

September 2014

Linux Basics

04

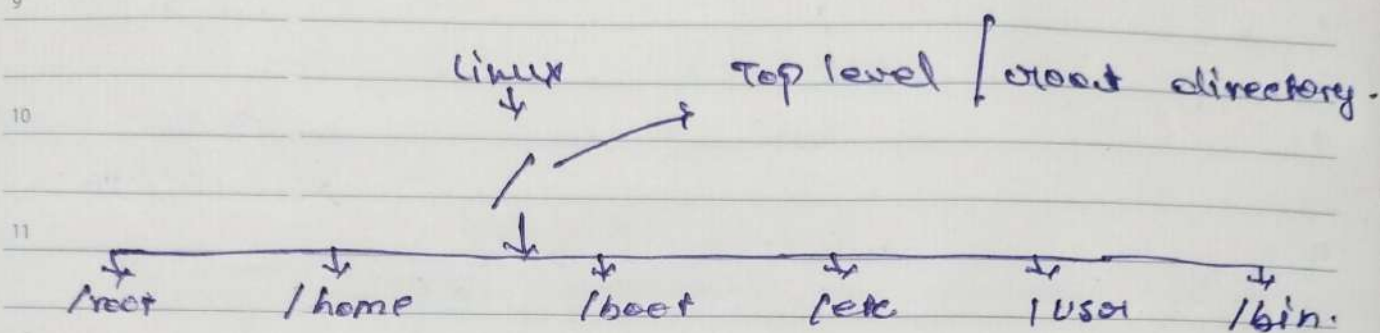
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Thursday

08 August '14					09 September '14					MTWTFSS
	4	11	18	25	1	8	15	22	29	
	5	12	19	26	2	9	16	23	30	
	6	13	20	27	3	10	17	24		
	7	14	21	28	4	11	18	25		
1	8	15	22	29	5	12	19	26		
2	9	16	23	30	6	13	20	27		
3	10	17	24	31	7	14	21	28		

Important

Linux File system Hierarchy:-



1 /root → It is the home directory for the home user.

2 /home → It is the other directory for the other users.

3 /boot → It contains all the bootable files for booting the Linux eg. initrd.

4 /etc → It contains all the configuration files for your machine.
i.e. computer like RAM, processor...

5 /bin → It contains commands used by all users including root user.

6 /sbin → It contains commands used only by the root user.

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Friday

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Important

/dev → It contains all the essential device files, this include terminal devices, usb or any other device attached to the system.

/usr → By default soft are installed in this directory.

How to create a file

cat

touch

vi/vim

nano

editors.

→ cat > File1 <

≡

ctrl + d

} can not edit with it.

→ touch File2

↳ it create empty files.

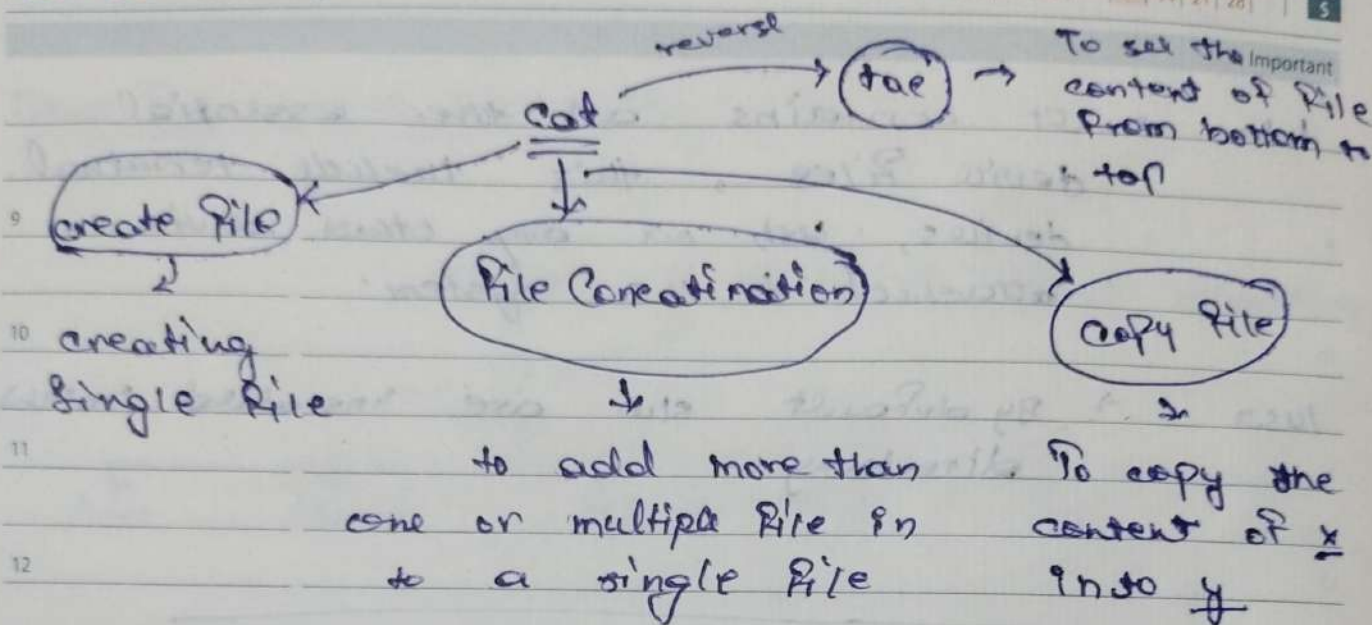
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Saturday

