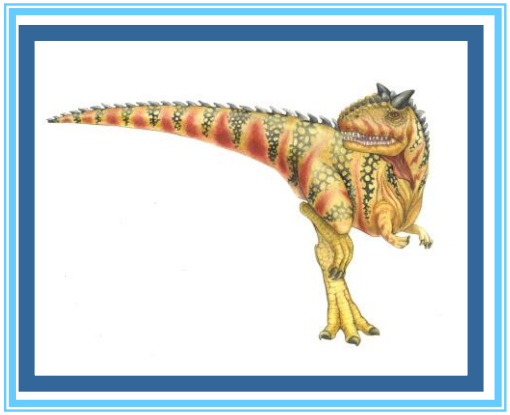
Introduction to Linux
Day2: Sep 2021

Kiran Waghmare



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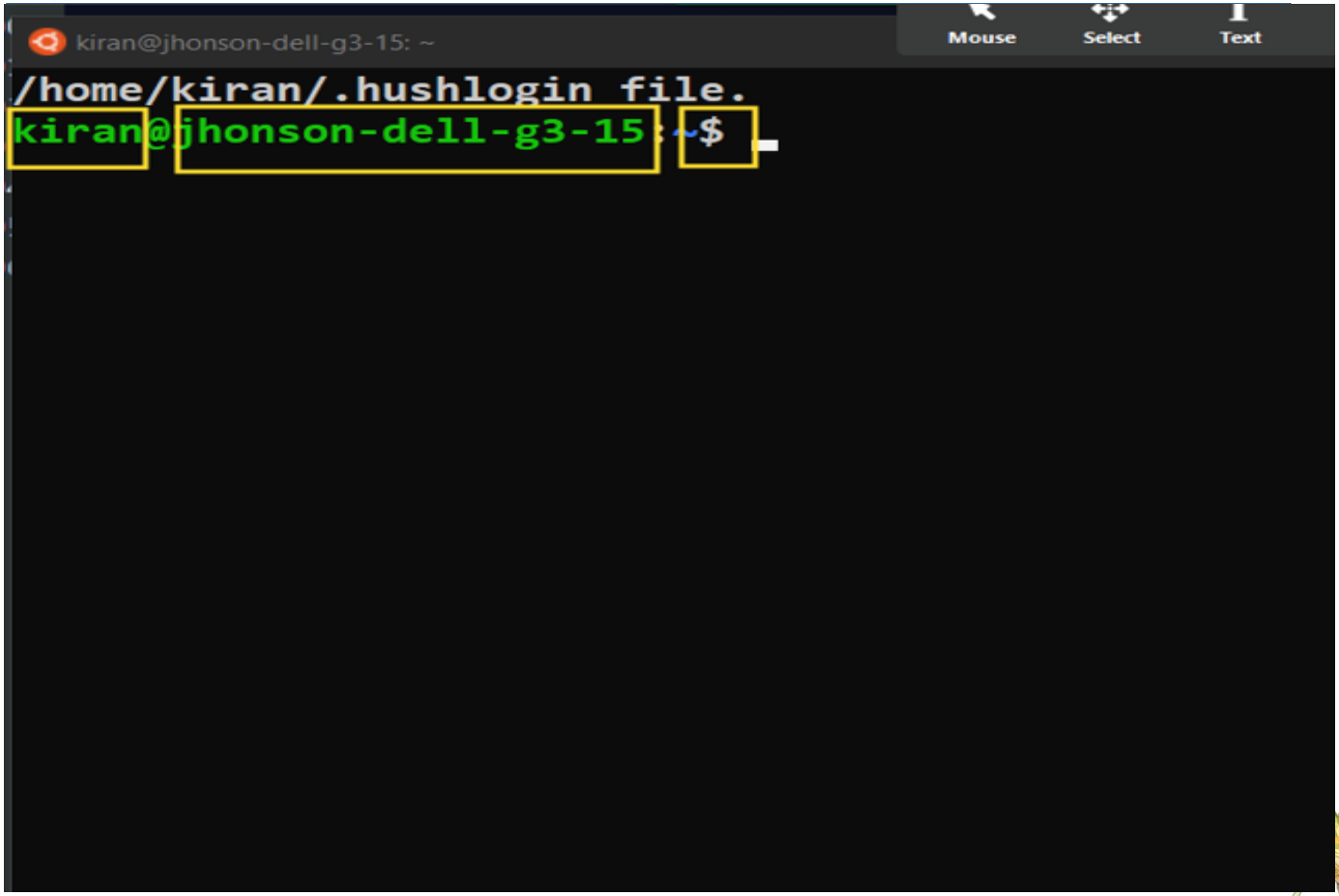
