Linux Fundamentals

Linux Terminal
Linux Basic Commands
ls (list directory)
Listing files and folders inside directory

```
# show all files and folders
ls
# show files and folders with details
ls -l
# show files and folders with hidden content
ls -a

# to check all flags (show detailed description of all flags)
ls --help
```

cd (change directory)
mkdir (to create directory)

```
# create new directory
mkdir developers
# list files and folders
ls
# move to the diretcory
cd developers
# check the content of this folder
ls
#coming out from directory
cd ..
# remove directory (Empty Directory)
rmdir developers
# if you want ro remove non-empty directory use rm with -r and -f flag
# r for recursive and f for forcefully delete
rm -rf developers
# if it gives error for permission then run using sudo for root level
sudo rm -rf developers
```

pwd (Print working directory)

show current working diretcory
pwd
Creating and Editing files
creating empty files use touch command
create directory
mkdir developers

```
# create empty file
touch data.txt
# verify using ls
ls
#edit using nano or vi editor
nano data.txt
#you will be inside the editor
# write content which you wnat to add then ctrl+o then enter then ctrl+x
#verify the written content
cat data.txt
## we can use vi editor for file editing
vi data.txt
## once it is opened then press insert to start writing
## once writing done press esc
## then type :wq! (w to save and q! to exit)
## verify content
cat data.txt
```

cp command: copy the content

```
cp data.txt file1.txt
# check the file created or not
ls
#check content of new created file
cat file1.txt
```

Understanding Absolute and Relative Path

```
# Full path with / consider as absoulute path
# from C drive I want to access some file in D drive
cat /mnt/d/PhysicsWalla/Devops-March/data.txt

# Relative Path
cat developers/data.txt
```

```
# it is searching for developers folder inside the same folder where you are
executing command
```

Cat Command

cat to see the content of files

```
cat developers/data.txt
# edit the file and add some balnk lines
nano developers/data.txt
# lets use -n flag to number lines
cat developers/data.txt -n
# only number non-empty lines
cat developers/data.txt -b
```

less to see the limited content of your file when you have a multiple file

```
# let's Assume I want read a big code file
less App.jsx
# use space to go down
# use b to go back (up)
# use / to search content
# /App means it will search App key word inside your whole code and highlight
the same.
```

User Creation

```
# sudo to run any command at root leve
# useradd command will create user
sudo useradd alex
# check users created
cat /etc/passwd
# when you create user by default it is added into one group which is same as
username
# called Primary Group
# bob:x:1002:1002::/home/bob:/bin/sh
# means bob is the user
# 1002 is user ID, 1002 is Group ID, /home/bob: is the Directory, /bin/sh is
default shell
# Update password
sudo passwd bob
# enter the password , reenter and update
#user Mod Giving administrative Permission
```

```
sudo usermod -aG sudo bob
# change Directory
sudo usermod -d /new/home/directory bob
# Change Shell
sudo usermod -s /bin/bash bob
# change comment (Full name of User)
sudo usermod -c "John Doe" bob
```

Creating Group

```
## Create Group
sudo groupadd developers
## Check group
getent group
## Check perticular group details
getent group developers

## for perticular user see the available groups
groups

## Change Group name
sudo groupmod -n team developers

## Group delete
sudo groupdel team

## adding user to a group
sudo usermod -aG developers bob

## verify user Groups
groups bob
```