Linux Cheat Sheet

Package Management	
sudo apt-get update	Refresh available updates
sudo apt-get upgrade	Upgrade all packages
sudo apt remove	Remove a package
sudo apt-get dist-upgrade	Upgrade Ubuntu version
sudo apt-get install package	Install package with name package
sudo apt-remove package	Remove package with name package
sudo apt purge <package>	Purge package and configuration files.

System Information	
date	Show the current date and time
whoami	Show current username

User Information	
Id	Displays user & groups of current users
sudo adduser username	To add a new user
sudo useradd -m username	To add a new user with home directory
sudo passwd username	Change password of user
sudo usermod -aG sudo username	To add a new user with administrative privileges
sudo addgroup groupname	To add a new group
sudo addgroup developers	To add a group named "developers"
sudo usermod -aG developers username	To add a user named "username" to the "developers" group
sudo userdel -r username	To delete user, home directory and mail spool

Security	
w	Display who is online
change -l <users>	Get user password expiration date
sudo passwd -l <user>	Lock a user account
sudo passwd -u <user>	Unlock a user account
passwd	Change user password

Fail2Ban Security Tool	
sudo apt install fail2ban	Automatically detect and ban abusive IP addresses
sudo fail2ban-client status	Show banned IP addresses
sudo fail2ban-client status <jail>	Show banned IP addresses

Backup Application	
sudo apt install deja-dup	**Deja Dup** is a backup tool with secure encrypts and compress data.

File Search	
ll	List files with permissions and dates
Locate <filename>	Quick file search
grep pattern file	Search for pattern in file
grep -r pattern directory	Search recursively for pattern in directory
locate name	Find files and directories in name
find /home/john -name 'prefix*/	Find files in /home/john that start with "prefix"

File Commands	
ls	List files and directories
ls /path/to/directory	List files and directories in a specific directory
ls -l	Display detailed information about files
ls -a	Display all files including hidden files
ls -lr	Reverse the order of the sort
ls –color	Colorize the output for better readability
ls >> output.txt	Export list to file called output.txt
ls -l >> directory_listing.txt	Export the long format listing of current directory to a file named 'directory_listing.txt'
cp source_file destination	Copy files or directories
mv source destination	Move (rename) files or directories
rm file	Remove (delete) files or directories
touch filename	Create an empty file
nano filename	Use **nano or vim** as text editors to create or edit files
vim filename	
cat filename	Display content of a file

Directory Commands and Navigation	
cd directory_path	Change directory
cd ..	To go up one level of the directory tree
cd	Go to the $HOME directory
cd /etc	Change to the /etc directory
mkdir directory_name	Create a new directory Remove an empty directory
rmdir directory_name	Remove an empty directory
pwd	Display the current directory

Linux Cheat Sheet

Networking	
networkctl status	Get the IP address of all interfaces
hostname	Get the IP address of all interfaces
hostname -I	Display all IP addresses of the host
ip address show	Check IP Address
ip -a	Display all network interfaces and IP address
ip route show	Display the routing table
ping google.com (ping 8.8.8.8)	Check Network Connectivity
ping host	Send ICMP echo request to host
ip route show	Check the routing table
ip route get <ip>	Which route will be used to reach host
traceroute google.com mtr google.com	Trace the route to a destination and identify potential issues
whois domain	Display whois information for domain
dig domain	Display DNS information for domain
host domain	Display DNS IP address for domain

Networking Troubleshooting	
sudo systemctl restart networking	Restart Networking
sudo systemctl restart networkd	Restart Networking (newer version)
sudo systemd-resolve --flush-caches	Flush DNS cache
sudo dhclient -r	Release current IP lease
sudo dhclient	Request new IP lease
sudo systemctl restart NetworkManager	Restarts network manager

Firewall	
sudo apt install ufw	Install UFW (Uncomplicated Firewall)
sudo ufw enable	Turn on the firewall
sudo ufw disable	Turn off the firewall
sudo ufw reset	Reset the firewall rules to their default
sudo ufw status	Current status and rules
sudo ufw allow 22	Allow 22 for SSH
sudo ufw allow 80	Allow 80 for HTTP
sudo ufw allow 443	Allow 443 for HTTPS
sudo ufw default allow	Allow all connections by default
sudo ufw default deny	Drop all connections by default
sudo ufw allow port	Allow traffic on port
sudo ufw deny port	Block port
sudo ufw allow <app_name>	To allow application profiles

Testing Latency, Download, and Upload Speeds	
sudo apt install speedtest-cli	Internet speed test software
speedtest-cli	Run the speed test

How to Change DNS Servers	
sudo nano /etc/resolv.conf	Change DNS Servers
nameserver 8.8.8.8 nameserver 8.8.4.4	Add the following lines to replace the IP address with your preferred DNS servers. Save and Exit.

Anti-Virus Application	
sudo apt-get install clamtk	ClamTK is a GUI anti-virus app
sudo apt install clamav-dameon	Install ClamAV's daemon (clamd)
sudo freshclam	Update ClamAV's Virus Definitions
sudo systemctl start clamav-daemon	Autostart the ClamAV Daemon (clamd)
sudo systemctl enable clamav-daemon	Scan files, directories, or entire PC.
clamscan -r /path/to/scan	Recursively scan all files in directory

SSH Logins	
ssh host	Connect to host as your local username
ssh user@host	Connect to host as user
ssh -p port user@host	Connect to host using port
ssh-keygen	Create a new SSH key pair

File Permissions	
chmod	Connect to host as your local username
chmod permissions filename	Changing permissions
chmod u+rw file	Grant read and write permissions to the owner
chmod g-x file	Remove executive permission from the Group
chmod a=rx file	Set read & execute permissions for all

Gnome Extension Shells & Customizing Themes	
sudo apt-get install gnome-tweaks	Install Gnome Tweaks
Extension Manager	In Store, install **extension manager**
Dash to Panel	Horizontal Dock
Blur My Shell	Frosted blur effect
User Themes	Change appearance of gnome shell
www.gnome-look.org	www.pling.com	Linux desktop themes and more

Install VM Tool on Ubuntu Virtual Machine in VMware	
sudo apt-get install open-vm-tools-desktop -y	Only applies to installation of VM Tool.