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	4	11	18	25	1	8	15	22	29	M
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→ cat File1 <

↳ used to show the content of File.

→ cat > File2

↳ now you are creating File.

→ cat >> File1 <

07 250-115 Sunday } adding new lines along with existing lines of content
ctrl + d

→ cat File1 File2 > all

↳ putting all the data of these Files into another File i.e. all

→ cat all <

→ tac all <

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Monday.

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Important

Touch

update only access time of file, modify time of file

creating empty file single/multiple

change all time stamp of a file

Time stamp

Access time

modify Time

change Time

[last time when a file was accessed]

[Last time when a file was modify]

[last time when file metadata was changed]

touch -a

touch -m

→ stat file1

↳ to know the timestamp of a file/dir already created.

→ touch file1

↳ as it will change the timestamp of a file or directory which is already created.

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Important

→ touch -a files

↳ update only access time of files.

→ touch -m files

↳ update only modify time of files.

vi editor

→ can edit all kinds of plain text

→ mainly used to edit the file content

Note:-

esc → To save

:wq or :x → To save and quit

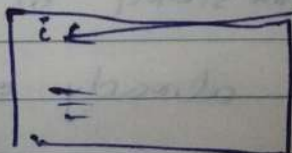
:q → to quit

:q! → force quit, no save

→ vi is available in all the linux flavour
but nano may not be present

→ vi files

press i from your keyboard



press escape-button
:wq \

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								2	9	16	23	30			

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Important

* nano command

→ ~~nan~~ → nano files

ctrl+x → Y ←

How to create Directory

→ mkdir dir1

↳ create a directory.

→ separation not root

→ mkdir dir1/dir2/dir3

↳ creating directory inside directory is child directory hierarchy.

→ cd dir1

↳ change directory.

→ cd ..

↳ used to go back directory / parent directory.

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Important

→ pwd

↳ print the path of the working directory
(print working directory)

→ touch .file1

↳ used to create a hidden file.

→ ls

↳ all the hidden files and directory will not be visible.

→ ls -a

↳ used to list / see all the files and directory along with the hidden.

→ mkdir .dir1

↳ used to create hidden directory

Simple "." is used to make files or directory hidden.

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Important

→ cp File1 File2

↳ copy the File1 content into File2.

→ mv File1 dir1

↳ move/cut the File1 and paste it in the dir1 directory.

→ mv Original New
 ↓ ↓
 old name new name'

if both are Files, director

rename the Files old directory

→ rm dir1 → remove empty directory

→ rm dir1 -rf → remove directory forcefully even they are not empty.

→ rm -rf → also remove directory which are not empty.

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Important

→ hostname

↳ used to see the hostname.

→ hostname -i

↳ used to see the ip address.

→ cat /etc/os-release

↳ to see OS related details.

→ echo "Lol!"

↳ used to print the message.

→ echo "Lalit Thakur" > File1

↳ rewrite the File1 with new content

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→ echo "new line" >> File1

↳ it will append the content in new line

→ echo > File2

↳ can create empty file.

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Important

→ cat >> file

≡

ctrl+d

} append content to the existing file

→ sort file

↳

used to sort the content of a file using line by line.

How to add user

→ sudo useradd

↳ adding user in home directory

→ sudo password <username>

↳ setting password for a user

→ passwd

↳ to change the password of current user

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MTWTFSS

Important

→ sudo passwd <username>

↳ As root user you can change password of any user.

