

Intro to System Administration Cheat Sheet by dhutch via cheatography.com/89703/cs/20419/

PS

ps shows all running processes

PS AUX

ps shows all processes being run by aux everybody (most are being run by root)

MAN PS

man ps gives you the man page for ps

SUDO!!

sudo!! redoes the last command as root

Convenient if you always forget to make yourself root!

ECHO "TEXTHERE" > .hiddenfile

echo "texthe- will write the string
re" > .hidde- texthere to a new .hiddenfile nfile

Easy way to write one line into a file or directory without much fuss.

<BLANKSPACE>COMMAND

If you were to have a leading space then this command echo "Not in history" that will not show up in history.

du -a /dir/ | sort -n -r | head -n 20

du -a /dir/ | shows file sizes in reverse sort -n -r | order by biggest first in a head -n 20 specific directory.

TAIL -N5 FILENAME

tail -n5 <filengives the last 5 lines of amehere the file.

dnf search "program name here"

dnf search "- this finds a program and program gives the code to install name here" with dnf install.

dnf remove "package name"

dnf remove "- by doing dnf remove "package package name" it removes
name" it

journalctl

journalctl displays all log entries.

systemctl restart

systemctl restarts a specific restart service

example would be systematl restart httpd where httpd is the name of the service to be restarted.

systemctl reload-or-restart

systemctl best of both worlds, if you are reload- unsure whether a program or-restart supports reload use this command to first try reload and if it fails it will restart.

systemctl reload-or-restart httpd will first try to reload the program and if that is not doable it will restart.

chown <userid> /home/userid/

chown <userid> changes the owner of /home/userid/ the directory.

dig <hostname or ip>

dig <ho- queries DNS servers and stname returns information about a or ip> domain.

crontab -a <filename>

crontab -a Installs the specified

<filename as your chrontab
file

This chrontab file can be used to automate and schedule tasks.

alias name "command here"

alias name "- creates an alias for a command command that can be here" called.

Extremely useful for long commands.

locate <filename here>

locate <fi- Finds a all indexed lename here> instances of a file.

Much faster than find!

cmp <file 1> <file 2>

cmp <file performs a byte by byte 1> <file 2> comparison of two files.

env

env lists all the current environment variables

ssh username@ipaddresshere

ssh userna- Allows you to remotely me@ipaddr- access another machine or esshere server.

LS

LS lists files in the current directory

LS -A

Is shows everything in the working

directory! Even hidden files!

а

hidden files look like this .hiddenfile

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pwd

pwd gives the present working directory

will spit out the present working directory which will look like this Dylan/Desktop/Class

CD

cd change directory used as cd <directoryname>

CD.

cd go to the above or parent directory of.. the present directory

If directories were like this Tree --> Branch --> Leaf and you were working in the "- Branch directory" by executing cd .. it would take you to the Tree directory.

DISOWN -A && EXIT

disown -a closes the terminal, but keeps && exit all processes running.

Normally, when you close a terminal, all processes terminate due to a "hang-up" signal. Disown -a states to ignore the hang up signal and keep everything running while closing the terminal.

HISTORY

history prints the last 500 - 1000 commands

cp -r <directoryname> <newdirectroyna-

cp -r <director- copies the directory
yname> <newdi- recursively with all files
rectroyname> to the new name

dnf upgrade

dnf dnf package manager to update upgrade software on fedora

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su

su the same thing as sudo, makes you root.

efibootmgr -v

efibootmgr shows the summary of the -v boot configuration

efibootmgr can be used to change boot order, usually has to be run as root.

systemctl enable

systemctl allows or enables a process to enable start on startup

systemctl reload

systemctl similar to restart, however reload program will reload and reread config files without restarting.

systemctl reload httpd will reload and reread httpd's config files without a restart.

Downside is not all programs support reload!

/usr/sbin/traceroute <hostname or ip

/usr/sbin/traceroute tells you the route <hostname or ip that packets take. here>

Very similar to ping, but goes into a little more detail.

ip route del <ip here>

ip route del Deletes a created ip route, <ip here> opposite of ip route add.

touch <filename>

touch <fi- creates or edits a file by lename> specified name.

If file doesn't exist it will create it!

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pip install <desired program>

pip install <desired uses pip to install a program> program.

In our case we use pip install jupyterhub.

bg

bg runs a process in the background.

You can also add the <&> symbol to the end of a file name or command to accomplish the same thing.

ifconfig

ifconfig The "ifcowill display all the active interfaces details. The ifconfig command also used to check the assigned IP address of an server.

reminds me of ipconfig on windows, a little different.

tree

tree displays files and directories in their proper parent -> child relationship.

Gives an easy to read format for directories and the files or directories underneath.

Think of the first assignment we did in class.

SUDO SHUTDOWN NOW

sudo shutdown properly shuts down the now machine

MKDIR

mkdir stands for make directory, creates a folder

RM

rm stands for remove (as in delete) a file or folder depending on user choice

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RM -R <DIRECTORYNAMEHERE>

rm -r allows one to properly delete a <direc- directory even if it has child toryna- directories.

me>

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HISTORY

history shows the history of commands executed.

So if you typed cd Desktop, then Is, then cd Class, if you typed history it would show you executing cd Class, Is, cd Desktop.

FC

fc Opens the last command entered in editor (such as nano)

Useful for long commands that are messed up, opens last command in a text editor to fix.

find . -name *.pdf

find . - finds all files in the current
name directory with a name that ends in
*.pdf the .pdf extension.

You can do find <name of directory> with a -name

grep -r "Find this line"

grep -r searches the contents of files "Find this themselves for find this line. line"

dnf install "code here"

dnf After doing a dnf search it will give install you a code such as mc, you then "code do dnf install mc to get that here" program

systemctl get-default

systemctl To see the target the system get-default boots into by default.

systemctl is-active

systemctl is- see if a process is running active or not.

systemctl status

systemctl give an overview of all the status processes running within a program, some of the log files, etc.

Provides a nice overview with a bit of everything.

systemctl edit httpd --full

systemctl allows you to edit the httpd edit httpd system files, can change --full description etc.

ping <hostname or ip here>

ping <ho- pings a website and stname or ip returns if the packets were here> sent

ip route add <ip here> via <gateway

ip route add

These commands add a

route to a specified

gateway

router here>

These commands add a

route to a specified

network through the

gateway router of choice.

grep pattern files

grep searches for patterns in files.
pattern
files

grep -r searches for patterns in files pattern recursively thru directories.

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gzip <filename>

gzip <filename> compresses a file.

For example if file was named file and command gzip file was run it would make

.

file.gz

arch displays machine architecture and system information (hardware)

hwclock

hwclock used to manage system clock.

hwclock --set --date sets clock date to 10/02/2019 10/02/2019

Has to be run as sudo.

tac <filenamehere>

 $\begin{tabular}{ll} tac < filename- & prints out the last line of a \\ here > & file first. \end{tabular}$

Useful if you are looking for something recently added to a file (such as a new user.)

C

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