

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
drwx----- 10 root root   4096
Feb 12 2022 tim
-rw-----  1 root root
2147487744 Aug  9 2022
swapfile
drwxr-xr-x  5 root root   4096
Aug 14 2022 home
drwxr-xr-x 14 root root
4096 Oct 22 14:08 usr
drwxrwxrwx  7 root root
4096 Nov 26 04:18 media
drwxrwxrwx 13 root root
```

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
ApplImages   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
ApplImages  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
ApplImages  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 snap sys  usr
cdrom home lib64 media
peepee run  srv  tim  var
```

```
~/poopoo$ sudo -i
[sudo] password for tim:
~#
```

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