

### Simple Bash Commands

HOME	Cursur to start of line
END	Cursur to end of line
TAB	Autocompletion
!!	Repeat last Bash cmd
cd	change director to foldername
cd ..	go up one folder
ls	list services- shows files in current directory
man <cmd>	shows manual for <cmd>
clear	clears terminal
reset	resets terminal but doesn't restart service
CTRL-Z	Stops current running function
CTRL-J	Same as RETURN
DEL	deletes backward from pointer
exit	logs out of current session
cat 'filename'	prints file to std out on terminal
pwd	print working directory
wc 'filename'	word count of filename
echo 'string or filename'	prints string or filename on the terminal
cat > 'filename'	takes standard input into file
head 'filename'	prints first 10 lines of file
tail 'filename'	prints last 10 lines of file

### Cut

cut -b	specific bytes
cut -b 1,2,3	bytes 1 2 and 3
cut -b 1-3,5-7	bytes 1-3 and 5-7
cut -b 1-	from first byte to end of line
cut -d	use a delimiter
cut -d " "	outputs from beginning of line to first space

### Common Compilation commands

gcc 'filename.c'	C files
chmod +x 'filename.sh'	Bash script files
g++ 'filename.cpp'	CPP files
javac 'javafile'	JAVA
python 'filename'	to run python scripts
gcc -o newname 'filename.c'	change name of compiled program
g++ -o newname 'filename.cpp'	change name of compiled program

### Grep Commands

grep 'string' </dir/filename.log>	outputs all lines that match 'string'
grep 'string' filename1 filename2	output all lines that match 'string' in multiple files
grep -i 'string' filename	ignores case
grep [-options] 'string'	grep standard output
grep [-options] 'string' filename	grep the contents of a file
grep -A n 'string' filename	displays n lines after string
grep -B n 'string' filename	displays n lines before string
grep -v 'string' filename	returns all lines which don't match 'string'
grep -E	allows extended regular expressions
grep -E 'string{n}'	get lines with n number of string in it
grep -c	count results
grep -n	show line number

### Common Grep Cmds

grep -E '[0-9]{1,3}\.[0-9]{1,3}\.[0-9]{1,3}\.[0-9]{1,3}' 'filename'	ip address
grep -srhw "[[:alnum:]]+@[[:a-lnum:]]+" 'filename'	email address

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### Program/Script commands

cmdX cmdY	run cmdX if it fails then run cmdY
cmdX && cmdY	run cmdX if it doesn't fail run cmdY
cmd &	will push cmd to background
cmd & >/dev/null &	will put cmd to background and not display cmd outputs
disown	typed after pushing cmd to background to disown cmd from current terminal
jobs	show disowned jobs

### SED

sed G	double space a file
sed 'G;G'	triple space a file
sed -n '\$='	count lines
sed = filename   sed 'N; s/^ / /; s/ *(\{6,\})-\n\1 /'	number each line of a file
sed 's/^[\t]//;s/[ \t]\$//'	delete both leading and trailing whitespace
sed 's/[ \t]*\$//'	delete trailing whitespace
sed '\n!/G;s/(.)(.*\n-)\&2\1;/D;s./!'	reverse all characters on the line
sed 10q	print first 10 lines of file
sed q	print first line of file
sed -e :a -e '\$q;N;1,-\$D;ba'	Last 10 lines of file
sed -n '/regexp/p'	print only line that matches regex
sed -n '8,12p'	print lines 8-12

### SED (cont)

sed '1,10d' delete first 10 lines of a file

### Regular Expressions

. Matches any single character

\d number in 0-9

\D non number

\w "word" letters, digits and \_

\W non word

\r return

\n newline

\s whitespace

\S non whitespace

'term'\* 0 or more repetitions of term

'term'+ 1 or more repetitions of term

'term'? 0 or one instances of term

'term'{n} exactly n instances of term

'term'{n,} atleast n instances of term

'term'{x,n} between x and n instances of term

(term1|term2)

### Common regex Cmds

[0-9] matches any number

[a-z] matches any letter

[aeiou] matches vowels

([A-Za-z0-9-]+) letters numbers and hyphens

(\d{1,2}\d{1,2}-\d{4}) European Date (eg. 21/3/2018 )

(\w+@[a-zA-Z\_]+?\.[a-zA-Z]{2,6}) email addresses

### File Redirection

> 'file' create file or overwrite if existing

>> 'file' append to the file

< 'file' read from file

X|Y pipe X as input to Y

### Notes

To use these commands just replace 'filename' or 'term' or 'cmd' with the file or regex or program that is to be used.

### How to run Programs or scripts

./a.out for recently compiled program

./script.sh bash script

./compiledname' name changed compiled program

'name of installed program' eg. gedit, nano, vim

