

# Unix and Emacs Cheat-Sheet

## SHELL NOTATIONS AND COMMANDS

SHORTCUT	MEANING
*	all files (as in *.py)
?	match a single character in a filename
.	current directory as returned by pwd
..	parent of the current directory
~	your login directory
~joe	login directory of user joe
c >f	save the output of command c in file f
c >>f	append the output of command c in file f
c1   c2	feed the output of command c1 into c2
c &	run command c in the background
!!	repeat the last command
history	list all previous commands
!n	re-run command number n in the history
↑↓←→	you can retrieve and edit previous commands with the arrow keys on your keyboard

## FILE AND DIRECTORY COMMANDS

COMMAND	MEANING
pwd	print the current directory
mkdir d	create directory d
cd d	change directory to d
ls	list files in the current directory
ls -l	long listing of files
cp f1 f2	copy file f1 to f2
mv -i f1 f2	move (rename) file f1 to f2
rm f	remove (delete) file f
rmdir d	remove directory d if empty

## USEFUL COMMANDS

COMMAND	MEANING
python3 f	run the Python 3 program in file f
chmod +x f	make file f executable
./f	run file f (if executable)
cat f	see the entire file f
less f	see the file f a screenful at a time; use space to see the next screenful, b to see the previous one
grep s f	search for string s in file f
grep -i s f	case-independent search for s in f
exit	terminate the shell session
man c	show manual entry for command c
which c	show program for command c
locate f	show all instances of file f

## TERMINAL SHORTCUTS

COMMAND	MEANING
C-c	interrupt the program that is running
C-d	end of file character
C-q	continue output from your program
C-s	pause output from your program
C-z	'unhook' the current program from your terminal (then type bg to have it continue running in the 'background')

## EMACS KEYBOARD SHORTCUTS

COMMAND	MEANING
C-x C-c	save all buffers and exit
C-x C-f	edit a file
C-x C-i	insert a file into the current buffer
C-x C-s	save the current buffer
C-x C-w	write the current buffer to a file
M-x python-mode	force editing in Python mode
tab	indent this line of code correctly
C-s	forward incremental search; C-s repeats the search and return exits it
C-r	reverse incremental search
C-space	set mark at the current position
C-w	cut the text from the mark to the current position
M-w	copy the text from the mark to the current position
C-y	paste cut text at the current position
M-y	(after a C-y) paste previously cut text at the current position

## NETWORKING COMMANDS

COMMAND	MEANING
ping h	ping host h
ssh h	login using secure shell on host h
ssh u@h	login on host h as user u
ssh h c	run command c on host h
ssh-copy-id u@h	copy login credentials to user u on host h
scp f h:d	secure copy file f to directory d on host h (for example scp a.py cseehost16:python/)
scp f u@h:d	secure copy file f to directory d of user u on host h
dig d	get DNS information for domain d
dig -x h	DNS reverse lookup for host h
whois d	get information about domain d