

Lec-06 (Linux Commands and its use cases)

How to create a File

cat touch vi/vim nano echo

[cat]

cat > File1

(ctrl+d)

Amazon Linux (Putty)

Login as: ec2-user

[ec2-user@ip] \$ sudo su

regular user

sudo ⇒ super user do switch user

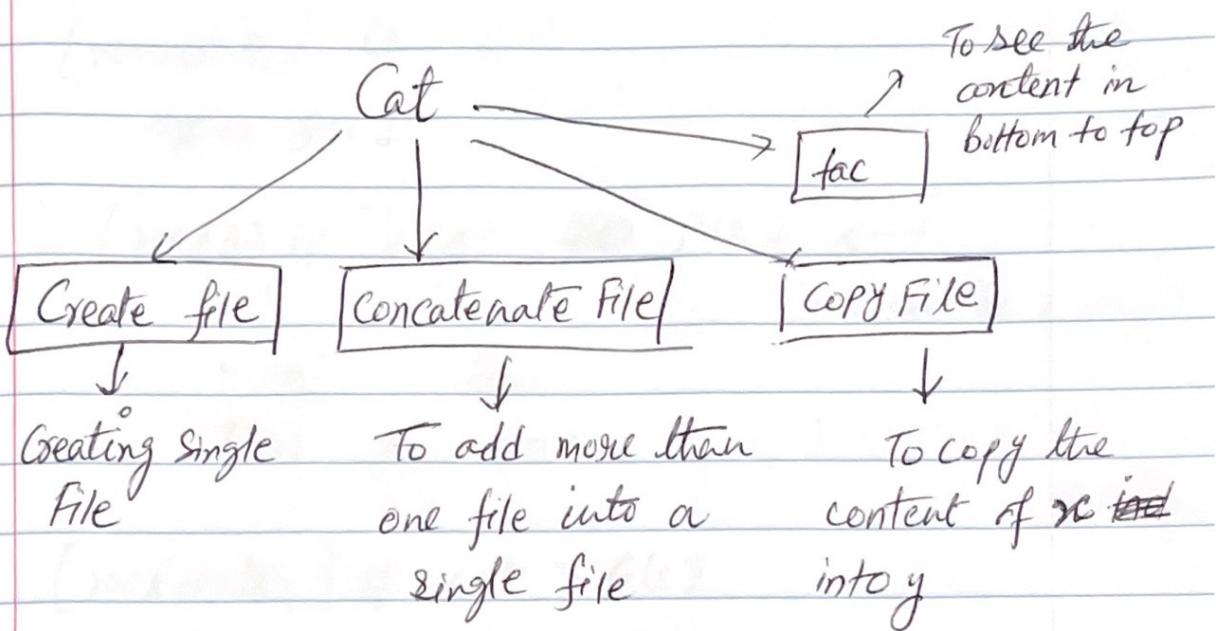
[root@ip ...] #

↑

root user

Cat Command

The cat command is one of the most universal tools, yet all it does is copy standard input to standard output.



"Cat" comes from "Concatenate"

* major role of "Cat" command to concatenate.

[root@ip] cat > file1 ←
need a space here

What is this

How are you

[ctrl+d]

[root@ip] ls ←
ofp → file1

[root@ip] # cat file1 ←

(to view the content)

What is this

How are you

[root@ip] # cat > file2

Namaste

[ctrl+d]

* We cannot edit content using "Cat" command but

We can add/amend in the file

g

[] # cat >> file1

Thank you → (ctrl+d)

