Linux Commands

1.User Management :-

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Super Market :- billing Counters Workers they will be working 3 shifts  
                for each and every user he will create a user to count  
                number of bills...

1.To create a user :syntax :- useradd <user-name>

2.To Check whether user is created or not/ User filepath :- cat/etc/passwd

3.How to secure the usersynatx :- passwd <user-name>

4.To login as a user/switchsyntax :- su - user-nameRoot :- switching to user account it will not ask a password Why because  
        Root user is a person one who created a user and he is a  
        super useruser wants to switch to another user accont we need to add a password  
for the user...\*) To logout as a user use :- exit

5.For securing the password we need to Encryptsyntax :- openssl passwd <user-name>

6.chage :- To display a password related informationsynatx :- chage -l <user-name>

7.To delete a usersynatx :- userdel -r <user-name>

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For maiantiang a users iam going to create a supparate group for users

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[1.To](http://1.to/) create a groupsyntax :- groupadd <group-name>

[2.To](http://2.to/) check or group filesyntax :- cat /etc/group

[3.To](http://3.to/) add a user into groupsyntax :- usermod -a -G <group> <user-name>

[4.To](http://4.to/) Rename the groupsyntax :- groupmod -n <new-name> <old-name>

5.Remove a user from groupsyntax :- gpasswd -d <user-name> <group>

6. View Group List for a Specific User Using groupssyntax :- groups <username>

7. to delete groupsyntax :- groupdel <groupname>

8. To display who is a member of a group, use the getent command.  
syntax :- getent group group-name

9. Set password for group  
syntax :- gpasswd <groupname>

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Some important directories to take note of are:

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1./    : root Directory

2./bin : binary or executable programs  
(nice place for keeping persistent scripts)

3./etc : system configuration files (an awesome place to obtain  
credentials)

4./home: home directory (the default current directory when you  
open up the terminal)

5./opt : optional or third-party software

6./tmp : temporary space, usually cleared on reboot (a great place  
to store enumeration scripts)

7./usr : User related programs

8./var : log files (the perfect place to frustrate a forensic  
analyst)

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File Permissions :-  
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Source code :- modify (dev) --test (read)Permissions for users :  
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1.owner permissions  
2.group permissions  
3.other permissionsFile/directory  access modes  
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1.Read permissions  
2.Write permissions  
3.Execute permissionsPermissions mode  
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1.Numeric  
2.Alphbetssyntax :- chmod 777 <file/dir>7:- owner (4+2+1)  
7:- group  
7:- other4:- read  
2:- write  
1:- execute-rw-r--r--3 :- owner  
3:- group  
3 :- other

rw  
r  
r

-r---w---x  
owner :- read :- 4  
group :- write :-2  
other :- execute :- 1

rwx      rwx       rwx

owner(7) group(7) other(7)

14.uname :- to get a information about my system and operting system,  
         machine,release,version..

uname :- to know about kernal

uname -o :- to get to know about os

uname -r :- to know about kernal release

uname -v :- To know about version of kernal

uname -m :- to know about a machine

uname -a :- To get all the information

15.cal :- to print a calendrsynatx :- cal  
          cal <mon> <year>  
          cal <year>

16.date :- print the date with time,day,year

task :- sunday :- 2pm --10am

Sat Jan 21 03:17:09 UTC 2023

tue jan 10 02:10:08 utc 2023

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    File compression formates :  
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It is mainly used to compress the file by this the size of the file will get  
Reduce and quality of the file will be remain same...

Why we need to compress the file size

-> To save the storage space..

--> Easily we can share a file

i)tar  
ii)zip  
iii)gzip

1)tar(tape archive):-

create :- tar cvf <file.tar> <file1 file2 file3>

c :- create  
v :- verbosly  
f :- file

Example :- tar cvf jspider.tar f1.txt f2.txt f3.txt

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Extract :- tar xvf <file.tar>

x :- Extract  
v :- verbosely  
f :- file

example :- tar xvf jspider.tar  
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to remove files based on its extension

rm \*.txt :- to remove similer kind of files  
rm \*     :- to remove full files

2.zip formate :-  package and compress (archive) files

create :- zip <file.zip> <file1 file2 file3>

example :- zip jspider.zip a1.txt a2.txt a3.txt

Extract :- unzip <file-name>

Example :- unzip jspider.zip ===================================================================3.gzip - For compressing a individul file

