

# 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
- *whoami* - who 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.