```
Xshell 7 (Build 0141)
Copyright (c) 2020 NetSarang Computer, Inc. All rights reserved.

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
7.27.
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 10:34:57 2023 from 171.88.111.180
[ec2-user@ip-172-31-19-79 ~]$ mkdir aaa
[ec2-user@ip-172-31-19-79 ~]$ cd aaa
[ec2-user@ip-172-31-19-79 aaa]$ mkdir bbb
[ec2-user@ip-172-31-19-79 aaa]$ ls
bbb
[ec2-user@ip-172-31-19-79 aaa]$ cd ~
[ec2-user@ip-172-31-19-79 ~]$ ls
aaa
[ec2-user@ip-172-31-19-79 ~]$ cd aaa/bbb/
[ec2-user@ip-172-31-19-79 bbb]$ cd ~
[ec2-user@ip-172-31-19-79 ~]$ pwd
/home/ec2-user
[ec2-user@ip-172-31-19-79 ~]$ cd /
[ec2-user@ip-172-31-19-79 /]$ ls
bin   dev  home  lib64  media  opt   root  sbin  sys  usr
boot  etc  lib   local  mnt    proc  run   srv   tmp  var
[ec2-user@ip-172-31-19-79 /]$ ls -a
.   bin   dev  home  lib64  media  opt   root  sbin  sys  usr
..  boot  etc  lib   local  mnt    proc  run   srv   tmp  var
[ec2-user@ip-172-31-19-79 /]$ ls -l
total 32
lrwxrwxrwx.   1 root root     7 Jan 30  2023 bin -> usr/bin
dr-xr-xr-x.   5 root root 16384 Nov 10 19:55 boot
drwxr-xr-x.  15 root root  3040 Dec  5 17:55 dev
drwxr-xr-x.  77 root root 16384 Dec  5 17:55 etc
drwxr-xr-x.   3 root root    22 Dec  5 17:55 home
lrwxrwxrwx.   1 root root     7 Jan 30  2023 lib -> usr/lib
lrwxrwxrwx.   1 root root     9 Jan 30  2023 lib64 -> usr/lib64
drwxr-xr-x.   2 root root     6 Nov 10 19:53 local
drwxr-xr-x.   2 root root     6 Jan 30  2023 media
drwxr-xr-x.   2 root root     6 Jan 30  2023 mnt
drwxr-xr-x.   3 root root    17 Nov 10 19:54 opt
dr-xr-xr-x. 163 root root     0 Dec  5 17:55 proc
dr-xr-x---.   3 root root   124 Dec  6 10:22 root
drwxr-xr-x.  27 root root   820 Dec  5 17:55 run
lrwxrwxrwx.   1 root root     8 Jan 30  2023 sbin -> usr/sbin
drwxr-xr-x.   2 root root     6 Jan 30  2023 srv
dr-xr-xr-x.  13 root root     0 Dec  5 17:55 sys
drwxrwxrwt.  11 root root   220 Dec  6 10:37 tmp
drwxr-xr-x.  12 root root   144 Nov 10 19:53 usr
drwxr-xr-x.  19 root root   266 Dec  5 17:55 var
[ec2-user@ip-172-31-19-79 /]$ cd ~
[ec2-user@ip-172-31-19-79 ~]$ ls
aaa
[ec2-user@ip-172-31-19-79 ~]$ rmdir aaa/
```

```
rmdir: failed to remove 'aaa/': Directory not empty
[ec2-user@ip-172-31-19-79 ~]$ sudo -s
[root@ip-172-31-19-79 ec2-user]# rmdir aaa/
rmdir: failed to remove 'aaa/': Directory not empty
[root@ip-172-31-19-79 ec2-user]# cd aaa/
[root@ip-172-31-19-79 aaa]# rmdir bbb/
[root@ip-172-31-19-79 aaa]# ls
[root@ip-172-31-19-79 aaa]# cd ..
