**LINUX COMMANDS**

**Whoami command**

**mkdir:**creating directory

Mkdir <dire name>

**touch:** create empty file

touch <file name>

touch file1 file2 < for multiple files create>

**ls :** to see list of commands

ls , ls -l (alphabetical differenciate among files & dire), ls-lt (time stamp) ,ls -lr(reverse alphabetical) , ls -ltr(old files in reverse order)

**pwd:** present working dire

pwd

**cd :** to move inside the directory

cd <directory name/>

cd .. <delete the pesent directory>

cd ../.. <sequence dire delete>

**cat:** create file with some content

cat > file name -🡪 after **writing** click **ctrl+d**

cat <filename> -🡪 to see the content of the file (to see from top to bottom)

tac <file name> ( to see from bottom to top)

cat >> filename 🡪 to append the data for existing information

**rm:** to remove file or dire

rm <file name>

rmdir <dire name>

empty dire only remove ,if you already content it won’t delete

then use, rm -r <dire name>

-r 🡺 recursive (deleting content then delete dire)

**rename:** to rename file or dire

mv <present name> <new name> ( same for file or dire)

**copy :**copy the content fron one to another

**cat <one file> > another file**

**cat first file sec file > third file** 🡪 we can copy from multiple files also

**cp one file name target file 🡪** these command also used (just for one file copy)

* move from one dire to another dire

mv <source dire> <target dire>

**head:** to see or read first 10 lines in the file

**head <filename>**

**head -n 25 <filename>(to read25 files)**

**head +25 <filename> ( to read from 25 lines>**

**tail:** to read last 10 lines

**tail <filename>**

**tail -n 25 <file name> ( to read 25 lines from last>**

**tail +25 <filename> (to read from 25 line from bottom)**

**wc command:** to know word count how many lines,char,words

**wc <filename>**

**grep command:** similar like **ctrl+**f in windows for searching purpose(case sensitive)

grep 🡪 global regular expression print

it prints the lines which are matched only(search for pattern)

**grep “navani” <filename> ( diplay only navani contained lines)**

**grep -i “navani” <file name> ( ignore case sensitive)**

**grep -i “NullPointerException” <file name>(print null lines)**

**grep -i “Exception”\* <file name> (** search exception keyword in all files)

**grep -R “navani” <file name> (** search in present and sub directory also)

**text editors:**

**vi ->** default text editor in linux (notepad in wind)(creating and writing file)

**vi <filename> (** you can write in this file by enabling insert mode click “i”and after completing save and escape so click

**esc + :wq \_-> write and quit**

**if you don’t want save then click esc+:q!**

**sed command :**to replace the content without opening file

**sed === stream editor**

**sed ‘s/navani/navs/’ <filename>** (this replace navani with navs)

but original wont modified for that (you get output)

**sed -i ‘s/navani/navs/’ <filename>**(you wont get output but original file modified)

**delete lines:**

**sed “3d” <filename> (**wont delete in original file)

**sed -i “3d” <filename>(**in original file also deleted 3rd lilnes)

**sed -i “$d” <filename>** (delete line)

**sed -i “12,$d” <filename>**(to delete from nth line)

**File Permissions In Linux:**

Linux is multiuserbased system

Everything is files in linux

* Permissions:
* Read (r)
* Write (w)
* Execute (x)

Permission parts 3:

* User
* Group
* Others

ls -l this command shows

eg 1:rw-rw-r- -

rw- for user permission read,write (execute means install software and run)

rw- these 3 are group perm read,write

r- - these 3 are ohers perm read only allow

**rwxrwxrwx**

user and group and others all three parts having read,write,execute permissions

-r-xr-x- -x -🡪 it means normal file no need to consider first character

**Modifying file permission:**

By using chmod we can modify

In eg1 : user don’t have execute permission but I want chnge

Then chmod u+x <filename> (for add perm)

Chmod u-x <filename> (for remove perm)

Chmod u+w <fn> (for write>

Chmod u-w <fn> (rem write) same for read u+r,u-r

Multipe perm 🡪 u+wx,u+wr,u+rx

**For group:**

**Chmod g+x <fn>**

**Chmod g-x <fn>**

**For multiple:**

Chmod g+wx,g-rx,g-rw,g+rw

**For others:**

**Chmod o+w <fn>**

**777 means all members having all permissions**

Chmod 777 <fn>

**Numeric value permissions:**

1. **----- no perm**
2. **------ only write**
3. **------ exec& write**
4. **------- only read**
5. **---------Read & exec**
6. **------- read & write**
7. **------- read,write,exec 7 ----- other**

**77 ------ group**

**777----- everyone**

**Note: every linux machine will have “root” account (super user)**

The default user **is ec2 – user for every account at time of launch amazon linux ami in linux vm**

