LINUX COMMANDS CHEAT SHEET

Directory Navigation

- ls = list files and directories in current directory
- ls -a = list all files and directories including hidden files.
- ls -l = list files and directories in long format.
- pwd = shows the present working directory.
- cd [dir_path] = change location to specified directory.
- cd ~ = directory to $HOME.
- cd .. = move up one directory level.

Files

- mkdir [dir_name] = create a new directory.
- rm [file_name]= remove a file.
- rm -r [directory_name] = remove a directory recursively.
- cp [source_file] [destination_file] = copy the contents of one file to another file.
- mv [source_file] [destination_file] = move or rename files or directories.
- touch [file_name] = create a new file.
- cat [file_name] = show the contents of a file.
- cat [source_file] >> [destination_file] = append file contents to another file.
- nano [file_name] = open or create a file using the nano text editor.
- vi [file_name], vim [file_name] = open or create a file using the Vi/Vim text editor.
- head [file_name] = show the first ten lines of a file.
- tail [file_name] = show the last ten lines of a file.

Users and Groups

- sudo useradd [user_name] = Create a new user account.
- sudo userdel [user_name = Delete a user account.
- sudo usermod -aG [group_name] [user_name] = Modify user information (add a user to a group).
- sudo passwd [user_name = Change the current user's or another user's password.
- sudo groupadd [group_name] = Add a new group.
- sudo groupdel [group_name] = Delete a group.
- sudo [command] = Temporarily elevate user privileges to superuser or root.
- su - [user_name] = Switch the user account or become a superuser.

File Permissions

- chmod 777 [file_name] = Assign read, write, and execute file permission to everyone (rwxrwxrwx).
- chown [user_name] [file_name] = Change the ownership of a file with chown command.
- chown [user_name]:[group_name] [file_name] = Change the owner and group ownership of a file.
- chgrp [group_name] [file/directory] = Change file or directory group.

Processes

- ps = List active processes.
- Top = See all running processes
- Htop = Interactive and colorful process viewer.
- kill [process_id] = Terminate a Linux process under a given ID.
- killall [label] = Terminate all processes with a given label.
- nohup [command] & = Run a Linux process in the background.

- bg = List and resume stopped jobs in the background.
- fg = Bring the most recently suspended job to the foreground.
- fg [job] = Bring a particular job to the foreground.

System Management

- uptime = Display how long the system has been running, including the load average.
- Hostname = View system hostname
- hostname -i = Show the IP address of the system
- date = See current date and time.
- cal = Show current calendar (month and day).
- whoami = See which user you are using.

Network

- ifconfig = Display IP addresses of all network interfaces.
- ping [remote_host] = Ping remote host.
- netstat = Show network statistics.
- nslookup [domain_name] = Receive information about an internet domain.

SSH Login

- ssh [user_name]@[host] = Connect to a remote host as a user via SSH.
- ssh [host] = Securely connect to a host via SSH default port 22.
- ssh-keygen = Generate SSH key pairs
- scp [file_name] [user_name]@[host]:[remote_path] = Securely copy files between local and remote systems via SSH.

Disk Usage

- df -h = Check free and used space on mounted systems.
- Mount = Show currently mounted file systems.
- mount [device_path] [mount_point] = Mount a device.

File Transfer

- scp [source_file] [user]@[remote_host]:[destination_path] = Copy a file to a server directory securely.
- wget [link] = Download files from FTP or web servers.
- curl [link] = Transfer data to or from a server.

File Compression

- tar czf [archive.tar.gz] = Create a .gz compressed tar archive.
- tar cf [archive.tar] [file/ directory] = Archive an existing file or directory
- gzip [file_name], gunzip [file_name.gz] = Compress or decompress .gz files.
- unzip [archive.zip] = Extract a zip archive.

Packages

1. (Debian/Ubuntu)

- sudo apt update = Update package list.
- sudo apt upgrade = Upgrade installed packages.
- sudo apt install [package_name] = Install an APT package.
- sudo apt remove [package_name] = Remove an APT package.

2. **(RedHat/CentOS/Fedora)**

- sudo yum update = Update package list and upgrade them.
- sudo yum install [package_name] = Install a package
- sudo yum remove [package_name] = Remove a package.

Searching

- find [path] -name [search_pattern] = Find files and directories.
- grep [search_pattern] [file_name] = Search for a specific pattern in a file.
- grep -r [search_pattern] [directory_name] = Recursively search for a pattern in a directory.
- grep -i [search_pattern] [file_name] = Case insensitive search.
- locate [name] = Locate all files and directories related to a particular name.
- awk '[search_pattern] {print $0}' [file_name] = Print all lines matching a pattern in a file.
- sed 's/[old_text]/ [new_text]/' [file_name] = Find and replace text in a specified file.
- find [dir_name] -name [search_pattern] = Find files by name.

Service Management

- systemctl start [service_name] = Start a service.
- systemctl stop [service_name] = Stop a service.
- systemctl restart [service_name] = Restart a service.
- systemctl status [service_name] = Check service status.
- systemctl enable [service_name] = Enable a service.
- systemctl disable [service_name] = Disable a service.

Useful shell commands

- man [command] = Display a built-in manual for a command.

- history = Print the command history used in the terminal.
- echo [text] = Display the text.
- who = Show who is logged on.

GIT-GITHUB COMMANDS CHEAT SHEET

COMMAND NAME	USE
git init	initialize a local git repository
git add <filename>	move a particular file to staging area
git add .	move all the files to staging area
git commit -m "commit message"	creates a new commit in git with a commit message
git status	check the status of current repository and list the files you have
git log	show the list of all the commits made on a branch
git log --oneline	view commit ID briefly
git diff	show the changes you have made in a file
git diff HEAD	show difference between working directory and last com
git config --global user.name "name"	set global Git configuration for username
git config --global user.email "email"	set global Git configuration for email address
git push origin <branch name>	push the branch to thr remote repository
git push -d origin <branch_name>	delete remote branch in git
git clone <repository_URL>	copy a git repository from remote source
git branch <branch_name>	creates a new branch
git checkout <branch_name>	switch from one branch to another

COMMAND NAME	USE
git checkout -b <branch_name>	creates and switch to a new branch
git branch -d <branch_name>	deletes the branch
git branch	show your current branch
git merge <branch_name>	merge one branch to another
git rebase	combines a sequence of commits to a new base commit and m linear project history
git stash	stores something safely in hidden place
git stash list	show the stashed items list
git stash pop	bring back the file to staging area
git stash clear	clear the stashed items
git pull	copies changes from remote repository to local
git fetch	copies changes into local git repository
git revert <commit ID>	revert commit changes
git restore --stages <filename>	resetting a staged file
git rm <filename>	move the file to staging area
git mv <old_filename> <new_filename>	change the file name and move to staging area
git reset --soft <commit_ID>	move back all the items to staging area
git reset --hard <commit_ID>	discards all history and changes back to the specified com
git remote -v	check if we have connected to any remote repository
.gitignore	a text file in a git repository that specifies which files and folders ignored and not tracked by version control