# Basic linux command-line

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## Finding the terminal

Accessories->Terminal	The GUI way	
Ctrl-Alt <t></t>	Emergency entry without GUI (might save you one day)	

## Exploring directories

pwd		Current directory
ls	ls fi*	Directory list (limit files with wildcard *)
cd folder		Change directory (cd to move up one directory)

#### Working with files

nano file		Edit file (with help listing included)	
cp file1 file2	Copy existing <i>file1</i> into a new <i>file2</i> (both files then exist)		
mv file1 file2		Renames existing <i>file1</i> as <i>file2</i> ( <i>file1</i> no longer exists)	
rm file		Remove (ie erase) existing <i>file</i> (it's permanent!!)	
cat file		View contents of <i>file</i> (only useful for text files)	
head file	head -N file	View first rows of <i>file</i> (or first <i>N</i> rows if <i>N</i> is specified); also tail for the opposite	
more file	less	Examine <i>file</i> several rows at a time (more and less are similar)	
wc file		Count lines, words, characters in a file	

#### Working with directories

mkdir newfolder	Create new folder named <i>newfolder</i>	
rmdir folder	Remove folder named <i>folder</i> (fails if not empty)	
ls path	List files in folder path	
cp path/file newpath	Copies existing <i>file</i> in folder <i>path</i> into a different (existing) folder	

## **Repeating commands**

<up>arrow&gt;</up>	Repeat previous command (or continue back)
ctrl <r> txt</r>	Reverse-search through recent commands (very useful!!)

# Finding help

man <i>cmd</i>	Show manual for the command <i>cmd</i> (or <i>cmd</i> help)
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#### Advanced options

>	ls -lt > filename	Redirect output to a file; must follow other command, be followed by file name
sort filename		
grep pattern		Search for a pattern, usually following command giving screen output
[vertical bar]	ls -lt   more	Pipe command; must follow other command

#### The system

df	df -h	Show disk usage (human readable)
du folder		List all files in a folder, with their sizes
fdisk	sudo fdisk -l	Use -l argument; must be sudo
iwconfig		List network connections
lspci		List peripherals: hard drive, video card, audio card, ethernet, wireless (plus more)
free	free -h	Show memory (human readable)
lshw	sudo lshw -short	List hardware; best as superuser with short option

## Advanced manipulation

sudo	Run a command requiring root privileges
sudo apt-get install	To install new software (must name the program)
cupsfilter <i>textfile</i> > <i>file.pdf</i>	Convert text to a pdf, piping to new file
scp	Remote copy (move file to or from a remote server)

Batch: create file with multiple command		
chmod	chmod -R	Change permissions

go to http://www.richardcondit.org/workshops/CommandLine for more information