

Command	Use	Description
<b>File Commands</b>		
ls	List	Lists the current directory and files
ls -R	List sub directories	Lists files in sub directories also
ls -a	List hidden files	Lists the current directory including hidden files
ls -al	List details	Includes details: file size, permissions, owner
Cd <i>location</i>	Change directory	Changes directory to a specified location
cd ..	Move up one level	Navigates to the parent directory
cd ~ or cd	Home	Navigates to the home directory
cd /	Root directory	Navigates to the root directory
touch <i>filename</i>	Create file	Creates a file with the designated filename
cat <i>filename</i>	Display file contents	Displays the content of the designated file
cat <i>file1 file2 &gt; file3</i>	Combine files	Combines two files (files 1 and 2) into one file (file 3)
mv <i>file "new file path"</i>	Move file	Moves a file to the designated file path
mv <i>filename new_file_name</i>	Move and rename file	Moves a file and renames it
sudo	Superuser do	Execute any command with superuser privileges
rm <i>filename</i>	Delete file	Deletes the designated file

man	Help	Shows the help text for a command
history	Command history	Displays previously used commands
clear	Clear terminal	Clears all inputs from the terminal
mkdir <i>directoryname</i>	Make directory	Creates a new directory
Rmdir <i>directoryname</i>	Delete directory	Deletes a directory
mv	Rename directory	Renames a directory
pr -x	Divide file	Divides the file into x columns
lpr <i>filename</i>	Print file	Prints a file
lp -# <i>filename</i>	Number of copies	Prints multiple copies of a file
lp -P <i>printername</i>	Specify printer	Prints to a specific printer
apt-get <i>filename</i>	Install	Installs the specified file using the advanced packaging tool (APT)

## Search Commands

locate <i>file</i>	Search	Searches the index for a specified file
grep <i>pattern files</i>	Pattern search	Searches for a specified pattern in designated files
grep -r	Recursive search	Searches the current directory and all subdirectories
grep -i	Case insensitive search	Finds files regardless of the case used to search
find / <i>directory</i> / -name <i>name</i>	Find files in a directory	Locates specified files in a specific directory

## File Permission Commands

ls -l	List permissions	Lists current permissions r=read w=write x=execute -=no permissions
Chown <i>user</i>	Change owner	Changes ownership of the file or directory to the inputted user
Chown <i>user:group</i> <i>filename</i>	Change owner and group	Changes the user as well as the group for a file or directory

## Networking Commands

SSH <i>username@ip-address or hostname</i>	Perform remote login using SSH	Secure Shell (SSH) is an encrypted means of remotely accessing a device
put <i>file</i>	File upload	Uploads a file to a remote computer using SSH
get <i>file</i>	File download	Download a file from a remote computer using SSH
quit	Logout	Logs out of the SSH session
ping <i>hostname</i> or ping <i>ipaddress</i>	Ping a device	Uses Internet Control Messaging Protocol (ICMP) pings to assess network connectivity
ip a	List IP information	Lists current internet protocol information such as ipv4 and ipv6 address, ethernet adapter used, and MAC addresses. Color coded for fun!
ifconfig	List IP information	Traditional way to list IP address information

## Process Commands

bg	Background	Sends a current process to the background
fg	Foreground	Brings a background process to the foreground
top	List processes	List details on all active processes
ps	Process status	Lists the status of the current process including the process identification (PID), which is typically a five digit number.
kill <i>PID</i>	Kills a process	Kills a process by targeting the PID
nice <i>process</i>	Priority start	Starts a process with priority
renice –n <i>process</i>	Set priority	Changes the priority level of an already running process. Useful for running multiple applications.
df	List free disk space	Lists the amount of free disk space on your machine
free	List RAM usage	Shows the amount of RAM in-use and available

## Visual Display Editor (VI) Editing Commands

i	Insert	Insert characters at the cursor's location
a	Insert after cursor	Write characters after the cursor's location
A	Insert at end	Inserts characters at the end of the line
ESC	Exit inset mode	Terminates insert mode
u	Undo	Undos the last change. Very useful!
U	Undo all	Undo all changes to the entire line
o	Open new line	Opens a new line and enters insert mode
dd	Delete line	Deletes an entire line

3dd	Delete 3 lines	Deletes the 3 previous lines
D	Delete after cursor	Delete contents of the line after the cursor
C	Delete and insert	Similar to D but also enters insert mode
dw	Delete word	Delete a word at the cursor's location
4dw	Delete 4 words	Deletes four words. Why 4? Why not!
cw	Change word	Changes a word
x	Delete character	Deletes a character at the cursor
r	Replace character	Replaces a single character at the cursor
R	Overwrite	Overwrite characters from cursor onward
s	Substitute character	Substitutes one character under the cursor then enters insert mode
S	Substitute line	Substitutes an entire line and begins to insert at the beginning of the next line
~	Change case	Changes the case of a single character