

# 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 \$USER
<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 \$COMMAND
<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 \$APP
<b>which \$APP</b>	print print executable file of \$APP

## Compression

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

## 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 \$PACKAGE
<b>ip address</b>	print all internet protocol addresses
<b>ping \$HOST</b>	ping \$HOST and print results
<b>whois \$DOMAIN</b>	print information about \$DOMAIN
<b>dig \$DOMAIN</b>	print DNS of \$DOMAIN
<b>dig -x \$HOST</b>	reverse lookup \$HOST
<b>wget \$FILE</b>	download \$FILE

## TODO

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