→ sudo su - <username>

↳ switch user from one to other

→ sudo userdel -r <user>

↳ delete a user

→ cat /etc/passwd

↳ list of all the user

→ sudo groupadd <group>

↳ adding a group

→ cat /etc/group

↳ to see all the group

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Important

user
↓

group
↓

→ passwd -a manish jerry

↳ adding a user to a group

→ sudo groupadd jerry

↳ deleting a group

→ sudo passwd -M manish, ~~jesuit~~ jerry
users group

↳ adding users to a group

4 → ln -s File link ? File creating soft link
→ ls -l

6 → ln File link

↳ used to create hard link

↳ used to create backup files

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Thursday

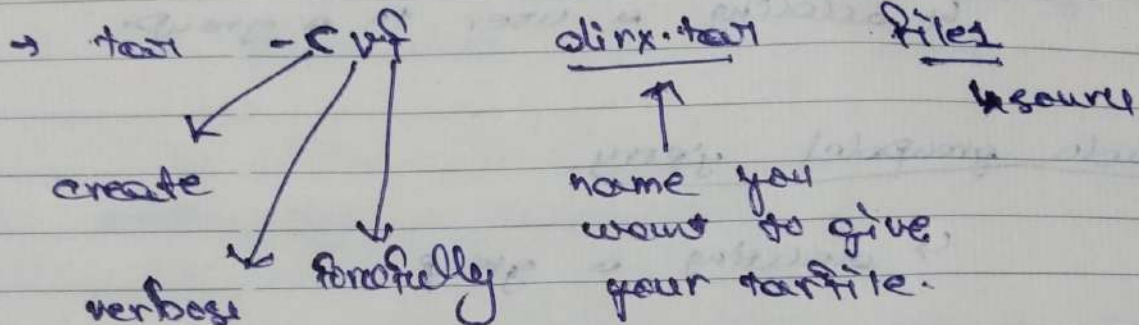
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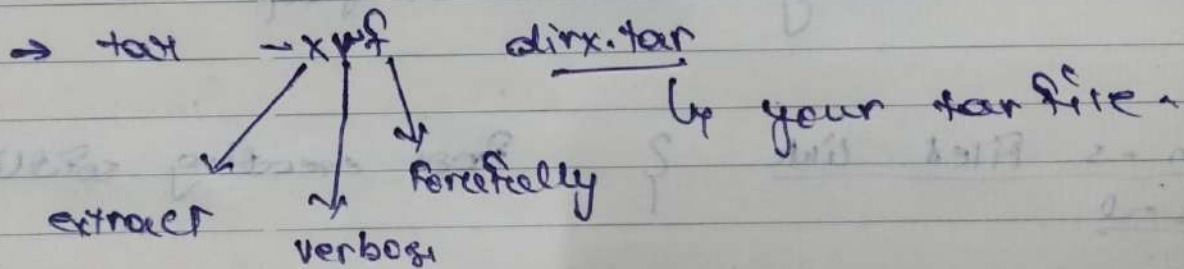
M
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Important

How to zip a file



creating a tar file.



→ gzip dirx.tar

↳ used to compress the tar file.
having extension .gz.

→ gunzip dirx.tar.gz

↳ unzip your zip file.

Important

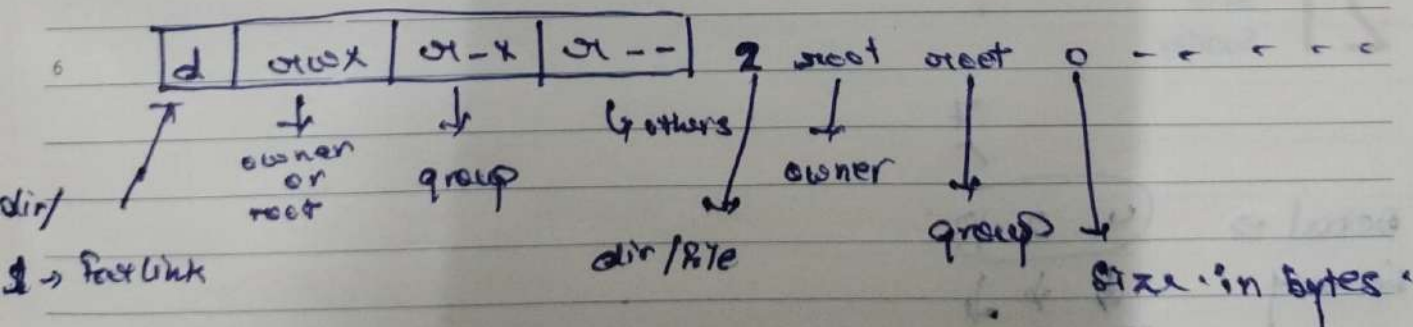
→ wget only

↳ downloading anything from url.

Access Modes / Permission

Access Modes		File	Directory
R	H	To display the content	To list the content
W	2	To modify	To create and remove
X	1	To execute the file	To enter in the directory

→ chmod



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MTWTFSS

Important

→ ls -l <filename>

↳ it will return the owner of the file.

→ chown lucky <file>

↳ change the owner of the file.

→ chgrp jerry <file>

↳ change the group of the file.

→ chmod 777 oliva

user/root group other

used to change the access mode of a file.

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Sunday

Octal →

4 2 7

↓ ↓ ↓

r w x