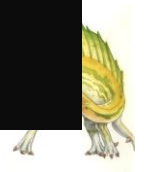
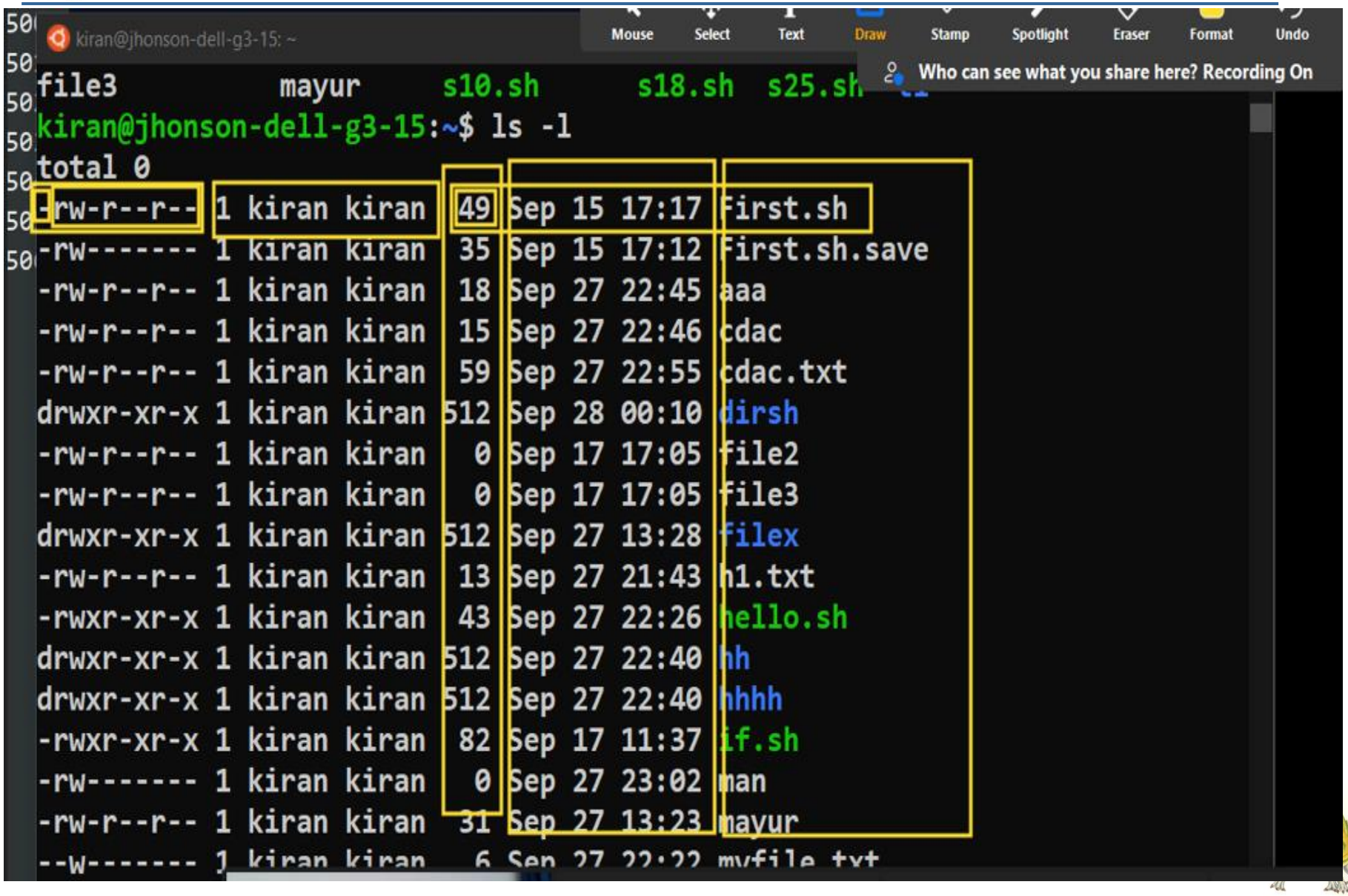

kiran@jhonson-dell-g3-15: ~
Mouse
Select
Text
/home/kiran/.hushlogin file.
kiran@jhonson-dell-g3-15:~$