[root@ip-172-31-19-79 ec2-user]# rmdir aaa/
[root@ip-172-31-19-79 ec2-user]# ls
[root@ip-172-31-19-79 ec2-user]# vim a.txt
[root@ip-172-31-19-79 ec2-user]# ls
a.txt
[root@ip-172-31-19-79 ec2-user]# cat a.txt
yyy
[root@ip-172-31-19-79 ec2-user]# more a.txt
yyy
[root@ip-172-31-19-79 ec2-user]# less a.txt
[root@ip-172-31-19-79 ec2-user]# tail -2 /etc/passwd
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 ec2-user]# tail -f /etc/passwd
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
^C
[root@ip-172-31-19-79 ec2-user]# ls
a.txt
[root@ip-172-31-19-79 ec2-user]# rm a.txt
rm: remove regular file 'a.txt'? y
[root@ip-172-31-19-79 ec2-user]# ls
[root@ip-172-31-19-79 ec2-user]# touch a.txt
[root@ip-172-31-19-79 ec2-user]# rm -f a.txt
[root@ip-172-31-19-79 ec2-user]# ls
[root@ip-172-31-19-79 ec2-user]# touch a.txt
[root@ip-172-31-19-79 ec2-user]# touch b.txt
[root@ip-172-31-19-79 ec2-user]# ls
a.txt  b.txt
[root@ip-172-31-19-79 ec2-user]# rm -rd ./*
rm: remove regular empty file './a.txt'? n
rm: remove regular empty file './b.txt'? n
[root@ip-172-31-19-79 ec2-user]# rm -rf ./*
[root@ip-172-31-19-79 ec2-user]# ls
[root@ip-172-31-19-79 ec2-user]# touch a.txt
[root@ip-172-31-19-79 ec2-user]# ls
a.txt
[root@ip-172-31-19-79 ec2-user]# vim a.txt
[root@ip-172-31-19-79 ec2-user]# cp a.txt b.txt
[root@ip-172-31-19-79 ec2-user]# ls
a.txt  b.txt
[root@ip-172-31-19-79 ec2-user]# cat b.txt
yyyyyyyyy
[root@ip-172-31-19-79 ec2-user]# cp a.txt ../
[root@ip-172-31-19-79 ec2-user]# ls
a.txt  b.txt
[root@ip-172-31-19-79 ec2-user]# cd ..
[root@ip-172-31-19-79 home]# ls
a.txt  ec2-user
[root@ip-172-31-19-79 home]# cat a.txt
yyyyyyyyy
[root@ip-172-31-19-79 home]# rm -f a.txt
[root@ip-172-31-19-79 home]# ls
```

```
ec2-user
[root@ip-172-31-19-79 home]# cd ec2-user
[root@ip-172-31-19-79 ec2-user]# ls
a.txt  b.txt
[root@ip-172-31-19-79 ec2-user]# mv a.txt ../
[root@ip-172-31-19-79 ec2-user]# ls
b.txt
[root@ip-172-31-19-79 ec2-user]# cd ..
[root@ip-172-31-19-79 home]# ls
a.txt  ec2-user
[root@ip-172-31-19-79 home]# mv a.txt b.txt
[root@ip-172-31-19-79 home]# ls
b.txt  ec2-user
[root@ip-172-31-19-79 home]# tar --help
Usage: tar [OPTION...] [FILE]...
GNU 'tar' saves many files together into a single tape or disk archive, and can
restore individual files from the archive.

Examples:
  tar -cf archive.tar foo bar  # Create archive.tar from files foo and bar.
  tar -tvf archive.tar         # List all files in archive.tar verbosely.
  tar -xf archive.tar          # Extract all files from archive.tar.

 Main operation mode:
  -A, --catenate, --concatenate   append tar files to an archive
  -c, --create               create a new archive
      --delete               delete from the archive (not on mag tapes!)
