Linux Command cheat sheet

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Creating files

touch file	To update the timestamp of file (if file exist) Create an empty file (if doesn't exist)
touch a b c	to create multiple files a b c
touch {1..10}	To create files from 1 to 10
touch {a..z}	To create files from a to z
touch file{1..10}	creates file1,file2....file10
cat > file	create file if file exist: Overwrite if file doesn't exist: creates new
cat >> file	create file if file exist: append if file doesn't exist: creates new
vi file	open a file in vi editor

To Display files

cat file	Display file
cat −n files	Display files with line numbers
more file	Display file from starting line (page by page)
less file	same as more *
head file	Display 1st 10 lines of file
head −n file	Display n number of lines from starting line of file
tail file	Display bottom 10 lines
tail −n file	Display n number of files (bottom)
tail −f file	Display bottom lines dynamically

File Operations

cat file1 > file1	overwrite the fie2 with fle1 contents
cat file1 >> file2	append file1 contents to file2
rm −f file1 file2 file3	remove files
cp file1 file2	copy file1 to file2
mv oldfile newfile	move or rename file

To Create Directories

mkdir dir	creates directory with name dir
mkdir −p main/sub	To create parent and sub directory
mkdir −p a/b/c	To create multiple hierarchy
mkdir −p main/{sub1,sub2}	creates sub1 and sub2 inside main

To List the directory contents

ls	list contents of current directory
ls −l	long list
ls -a	list including hidden files (.files)
ls -t	modification time based listing
ls -r	reverse listing
ls -ltr	long list, time based, reverse order listing
ls /	list contents under /
ls /tmp	lsit contents under /tmp

To Logout	To Shutdown	To Reboot
ctrl + d	init 0	init 6
logout	halt	reboot
exit	shutdown −h 0	shutdown −r 0

Help Commands

man command	Manual of command
whatis command	Definition of command
info command	Information about command
command --help	help details of command

system commands

cat /etc/redhat-release	To show redhat release version
uname −a	full details about kernel
uname -r	kernel release version
hostname	gives full hostname
lshw	list hardware
lscpu	list cpu information
lspci	list pci buses and devices info
cat /proc/cpuinfo	cpu information
cat /proc/meminfo	Memory information
uptime	Tells how long the system is being running
w	uptime and who output
who	prints who are all logged into system
who -r	gives current runlevel
last	list of last login and logged out users
last reboot	List previous reboot details
free -m	Shos Memory usage [RAM + SWAP]
date	Gives current date and time
cal	prints current month calender
cal 2016	print 2016 calender
cal 10 2016	prints Oct month of 2016 calender
whoami	prints current username
dmidecode	To get Hardware info
lsusb	display information on usb devices

Process

ps	display currently active processes
ps -ef	Display detailed info about processes
pstree	shows running process as tree
top	display all running processes
ps −eo pid,ppid,pcpu,comm	Print processes details in customized format
kill pid	Kill process using pid
kill -9 pid	force kill the given process id
pkill pname	kill process supplying process name
killall name	kill all processes with names beginning name

Word count

wc file	displays no of (lines, words, characters)
wc −l file	displays no of lines
wc −w file	displays no of words
wc −c file	display no of characters

Keyboard shortcuts

ctrl + a	Moves cursor to start of line
ctrl + b	Moves cursor to one character backwards
ctrl + c	Terminate the current line without executing
ctrl + d	close current shell
ctrl + e	Moves cursor point to end of line
ctrl + f	Moves cursor one character forward
ctrl + g	Cancel the search and restore the original line
ctrl + h	Delete previous character
ctrl + j	Acts as Enter button
ctrl + k	deletes the line from cursor point to end of line
ctrl + l	Clear the screen
ctrl + r	reverse search history
ctrl + u	delete the entire line before cursor point
ctrl + y	Yank the content from current position
ctrl + z	Stop / Suspend the current running process

