE environment variable)
-r, --reverse
                            reverse order while sorting
-R, --recursive
                            list subdirectories recursively
                            print the allocated size of each file, in blocks
-s, --size
-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
                              change the default of using modification times;
                                 access time (-u): atime, access, use;
                                 change time (-c): ctime, status;
                                 birth time: birth, creation;
                              with -l, WORD determines which time to show;
                              with --sort=time, sort by WORD (newest first)
      --time-style=TIME_STYLE time/date format with -l; see TIME_STYLE below
                              sort by time, newest first; see --time
  - †
      --tabsize=COLS
                              assume tab stops at each COLS instead of 8
  -T,
                              with -lt: sort by, and show, access time;
  - u
                                 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
                              list entries by lines instead of by columns
  - X
  - X
                              sort alphabetically by entry extension
  -Z,
      --context
                              print any security context of each file
                              list one file per line. Avoid '\n' with -q or -b
  - 1
                  display this help and exit
      --help
      --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).
Binary prefixes can be used, too: KiB=K, MiB=M, and so on.
The TIME_STYLE argument can be full-iso, long-iso, iso, locale, or +FORMAT.
FORMAT is interpreted like in date(1). If FORMAT is FORMAT1<newline>FORMAT2,
then FORMAT1 applies to non-recent files and FORMAT2 to recent files.
TIME_STYLE prefixed with 'posix-' takes effect only outside the POSIX locale.
Also the TIME_STYLE environment variable sets the default style to use.
Using color to distinguish file types is disabled both by default and
with --color=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 0K,
 1 if minor problems (e.g., cannot access subdirectory),
    if serious trouble (e.g., cannot access command-line argument).
GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
Report any translation bugs to <a href="https://translationproject.org/team/">https://translationproject.org/team/</a>
Full documentation <a href="https://www.gnu.org/software/coreutils/ls">https://www.gnu.org/software/coreutils/ls</a>
or available locally via: info '(coreutils) ls invocation'
[root@ip-172-31-19-79 home]# ls -l
total 12
-rw-r--r-. 1 root
                        root
                                  1436 Dec 6 12:54 a.txt
-rw-r--r-. 1 root
                                  122 Dec 6 12:45 aaa.tar
                        root
                                 1446 Dec 6 12:55 b.txt
-rw-r--r-. 1 root
                        root
drwx-----. 3 ec2-user ec2-user 108 Dec 6 11:02 ec2-user
[root@ip-172-31-19-79 home]# chmod +x b.txt
[root@ip-172-31-19-79 home]# ls -l
total 12
                                  1436 Dec 6 12:54 a.txt
-rw-r--r-. 1 root
                        root
-rw-r--r-. 1 root
                        root
                                  122 Dec 6 12:45 aaa.tar
-rwxr-xr-x. 1 root root 1446 Dec 6 12:55 b.txt drwx-----. 3 ec2-user ec2-user 108 Dec 6 11:02 ec2-user
[root@ip-172-31-19-79 home]# chmod 777 b.txt
[root@ip-172-31-19-79 home]# ls -l
total 12
-rw-r--r-. 1 root
                                 1436 Dec 6 12:54 a.txt
                        root
-rw-r--r-. 1 root
                        root
                                  122 Dec 6 12:45 aaa.tar
-rwxrwxrwx. 1 root
                        root
                                  1446 Dec 6 12:55 b.txt
drwx----. 3 ec2-user ec2-user 108 Dec 6 11:02 ec2-user
[root@ip-172-31-19-79 home]# hostname
ip-172-31-19-79.ap-southeast-2.compute.internal
[root@ip-172-31-19-79 home]# hostname toubun
```

```
[root@ip-172-31-19-79 home]# hostname
toubun
[root@ip-172-31-19-79 home]# ifconfig
enX0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 9001
         inet 172.31.19.79 netmask 255.255.240.0 broadcast 172.31.31.255
         inet6 fe80::8fa:50ff:fef5:635f prefixlen 64 scopeid 0x20<link>
         ether 0a:fa:50:f5:63:5f txqueuelen 1000 (Ethernet) RX packets 45002 bytes 26221872 (25.0 MiB)
         RX errors 0 dropped 0 overruns 0 frame 0 TX packets 31236 bytes 4167543 (3.9 MiB)
         TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
lo: flags=73<UP,L00PBACK,RUNNING> mtu 65536
```

inet 127.0.0.1 netmask 255.0.0.0 inet6 ::1 prefixlen 128 scopeid 0x10<host> loop txqueuelen 1000 (Local Loopback) RX packets 12 bytes 1020 (1020.0 B) RX errors 0 dropped 0 overruns 0 frame 0 TX packets 12 bytes 1020 (1020.0 B)

TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[root@ip-172-31-19-79 home]# service network status Redirecting to /bin/systemctl status network.service Unit network.service could not be found. [root@ip-172-31-19-79 home]# ^C

[root@ip-172-31-19-79 home]# service network status Redirecting to /bin/systemctl status network.service Unit network.service could not be found.