  -d, --diff, --compare      find differences between archive and file system
  -r, --append               append files to the end of an archive
      --test-label           test the archive volume label and exit
  -t, --list                 list the contents of an archive
  -u, --update               only append files newer than copy in archive
  -x, --extract, --get       extract files from an archive

 Operation modifiers:

      --check-device         check device numbers when creating incremental
                             archives (default)
  -g, --listed-incremental=FILE   handle new GNU-format incremental backup
  -G, --incremental          handle old GNU-format incremental backup
      --hole-detection=TYPE  technique to detect holes
      --ignore-failed-read   do not exit with nonzero on unreadable files
      --level=NUMBER         dump level for created listed-incremental archive
      --no-check-device      do not check device numbers when creating
                             incremental archives
      --no-seek              archive is not seekable
  -n, --seek                 archive is seekable
      --occurrence[=NUMBER]  process only the NUMBERth occurrence of each file
                             in the archive; this option is valid only in
                             conjunction with one of the subcommands --delete,
                             --diff, --extract or --list and when a list of
                             files is given either on the command line or via
                             the -T option; NUMBER defaults to 1
      --sparse-version=MAJOR[.MINOR]
                             set version of the sparse format to use (implies
                             --sparse)
  -S, --sparse               handle sparse files efficiently

 Local file name selection:
      --add-file=FILE        add given FILE to the archive (useful if its name
                             starts with a dash)
  -C, --directory=DIR        change to directory DIR
      --exclude=PATTERN      exclude files, given as a PATTERN
      --exclude-backups      exclude backup and lock files
      --exclude-caches       exclude contents of directories containing
                             CACHEDIR.TAG, except for the tag file itself
      --exclude-caches-all   exclude directories containing CACHEDIR.TAG
      --exclude-caches-under exclude everything under directories containing
                             CACHEDIR.TAG
```

```
      --exclude-ignore=FILE  read exclude patterns for each directory from
                             FILE, if it exists
      --exclude-ignore-recursive=FILE
                             read exclude patterns for each directory and its
                             subdirectories from FILE, if it exists
      --exclude-tag=FILE     exclude contents of directories containing FILE,
                             except for FILE itself
      --exclude-tag-all=FILE exclude directories containing FILE
      --exclude-tag-under=FILE   exclude everything under directories
                             containing FILE
      --exclude-vcs          exclude version control system directories
      --exclude-vcs-ignores  read exclude patterns from the VCS ignore files
      --no-null              disable the effect of the previous --null option
      --no-recursion         avoid descending automatically in directories
      --no-unquote           do not unquote input file or member names
      --no-verbatim-files-from   -T treats file names starting with dash as
                             options (default)
      --null                 -T reads null-terminated names; implies
                             --verbatim-files-from
      --recursion            recurse into directories (default)
  -T, --files-from=FILE      get names to extract or create from FILE
      --unquote              unquote input file or member names (default)
      --verbatim-files-from  -T reads file names verbatim (no escape or option
                             handling)
  -X, --exclude-from=FILE    exclude patterns listed in FILE

 File name matching options (affect both exclude and include patterns):

      --anchored             patterns match file name start
      --ignore-case          ignore case
      --no-anchored          patterns match after any '/' (default for
                             exclusion)
      --no-ignore-case       case sensitive matching (default)
      --no-wildcards         verbatim string matching
      --no-wildcards-match-slash   wildcards do not match '/'
      --wildcards            use wildcards (default for exclusion)
      --wildcards-match-slash   wildcards match '/' (default)

 Overwrite control:

      --keep-directory-symlink   preserve existing symlinks to directories when
                             extracting
      --keep-newer-files     don't replace existing files that are newer than
                             their archive copies
  -k, --keep-old-files       don't replace existing files when extracting,
                             treat them as errors
      --no-overwrite-dir     preserve metadata of existing directories
      --one-top-level[=DIR]  create a subdirectory to avoid having loose files
                             extracted
      --overwrite            overwrite existing files when extracting
      --overwrite-dir        overwrite metadata of existing directories when
