

# Introduction to NGS Cheat Sheet

## Linux Terminal

**Note:** Everything in "< >" or the character "x" needs to be replaced.

Ex: file<filename> → file ILoveScience.txt.

The character "n" symbolise any number.

Commands in Linux and R are **cap-sensitive**.

Helpful Commands	
Command	Action
CTRL C	Stops running current command
Arrow up/down	Look through previous commands
man <command>	Show manual for command
pwd	Print working directory
*	Matches anything. Ex: *.txt → any text file
?	Matches a single character. Ex: p?.pdb → pi.pdb or p5.pdb <b>not</b> propane.pdb
q	Quit pages, including manuals and files.
whoami	ID of current user

Directory Commands	
Command	Action
cd <directoryname>	Change directory
cd /	Go to root
cd ..	Go to the parent folder
~	Home directory
../	Parent directory
./	Current directory

Viewing, Moving and Copying	
Command	Action
ls	List Directory Contents
-l	Long list (displays lots of info)
-l *.txt	Long list of text files
-a	Show all
-S	Sort by size
-r	List in reverse the order
Note: Can combine list commands. Ex: ls -lr → Long list but in reverse order	

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<b>Viewing, Moving and Copying (continued)</b>	
<b>Command</b>	<b>Action</b>
wc <filename>	Word count. Prints number of lines, words, bytes and file name
wc -l <filename>	Prints number of lines and file name only
file <filename>	Prints file type
cat <filename>	Shows file content
head <filename> -n	From the top. "n" is the number of lines printed
less <filename> Spacebar p /<search_term> q	Display file one page at a time. Next page Previous page Searches file Quit file
rm <filename>	Removes files
rmdir <filename>	Removes an empty directory
mkdir <filename>	Make a new directory
mv <filename> <directory>/	Move file/directory into new directory
cp <filename> <newfilename>	Copy and rename new file
cp <filename> <directoryname>/	Copy into new directory
grep <x> <filename> -n <x> <filename> -i <x> <filename> -v <filename>	Search pattern in file. Where "x" is a search term Displays line numbers Revokes case-sensitive search Inverts the matches
find . -type d -type f -name <filename> -name *.txt	Search for a directory Search for a file Searches the file names Searches the text file names

<b>Sorting &amp; Piping</b> (the pipe symbol " " is on the keyboard above the enter key)	
<b>Command</b>	<b>Action</b>
sort -n <filename>	
command_a   command_b	command_a's output becomes command_b's input
command_a > file.txt	command_a's output is written to a file called file.txt
command_a < input.txt	command_a gets the input from a file called input.txt