For Creating Public / Private Keys:

$ ssh-keygen -f <FileName>
Example: ssh-keygen -f devops

For connecting to EC2 / AWS Server from cmd:

$ ssh -i <Private Key path> serverFor Creating Public / Private Keys:

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For connecting to EC2 / AWS Server from cmd:

$ ssh -i <Private Key path> servername@publicIP
Example: ssh -i C:\Users\pavan.d\devops.pem ec2-user@65.0.30.222

$ means normal user
# meand root user(Admin)
$ sudo su - for admin access
$ pwd - present working directory
$ uname for what is kernal - Linux
$ uname -a - for single char
$ uname --all -- for word
$ uname --help -clear documantation about cmds

$ ls for List files and directories
d - directory
- - file

CRUD - Create Read Update Delete

$ cd / for base Location(CD means change
Directory)
$ cd for home directory
$ ls -l (-l for lengthy format)
$ cd <Folder-name> (inside the folder)
$ cd.. for come back from folder
$ ls -lr for list files in reverse alpha order
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reverse alpha
$ ls -la for to view hidden files (.files)
$ touch <Filename> - for creating  file creating
$ mkdir <Foldername> - for creating directory/folder
$ cat > <filename> Enter - then we can enter text
inside the file - then ctrl+d
$ cat <filename> for reading the text inside file
$ rm <filename> for removes file
$ rmdir <directory name> for removed directory(It
can remove only when dir is empty)
$ rm -r <directoryname> for remove everything(all
files) from directory
-r means recursive i.e inside as well
Absolute path - Complete path
Relative path - u r already in directory. so start CD,
no need to give complete path
$ cat >> <Filename>It always append to old content
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Copy Command:
$ cp --help

& cp <filename which one we want to copy> <where you want to paste>
$ mv for cut the files/folder
$ mv <filename which one we want to cut> <where you want to paste>
$ cp -r <foldername which one want to copy> <folder name where want to paste>

Rename file:
mv <old filename> <NewFilename>

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$grep - To find the text in file
$cp /etc/passwd passwd
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$ls -la
$grep <word-to-find> <FileName>
Linux is case senstive.
$grep -i <word-to-find> <FileName> - For case insenstive

Pipeing: |
Pipe is output of first cmd becoming input of next cmd

$head - for first 10 lines of the file
$tail - for last 10 lines of the file
$head -n 2 <filename> - for first 2 lines
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$cat <filename> | grep -n 2

$wget - webget - to get download app link from web
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$curl <url> - its give text of terminal. it wont download

$cut - to cut the string baced on some delimiter
$echo <string> | cut -d <delimiter ex-/ :> -f 1
$echo <string> | cut -d <delimiter ex-/ :> -f 2

$awk -
$awk -F "/" '{print $1F}'
$awk -F "/" '{print $NF}'
Difference between $cut and $awk?
both we can use for the delimitation purpose. we can choose any delimiter to cut the text/cmd/string/url.
But $awk has another usage. i.e column based.

Editors:
$vim (Visuvally Improved)
$vim <filename> - If the file doesn't exists, it will create and open. Its file is there, i will open the file.
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press dd - to cut the line
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shift+: - to go column Mode:
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(no highlight)
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Permissions:
R
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X - Execute
when create user in linux, by default a group also
created on the same name of user.
$chmod u+x <filename> - Provide excute access to
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user
$chmod +x <filename> - to give excute access to all
user, groups and others
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u - user
g - Group
o - others
For changing file permissions, u shoul be either
owner of the file or root user
R - 4
W - 2
X - 1
$chmod 700 - all access to user, no access to
group, no access to others
$chmod 750 - all access to users, read/excutre
access to group, no access to others

Public key and Private key inside the linux will not
have morethan 600.
600 means read/write access to user, no access to
group and no access to others.
Because the key file belongs to only you. No body
elase can read. other isers cant read ur public key.

User Management:
$ useradd <user-name> - For creating user
Linux will start creating users from 1000, Below
1000 those are system users..

/etc/passwd - for users info
$ getent passwd
$ passwd <user-name> - For creating password for
user
For User login to system:
Linux disable password authentication. How to
enable password authentication?
/etc/ssh/sshd_config
sshd_config is a crucial file. you should not do
mistake here
should take backup before do changes in
sshd_config

edit the file /etc/ssh/sshd_config
search for password /password
change No to Yes for authentication and save It
sshd -t - will check for syntax
then restart
$systemctl restart sshd

$groupadd <group-name> - For Creating Group
$usermod -g <username> <group-name> - For
adding user into Primary Group
$usermod -aG <Username> <Secondary-Group>

ssh Key Authentication to user:
user have to create his public and private keys
Share public Key to Admin
Create directory .ssh inside the home folder of user
$chmod 700 .ssh
Create a file called authorized_keys and paste
public key of user

give read and write access to user
no access to groups
no access to others

Ownership:
change ownership to user
chown <user>:<group> .ssh

Delete user:
User leaving organization:
we need to remove user from group then delete
user
$userdel <user-name> for deleting user
We can't delete user from Primary group
First need to change his primary group to his own
group
$groupdel <group-name> for Deleting group
We can only delete the group if its has no users.
first we should remove users from groups then
delete.

Process Management:
PID
PPIAD
$ps -ef - listdown the Process
First it will create PID
1. Forground Process
2. Background Process $sleep 10 &
$kill <PID> - Requesting to end task
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Package Management:

Ubuntu - apt-get
centos - yum
aws linux 2 - amzon-linux-extras
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Install a package called git
$sudo amazon-linux-extras install
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Service Management:
Take an example Nginx Server
http server running on port 80
we should install nginx in Server in
root user
$amazon-linux-extras install ngnix1 -y or $yum
install nginx1 -y
we should start this Service
$systemctl start nginx
$systemctl status nginx
/usr/share/nginx/html - Folder where
we keep html,
CSS, JS files
If we restart server, service will not
run defauly.
so we should enable in Background
$systemctl enable nginx
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Network Management:
$netstat - Network statuistics
$netstat -lt - only list TCP
$netstat -ltn - to see only port numbers
$netstat -ltnp - to see process instancess ID(PID) -
We can check respected port is
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$top - to check the CPU and
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$free -m - to check RAM Usage
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$find / -name <"filename"> - To
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$tar -x <filename> - for unzip files

$crontab - Linux Crontab is a powerful utility that is
used for scheduling and automating
Tasksin Unix-
Like Operating system. It facilitates
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times and
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$ crintab -e Enter
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$set-hostname <Name>Example: ssh
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