[root@ip-172-31-19-79 home]# service network restart Redirecting to /bin/systemctl restart network.service

Failed to restart network.service: Unit network.service not found.

[root@ip-172-31-19-79 home]# service network-manager restart Redirecting to /bin/systemctl restart network-manager.service

Failed to restart network-manager.service: Unit network-manager.service not found.

[root@ip-172-31-19-79 home]# systemctl stop NetworkManager

Failed to stop NetworkManager.service: Unit NetworkManager.service not loaded.

[root@ip-172-31-19-79 home]# ^C

[root@ip-172-31-19-79 home]# sudo systemctl stop dhcpcd

Failed to stop dhcpcd.service: Unit dhcpcd.service not loaded.

[root@ip-172-31-19-79 home]# yum install httpd

Last metadata expiration check: 19:28:57 ago on Tue Dec 5 17:56:04 2023. Dependencies resolved.

| Package                | Arch           | Version                | Repository  | Size   |
|------------------------|----------------|------------------------|-------------|--------|
| Installing:            | =======        |                        |             | ====== |
| httpd                  | x86 64         | 2.4.58-1.amzn2023      | amazonlinux | 47 k   |
| Installing dependencie | s: _           |                        |             |        |
| apr                    | x86_64         | 1.7.2-2.amzn2023.0.2   | amazonlinux | 129 k  |
| apr-util               | x86_64         | 1.6.3-1.amzn2023.0.1   | amazonlinux | 98 k   |
| generic-logos-httpd    | noarch         | 18.0.0-12.amzn2023.0.3 | amazonlinux | 19 k   |
| httpd-core             | x86_64         | 2.4.58-1.amzn2023      | amazonlinux | 1.4 M  |
| httpd-filesystem       | noarch         | 2.4.58-1.amzn2023      | amazonlinux | 14 k   |
| httpd-tools            | x86_64         | 2.4.58-1.amzn2023      | amazonlinux | 81 k   |
| libbrotli              | x86_64         | 1.0.9-4.amzn2023.0.2   | amazonlinux | 315 k  |
| mailcap                | noarch         | 2.1.49-3.amzn2023.0.3  | amazonlinux | 33 k   |
| Installing weak depend | encies:        |                        |             |        |
| apr-util-openssl       | x86_64         | 1.6.3-1.amzn2023.0.1   | amazonlinux | 17 k   |
| <pre>mod_http2</pre>   | x86 <u>6</u> 4 | 2.0.11-2.amzn2023      | amazonlinux | 150 k  |
| mod_lua                | x86_64         | 2.4.58-1.amzn2023      | amazonlinux | 61 k   |

Transaction Summary

\_\_\_\_\_\_\_

Install 12 Packages

Total download size: 2.3 M Installed size: 6.9 M Is this ok [y/N]: y Downloading Packages:

Removing: httpd

x86\_64

2.4.58-1.amzn2023

@amazonlinux

60 k

```
(1/12): libbrotli-1.0.9-4.amzn2023.0.2.x86 64.rpm 3.1 MB/s | 315 kB
                                                                       00:00
(2/12): httpd-2.4.58-1.amzn2023.x86 64.rpm
                                                                       00:00
                                                  1.7 MB/s |
                                                             47 kB
(3/12): apr-1.7.2-2.amzn2023.0.2.x86 64.rpm
                                                  950 kB/s | 129 kB
                                                                       00:00
                                                  658 kB/s |
                                                             98 kB
                                                                       00:00
(4/12): apr-util-1.6.3-1.amzn2023.0.1.x86_64.rpm
                                                  1.4 MB/s |
                                                            150 kB
(5/12): mod_http2-2.0.11-2.amzn2023.x86_64.rpm
                                                                       00:00
(6/12): httpd-tools-2.4.58-1.amzn2023.x86_64.rpm
                                                  868 kB/s
                                                             81 kB
                                                                       00:00
(7/12): httpd-core-2.4.58-1.amzn2023.x86_64.rpm
                                                             1.4 MB
                                                  11 MB/s
                                                                       00:00
(8/12): apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_ 656 kB/s
                                                             17 kB
                                                                       00:00
(9/12): mod_lua-2.4.58-1.amzn2023.x86_64.rpm
                                                             61 kB
                                                  1.5 MB/s
                                                                       00:00
(10/12): mailcap-2.1.49-3.amzn2023.0.3.noarch.rpm 1.5 MB/s |
                                                             33 kB
                                                                       00:00
(11/12): generic-logos-httpd-18.0.0-12.amzn2023.0. 705 kB/s
                                                             19 kB
