

Linux Cheatsheet

File Operations:

- `ls` - To list the files and directories present in the current working directory.
- `ls -R` - To list sub-directories as well.
- `ls -al` - To get detailed information about files and directories like file permissions, size etc.
- `cd` - Used to change working directory
- `pwd` - To print the present the current working directory.
- `cd ..` - change directory to one step back.
- `cd ../../` - change directory to two steps back.
- `cat > filename` - Creates a file.
- `cat filename` - displays the content of a file.
- `cat file1 file2 > file3` - combines file1 and file2 in to one file3.
- `touch filename` - creates empty file.
- `rm filename` - deletes a file.
- `cp` - to copy files from source to destination path.
- `mv` - to move files from source to destination path.
- `find / -name filename` - finds a file or directory from its name starting from root.
- `grep` - Searches a string within a file
- `history` - To list previous commands that we run.

file permissions:

- `chmod` - Modifies a file's read, write, and execute permissions
- `chown` - Changes a file, directory, or symbolic link's ownership.

Directory Operations:

- `mkdir` - To create a directory.
- `rmdir directoryname` - deletes a directory.
- `find / -type d -name directoryname` - finds a directory.

Process Operations:

- `ps` - displays the current process status.
- `top` - displays all running processes.

Archive and compression:

- `tar cf file.tar files` - creates a tar named file.tar containing files.
- `tar xf file.tar files` - extracts the file from file.tar.
- `gzip` - compresses file and renames it to file.gz
- `gzip -d file.gz` - decompresses file.gz back to file
- `gzip -r file.gz` - creates a zip archive named file.zip

- *unzip file.zip* - extracts the content of a zip file.

Disk Usage:

- *df* - displays the system's overall disk usage
- *du* - displays the directories space usage
- *free* - displays memory and swap usage

System info:

- *date* - displays the current date and time
- *uptime* - displays current uptime
- *whomi* - ho you are logged in as

Package Installation:

- *sudo apt-get update* - updates all the packages and dependencies
- *sudo apt-get install pkgname* - Install package name
- *sudo apt-get remove pkgname* - removes package name



Git-GitHub Cheat Sheet

Git Basics:

- *git init* - Initialize Git in your Local Repository
- *git clone* - to clone remote repo onto local repo
- *git config --global user.name "name"* - Set your user name which will be associated with your commits.
- *git config --global user.email "email"* - email address, which will be associated with your commits.
- *git add <directory>* - stage all changes in <dir> for the next commit.
- *git commit <directory>* - To commit changes from staging area to repository
- *git status* - to check the status of repo
- *git log* - To check who has committed
- *git diff* - displays un-staged changes b/w index and working dir.

Undo changes:

- *git revert* - Git revert is used to undo the changes introduced by a specific commit by creating a new commit with the opposite changes.
- *git reset* - removes file from staging area, but leaves the working directory unchanged.
- *git clean -n* - displays which file would be removed from working directory.

Remote Repository:

- *git remote add origin <remote_repository_url>* - creates new connection to remote repo.
- *git push -u origin <remote>* - This command pushes the 'main' branch (or the branch you are currently on) to the 'origin' remote repository.

Git Branches:

- *git branch* - lists all the branches in your repo. Add a branch argument to create a new branch with the name <branch>.
- *git checkout -b <branch>* - create and check a new new branch named <branch>.
- *git merge* - to merge <branch> into current branch.

Git Log:

- *git log --oneline* - condense each commit to a single line.
- *git log -p* - display the full diff of each commit.

Git diff:

- *git diff HEAD* - displays difference b/w working directory and last commit.
- *git diff --cached* - displays difference b/w staged changes and last commit.