LINUX COMMAND LINE CHEAT SHEET

Table of Contents

1 - SYSTEM INFORMATION

uname -a	# Display Linux system information
uname -r	# Display kernel release information
lsb_release -a	# Show which version of ubuntu installed
uptime	# Show how long the system has been running + load
hostname	# Show system host name
hostname -I	# Display the IP addresses of the host
last reboot	# Show system reboot history
date	# Show the current date and time
cal	# Show this month's calendar
w	# Display who is online
whoami	# Who you are logged in as

2 - HARDWARE INFORMATION

cat /proc/cpuinfo	# Display CPU information
cat /proc/meminfo	# Display memory information
free -h	# Display free and used memory (-hfor human readable, -mfor MB, -gfor GB.)
lspci -tv	# Display PCI devices
lsusb -tv	# Display USB devices
dmidecode	# Display DMI/SMBIOS (hardware info) from the BIOS
hdparm -i /dev/sda	# Show info about disk sda
hdparm -tT /dev/sda	# Perform a read speed test on disk sda

3 - PERFORMANCE MONITORING AND STATISTICS

top	# Display and manage the top processes
mpstat 1	# Display processor related statistics
vmstat 1	# Display virtual memory statistics
iostat 1	# Display I/O statistics
tcpdump -i eth0	# Capture and display all packets on interface eth0
tcpdump -i eth0 'port 80'	# Monitor all traffic on port 80 (HTTP)

lsof	# List all open files on the system
lsof -u user	# List files opened by user
free -h	# Display free and used memory (-h for human readable, -m for MB, -g for GB.)
watch df -h	# Execute "df -h", showing periodic updates

4 - USER INFORMATION AND MANAGEMENT

id	# Display the user and group ids of your current user.
last	# Display the last users who have logged onto the system.
who	# Show who is logged into the system.
w	# Show who is logged in and what they are doing.
groupadd test	# Create a group named "test".
useradd -c "John Smith" -m john	# Create an account named john, with a comment of "John Smith" and create the user's home directory.
userdel john	# Delete the john account.
usermod -aG sales john	# Add the john account to the sales group

5 - FILE AND DIRECTORY COMMANDS

ls -al	# List all files in a long listing (detailed) format
pwd	# Display the present working directory
mkdir directory	# Create a directory
rm file	# Remove (delete) file
rm -r directory	# Remove the directory and its contents recursively
rm -f file	# Force removal of file without prompting for confirmation
rm -rf directory	# Forcefully remove directory recursively
rmdir	# Delete a file or files
cp file1 file2	# Copy file1 to file2
cp -r source_directory destination	# Copy source_directory recursively to destination. If destination exists, copy source_directory into destination, otherwise create destination with the contents of source_directory.
mv file1 file2	# Rename or move file1 to file2. If file2 is an existing directory, move file1 into directory file2

ln -s /path/to/file linkname	# Create symbolic link to linkname
touch file	# Create an empty file or update the access and modification times of file.
cat file	# View the contents of file
less file	# Browse through a text file
head file	# Display the first 10 lines of file
tail file	# Display the last 10 lines of file
tail -f file	# Display the last 10 lines of file and "follow" the file as it grows
lpr	# Spool file for line printing
chgrp	# Change file group
more, page	# Display file data at your terminal
file	# Determine file type
vi	# GNOME text editor
gedit	# Standard text editor

6 – MANIPULATING DATA

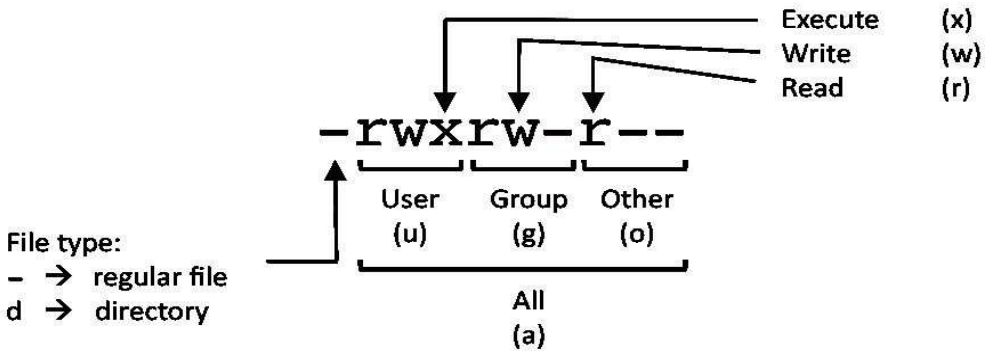
awk	# Pattern scanning and processing language
perl	# Data manipulation language
cmp	# Compare the contents of two files
paste	# Merge file data
sed	# Stream text editor
cut	# Cut out selected fields of each line of a file
sort	# Sort file data
diff	# Differential file comparator
split	# Split file into smaller files
expand, unexpand	# Expand tabs to spaces, and vice versa
tr	# Translate characters
uniq	# Report repeated lines in a file
join	# Join files on some common field
look	# Find lines in sorted data
wc	# Count words, lines, and characters

gzip	# Compress files
zmore	# File perusal filter for crt viewing of compressed text
uncompress	# Uncompress files
zcat	# Cat a compressed file
gunzip	# Uncompress gzipped files
zcmp, zdiff	# Compare compressed files

