|Linux Commands Cheatsheet

Basic File Operations

ls -lh file	Display file permissions, size, owner etc
touch file	Creates an empty file
cp file1 file2	Copy file1 to file2. File2 can be a directory
mv file dir	Move a file to a directory
mv file1 file2	Rename file1 to file2
rm file	Delete a file
ls -lah	List all the contents in a directory
mkdir data	Creates a directory data
cp -r dir1 dir2	Copy dir1 and its contents to dir2
rm -rf dir	Delete a directory and its contents
pwd	Print current working directory
stat file	Display attributes of files and directories
wc file	Count bytes, words, lines in a file or STDIN
file file	Identify (guess) the type of a file.
type cd	Find out whether cd binary is built-in , alias or external binary file

File Viewing

cat file.txt	Print the contents of a text file
tac file.txt	Prints text in reverse
more file.txt	View large text files one page at a time
less data.txt	Same as more but with more features
head -n 5	View the first 5 line of a text file
tail -n 5	View the last 5 line of a text file
nl file	View text files with their lines numbered
strings file	Display text that's embedded in a binary file

Print Text

echo "Hello World"	Print Hello World on the standard output
printf "%5d\n" 42	Print formatted text on standard output
yes "Hello World"	Print repeated text on the standard output
seq 1 5	Print a sequence of numbers from 1 to 5
clear	Clear the terminal screen or window

File Search

locate file	Searches for files and directories
which cd	Searches the location of the cd binary
whereis ls	Find ls' binary docs, and source files
find /data -name hello.txt	Searches for "hello.txt" in the /data directory

Directory Traversal

cd or cd ~	Navigate to the user's home directory
cd ..	Navigate to the parent directory
cd -	Switch to the previous working directory
cd /	Navigate to the root directory
cd /tmp	Changes the current directory to /tmp

Disk Management

df -h	Report file system disk space usage
du -h /home	Estimate file space usage in the home dir
fdisk -l	List available partitions on a disk
cfdisk	Create partitions
lsblk	List block devices
mount /dev/sda /mnt	Mount /dev/sda partion to /mnt directory
umount /mnt	Unmount the mounted partition in /mnt dir
findmnt	Displays if about all mounted filesystems
fsck /dev/sda	Check a disk partition for errors

Secure Shell (SSH)

ssh traw@10.1.3.1	Remote login to 10.1.3.1
ssh-agent -t rsa	Generate SSH rsa key pair
ssh-copy-id	Copy ssh public key to a remote host
sshpass	Non-interactive ssh password auth tool

File Permissions

chmod +x	Set execute permissions to a file
chmod u+s script.sh	Set SUID permissions to a file
chmod g+s dir	Set SGID permissions to a directory
chmod +t dir	Set Sticky Bit permissions to a directory
chgrp devops file.txt	Changes file.txt group onwer to devops
chmod 644 script.sh	Set the file perms to be read/write for the owner, and read-only for group and others
chown traw:sys file	Changes file owner to traw and group owner to sys
umask 022	Sets the default perms for newly created files to 644 and for directories to 755

History

sudo !!	Execute the previous command with sudo
^cat^tac	Replace previous cat command with tac
history	Display command line history
!$	Last argument of the previous command
!50	Execute the 50th command in history

Process Management

ps	Display a snapshot of running processes
ps aux	Display all processes of all users
top	Display real-time view of running processes
pgrep firefox	Find the process ID of firefox
pidof firefox	Find the process IDof firefox
kill 6732	Terminate a process with PID of 6732
killall proc	Kills all processes named 'proc'
pkill firefox	Terminates the firefox process
bg	Resumes suspended jobs in the background
fg	Brings a suspended job to foreground
jobs	List active jobs in the current shell
renice 12 PID	Changes priority of process with given PID
pstree	Displays a tree of running processes

Networking

ping sysxplore.com	Sends ICMP packets to sysxplore.com
ip addr	Displays all network interfaces information
ifconfig	Shows network interfaces configuration
whois sysxplore.com	Displays domain's registration information
route	Display the routing table
ss	Display information about network sockets
netstat	Displays network information and statistics
dig sysxplore.com	Queries DNS, provides domain's DNS info
wget <url>	Download file from the specified url
curl sysxplore.com	Retrieves sysxplore.com home page

Compression/Archives

tar -cf backup.tar /home	Creates a tar archive of /home dir
tar -xf backup.tar	Extract files from "backup.tar" archive
tar -zcvf data.tar.gz /home	Creates compressed archive of /home
gunzip data.gz	Uncompress data.gz file
zip -r data	Zip the data directory
unzip data.zip	Unzip the data.zip file
gzip data	Compresses "data" into "data.gz", original is removed

User Group Management

groups	Print the group membership of a user
groupadd devops	Create a new group called devops
groupdel devops	Deletes the devops group
groupmode -n sysops sys	Changes sysops group name to sys

User Management

id	Displays the user's UID, GID, and groups
whoami	Displays who is currently logged in
finger traw	Print information about user traw
useradd -u 1002 traw	Creates a new user traw with a specific UID
userdel traw	Deletes the user account named traw
chfn traw	Change a user's personal information
usermod -aG sudo traw	add user traw to the sudo group
gpasswd -a traw sudo	add user traw to the sudo group
gpasswd -d traw sudo	Remove user traw from the sudo group
passwd	Change user password
passwd traw	Change user traw's password
chsh -s /bin/zsh	Change user shell to zsh
su james	Switch to user james

Access Control Lists

getfacl file	Display ACL permissions of a file or directory
setfact -m u:traw:r-x file	Set read/execute ACL perms for the user traw
setfact -m g:sysops:r-w file	Set read/write ACL perms for the group sysops
setfact -x u:traw file	Remove user traw ACL permissions
setfact -x u:devops file	Remove the group devops ACL perms
setfact -b file	Remove all ACL perms and keep default file permissions

File Transfer

scp file.txt user@rhost:/remote/dir	Copies file.txt to remote host's specified directory
rsync -a ~/ubuntu /backup/	Synchronizes content from source directory to destination directory ,preserving attributes
rsync -a /var/www/web/ user@rhost:/data/backup/	Synchronizes local directory to remote, preserving attributes

Text Manipulation

grep "linux" file.txt	Search for the word Linux in file.txt
tr "a-z" "A-Z" <file	Translate lowercase chars to uppercase
rev < file.txt	Print file.txt contents in reverse
sort file.txt	Sort lines of text by various criteria
uniq file.txt	Print only unique lines in file.txt
vimdff file1 file2	Line-by-line comparison of two files in vim
diff file1 file2	Comparison of two files on terminal
awk '{print $1}' file.txt	Print the first column of the file.txt
sed 's/cat/bat/g' file	Substitute all cat occurence with bat in file

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