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```
kiran@jhonson-dell-g3-15: ~
-bash: Sep21: No such file or directory
kiran@jhonson-dell-g3-15:~$ cat < Sep21
-bash: Sep21: No such file or directory
kiran@jhonson-dell-g3-15:~$ cat > Sep21
1
2
3
4
5
6
7
8
kiran@jhonson-dell-g3-15:~$ cat Sep21
1
2
3
4
5
6
7
8
kiran@jhonson-dell-g3-15:~$
```


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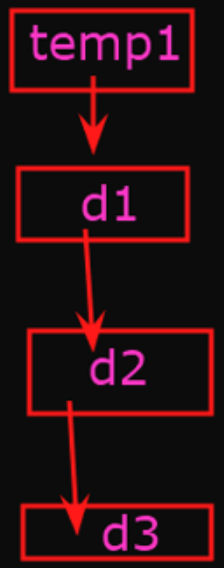
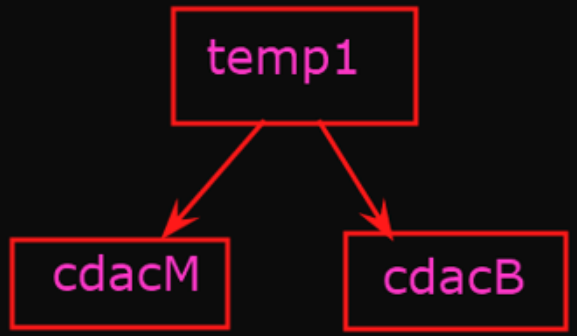
```
kiran@jhonson-dell-g3-15: ~/temp1/d1/d2
cdac.txt        hhhh        name.txt     s15.sh   s22.sh
dirsh           if.sh       p1           s16.sh   s23.sh   s8.sh
kiran@jhonson-dell-g3-15:~$ cd temp1
kiran@jhonson-dell-g3-15:~/temp1$ mkdir -p d1/d2/d3
kiran@jhonson-dell-g3-15:~/temp1$ ls
d1
kiran@jhonson-dell-g3-15:~/temp1$ cd d1
kiran@jhonson-dell-g3-15:~/temp1/d1$ ls
d2
kiran@jhonson-dell-g3-15:~/temp1/d1$ cd d2
kiran@jhonson-dell-g3-15:~/temp1/d1/d2$ ls
d3
kiran@jhonson-dell-g3-15:~/temp1/d1/d2$
```

Mouse Select Text Draw Stamp Spotlight Eraser Format Undo

Who can see what you share here? Recording On





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kiran@jhonson-dell-g3-15: ~/temp1

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```
drwxr-xr-x 1 kiran kiran 512 Sep 28 10:08 temp1
kiran@jhonson-dell-g3-15:~$ cp Sep20.txt /home/temp1/Sep20.txt
cp: cannot create regular file '/home/temp1/Sep20.txt': No such file or di
rectory
kiran@jhonson-dell-g3-15:~$ cp Sep20.txt /home/kiran/temp1/Sep20.txt
kiran@jhonson-dell-g3-15:~$ ls
First.sh        dirsh     if.sh        p1      s16.sh  s23.sh  s8.sh
First.sh.save   file2     man          s1.sh   s17.sh  s24.sh  s9.sh
Sep20.txt       file3     mayur        s10.sh  s18.sh  s25.sh  t1
Sep21           filex     myfile.txt   s11.sh  s19.sh  s3.sh   t2
Sep21.txt       h1.txt    nae.txt      s12.sh  s2.sh   s4.sh   t3
aaa             hello.sh  name         s13.sh  s20.sh  s5.sh   task.sh
cdac            hh        name.sh      s14.sh  s21.sh  s6.sh   temp1
cdac.txt        hhhh      name.txt     s15.sh  s22.sh  s7.sh
kiran@jhonson-dell-g3-15:~$ cd temp1
kiran@jhonson-dell-g3-15:~/temp1$ ls
Sep20.txt
kiran@jhonson-dell-g3-15:~/temp1$ cat Sep20.txt
11111
22222
33333
kiran@jhonson-dell-g3-15:~/temp1$
```

```
kiran@jhonson-dell-g3-15: ~/temp1
Hello World,\n Good Morningkiran@jhonson-dell-g3-15:~/temp1$
o World,\n Good Morning"
Hello World,\n Good Morningkiran@jhonson-dell-g3-15:~/temp1$
kiran@jhonson-dell-g3-15:~/temp1$ echo -e "Hello World,\n Good Morning"
Hello World,
 Good Morning
kiran@jhonson-dell-g3-15:~/temp1$ echo -e "Hello World,\nGood Morning"
Hello World,
Good Morning
kiran@jhonson-dell-g3-15:~/temp1$ man echo
kiran@jhonson-dell-g3-15:~/temp1$ v
```

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Editor:

-QED
-Vi
-Vim
-Nano
-Edit +

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Vi Editor

1. vi filename.sh
2. Esc + i(insert)
3. Add the code in file
4. Esc + :wq
   w(save)+q(exit)
5. chmod +x filename.sh
(permission grant)
6. Execute: ./filename.sh
or
Execute: bash filename.sh