7 - PROCESS MANAGEMENT

ps	# Display your currently running processes
ps -ef	# Display all the currently running processes on the system.
ps -ef | grep processname	# Display process information for processname
top	# Display and manage the top processes
htop	# Interactive process viewer (top alternative)
kill pid	# Kill process with process ID of pid
killall processname	# Kill all processes named processname
program &	# Start programin the background
bg	# Display stopped or background jobs
fg	# Brings the most recent background job to foreground
fg n	# Brings job nto the foreground

8 - FILE PERMISSIONS




```
PERMISSION       EXAMPLE
 U   G   W
rwx rwx rwx      chmod 777 filename
rwx rwx r-x      chmod 775 filename
rwx r-x r-x      chmod 755 filename
rw- rw- r--      chmod 664 filename
rw- r-- r--      chmod 644 filename
```

LEGEND

```
U = User
G = Group
W = World

r = Read
w = write
x = execute
- = no access
```

9 - NETWORKING

ifconfig -a	# Display all network interfaces and ip address
ifconfig eth0	# Display eth0 address and details
ethtool eth0	# Query or control network driver and hardware settings
ping host	# Send ICMP echo request to host
whois domain	# Display whois information for domain
dig domain	# Display DNS information for domain
dig -x IP_ADDRESS	# Reverse lookup of IP_ADDRESS
host domain	# Display DNS ip address for domain
hostname -i	# Display the network address of the host name.
hostname -I	# Display all local ip addresses
wget http://domain.com/file	# Download http://domain.com/file
netstat -nutlp	# Display listening tcp and udp ports and corresponding programs
ftp	# File transfer program
tftp	# Trivial file transfer program
sftp	# Secure shell file transfer program
rcp	# Remote file copy
scp	# Secure shell remote file copy
wget	# Non-interactive network downloader
telnet	# Make terminal connection to another host
ssh	# Secure shell terminal or command connection
rlogin	# Remote login to a Linux host
rsh	# Remote shell
curl	# Transfer data from a url

10 - ARCHIVES (TAR FILES)

tar cf archive.tar directory	# Create tar named archive .tar containing directory.
tar xf archive.tar	# Extract the contents from archive.tar. tar czf
archive.tar.gz directory	# Create a gzip compressed tar file name archive.tar.gz
tar xzf archive.tar.gz	# Extract a gzip compressed tar file.
tar cjf archive.tar.bz2 directory	# Create a tar file with bzip2 compression
tar xjf archive.tar.bz2	# Extract a bzip2 compressed tar file.

11 - INSTALLING PACKAGES

yum search keyword	# Search for a package by keyword.
yum install package	# Install package.
yum info package package.	# Display description and summaryinformation about
rpm -i package.rpm	# Install package from local file named package.rpm
yum remove package	# Remove/uninstall package
tar zxvf sourcecode.tar.gz cd sourcecode ./configure make make install	# Install software from source code.

12 - SEARCH

grep pattern file	# Search for patternin file
grep -r pattern directory	# Search recursively for patternin directory
locate name	# Find files and directories by name
find /home/john -name 'prefix*'	# Find files in /home/johnthat start with "prefix".
find /home -size +100M	# Find files larger than 100MB in /home

13 - SSH LOGINS

ssh host	# Connect to hostas your local username.
ssh user@host	# Connect to hostas user
ssh -p port user@host	# Connect to hostusing port

14 - FILE TRANSFERS

scp file.txt server:/tmp	# Secure copy file.txt to the /tmp folder on

	server
scp server:/var/www/*.html /tmp	# Copy *.htmlfiles from serverto the local /tmp folder.
scp -r server:/var/www /tmp	# Copy all files and directories recursively from server to the current system's /tmp folder.
rsync -a /home /backups/	# Synchronize /home to /backups/home
rsync -avz /home server:/backups/	# Synchronize files/directories between the local and remote system with compression enabled

15 - DISK USAGE

df -h	# Show free and used space on mounted filesystems
df -i	# Show free and used inodes on mounted filesystems
fdisk -l	# Display disks partitions sizes and types
du -ah	# Display disk usage for all files and directories in human readable format
du -sh	# Display total disk usage off the current directory

16 - DIRECTORY NAVIGATION

cd ..	# To go up one level of the directory tree. (Change into the parent directory.)
cd	# Go to the $HOME directory
cd /etc	# Change to the /etc directory

17 - PROGRAMMING

make	# Maintain groups of programs
size	# print program's sizes
nm	# print program's name list
strip	# remove symbol table and relocation bits
bcpp	# make C++ beautifier
gcc	# GNU ANSI C Compiler
ctrace	# C program debugger
indent	# indent and format C program source
cxref	# generate C program cross reference
g++	# GNU C++ Compiler