Filter commands

grep −i pattern filename	To search for a pattern in a file
grep −v pattern filename	To print the lines in a file except the matching line
egrep −i "pat1|pat2" file	print the lines using multiple pattern match
command1 | command2	pipe symbol ; stdout of command1 to command2
find	to find and processing files
find −name	name of file or dir
find −iname	ignore case name
find −user	To find user
find −group	To find group
find −uid	To find using uid
find −gid	To find files using gid
find −perm	To print files based on permission
find −ctime	find files based on creation time
find −aime	find files based on access time
find −ctime	find files based on creation time
find −size	find files based on Size of file

Network

ping hostname	ping host and output the result
ssh hostname ssh ipaddress ssh username@hostname ssh usename@ipaddress	ssh into the remote server
dig hostname	Query DNS info
dig −x hostname	Reverse lookup host
wget fie	To download the file
ifconfig	Config netork interface and to view network info
ethtool eth0	query/control network driver and hardware settings
ifup eth0	enable eth0 interface
ifdown eth0	disabe eth0 interface
traceroute	print the route packets trace to network host
netstat	display connection info, routing table info etc
nslookup	query Internet name servers interactively

Disk related commands

df −h	report file system disk space usage
df -hT	Shows file system Type
df -ih	Shos inode usage
Lsblk	list block devices
Blkid	print block device attributes
fdisk -l	list available partitions
cat /proc/partitions	list available partitions
grep −w ro /proc/mounts	To print read only file system
touch /mountpoint	To check whether mount point has ROFS issue
Lsscsi	list scsi devices on host
Mkfs	to create file system
e2label	to label the partition
smartctl −H /dev/sdb	To conduct smartctl test on device
smartctl −i /dev/sdb	To see the detailed info about drive
hdparm −I /dev/sdx	To print h/w parameters of drive

at job

Tty	To check the console
at time	To schedule job
at −l (or) atq	To check the list of at jobs
at −c jobid	To check what is scheduled
atrm jobid	To remove a job
/etc/at.deny	If add any single user in deny file only that user can be deny
/etc/at.allow	If add any single user in allow file then remaining all users will be blocked/deny

crontab

Crontab format	Minute(0-59) hour(0-23) day of month(1-31) month of the year(1-12) day of weak(0-6) command to be executed
*	All possible values
* */2 * * *	Is treated as ever 2 hours
*/5 * * * *	Is treated as ever 5minutes
Crontab −e	Edit crontab file
Crontab -l	To check the cron jobs
Crontab -l −u username	To check the cron jobs of particular user
Crontab -r	to remove crontab files
@yearly	Every year
@monthly	Every month
@daily	Every day

Managing Services

service servicename status	To check the status of service
service servicename stop	To stop the running service
service servicename restart	To restart the service
service servicename reload	To reload /refresh the service
chkconfig --list	To display available services
chkconfig −-list |grep −i service	To display specific service
chkconfig service on	To make service enabled at boot time
chkconfig service off	To make service off at boot time
chkconfig service on −level 12345	To make service level on across runlevels

Group management

/etc/group	It will store all group information
/etc/gshadow	It will store all group password information
groupadd groupname	Create group name
groupadd -g gid groupname	Create group with user specified group id
groupmod –g gid groupname	To change group id
groupmod –n newname oldname	To change group name
groupdel groupname	To delete group account
gpasswd groupname	To set group password
gpasswd –r group name	To delete group password
gpasswd –a username groupname	To Add single user into group
gpasswd –m user1,user2,user3 groupname	To add multiple users into group
gpasswd –d username groupname	To delete user with particular group