...syntax :- gzip <file>

Example :- gzip devops.txt

Extract - For extract individul file...

syntax :- gzip -d <file.gz>

Example :- gzip -d wddm12.tar.gz

eg1 -   gzip devops.txt       --> devops.txt.gz  
gzip -d devops.txt.gz --> devops.txt

eg2 -  gzip tester.tar       --> tester.tar.gz  
       gzip -d tester.tar.gz --> tester.tar

==================================================================  
link path to given name --> files management  
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1. to create multiple directory in given path

syntax :- mkdir -p sample/demo/old/devops

2. to create file inside dirctory in given path

syntax :-  vi sample/demo/old/devops/file1.txt

3. ln - to make links between files. -s make symbolic link

syntax :- ln -s sample/demo/old/devops/file1.txt <link\_name>  
eg :- ln -s sample/demo/old/devops/file1.txt sak

4. to unlink between files. call the unlink function to

remove the specified file

syntax :- unlink <link\_name>

eg :- unlink sak

5. to read that linked filessyntax :- cat <link\_name>  
eg :-  cat sak

6. to move that file from that link to another directory  
after that file only will moved in given directory

syntax :- mv  sample/demo/old/devops/file1.txt <directory\_name>  
eg :- mv  sample/demo/old/devops/file1.txt demo/

7. to move that same file into previous setted path directory

syntax :- mv <path of that file> <path of that file to be moved>  
eg :- mv demo/file1r.txt sample/demo/old/devops/file1.txt

8. to show newest file in given list

syntax :- ls -lt  <-l --> use a long listing format>  
  <-t --> sort by modification time, newest first>

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1.Networking Commands :-  
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i)ifconfig :- It is used to display the ip related information.  
or ip address <provide full details of that network>

ii)ping :- send ICMP ECHO\_REQUEST to network hosts

iii)netstat :- It is used to check the network conncetions,routing table information  
               interface statics,it will be help for debugging a the servers which  
               all are running which port..

iv)ss(socket statitics) :- It is similar to netstat but addtionally give more info  
                            about tcp.

v)host :- It is used to get a information realted to DNS servers  
--> host -aCdilrTvV

vi)nslookup :- DNS lookup records.  
{ query Internet name servers interactively }

vii)dig(domain infomation groper) :- DNS lookup utility.

viii)last :- to display the recent login users information

3.Disk Utility :  
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Disk utility commands are used to easliy monitor the system or storage  
related information, and to manage disk partitions ...

.1.fdisk(fixed-disk)

syntax :- fdisk <diskpath> (double tap tab butten)

it will show :- Welcome to fdisk (util-linux 2.30.2).

to quite :- ctrl + c

2.df :- it is used to get the infomration about disk usage..

 df -h :- To display the disk usage in human readable lang...

3.parted :- it is used to get a information about a partitions and by using  
            we can create a new partitions also ...

synatx :- pafrted -l

4.lsblk :- list block devices

lsblk  lists  information  about all available or the  
       specified block devices.  The lsblk command reads the  
       sysfs filesystem and udev db to gather information.

syntax :- lsblk

5. to check the disk space usage

syntax :- du

6. to check disk space usage in human readable format

syntax :- du -h

7. to show the disk usage for all the files.

syntax :- du -a

8. it will show the total disk space used by a specific directory or file.

syntrax :- du -s

9. This option is used to display the last modification time in the  
output of du.

syntax :- du --time <directory name>  
eg1 :- du --time sample/  
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1.Filter commands:  
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1.Head :-It is used to print the statring lines of file  
         by default it will print 10 lines

syntax :- head <file-name>

1. To print a specific lines

synatx :- head -n <num> file-name

eg1 -     head -n 2 sample.txt

          head -<num> file-name

eg2 -   head -3 sample.txt

2)Tail :- It will display the data from a last line(count the lines from  
          last line) Default 10 lines

synatx :- tail <file-name>

1. Number of lines :- tail -n <num> file
2. eg1 -                <tail -n 6 sample.txt>

3.Pipeline :- To combine a multiple commands and it will pass the output  
              of 1st command as an input to 2nd command

syntax :- cmd1 | cmd2

example :- head -5 students.txt | tail -2

4)sort :- To display the data in ascending or descending

syntax :- sort <file-name> :- ascending order

eg1 -     <sort sample.txt>

sort -r <file-name> :- Desending order

eg2 -    <sort -r sample.txt>