

# LINUX AND ROS CHEAT SHEET

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## System Info

<b>env</b>	print environment variables
<b>date</b>	print system date and time
<b>cal</b>	print current month calendar
<b>uptime</b>	print system uptime
<b>w</b>	print online users
<b>whoami</b>	print current user
<b>finger \$USER</b>	print information about <b>\$USER</b>
<b>uname -a</b>	print kernel information
<b>cat /proc/cpuinfo</b>	print cpu information
<b>cat /proc/meminfo</b>	print memory information
<b>man \$COMMAND</b>	print user manual of <b>\$COMMAND</b>
<b>df</b>	print disk usage
<b>du</b>	print directory space usage
<b>free</b>	print memory and swap usage
<b>whereis \$APP</b>	print locations of <b>\$APP</b>
<b>which \$APP</b>	print print executable file of <b>\$APP</b>

## Terminator

<b>Ctrl+Alt+T</b>	launch a new terminal
<b>Ctrl+C</b>	kill the current process
<b>Ctrl+Z</b>	suspend the current process
<b>fg</b>	resume the suspended process in foreground
<b>bg</b>	resume the suspended process in background
<b>Ctrl+D</b>	log out of the current session
<b>Ctrl+W</b>	erase one word in the current line
<b>Ctrl+U</b>	erase the whole current line
<b>Ctrl+R</b>	reverse search in the previous commands
<b>!!</b>	execute the last command
<b>exit</b>	log out of the current session
<b>Ctrl+Shift+E</b>	split the window vertically vertically
<b>Ctrl+Shift+O</b>	split the window horizontally

## TODO

ubuntu mono font for commands

tab auto-completion

tar explanation

**Variable Declaration** \$VARIABLE stands for a variable whose name is VARIABLE. For example, \$FILE means a file named FILE.  
**sudo** sudo means super user do, elevated right granted

## File Commands

<b>ls</b>	list contents of files and directories
<b>ls -a</b>	list hidden files and directories
<b>cd \$DIR</b>	change working directory to <b>\$DIR</b>
<b>cd</b>	change working directory to home
<b>mkdir \$DIR</b>	create a directory named <b>\$DIR</b>
<b>pwd</b>	print working directory
<b>rm \$FILE</b>	remove <b>\$FILE</b>
<b>rm -r \$DIR</b>	remove <b>\$DIR</b>
<b>rm -f \$FILE</b>	force remove <b>\$FILE</b>
<b>rm -rf \$DIR</b>	force remove <b>\$DIR</b>
<b>cp \$FILE1 \$FILE2</b>	copy <b>\$FILE1</b> to <b>\$FILE2</b>
<b>cp -r \$DIR1 \$DIR2</b>	copy <b>\$DIR1</b> to <b>\$DIR2</b>
<b>mv \$FILE1 \$FILE2</b>	move <b>\$FILE1</b> to <b>\$FILE2</b>
<b>ln -s \$FILE \$LINK</b>	create symbolic link <b>\$LINK</b> to <b>\$FILE</b>
<b>touch \$FILE</b>	create <b>\$FILE</b>
<b>cat \$FILE</b>	view content of <b>\$FILE</b>
<b>cat &gt; \$FILE</b>	write input into <b>\$FILE</b>
<b>more \$FILE</b>	print contents of <b>\$FILE</b>
<b>head \$FILE</b>	print the first 10 lines of <b>\$FILE</b>
<b>tail \$FILE</b>	print the last 10 lines of <b>\$FILE</b>

## Compression

<b>tar cf \$FILE.tar \$FILES</b>	convert <b>\$FILES</b> into <b>\$FILE.tar</b>
<b>tar xf \$FILE.tar</b>	extract files from <b>\$FILE.tar</b>
<b>tar czf \$FILE.tar.gz \$FILES</b>	compress <b>\$FILES</b> into <b>\$FILE.tar.gz</b> using Gzip
<b>tar xzf \$FILE.tar.gz</b>	extract files from <b>\$FILE.tar.gz</b> using Gzip
<b>gzip \$FILE</b>	compress <b>\$FILE</b> and rename it as <b>\$FILE.gz</b>
<b>gzip -d \$FILE.gz</b>	decompress <b>\$FILE.gz</b> back to <b>\$FILE</b>

## Network

<b>apt-get update</b>	synchronize package index files from sources
<b>apt-get upgrade</b>	install latest versions of installed packages
<b>apt-get install \$PACKAGE</b>	install <b>\$PACKAGE</b>
<b>ip address</b>	print all internet protocol addresses
<b>ping \$HOST</b>	ping <b>\$HOST</b> and print results
<b>whois \$DOMAIN</b>	print information about <b>\$DOMAIN</b>
<b>dig \$DOMAIN</b>	print DNS of <b>\$DOMAIN</b>
<b>dig -x \$HOST</b>	reverse lookup <b>\$HOST</b>
<b>wget \$FILE</b>	download <b>\$FILE</b>