[] # cat file1

O/P ⇒ What is this

How are you

Thank you

[] # cat file1 file2 > all

[] # ls

file1 file2 all

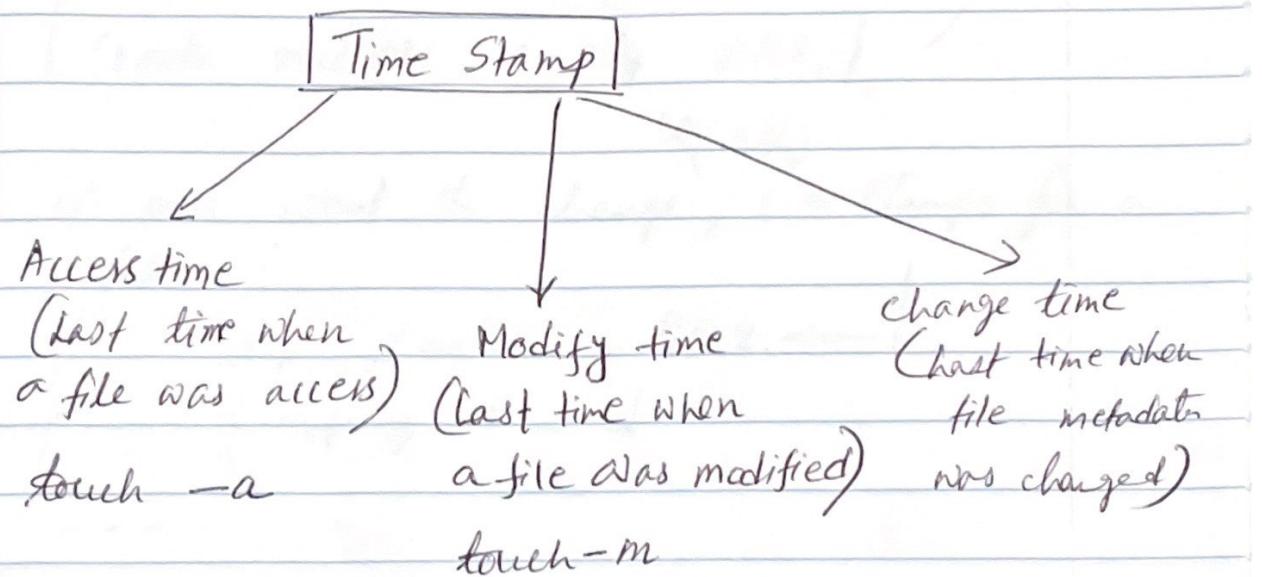
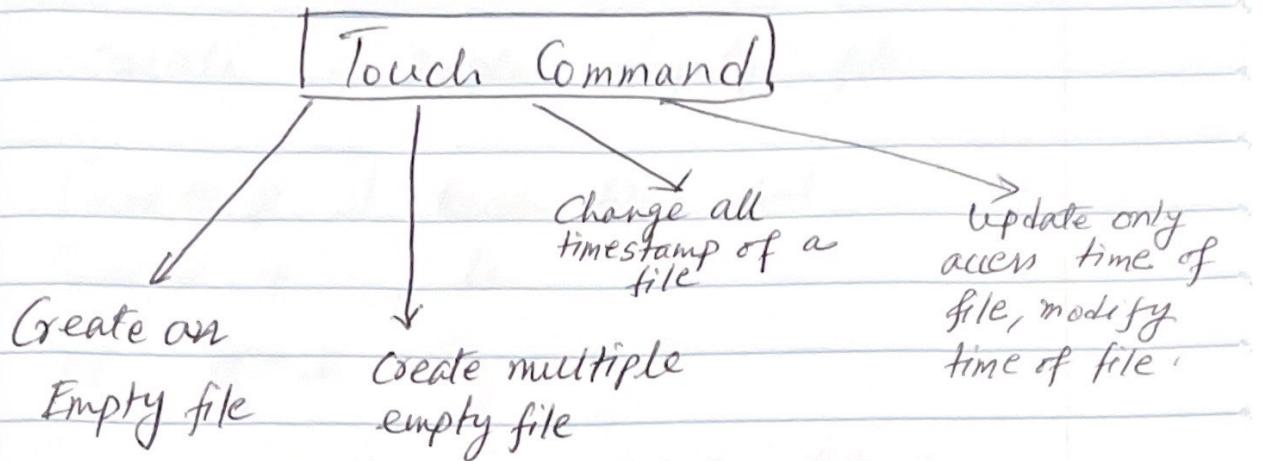
[] # cat all

What is this

How are you

Thank you

Namaste



~~file 1~~ (when a file is created, timestamp created)