                                                                       00:00
(12/12): httpd-filesystem-2.4.58-1.amzn2023.noarch 331 kB/s | 14 kB
                                                                       00:00
Total
                                                  6.0 MB/s | 2.3 MB
                                                                       00:00
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
                                                                             1/1
  Preparing
                                                                            1/12
                  : apr-1.7.2-2.amzn2023.0.2.x86_64
  Installing
  Installing
                  : apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64
                                                                            2/12
  Installing
                  : apr-util-1.6.3-1.amzn2023.0.1.x86 64
                                                                            3/12
  Installing
                  : mailcap-2.1.49-3.amzn2023.0.3.noarch
                                                                            4/12
  Installing
                  : httpd-tools-2.4.58-1.amzn2023.x86_64
                                                                            5/12
  Running scriptlet: httpd-filesystem-2.4.58-1.amzn2023.noarch
                                                                            6/12
  Installing
                : httpd-filesystem-2.4.58-1.amzn2023.noarch
                                                                            6/12
  Installing
                  : httpd-core-2.4.58-1.amzn2023.x86_64
                                                                            7/12
  Installing
                  : mod_http2-2.0.11-2.amzn2023.x86_64
                                                                            8/12
                  : mod_lua-2.4.58-1.amzn2023.x86_64
  Installing
                                                                            9/12
                  : generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch
                                                                           10/12
  Installing
  Installing
                  : libbrotli-1.0.9-4.amzn2023.0.2.x86_64
                                                                           11/12
                  : httpd-2.4.58-1.amzn2023.x86_64
  Installing
                                                                           12/12
  Running scriptlet: httpd-2.4.58-1.amzn2023.x86 64
                                                                           12/12
  Verifying
                  : libbrotli-1.0.9-4.amzn2023.0.2.x86_64
                                                                            1/12
  Verifying
                  : apr-util-1.6.3-1.amzn2023.0.1.x86_64
                                                                            2/12
                  : apr-1.7.2-2.amzn2023.0.2.x86_64
  Verifying
                                                                            3/12
  Verifying
                  : httpd-2.4.58-1.amzn2023.x86_64
                                                                            4/12
  Verifying
                  : mod_http2-2.0.11-2.amzn2023.x86_64
                                                                            5/12
  Verifying
                  : httpd-core-2.4.58-1.amzn2023.x86_64
                                                                            6/12
                  : httpd-tools-2.4.58-1.amzn2023.x86_64
                                                                            7/12
  Verifying
                                                                            8/12
                  : mod_lua-2.4.58-1.amzn2023.x86_64
  Verifying
  Verifying
                  : apr-util-openssl-1.6.3-1.amzn2023.0.1.x86 64
                                                                            9/12
                 : mailcap-2.1.49-3.amzn2023.0.3.noarch
                                                                           10/12
  Verifying
  Verifying
                 : generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch
                                                                           11/12
                  : httpd-filesystem-2.4.58-1.amzn2023.noarch
  Verifying
                                                                           12/12
Installed:
  apr-1.7.2-2.amzn2023.0.2.x86 64
  apr-util-1.6.3-1.amzn2023.0.1.x86 64
  apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64
  generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch
  httpd-2.4.58-1.amzn2023.x86_64
  httpd-core-2.4.58-1.amzn2023.x86 64
  httpd-filesystem-2.4.58-1.amzn2023.noarch
  httpd-tools-2.4.58-1.amzn2023.x86 64
  libbrotli-1.0.9-4.amzn2023.0.2.x86_64
  mailcap-2.1.49-3.amzn2023.0.3.noarch
  mod_http2-2.0.11-2.amzn2023.x86_64
  mod lua-2.4.58-1.amzn2023.x86 64
Complete!
[root@ip-172-31-19-79 home]# yum remove httpd
Dependencies resolved.
