

Basic Linux Commands

File Names and Directory Names	
/dir1/.../dirN	Absolute dname
dir1/.../dirN	Relative dname
/dir1/.../file	Absolute fname
dir1/.../file	Relative fname

Special File Name and Directory Name Characters	
*	matches 0 or more characters
?	matches any single character
"fname or dname"	" allows whitespace in a dname or fname
'fname or dname'	' allows whitespace in a dname or fname
FnameordW'name	Backslash (escape) character allows special characters in a dname or fname
~loginid	Home directory of loginid
~	Your home directory
..	Parent of working directory
.	Working directory
/	Root directory

Command for Getting Help	
man [section] <i>command</i>	Print the Unix manual page (from section) whose name is <i>command</i> . Section 1 describes commands and utilities (e.g. cat, ls). Section 2 describes Unix system calls (e.g. fork, dup). Section 3 describes library functions (e.g. printf(), strlen()).

Directory-Related Commands	
pwd	Print the name of the working directory to stdout
cd [dname]	Change the current directory to dname
ls [-la] [dname]	List the contents of dname
ls [-la] [fname]	List the attributes of fname
mkdir dname	Create dname
rmdir dname	Destroy the empty directory dname

File-Related Commands	
cat	Concatenate (print) stdin to stdout
cat fname ...	Concatenate (print) fname ... to stdout
more fname ...	Print fname ... to stdout one screen at a time
less fname ...	Print fname, ... to stdout one screen at a time
cp fname1 fname2	Copy fname1 to fname2
cp -r dname1 dname2	Copy (recursively) dname to dname
mv fname1 fname2	Move fname1 to fname2
mv dname1 dname2	Move dname1 to dname2
rm fname	Remove fname
rm -r dname	Remove dname recursively
chmod mask f_dname	Set the permissions of f_dname as indicated by mask

* chmod options

Symbol	Meaning	Symbol	Meaning
u	user	r	read
g	group	w	write (and delete)
o	other	x	execute (and access directory)
a	all	+	add permission
		-	take away permission

Special Command Characters	
command 0< fname command < fname	Redirect stdin to fname
command 1> fname command > fname	Redirect stdout to fname
command 2> fname	Redirect stderr to fname
command 1> fname 2>&1	Redirect stdout and stderr to fname
command1 command2	Pipe from command1 to command2
command &	Run command as a background process
^Z	Turn my foreground process into a stopped background process
^D	End of file
^C	Send a SIGINT signal
history	Show command history
!commandnum	Reissue the command whose number is commandnum (see the "history" command)

Miscellaneous Commands	
passwd	Change my password from oldpassword
wc [fname ...]	Print a count of characters, words, and lines in fname ...
date	Print the date and time
printenv [variable]	Print the definition of environment variable (or of all environment variables)
echo [arg ...]	Print arg ...
who	Print information about current users
grep pattern fname ...	Print each line of fname that contains pattern
diff fname1 fname2	Print an indication of the differences between the contents of fname1 and fname2
which command	Search PATH for command, and print the dname where it was found

Process Control Commands	
jobs	List the names and jobnums of my background processes to stdout
fg [%jobnum]	Move my background process with the given jobnum to the foreground
bg [%jobnum]	Turn my stopped background process into a running background process
kill [-signal] %jobnum	Send signal to my background process with the given jobnum
ps	Display a list of my processes
kill [-signal] pid	Send signal to the process whose id is pid
exit	Exit Bash
logout	Exit Bash and the terminal session

Basic vi commands

There are 2 modes

1. Input mode
 - A. ESC to back to cmd mode
2. Command mode
 - A. Cursor movement

h (left), j (down), k (up), l (right)	
^f (page down)	^b (page up)
^ (first char)	\$ (last char)
gg (top page)	G (bottom page)
:1 (goto first line)	:n (goto nth line)

- B. Switch to input mode

a	Append
i	Insert
o	Insert line after
O	Insert line before

- C. Delete

dd	Delete a line
d10d	Delete 10 lines
d\$	Delete till end of line
dG	Delete till end of file
x	Delete current character

- D. Copy

yy	Copy a line
y10y	Copy 10 lines
c\$	Copy till end of line
cG	Copy till end of file

E. Paste

p	Paste after
P	Paste before

F. Undo

u	undo
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G. Search

/	Copy a line
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H. Save/Quit

:w	Write
:q	Quite
:wq	Write and quit
:q!	Give up changes