Access time → date time

Modify time → date time

Change time → date time

Stat file 1

Create a single empty file

[root@ip...] touch file1 ↪

[root@ip...] ls

of file1

[] # touch file2 file3

[Create multiple empty files] ↪

* (all)

if you want to change time stamps for a file (

[] # touch file2 ↪

[] stat file2 ↪

- if you want to change just one timestamp

[] touch -a file3

↳ for access time

[] touch -m file4

↳ for modify time

Vi Editor

- A programmer text editor
- It can be used to edit all kinds of plain text, it is specially useful for editing programs mainly used for Unix programs.

Note :- $:w \rightarrow$ To save

$:wq$ or $:x \rightarrow$ To save & quit

$:q \rightarrow$ quit

$:q! \rightarrow$ force quit, no saving

! - ~~Exclamation~~ mark is used for ~~to~~ do something forcefully.

"Vi" is a standard whereas "nano" has to be available depending on the linux you use.

[root@ip ~] # vi filea.c

```
Hello ---  
Bye Bye
```

i → Insert
esc → Command mode

[root @ ip ...] # ls

filea

Navigation key

[H J K L]

[root @ ip] # cat filea ←

Hello

Bye. bye

Nano Command

[root @ ip] # nano fileb ← ↴

----- [ctrl+o] → [ctrl+x] for
----- overwriting

[ctrl+x] → Y ← ↴

[root @ ip] ls

fileb

[root @ ip] cat fileb ←

Lec 07 = Linux Commands and its use cases :-

How to create a directory :-

```
[root@ip ..] # mkdir dir1 ← |  
[ ] # ls ← list
```

Q/P dir 1 ... with other file and
directories.

```
[ ] # mkdir dir2/dir3/dir4
```

creates nested directories. } separation

/ home/ec2-user

only a / first forward slash is root.

Q/P root always starts in first or last.

All other forward slashes (/) are separation.

```
[ ] # cd ← change directory
```

```
[ ] # cd dir2
```

```
[root@dir2] # ls
```

Q/P ⇒ dir 3

`cd ..` → go to parent directory

`cd .` → current directory

`pwd` → print working directory

`off` → /home/ec2-user/dir1/dir2

[] # `cd/..` ←



directly we can go 2 steps back.

If you want to create multiple directories at a time.

[] # `mkdir dir4 dir5 dir6`

m

How to copy a file

How to cut & paste a file

how to re-name file or directory

how to create hidden file or directory

→ Try some commands like less, more, head and Tail etc

→ how to remove file or directory
→ delete

↙ How to create a hidden file

[root@ip] # touch .file1

[] # ls

dir 1 file 2

[] # ls -a [a → All]

↙ How to create a hidden Directory

[] # mkdir .dir a

[] # ls

[] # ls -a

✓ How to copy a file

```
[ ] # cp file1 file2  
      ↓           ↓  
    source       destination
```

✗ Alternatively, we can use "cat" command. But ~~cp~~ "cp" command is here most common.

✓ How to cut and paste a file/directory

```
[ ] # mv file1 dir1  
      ↓           ↓  
    source       destination
```

✓ How to rename a file/directory

```
[ ] # mv file1 myfile  
      /           ↗  
      old name    new name
```

✓ how to remove ^{/Delete} file or directory

rmdir → This command is used to remove the specified directory (empty)

rmdir -P → Remove both the parent and child directory

rmdir -rv → Remove all the parent and subdirectories along with the verbose

**
rm -rf → removes even non-empty files and directory (forcefully delete)
rm -rfp → Removes non-empty directories including parent and subdirectories.
rm -r → Remove empty directories.

We can use these command together.

[] # rm -rf file1

If we run "rm -rf * " then it will delete all files/directory in current directory.

Notes very important

How to check something is file or directory. Please use

ls -l command.

