Linux Commands

ls -> list

ls -la -> shows the list with information

man ls -> shows the manual for ls(list) like a guide for what commands we can use for ls

cd -> Change directory

pwd -> shows the path

cd .. -> home

cd ~

cd /

To make a folder:

mkdir foldername -> to make folder directory

cd home

To remove file/folder:

rmdir foldername -> it will delete only if it was empty

rm-rf folder -> even the folder have files it will delete

To access directy into subdirectories:

cd dir1/dir2/dir3 -> to move into subdirectory of directory

To create a file:

touch filename.txt or touch filename.c

To create a file using cat and write inside the file:

cat>filename.c

and to come out that Ctrl+C

To show what In side file:

cat filename.txt or cat filename.c

To search the text inside a file:

grep searchname filename.c

To search the text is in which line inside file:

grep -n searchname filename.c

To search the text is repeated how many time:

grep -c searchname filename.c

To check the Git version:

Git --version

To install the git in linux:

Sudo apt install git

To Config my git to my account

Git config --global user.name “Nithish”

Git config --global user.email “[nithishkumarpujari@gmail.com](mailto:nithishkumarpujari@gmail.com)”

Paste the text below, substituting in your GitHub email address.

$ ssh-keygen -t ed25519 -C [your\_email@example.com](mailto:your_email@example.com)

(base) nithish@NITHISHs-Air ~ % git --version

(base) nithish@NITHISHs-Air ~ % git config --global user.email "nithishkumarpujari@gmail.com"

(base) nithish@NITHISHs-Air ~ % ssh-keygen -t ed25519 -C "nithishkumarpujari@gmail.com"

Generating public/private ed25519 key pair.

Enter file in which to save the key (/Users/nithish/.ssh/id\_ed25519):

Created directory '/Users/nithish/.ssh'.

Enter passphrase (empty for no passphrase):

Enter same passphrase again:

Your identification has been saved in /Users/nithish/.ssh/id\_ed25519

Your public key has been saved in /Users/nithish/.ssh/id\_ed25519.pub

The key fingerprint is:

SHA256:YxQh5tBnZ23S04OlP+XMddNwLIJ7Q6AijAxksLT3EpE nithishkumarpujari@gmail.com

The key's randomart image is:

+--[ED25519 256]--+

|=+ .o.o o..= +o..|

|o+.E.+..oo= O.+oo|

|..ooo oooo =.o +=|

| . o. o . o. =+|

| . . S . .o +|

| . . . . |

| |

| |

| |

+----[SHA256]-----+

(base) nithish@NITHISHs-Air ~ % eval "$(ssh-agent -s)"

Agent pid 66371

(base) nithish@NITHISHs-Air ~ % ssh-add ~/.ssh/id\_ed25519

Identity added: /Users/nithish/.ssh/id\_ed25519 (nithishkumarpujari@gmail.com)

(base) nithish@NITHISHs-Air ~ % cd .ssh

(base) nithish@NITHISHs-Air .ssh % ls

id\_ed25519 id\_ed25519.pub

(base) nithish@NITHISHs-Air .ssh % cat id\_ed25519.pub

ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIEpdtzLqIM0Eh48FtghZKAppTE/flAdRau1ryQ36C31P nithishkumarpujari@gmail.com

(base) nithish@NITHISHs-Air .ssh %

We need to copy this key id and paste in ssh key in github

For reference use this link(<https://docs.github.com/en/authentication/connecting-to-github-with-ssh/generating-a-new-ssh-key-and-adding-it-to-the-ssh-agent?platform=linux>)

To initialize the git, add, commit and check the status:

Git init

Git branch -m main

Git init

Git status

Git add filename or git add .

Git status

Git commit -m “commit number”

Git status

Git log

Git checkout committagname

Git merge

To push to the git repo:

Git remote add origin originname

Git push -u origin branchname

Git clone

Git pull

git rm file.txt or git rm -r directory

To check the difference:

Git diff

To ignore the some files:

touch .gitignore

(inside ignore file we need make like

Ignore all .c files

\*.c)

To commit the add files without staging area:

Git add filename

Git commit -a -m “stage bypass”

To restore from the git that we have deleted:

Git add filename

Delete the file in the folder normally without any commands

Git restore filename

To change the file name:

Git mv “old filename” “new filename”

To check log: (for help git help log)

Git log

Git log --oneline

Git log -p

To create a branch:

Git branch branch\_name

To switch the branch:

Git switch branch\_name

To check number of branches:

Git branch --list

To reset the any commit:

Git reset idname

To rebase:

Git rebase -i --root

To merge the commit into main(from the main):

Git merge -m “commit name” branchname

To delete the branch:

Git branch -d branchname

To create branch and switch to the new branch:

Git switch -c branchname

**Jenkins:**

1. Update all software packages on Ubuntu server.  
sudo apt-get update  
sudo apt-get upgrade  
  
2. Install Java on Ubuntu server.  
sudo apt-get install default-jdk  
java -version  
  
3. Install Jenkins on Ubuntu server.  
wget -q -O - <https://pkg.jenkins.io/debian-stable/jenkins.io.key> | sudo apt-key add -  
sudo sh -c 'echo deb <https://pkg.jenkins.io/debian-stable> binary/ > \  
    /etc/apt/sources.list.d/jenkins.list'  
sudo apt-get update  
sudo apt-get install jenkins  
  
4.If you are not able to install jenkins or if any gpg error or public key error please run the following commend.  
 .sudo apt-key adv --keyserver keyserver.ubuntu.com --recv-keys 5BA31D57EF5975CA  
 . sudo apt-get update  
 .sudo apt-get install jenkins  
  
  
5) to Verify:-  
(i) ps -ef | grep jenkins  
(ii) Jenkins will be launched as a daemon up on start - Check under /etc/init.d/jenkins  
(iii) /etc/default/jenkins will capture configuration parameters for the launch like e.g JENKINS\_HOME.  
  
6) launch the Jenkins URLS in the browser:-  
<ubuntu\_ip\_address>:8080  
(or)  
localhost:8080  
  
7) Get the Password from the path : /var/lib/jenkins/secrets/initialAdminPassword  
  
---------------------------------------------------------------------------------  
/etc/default# cat /var/lib/jenkins/secrets/initialAdminPassword  
6aba06880c534f85afba6be0085d2fd9  
root@ip-172-31-28-251:/etc/default#  
---------------------------------------------------------------------------------  
  
8) Click "Install Suggested Plugins" - Then the installation gets started.  
  
9) Create a new user of your own by giving Name, Email-id, username, password.  
  
10) Then Login into the console and explore Jenkins.