**If u want root user use or switch to root user**

**Sudo su----🡪 super**

**Switching sudo su <username>**

**Then u see root and $ converts as #**

**If u want install software or perform admin activites u should be root user**

**Create user in linux**

* + **Sudo useradd <username> ( for that user one home dire will be created)**
  + **Id <username> ( u will get group id) verify user details**
  + **Sudo visudo -**🡪 **u can configure ur user files**

**Create group:**

**Sudo groupadd <groupname>**

**# add user to group**

**Sudo usermod -aG <groupname> <username>**

**#remove user from group**

**Sudo gpasswd -d<username> <groupname>**

**#delete group**

**sudo gpasswd <groupname>**

**#to see all groups**

**cat/etc/group**

**# to see all user accounts**

**Cat/etc/password**

**# to see last 5 user accounts or last n user accounts**

**Tail -5 etc/password**

**# delte user**

**sudo userdel <username>**

**# to print users of particular group**

**sudo lid -g <group name>**

**Another command:**

**Chown**

**#Is used to change file ownership**

**Touch filename**

**Sudo chown <username > <filename>**

**#We can see file owner using “ls -l”**

**#We can change file owner using id also**

**Sudo chown <uid> <filename>**

**Note: get uid using “ id username”**

**$Id navani**

**#change group of a file # to se all groups cat /etc/group**

**$sudo chown :groupname <filename>(mention targeted group)**

**####3#Working with locate and find commands:**

**--🡪 both commands used to search files in linux**

**####**

**Locate navani**

**## display location of the files (search files)**

**Locate -c navani**

**## it will give count(like 2)search files and display count**

**## if we see .txt files**

**$ locate \*.txt**

**$locate -c \* .txt**

**Note: in linux, all the files and directories locations will be stored in local db i.e locate db,when we execute locate command it will search in locate db.(it will not search in actual file system)--- locate performance faster**

**##Find command will search for files and directories in actual file system**

**##Find command providing advanced searching techniques**

**# find files under home directory**

**$ find /home -name <filename>**

**# for finding empty files**

**$ sudo find /home -type f -empty(f means files)**

**# for empty directories**

**$ sudo find /home -type d -empty**

**Note: find command search in the entire linux system**

**Note: to get documentation of any command we can use “man” command**

**$man find**

**$man ping**

**#################**

**$ifconfig:**used to print ip address of our machine

**$wget:** used to download a file based on url

$wget somelink regarding software copy zip or tar file link with that we can software download

## you remove thst software

Rm link apache.464.fjogo

**$curl:**used to send a request to URL

$ curl <some link url which will access in browse>

**$ping:**used to check network connectivity

$Ping [www.google.com](http://www.google.com)

**######################################**

**How to deploy static website in linux machine**

**######################################**

**$ sudo yum update**

**#** to update existing packages

**$ sudo yum install httpd ---**httpd related to website(to run web app so httpd is apache web server)

**$ sudo sevice httpd start**

# for starting httpd

**Note: enable HTTP protocal with 80 port in security group of our ec2 instance (you can click instance id u can details eside that u can see security there u should be enable http port 80)**

**###after enabling http port we can access website using** public ip address **of ec2 instance**

**# default page com**

**#######if u want change content use**

**$cd /var/www/html**

(type this command in linux becz http content path this is specifically)

**There create file**

**#vi index.html (here file name should be index.html)---🡪 click here**

**$sudo vi index.html**

**(by enabling insert mode u can write content using html,by mention the ip address you can see your lines)**

**########how to install softwares in linux######**

**$sudo yum install git ########check git -version installed or not**

**$sudo yum install maven**

**$sudo yum install java #######yum acts as package manager**

**You can mention particular version**

**$sudo yum install java -1.8.4-openjdk**

**######what is webserver?**

* ->It is used to run web applications
* Httpd is webserver package

**#######how to uninstall the httpd server from our machine**

**$sudo yum remove httpd**

**Yum -> is package manager**

**########package manager########**

* **It is tool that allows users to install ,remove ,upgrade softwares on an operating system**
* **Ex: yum,apt,rpm,deb,chocklate etc….**

**Linux package managers are used to install, remove,upgrade packages in linux os**

**#################what is package#######333**

**->Package means it is application**

**Ex: httpd,git,maven,docker,java,Jenkins etc….**

**###############people who is using ubuntu yum,httpd wont work but apt work#########**

**RPM-----redhat package manager**

**DEB------debian Package**

**RPM based linux distributions: Amazon Linux,Red Hat Linux,Cent Os etc..**

**Package Manager: yum,rom,dnf**

**DEB based linux distributions: Ubuntu Linux,Debian Linuc etc..**

**Package manager :apt**

**#####top 5 Package Managers###########**

1. **YUM : yellowdog Updatre,Modified**
2. **APT :Advanced Packaging Tool**
3. **RPM :Red Hat Package manager**
4. **DPKG :Debian Package Management System**
5. **DNF :Dandified YUM**

**Webserver in red hat linux install**

* + **$sudo yum install httpd**
* **Webserver install in Ubuntu**
  + **$sudo apt install apache2**