User management

/etc/passwd	It will store all user information
/etc/shadow	It will store all user password information
useradd username	Add a user
passwd username	Assigning password to the user
usermod -l newname oldname	To change user name
usermod –u newid username	To change user id
usermod -g newgid username	To change group id
usemod -c "hello" username	To change comment
usermod -d /home/newname username	To change home directory name
usermod –s /bin/newshell username	To change the shell
id username	To display uid,gid&groups for user (or) it will give group names
groups username	To display only groups in particular user
passwd –l username	To Lock user
passwd –u username	To unlock user
passwd –d username	To remove/delete passwd
passwd –s username	To check the user is locked or not
userdel username	Only delete user account
userdel –r username	To delete user account including all files
passwd –x -1 username	To set the password never expiry
chage –l username	To see the user password information
chage username	To set the password user
chage –f username	Force to change password for first time login
usermod –g group1,group2,group3 username	One user can add into multiple groups
id –a username	To check primary and secondary group of user
usermod -- yy-dd-mm username	To set expire date for user or account
usermod –g gid username	To change secondary group name

YUM(YELLOWDOG UPDATER MODIFIED)	
/etc/yum.reps.d/	To create local repository
yum clean all	Like clean or refresh the package
yum list available	To check our repository is functioning or not
yum list	To list all available packages
yum install packagename	To install package
Yum install packagename -y	To install package without prompt y/n
yum install packagename packagename	To install multiple packages at a time
yum remove packagename	To remove (OR) uninstall the package
yum remove packagename -y	To remove package without prompt y/n
yum list installed	To see all installed packages
yum list install packagename	To see particular package is installed or not
yum info packagename	To information of installed package
yum update packagename	To update the package
yum repolist	To see available repo lists
yum deplist packagename	It will display how many dependencies there in package
yum repolist all	We can see repo is enabled or disabled
yum install packagename –skip –broken	To install package no dependency (incase error will occure i.e nodepenedency package)
yum install --downloadonly packagename	It will download package only not install
yum info packagename	To display package information
yum –downgrade packagename	To downgrade the package

RPM(REDHAT PACKAGE MANAGER)	
rpm –qa packagename	To check all installed packages
rpm –ivh packagename (v=verbose,h=hash)	To install the rpm package
rpm –ivh packagename -- force	To install the package forcelly
rpm –ivh packagename --nodeps	To install the package without dependecy
rpm packagename rpm –qa |grep –i packagename	To check the package is installed (OR) not
rpm –qi packagename	to see the information about installed package
rpm –qc packagename	to see the configuration file about installed package
rpm –qd packagename	to see the directory with which package is associated
rpm –u packagename	Upgrade the package if package exit upgrade the package If not exit install the package
rpm –F packagename	update the package if package exit update the package If not exit skip the package
rpm –V packagename	Verify the package if any file are missing
rpm –e packagename	To remove/erase the package

RAID	
mdadm	Is a command/utility to manage the software raids
/proc/mdstat	To see the software raid
lspci	To see the hardware raid
mdadm --create --verbose --level=0 --raid-disk=2 mdo /dev/sdb1 /dev/sdb2	To create raid0 with two partitions
mdadm --create --verbose --level=1 --raid-disk=2 md0 /dev/sdb1 /dev/sdb2	To create raid1 with two partitions
mdadm --create --verbose --level=5 --raid-disk=3 md0 /dev/sdb1 /dev/sdb2 /dev/sdb3	To create raid5 with three partitions
mdadm --create --verbose --level=10 --raid-disk=4 mdo /dev/sdb{4,5,6,7)	To create raid10 with four partitions
llsblk	To verify software raids
mdadm --details /dev/md0	To see detailed information about particular raid
mdadm --fail /dev/md0 /dev/sdb1	To remove the drive first faild the particular the drive
mdadm --remove mdadm dev/md0 /dev/sdb1	To remove the drive
mdadm --stop /dev/md0	To stop the drive
mdadm --add /dev/md0 /dev/sdb1	Add the device in particular raid
mdadm --detail --scan /dev/md0 >>/etc/mdadm.conf	Date moves into mdadm.conf file
Mdadm --assemble /dev/md0	To assemble the data for without creation