                      Arch Version
                                                           Repository
_____
```

```
Removing unused dependencies:
                                                                             297 k
                                  1.7.2-2.amzn2023.0.2
                                                             @amazonlinux
apr
                        x86 64
 apr-util
                        x86 64
                                  1.6.3-1.amzn2023.0.1
                                                             @amazonlinux
                                                                             217 k
                                  1.6.3-1.amzn2023.0.1
                                                             @amazonlinux
                                                                             24 k
apr-util-openssl
                        x86 64
                                                             @amazonlinux
                                                                             21 k
 generic-logos-httpd
                        noarch
                                  18.0.0-12.amzn2023.0.3
                        x86 64
                                  2.4.58-1.amzn2023
                                                             @amazonlinux
                                                                             4.7 M
httpd-core
                                                             @amazonlinux
 httpd-filesystem
                        noarch
                                  2.4.58-1.amzn2023
                                                                             464
 httpd-tools
                        x86 64
                                  2.4.58-1.amzn2023
                                                             @amazonlinux
                                                                             201 k
                        x86_64
                                                            @amazonlinux
                                                                             771 k
libbrotli
                                  1.0.9-4.amzn2023.0.2
                        noarch
                                  2.1.49-3.amzn2023.0.3
                                                            @amazonlinux
                                                                             78 k
mailcap
mod http2
                        x86 64
                                  2.0.11-2.amzn2023
                                                             @amazonlinux
                                                                             395 k
mod lua
                        x86 64
                                  2.4.58-1.amzn2023
                                                             @amazonlinux
                                                                             143 k
Transaction Summary
______
Remove 12 Packages
Freed space: 6.9 M
Is this ok [y/N]: y
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing
                                                                              1/1
  Running scriptlet: httpd-2.4.58-1.amzn2023.x86_64
                                                                              1/12
  Erasing
                   : httpd-2.4.58-1.amzn2023.x86_64
                                                                              1/12
  Running scriptlet: httpd-2.4.58-1.amzn2023.x86_64
                                                                              1/12
  Erasing
                   : mod_lua-2.4.58-1.amzn2023.x86_64
                                                                              2/12
                   : mod_http2-2.0.11-2.amzn2023.x86_64
  Erasing
                                                                              3/12
                  : generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch
                                                                              4/12
  Erasing
                  : httpd-core-2.4.58-1.amzn2023.x86_64
                                                                              5/12
  Erasing
                  : httpd-tools-2.4.58-1.amzn2023.x86_64
  Erasing
                                                                              6/12
                  : mailcap-2.1.49-3.amzn2023.0.3.noarch
                                                                              7/12
  Erasing
  Erasing
                  : httpd-filesystem-2.4.58-1.amzn2023.noarch
                                                                              8/12
  Erasing
                  : apr-util-1.6.3-1.amzn2023.0.1.x86_64
                                                                              9/12
  Erasing
                  : apr-1.7.2-2.amzn2023.0.2.x86_64
                                                                             10/12
  Erasing
                  : apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64
                                                                             11/12
  Erasing
                   : libbrotli-1.0.9-4.amzn2023.0.2.x86_64
                                                                             12/12
  Running scriptlet: libbrotli-1.0.9-4.amzn2023.0.2.x86_64
                                                                             12/12
                                                                              1/12
                  : apr-1.7.2-2.amzn2023.0.2.x86_64
  Verifying
                  : apr-util-1.6.3-1.amzn2023.0.1.x86_64
                                                                              2/12
  Verifying
  Verifying
                  : apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64
                                                                              3/12
  Verifying
                  : generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch
                                                                              4/12
  Verifying
                  : httpd-2.4.58-1.amzn2023.x86_64
                                                                              5/12
  Verifying
                  : httpd-core-2.4.58-1.amzn2023.x86_64
                                                                              6/12
                  : httpd-filesystem-2.4.58-1.amzn2023.noarch
                                                                              7/12
  Verifying
  Verifying
                  : httpd-tools-2.4.58-1.amzn2023.x86_64
                                                                              8/12
  Verifying
                  : libbrotli-1.0.9-4.amzn2023.0.2.x86_64
                                                                              9/12
  Verifying
                  : mailcap-2.1.49-3.amzn2023.0.3.noarch
                                                                             10/12
                  : mod_http2-2.0.11-2.amzn2023.x86_64
                                                                             11/12
  Verifying
                   : mod_lua-2.4.58-1.amzn2023.x86_64
                                                                             12/12
  Verifying
Removed:
  apr-1.7.2-2.amzn2023.0.2.x86 64
  apr-util-1.6.3-1.amzn2023.0.1.x86 64
  apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64
  generic-logos-httpd-18.0.0-12.amzn2023.0.3.noarch
  httpd-2.4.58-1.amzn2023.x86 64
  httpd-core-2.4.58-1.amzn2023.x86 64
  httpd-filesystem-2.4.58-1.amzn2023.noarch
  httpd-tools-2.4.58-1.amzn2023.x86_64
  libbrotli-1.0.9-4.amzn2023.0.2.x86_64
  mailcap-2.1.49-3.amzn2023.0.3.noarch
  mod_http2-2.0.11-2.amzn2023.x86_64
  mod_lua-2.4.58-1.amzn2023.x86_64
```

## Complete!

[root@ip-172-31-19-79 home]# n

Socket error Event: 32 Error: 10053. Connection closing...Socket close.

Connection closed by foreign host.

Disconnected from remote host(ec2-13-236-207-27.ap-southeast-2.compute.amazonaws.co m) at 21:27:04.

Type `help' to learn how to use Xshell prompt.  $[C: \]$