Linux Cheat Sheet

BASH
THE BOURNE-AGAIN SHELL

PROCESS MANAGENENT

```
ps              => Display currently active processes
top             => Displays all running processes
kill pid        => Terminates process with a given pid
killall proc    => Kills / Terminates all processes named proc
fg              => Brings suspended jobs to the foreground
fg n            => Brings job n to the foreground
bg              => Resumes jobs that have been suspended
                   (e.g. using `Ctrl + Z`), and keeps them
                   running in the background.
```

FILE COMMANDS

```
ls -al          => Lists all files, and permissions
pwd             => Displays the current dir file path
mkdir 'dir'     => Creates a new dir
rm file         => Removes a file
rm -f file      => Forcefully removes a file
rm -r dir       => Removes a dir recursively
rm -rf dir      => Removes dir forcefully and recursively
cp file1 file2  => Copies the contents of file1 to file2
cp -r dir1 dir2 => Recursively Copies dir1 to dir2.
mv file1 file2  => Renames file1 to file2
ln -s file link => Creates a symbolic link to file_name
touch file      => Creates a new file
cat > file      => Places standard input into a file
more file       => Outputs the contents of a file
head file       => Displays the first 10 lines of a file
tail file       => Displays the last 10 lines of a file
```

FILE PERMISSIONS

chown owner file	chmod		
└Change file owner	BIN	OCT	PER
	000	0	—
chmod octal filename	001	1	-x
└Change file permissions	010	2	-w-
OCT	011	3	-wx
chmod 664 file	100	4	r—
	101	5	r-x
	110	6	rw-
PER	111	7	rwx
chmod u=rw,g=rw,o=r file			
chmod a+rwx,u-x,g-x,o-wx file	RWX		

ssh user@host => Securely connect to host as user
ssh -p port user@host => Securely connect to host using a specified port
ssh host => Securely connect to the system via SSH default port 22

SYSTEM INFO

ip addr show => Displays IP addresses and all the network interfaces
ip address add ip/port dev eth0 => Assigns IP address ip to interface eth0
ifconfig => Displays IP addresses of all network interfaces
ping host => ping command sends an ICMP echo request to establish
a connection to server / PC
whois domain => Retrieves more information about a domain name
dig domain => Retrieves DNS information about the domain
dig -x host => Performs reverse lookup on a domain
host google.com => Performs an IP lookup for the domain name
hostname -i => Displays local IP address
wget file_name => Downloads a file from an online source
netstat -pnltu => Displays all active listening ports

SEARCHING

grep 'pattern' files => Search for a given pattern in files
grep -r pattern dir => Search recursively for a pattern in a given directory
locate file => Find all instances of the file
ps aux | grep 'name' => Searches for the id of the process 'name'

NETWORK

uname => Displays Linux system information
uname -r => Displays kernel release information
uptime => Displays how long the system has been running including load average
hostname => Shows the system hostname
hostname -i => Displays the IP address of the system
last reboot => Shows system reboot history
date => Displays current system date and time
timedatectl => Query and change the System clock
cal => Displays the current calendar month and day
w => Displays currently logged in users in the system
whoami => Displays who you are logged in as
finger username => Displays information about the user
df -h => Displays free space on mounted systems
df -i => Displays free inodes on filesystems
fdisk -l => Shows disk partitions, sizes, and types
du -sh => Displays disk usage in the current directory in a human-readable format