We can use ls -al / ls -la command to see all files and directories (including hidden)

Need to check mkdir -p direct/direct

↑
Need to check

Suppose I have one file "file1".
I want to make it as hidden. please
check the below command.

mv file1 .file1

less file 55

head file 55 → first 10 lines of the
file

tail file 55 → last 90 lines of the file

more file 55 →

To come out from "less" or "more"
command, Please use "q" command

Part 5 → Everything about Linux from Scratch

Commands

- hostfile (shows full DNS name)
- ifconfig, cat /etc/lsb-release
- yum install httpd
- yum ~~install~~ remove httpd
- yum update httpd | yum update -y [for all]
- yum install tree
- service httpd start
- service httpd status | service httpd stop
- chkconfig httpd on
- chkconfig httpd off
- which
- ~~ps~~ whoami
- echo
- yum list installed
- grep
- Sort
- tree

- [] # ifconfig → ip address in detail
- [] # hostname -i → to get only ip address
- [] # cat /etc/os-release
→ to check version name of operating sys

Yum is a package/ software. By Default it is installed in Linux. It is used to install/ remove/ update/ downgrade any software/package.

Yum → yellow dog update Modified

yum install httpd → d for daemon.

↓
By default it install apache server/file or httpd -- here actual response for web server.

[] # yum install httpd -y

-y automatically "yes" whenever needed

[] # yum remove httpd

[] # yum update httpd

- [] yum list installed [to show all the installed softwares]
- * [] which chef [to check one particular software installed or not]
- * [] which tree

After installing any software / Package, if we want to start the service

[] # service httpd start

to check the status of any service

[] # service httpd status

- [] # service httpd stop

To start the service automatically after restart / shutdown, please use following command.

chkconfig httpd on

or To do it manually, you can off this thing using following command

chkconfig httpd off

[root @ip] # echo "-----"

to show message others also. As Linux is multiuser environment. If we want share something to use it with others, we use this command.

Another purpose of "echo" command
is create file.

[] # echo "Welcome" > file2

if "file2" is existing then it will copy
the contents in file2.

otherwise, it will create "file2" then
copy the contents in file2.

[] # & to amend something in file
append

[] # echo "Namaste" >> file2

To empty any file

[] # echo > file2

[] # grep root /etc/passwd

[] # sort file1 → to sort file/directory
alphabetically

Notes :- yum update -y

[it updates all the required package if we run it first time]

if we run it second time, it will show,

"No package marked for update"

⇒ yum install tree -y

⇒ tree

Everything about Linux from Scratch Part-6

Commands :-

useradd :- To create user

groupadd :- To create group

gpasswd -a / -M → To add user into group, to add multiple user

ln → hard link (backup)

ln -s → soft link (kind of shortcut in windows)

tar → Tar is an archive used to combine multiple files into one.

gzip → gzip is a compression tool used to reduce the size of a file.

Wget → Wget is the non-interactive network downloader.

How to create user:-

you can also use
"adduser"
as

[root@ip ...] # useradd testuser1

To show user is created

[root@ip ...] # cat /etc/passwd

How to create groups:-

same as "addgr"

[root@ip ...] # groupadd testgroup1

To show the group

[root@ip ...] # cat /etc/group

Note:- In groups we will see "testuser1" also. Now there might be ask why "testuser1" is showing as group.

In linux when one user is created,
a group with his name
automatically created.

To add a user into group, to add multiple user into group.

```
[root@ip...] # gpasswd -a aman testgroup1  
[ ]# gpasswd -M test1,test2,test3 testgroup1
```

Notes In Industry you ~~won't~~ will not get "root" user ~~password~~ to for activities.

If you need "Admin privilege" / "root privilege" your id's permission need to be elevated

In this case, Your id will be added into "sudo" file.

You can use "sudo" file using "vi" command and your id and permission over there.

You can watch "Youtube video for this when your id will get admin privilege"

You can use "sudo ..." command to ~~perform~~ any task which cannot be performed with your normal id.

link :-

soft link

```
[ ] # ln -s file1 softfile1  
[ ] # ls -l  
gf -> softfile1 > file1
```

Hard link

```
[ ] # ln file2 backupfile2
```

Link :-

[] # ln -s file1 softfile1

[] # ls -l

of → softfile1 > file1

soft link

Hard link

[] # ln file2 backup file2