sysadmin Juan's cheatsheet Cheat Sheet

by jj973 via cheatography.com/89671/cs/20410/

commands miscellanea

the ps command,	which shows the status of running processes
vimtutor	tutorial for vim
rmdir	erases directory
whoami	tells what kind of user you are
passwd	set up password or change the one you have
xemacs ".bashrc"	calls text editor
cat	scan docs. from conCATenate
ln	let you make links between files
stty "-funtion key"	lets you set up the function keys
stty -a	show the current function key
stty sane	fix the shell
ls *["range"]*.["range"]	looks for combinations that satisfy specification
tail -"#"	displays the last # of lines of a text file
head -"#"	displays the first #of lines of a text file
less	show less of a text file
awk	organize data in in columns and rows
sort	sort lines of text files

commands miscellanea (cont)

clear	cleans the screen
man	manual
du	estimates the file memory usage
free	displays the amount of free and used memory in the system
df	report file system disk space usage
lsblk	command used to report info about block devices as follows
fdisk	manipulate disk partion table
uname	print system info
cat /proc/-cpuinfo	cpu info
lscpu	cpu info
sudo	gets root authority
grep	search for a string in a file
tar	creates, view or extracts from archive
find	find files with a pattern
ssh	remotely login
awk	controls output
gzip	creates a *.gz compressed file
shutdow	turn off the machine

commands miscellanea (cont)

kill	terminates a process
mount	it mounts file
ifconfig	view the newtwork interrface
whereis	find the address of a specific command
uptime	show the running time of the system
hostname	displays the system hostname
cal	show the month calender
bg	sends a process to the background
df	shows file system disk space
diff	serves to find differences between to files
lspci	serves to visualize P.C.I. devices
top	used to manage top processes
ping host	send echo message to the host
dig domain	show the dns specification for the domain
scp	allows to remotely copy files from one machine to another machine

commands miscellanea (cont)

ip addr	shows ip address and related information
expr	allows to perform some mathematical operations
env	permit to see the current environment variables
history	shows the last one hundred commands execute in the system
iwlist	displays wireless devices plus configuration files
locate	find files by name
lshw	display some basic information about the machine
lsusb	display information about usb
nice	nice - run a program with modified scheduling priority
pidof	find the process ID of a running program.
split	serves to split large files in to smaller ones
sum	checksum and count the blocks in a file

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commands miscellanea (cont)

watch	execute a program periodically, showing output fullscreen

setting NFS tutorial

sudo yum install nfs-utils nfs-utils-lib	install NFS
sudo systemctl enable rpcbind; $ sudo systemctl start rpcbind; $ sudo systemctl enable nfs-server; $ sudo systemctl start nfs-server; $ sudo systemctl start nfs-lock; $ sudo systemctl start nfs-idmap	commands to start the service in charge of the service's functionality
$ sudo mkdir /NFSsharedFolder; $ sudo chmod –R 0755 /NFSsharedFolder	commands to create and prepared a folder
$ sudo nano /etc/export	open nano to modify the export file
/NFSsharedFolder 172.25.0.0/16(rw,sync,no_root_squash,no_all_squash)	add this line to the export line

setting NFS tutorial (cont)

$ sudo systemctl restart nfs-server	restart the NFS server
$ sudo firewall-cmd --permanent --add-port=111/tcp; $ sudo firewall-cmd --permanent --add-port=875/tcp; $ sudo firewall-cmd --permanent --add-port=2049/tcp; $ sudo firewall-cmd --permanent --add-port=20048/tcp; $ sudo firewall-cmd --permanent --add-port=42955/tcp; $ sudo firewall-cmd --permanent --add-port=46666/tcp; $ sudo firewall-cmd --permanent --add-port=54302/tcp; $ sudo firewall-cmd --reload	commands to open and configure appropriate ports
move to the client	to continue the configuration

setting NFS tutorial (cont)

$ sudo yum install nfs-utils nfs-utils-lib	also need to install nfs in the client side of the relationship
$ sudo systemctl enable rpcbind $ sudo systemctl start rpcbind $ sudo systemctl enable nfs-server $ sudo systemctl start nfs-server $ sudo systemctl start nfs-lock $ sudo systemctl start nfs-idma	commands to start appropiate services
$ sudo mkdir /NFSfolder $ sudo chmod –R 755 /NFSfolder	create and set up share folder
$ sudo nano /etc/fstab	open nano to edit fstab folder
172.25.22.10:/NFSsharedFolder/ /NFSfolder/ nfs4 defaults 0 0	add this line to the fstab folder
$ sudo mount	use this command to check what was mounted in the specified NFS server

