

Commands

Most frequently used CLI (Terminal) commands on Linux

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Commands used for System Information

SHUTDOWN

The command “shutdown” is used to shut down the system.

Note: The shutdown command needs superuser privileges. Hence, you should either be root or run the command with sudo.

Using the command with no flags will schedule a shutdown 1 minute from execution.

```
sudo shutdown
```

Use the following to IMMEDIATELY shutdown your system.

```
sudo shutdown now
```

You can schedule a shutdown in future by providing the time argument either in +t format or in hh:mm format. For example, if you want to shutdown the system after 15 minutes, you can use this command:

```
sudo shutdown +15
```

If you want to shutdown the system at 6 PM in the afternoon, you can use it in the following manner:

```
sudo shutdown 18:00
```

Cancel a shutdown

```
sudo shutdown -c
```

Reboot a system

```
sudo shutdown -r
```

```
sudo reboot
```

```
$ sudo shutdown
```

```
Shutdown scheduled for Thu 2023-03-02 20:12:13 EST, use 'shutdown -c' to cancel.
```


Commands used for File Handling

LS

The command "ls" displays the list of all directories, folder, and files present in the current directory.

LS - LTR

The above-mentioned command displays the name of directories, folders, files with their respective owner name, group's name, and rights your user has over these.

```
ls
ls -ltr
```

```
/$ ls
bin    dev    lib
libx32 mnt    root
snap   sys    usr
boot   etc    lib32
lost+found opt    run
srv     tim    var
cdrom  home   lib64
media   proc   sbin
swapfile tmp
```

```
/$ ls -ltr
total 2097256
drwxr-xr-x  2 root
root        4096 Feb  9
2021 mnt
drwxr-xr-x 15 root
root        4096 Feb  9
2021 var
drwx-----  2 root
root        16384 Feb 11
2022 lost+found
lrwxrwxrwx  1 root
root         8 Feb 11
2022 sbin -> usr/sbin
lrwxrwxrwx  1 root
root         10 Feb 11
2022 libx32 -> usr/libx32
lrwxrwxrwx  1 root
root         9 Feb 11
2022 lib64 -> usr/lib64
lrwxrwxrwx  1 root
root         9 Feb 11
2022 lib32 -> usr/lib32
lrwxrwxrwx  1 root
root         7 Feb 11
2022 lib -> usr/lib
lrwxrwxrwx  1 root
root         7 Feb 11
2022 bin -> usr/bin
drwxrwxr-x  2 root
root        4096 Feb 11
2022 cdrom
```

MKDIR

The command “mkdir” allows users to create directories/folders in the system. The user running this command must have suitable rights over the parent directory to create a directory or they will receive an error. Syntax: *mkdir New_Directory's_Name*

```
mkdir NewDirectory
```

```
~$ mkdir poopoo
~$
~$ ls
  Android
  Pictures
  AppImages      poopoo
```

RMDIR

The command “rmdir” allows users to remove directories/folders from the system. The user running this command must have suitable rights over the parent directory to remove a directory AND the directory must not have any files or sub-directories within it or you will receive an error. Syntax: *rmdir Directory's_Name*

```
rmdir DirectoryName
```

```
~$ rmdir poopoo
rmdir: failed to remove
'poopoo': Directory not
empty
# Could not delete
directory
# "poopoo" because it is
not
# empty

~$ rm poopoo
rm: cannot remove 'poopoo':
Is a directory
# Could not remove "poopoo"

# because it is not a file
```

RM

The command "rm" is used to remove files from a directory.

```
rm filename
```

```
# Listing shows poopoo.txt
# file exists under
# directory "poopoo"
~/poopoo$ ls
poopoo.txt
```

```
~/poopoo$ rm poopoo.txt
```

```
# listing now shows
# poopoo.txt has been
# removed (deleted)
# from directory "poopoo"
~/poopoo$ ls
~/poopoo$
```

RM -RF

Permanently deletes the specified directory and ALL files and sub-directories beneath the specified directory.

