Cheatography

# SYS ADMIN Cheat Sheet

by ivese via cheatography.com/89700/cs/20418/

## Commands#1

| | |
|---|---|
| grep | searches text files for lines that match |
| chmod | changes a user's permissions |
| chown | change the owner |
| pwd | shows the full path name of the current working directory |
| head | displays the start of a text file |
| tail | displays the end of a text file |
| cat | displays the full text file |
| find | Searches files based on user criteria |
| mkdir | creates a directory |
| mv | movies a file or directory from one location to another |
| cp | copies a file or directory |
| wget | retrieves content from a web server |
| whoami | shows username |
| man | show the man pages of commands |
| wc | counts the number of lines words and characters |
| du | checks disk usage |
| rm | removes objects |
| vi | screen oriented text editor |
| nano | screen oriented text editor |
| touch | create a file |
| gzip | compress/decompress a file |

## Commands#1 (cont)

| | |
|---|---|
| ssh | used to remote log into a host |
| sudo | gives temporary root permissions |
| sort | lists files in a sorted order |
| rmdir | removes a directory |
| echo | moves data into a file |
| cd | change directory |
| ls | list the current directory |

## Commands #2

| | |
|---|---|
| ifconfig | used to change IP and net mask |
| which | finds the direct path of what you pass to it |
| groupadd | adds a user group |
| dnf install | used to install libraries/packages |
| adduser | adds user |
| systemctl | used to manage a systemd service. (start/enable/restart/daemon-reload/etc) |
| journalctl | used to view system logs for systemd |
| pip3 install | used to install python modules |
| source activate | used to activate a virtual environment |
| firewall-cmd | provides an interface to manage runtime and permanent firewall configuration. |

## Commands #2 (cont)

| | |
|---|---|
| history | used to look at your previously input commands |
| mount | mounts file/directory (redirects folder path to another location) |
| unmount | umounts file/directory |
| locate | finds files based of of a database |
| su | used to change the current user |
| .(followed by filename) | Any file that begins with a "." is hidden. "." also can be used to reference the current working directory |
| ping | test the reachability of a host on an Internet Protocol network |
| netstat | displays network connections for Transmission Control Protocol |
| kill(Ctrl + C) | used to stop a running process |
| traceroute | displays the route and measures transit delays of packets across an Internet Protocol network |
| #!/bin/bash | used to denote a bash script |
| wget | retrieves content from web servers |
| scp | copies file from one host to another |

## Commands #2 (cont)

| | |
|---|---|
| exit | exits the current shell |
| clear | clears the terminal screen |
| ln | creates a symbolic link between two given arguments |
| xargs | executes commands from standard input |
| route | command used to view and manipulate the IP routing table |

## Commands#3

| | |
|---|---|
| [[...]] | used to test in a bash script. |
| name= | used to assign a variable. |
| if /fi | marks the start and end of a if statement |
| elif | marks and else if statement in bash |
| Spaces in function calls represent different arguments | |
| for ((i = 0 ; i < 100 ; i++)); | one example of a bash for loop |
| $# | gets number of arguments |
| $* | gets all arguments |
| $1 | gets the first argument |
| $@ | gets all arguments starting from the first |
| for i in {1..5}; | python style for loop |




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## Commands#3 (cont)

| | |
|---|---|
| do / done | denotes what to do during a for loop and the end of a loop |
| while loop | loops while something is true |
| until loop | loops while something is false |
| return followed by a number is used for error return status | |
| ${name} | example of how to refer to a variable |
| “” | used to mark a section as a string |
| env | displays all environment variables |
| export | defines an environment variable |
| array=-([0]=valA [1]=valB [2]=valC) | an example of how to instantiate an array |
| function name() {commands} | example of a bash functions |
| && | and operator |
| \|\| | or operator |
| == | checks if a string equals another |
| != | checks that string does not equal another |
| > | checks that string is greater than another |

## Commands#3 (cont)

| | |
|---|---|
| < | checks that string is less than another |
| -lt | less than for integers |
| -le | less than or equal for integers |
| -eq | equal for integers |
| -gt | greater than for integers |
| -ge | greater than or equal for integers |
| -ne | not equal for integers |

## Commands#4

| | |
|---|---|
| git clone | clones a local or remote repository |
| git commit | commits current contents of the index and the given log message describing the changes. |
| git push | uploads local content to a remote repository |
| git status | gets the status of the git repository |
| df | shows disk usage |
| enable | enables and disables shell built-ins |
| -a file | file exists |
| -d file | file exists and is a directory |
| -e file | file exists; same -a |
| -f file | file exists and is a regular file |
| -r file | you have read permission |
| -s file | file exists and is not empty |

## Commands#4 (cont)

| | |
|---|---|
| -w file | you have write permission |
| -x file | you have execute permission on file |
| -N file | file was modified since it was last read |
| -O file | you own the file |
| -G file | file's group ID matches yours |
| yes | prints out an infinite loop with the given input |
| / | root directory |
| hostname | outputs the name of the current computer/server |
| write | sends a message to another user logged in to this computer |
| wall | broadcasts a message to all other users logged in to this computer |
| sleep | pause for a given number of seconds or ms |
| umask | change the default permissions given to newly created files |
| cal | outputs an ASCII calendar |
| date | outputs the current date/time |
| read | reads a value from standard input |




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