File modification

chown USER FILE	changes the user ownership of a file to the specified user
chown USER: FILE	changes the user and the group to the specified user
chown USER:GROUP FILE	changes the user, and group ownership of the file to the specified user and group respectively
chown :GROUP FILE	changes the group ownership of the file to the specified group
chgrp GROUP FILE	changes the group ownership of the file to the specified group
chmod [0,1,2,4,7][-0,1,2,4,7][0,1,-2,4,7]	changes readability, writability, and executability of a file to owner, group owner, and everyone respectively

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File modification (cont)

chmod [u(user),-g(group),o(others),a(all)][+,-][r(read),-w(write),x(execute),t(write to not delete)] File	adds or removes permission to r,w,x from u,g,o or a

tutorial on how to setup Samba

$ sudo cp /etc/samba/smb.conf /etc/samba/smb.conf.backup	creates backup file in case you mess it up
sudo mkdir /SharedFolder/	create folder to be shared
$ sudo chmod -R 755 /SharedFolder/	set right permissions
$ sudo firewall-cmd --permanent --zone=public --add--service=samba	set firewall
$ sudo firewall-cmd --reload	set firewall
$ sudo nano /etc/samba/smb.conf	open nano to start the file configuration
follow instruction in comment	then come back to this line and keep inputting the commands
$ sudo smbpasswd –a user1	set up password for user1

tutorial on how to setup Samba (cont)

$ sudo systemctl enable smb.service; $ sudo systemctl enable nmb.service; $ sudo systemctl start smb.service; $ sudo systemctl start nmb.service	commands to enter testing phase
Move to the client side	and continue
smb://server_ip-_address	type in the server connection screen

the configuration file should look like this:

```
[Shared Folder]
path = /SharedFolder
read only = no
guest ok = yes
browsable =yes
writable = yes
create mask = 0755
directory mask = 0755
workgroup = WORKGROUP
```

then save and create user1.

user and groups creations and modificaiton

groupadd GROUP	creates new group
groupmod -n NewGroupName	changes the group name
useradd USER	creates new user

user and groups creations and modificaiton (cont)

useradd -d /path/to/home/dir/	creates a user with specified home directory
useradd -u USERID USER	allows to create user with personalized ID
useradd -G GROUP1, GROUP2... USER	allows to create user with multiples groups
cat /etc/passwd	lists all user and displays relevant information

most used commands

pwd	outputs the present working directory
sudo + other command(s)	allows to gain root privileges
root	access root user and its privileges
cd + specific address	access a specific address
cd	move to home directory
cd ..	go back to parent directory
ls	outputs information of present directory
ls + specific address	shows files in the specific directory

most used commands (cont)

ls -a	option a allows to show hidden files
ls -l	show deeper description of showed files
ls -h	shows files in human readable format
touch "fileName"	creates file with the specified fileName
echo > "-insert desired text"	allows to write text to a file(if any, erase old text in file)
echo >> "insert text here"	allows to append text to a file
cp "file" "-directory"	copy files to new address
mv "file" "directory"	cut files to new address
mkdir "-name"	creates a new directory inside the present directory
mkdir /path/to/-directory/"name"	creates directory with a specific path
rm "file"	removes files from the system

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most used commands (cont)

rm -r "directory"	removes recursively the specified directory from the system

service related commands

journalctl	prompts the user with the active services in the system
systemctl	Control the systemd system and service manager

commands miscellanea 2

flock	manage locks from shell scripts
lockf	apply, test or remove a POSIX lock on an open file
fcntl	manipulate file descriptor
statd	NSM service daemon
stat	display file or file system status
samba	A Windows AD and SMB/CIFS fileserver for UNIX
smbpasswd	The Samba encrypted password file
sssd	System Security Services Daemon
setgid	set group identity
mktemp	create a temporary file or directory
true	do nothing, successfully

commands miscellanea 2 (cont)

false	do nothing, unsuccessfully
if	"use" a Perl module if a condition holds
test	check file types and compare values
exit	self explanatory
w	displays who is logged in and what are they doing
fg	brings the most recent background job to the foreground
sleep	delay for a specified amount of time
tac	concatenate and print files in reverse
wall	write a message to all users
whatis	display basic information about a command passed as parameter
yes "string"	infinitely outputs a string pass as parameter to the command