Be VERY careful using this command as you can inadvertently delete your whole drive!

```
rm -rf /path/to/dir/name
```

```
# Directory "poopoo" exists

# in the listing below
~$ ls
  Android
  Pictures
  AppImages      poopoo
  Audio          Public
```

```
~$ rm -rf poopoo
```

```
~$
```

```
# Successfully removed
# "poopoo" directory
# and all its contents
# as can be seen in the
# listing below
```

```
~$ ls
```

```
  Android
  Parkitect
  AppImages
  Pictures
  Audio          Public
```

<p>MV</p> <p>The command “mv” is used for two purposes</p> <ul style="list-style-type: none"> • To move files or directories from one path to another path in the system. • To rename a file or folder. 	<pre>mv Source_File_name Destination_File_Name</pre> <pre>mv File_name New_name_for_file</pre>	
<p>CP</p> <p>The command “cp” is used to copy data from a source file to the destination file. Its function is almost like the command “mv”. The only difference is by using the command “cp” the source file is not removed from the directory after its data is moved to the destination file.</p>	<pre>cp source_file_name destination_file_name</pre>	
<p>TOUCH</p> <p>Creates an empty file at the specified path with the specified name. Useful for creating a blank file you intend to edit with a CLI editor, such as VIM or NANO.</p>	<pre>touch /path/name/filename.ext</pre>	<pre>~\$ ls doc.txt ls: cannot access 'doc.txt': No such file or directory ~\$ touch /home/tim/doc.txt ~\$ ls doc.txt doc.txt</pre>
<p>CAT</p> <p>The command “cat” is a reverse of the command “tac”. It is used to display each line of the file starting from the first row and finishing on its last row.</p> <p>This command is more frequently used than “tac”.</p>	<pre>cat file_name</pre>	
<p>ECHO</p> <p>The command “echo” used to display any expression that is passed as an argument.</p>	<pre>echo expression_to_be_displayed</pre>	<pre>~/poopoo\$ echo something- poopoo something-poopoo</pre>
<p>GREP</p> <p>The command “grep” is used to search for a text in the specified file/folder.</p>	<pre>grep “expression_to_be_Searched” file_name_to_search_in</pre>	

ZIP

The command “zip” is used to compress one or more files and store them in a new file with .zip extension.

```
zip new_zip_file_name.zip
```

```
~/poopoo$ zip files.zip  
file1.txt file2.txt  
file3.txt  
  adding: file1.txt (stored  
0%)  
  adding: file2.txt (stored  
0%)  
  adding: file3.txt (stored  
0%)  
~/poopoo$ ls  
file1.txt  file2.txt  
file3.txt  files.zip
```

UNZIP

The command “unzip” is used to decompress a .zip file and extract all the files within to current directory.

```
unzip zip_file_name.zip
```

```
~/poopoo$ unzip files.zip  
Archive:  files.zip  
replace file1.txt? [y]es,  
[n]o, [A]ll, [N]one,  
[r]ename: A  
  extracting:  
file1.txt  
  extracting:  
file2.txt  
  extracting:  
file3.txt
```

SUDO

Sudo stands for SuperUser DO and is used to access restricted files and operations. By default, Linux restricts access to certain parts of the system preventing sensitive files from being compromised.

The `sudo` command temporarily elevates privileges allowing users to complete sensitive tasks without logging in as the root user.

sudo -i elevates the user to root for the remainder of the session rather than a command by command basis.

```
sudo some-command
```

```
sudo -i
```

```
# No directory called
"peepee"
# exists
$ ls
bin    dev    lib
libx32  mnt    root
snap   sys    usr
boot   etc    lib32
lost+found  opt    run
srv     tim    var
cdrom  home   lib64
media   proc   sbin
swapfile tmp

# Attempt to make directory

# "peepee" as a normal user
# fails because I'm
# trying to make the
# directory in a path I
# don't have rights to
$ mkdir peepee
mkdir: cannot create
directory 'peepee':
Permission denied

# using SUDO to temporarily

# elevate my privileges, I
# can now create the
# directory "peepee"
# in the path as can be
seen
# in the listing below:
$ sudo mkdir peepee
[sudo] password for tim:

$ ls
bin    dev    lib
libx32  mnt    proc
sbin  swapfile tmp
boot   etc    lib32
lost+found  opt    root
```