                             extracting (default)
      --recursive-unlink     empty hierarchies prior to extracting directory
      --remove-files         remove files after adding them to the archive
      --skip-old-files       don't replace existing files when extracting,
                             silently skip over them
  -U, --unlink-first         remove each file prior to extracting over it
  -W, --verify               attempt to verify the archive after writing it

 Select output stream:

      --ignore-command-error ignore exit codes of children
      --no-ignore-command-error   treat non-zero exit codes of children as
                             error
  -O, --to-stdout            extract files to standard output
      --to-command=COMMAND   pipe extracted files to another program

 Handling of file attributes:
```

```
      --atime-preserve[=METHOD]   preserve access times on dumped files, either
                                  by restoring the times after reading
                                  (METHOD='replace'; default) or by not setting the
                                  times in the first place (METHOD='system')
      --clamp-mtime               only set time when the file is more recent than
                                  what was given with --mtime
      --delay-directory-restore   delay setting modification times and
                                  permissions of extracted directories until the end
                                  of extraction
      --group=NAME                force NAME as group for added files
      --group-map=FILE            use FILE to map file owner GIDs and names
      --mode=CHANGES              force (symbolic) mode CHANGES for added files
      --mtime=DATE-OR-FILE        set mtime for added files from DATE-OR-FILE
  -m, --touch                     don't extract file modified time
      --no-delay-directory-restore
                                  cancel the effect of --delay-directory-restore
                                  option
      --no-same-owner             extract files as yourself (default for ordinary
                                  users)
      --no-same-permissions       apply the user's umask when extracting permissions
                                  from the archive (default for ordinary users)
      --numeric-owner             always use numbers for user/group names
      --owner=NAME                force NAME as owner for added files
      --owner-map=FILE            use FILE to map file owner UIDs and names
  -p, --preserve-permissions, --same-permissions
                                  extract information about file permissions
                                  (default for superuser)
      --same-owner                try extracting files with the same ownership as
                                  exists in the archive (default for superuser)
      --sort=ORDER                directory sorting order: none (default), name or
                                  inode
  -s, --preserve-order, --same-order
                                  member arguments are listed in the same order as
                                  the files in the archive

Handling of extended file attributes:

      --acls                      Enable the POSIX ACLs support
      --no-acls                   Disable the POSIX ACLs support
      --no-selinux                Disable the SELinux context support
      --no-xattrs                 Disable extended attributes support
      --selinux                   Enable the SELinux context support
      --xattrs                    Enable extended attributes support
      --xattrs-exclude=MASK       specify the exclude pattern for xattr keys
      --xattrs-include=MASK       specify the include pattern for xattr keys

Device selection and switching:

      --force-local               archive file is local even if it has a colon
  -f, --file=ARCHIVE              use archive file or device ARCHIVE
  -F, --info-script=NAME, --new-volume-script=NAME
                                  run script at end of each tape (implies -M)
  -L, --tape-length=NUMBER        change tape after writing NUMBER x 1024 bytes
  -M, --multi-volume              create/list/extract multi-volume archive
      --rmt-command=COMMAND       use given rmt COMMAND instead of rmt
      --rsh-command=COMMAND       use remote COMMAND instead of rsh
      --volno-file=FILE           use/update the volume number in FILE

Device blocking:

  -b, --blocking-factor=BLOCKS    BLOCKS x 512 bytes per record
  -B, --read-full-records         reblock as we read (for 4.2BSD pipes)
  -i, --ignore-zeros              ignore zeroed blocks in archive (means EOF)
      --record-size=NUMBER        NUMBER of bytes per record, multiple of 512

Archive format selection:

  -H, --format=FORMAT             create archive of the given format
```

```
FORMAT is one of the following:
   gnu                      GNU tar 1.13.x format
   oldgnu                   GNU format as per tar <= 1.12
   pax                      POSIX 1003.1-2001 (pax) format
   posix                    same as pax
   ustar                    POSIX 1003.1-1988 (ustar) format
   v7                       old V7 tar format

     --old-archive, --portability
                            same as --format=v7
     --pax-option=keyword[[:]=value][,keyword[[:]=value]]...
                            control pax keywords
     --posix                same as --format=posix
 -V, --label=TEXT           create archive with volume name TEXT; at
                            list/extract time, use TEXT as a globbing pattern
                            for volume name

Compression options:

 -a, --auto-compress        use archive suffix to determine the compression
                            program
 -I, --use-compress-program=PROG
                            filter through PROG (must accept -d)
 -j, --bzip2                filter the archive through bzip2
 -J, --xz                   filter the archive through xz
     --lzip                 filter the archive through lzip
     --lzma                 filter the archive through xz --format=lzma
     --lzop                 filter the archive through lzop
     --no-auto-compress     do not use archive suffix to determine the
                            compression program
     --zstd                 filter the archive through zstd
 -z, --gzip, --gunzip, --ungzip   filter the archive through gzip
 -Z, --compress, --uncompress   filter the archive through compress

Local file selection:

     --backup[=CONTROL]     backup before removal, choose version CONTROL
     --hard-dereference     follow hard links; archive and dump the files they
                            refer to
 -h, --dereference          follow symlinks; archive and dump the files they
                            point to
 -K, --starting-file=MEMBER-NAME
                            begin at member MEMBER-NAME when reading the
                            archive
     --newer-mtime=DATE     compare date and time when data changed only
 -N, --newer=DATE-OR-FILE, --after-date=DATE-OR-FILE
                            only store files newer than DATE-OR-FILE
     --one-file-system      stay in local file system when creating archive
 -P, --absolute-names       don't strip leading '/'s from file names
     --suffix=STRING        backup before removal, override usual suffix ('~'
                            unless overridden by environment variable
                            SIMPLE_BACKUP_SUFFIX)

File name transformations:

     --strip-components=NUMBER   strip NUMBER leading components from file
                            names on extraction
     --transform=EXPRESSION, --xform=EXPRESSION
                            use sed replace EXPRESSION to transform file
                            names

Informative output:

     --checkpoint[=NUMBER]  display progress messages every NUMBERth record
                            (default 10)
     --checkpoint-action=ACTION   execute ACTION on each checkpoint
     --full-time            print file time to its full resolution
     --index-file=FILE      send verbose output to FILE
 -l, --check-links          print a message if not all links are dumped
```

```
      --no-quote-chars=STRING   disable quoting for characters from STRING
      --quote-chars=STRING   additionally quote characters from STRING
      --quoting-style=STYLE  set name quoting style; see below for valid STYLE
                             values
  -R, --block-number         show block number within archive with each message

      --show-defaults        show tar defaults
      --show-omitted-dirs    when listing or extracting, list each directory
                             that does not match search criteria
      --show-snapshot-field-ranges
                             show valid ranges for snapshot-file fields
      --show-transformed-names, --show-stored-names
                             show file or archive names after transformation
      --totals[=SIGNAL]      print total bytes after processing the archive;
                             with an argument - print total bytes when this
                             SIGNAL is delivered; Allowed signals are: SIGHUP,
                             SIGQUIT, SIGINT, SIGUSR1 and SIGUSR2; the names
                             without SIG prefix are also accepted
      --utc                  print file modification times in UTC
  -v, --verbose              verbosely list files processed
      --warning=KEYWORD      warning control
  -w, --interactive, --confirmation
                             ask for confirmation for every action

 Compatibility options:

  -o                         when creating, same as --old-archive; when
                             extracting, same as --no-same-owner

 Other options:

  -?, --help                 give this help list
      --restrict             disable use of some potentially harmful options
      --usage                give a short usage message
      --version              print program version

Mandatory or optional arguments to long options are also mandatory or optional
for any corresponding short options.

The backup suffix is '~', unless set with --suffix or SIMPLE_BACKUP_SUFFIX.
The version control may be set with --backup or VERSION_CONTROL, values are:

  none, off       never make backups
  t, numbered     make numbered backups
  nil, existing   numbered if numbered backups exist, simple otherwise
  never, simple   always make simple backups

Valid arguments for the --quoting-style option are:

  literal
  shell
  shell-always
  shell-escape
  shell-escape-always
  c
  c-maybe
  escape
  locale
  clocale

*This* tar defaults to:
--format=gnu -f- -b20 --quoting-style=escape --rmt-command=/etc/rmt
--rsh-command=/usr/bin/ssh
[root@ip-172-31-19-79 home]# tar -cvf aaa.tar ./b.txt
./b.txt
[root@ip-172-31-19-79 home]# ls
aaa.tar  b.txt  ec2-user
[root@ip-172-31-19-79 home]# rm -f aaa.tar
[root@ip-172-31-19-79 home]# ls
```

```
b.txt  ec2-user
[root@ip-172-31-19-79 home]# tar -zcvf aaa.tar ./b.txt
./b.txt
[root@ip-172-31-19-79 home]# ls
aaa.tar  b.txt  ec2-user
[root@ip-172-31-19-79 home]# rm -f b.txt
[root@ip-172-31-19-79 home]# ls
aaa.tar  ec2-user
[root@ip-172-31-19-79 home]#
```