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Editor:

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-Vi
-Vim
-Nano
-Edit +

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kiran@jhonson-dell-g3-15: ~

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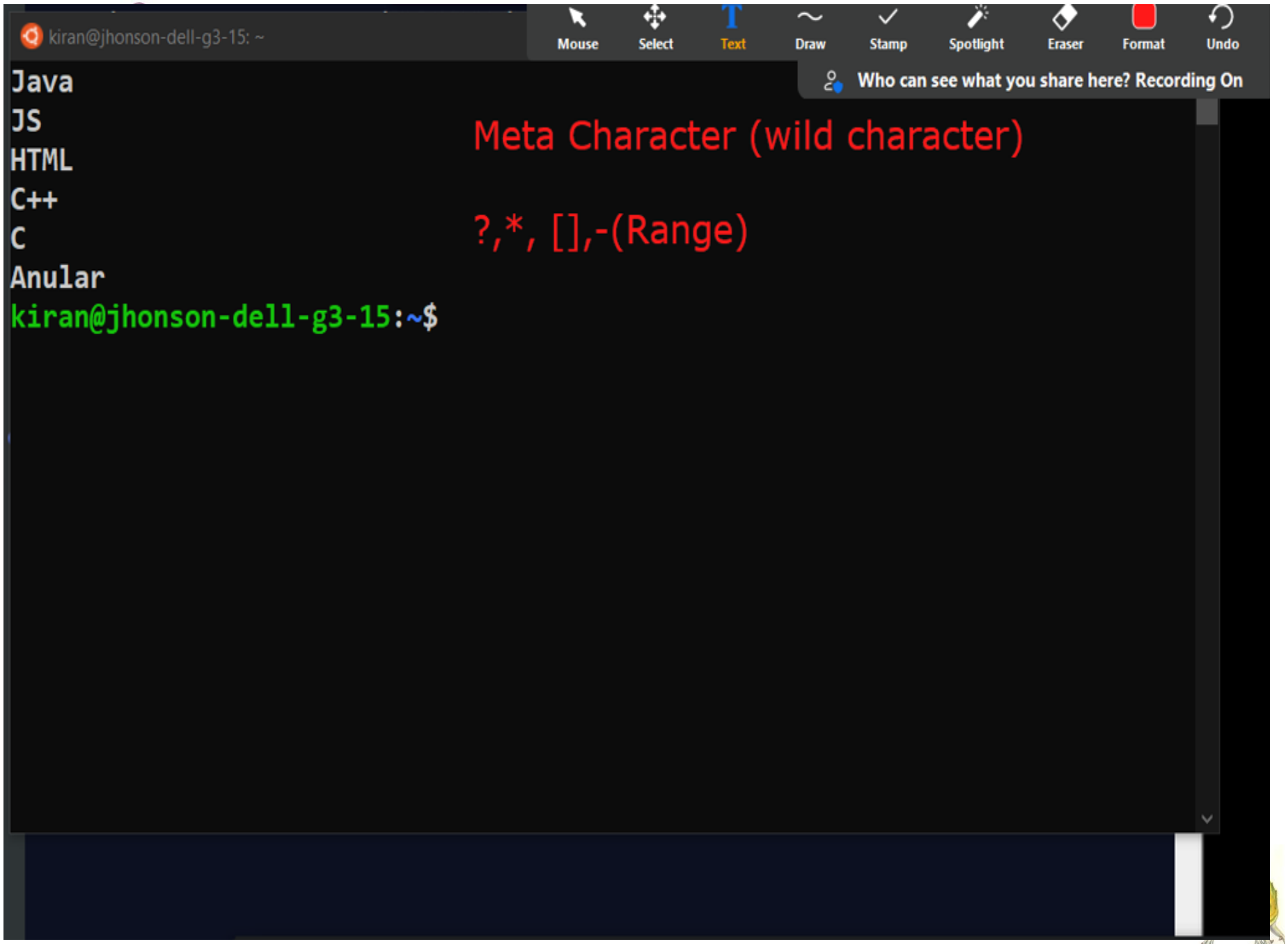
kiran@jhonson-dell-g3-15:~$

UNIX Filter

$head	#tail	$n1
$cut	$paste	$sort
$tr	$tee	$red
$grep	$tgrep	$egrep



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kiran@jhonson-dell-g3-15: ~/temp1

Who can see what you share here? Recording On

```
kiran@jhonson-dell-g3-15:~/temp1$
```

File Permission

file type User/owner Group others

Mode

1. Symbolic mode
   ->chmod
   +=> Adding Permission
   -=> Removing Permission

2.Absolute mode
   1=> ON
   0=>OFF

Talking: Kiran Waghmare

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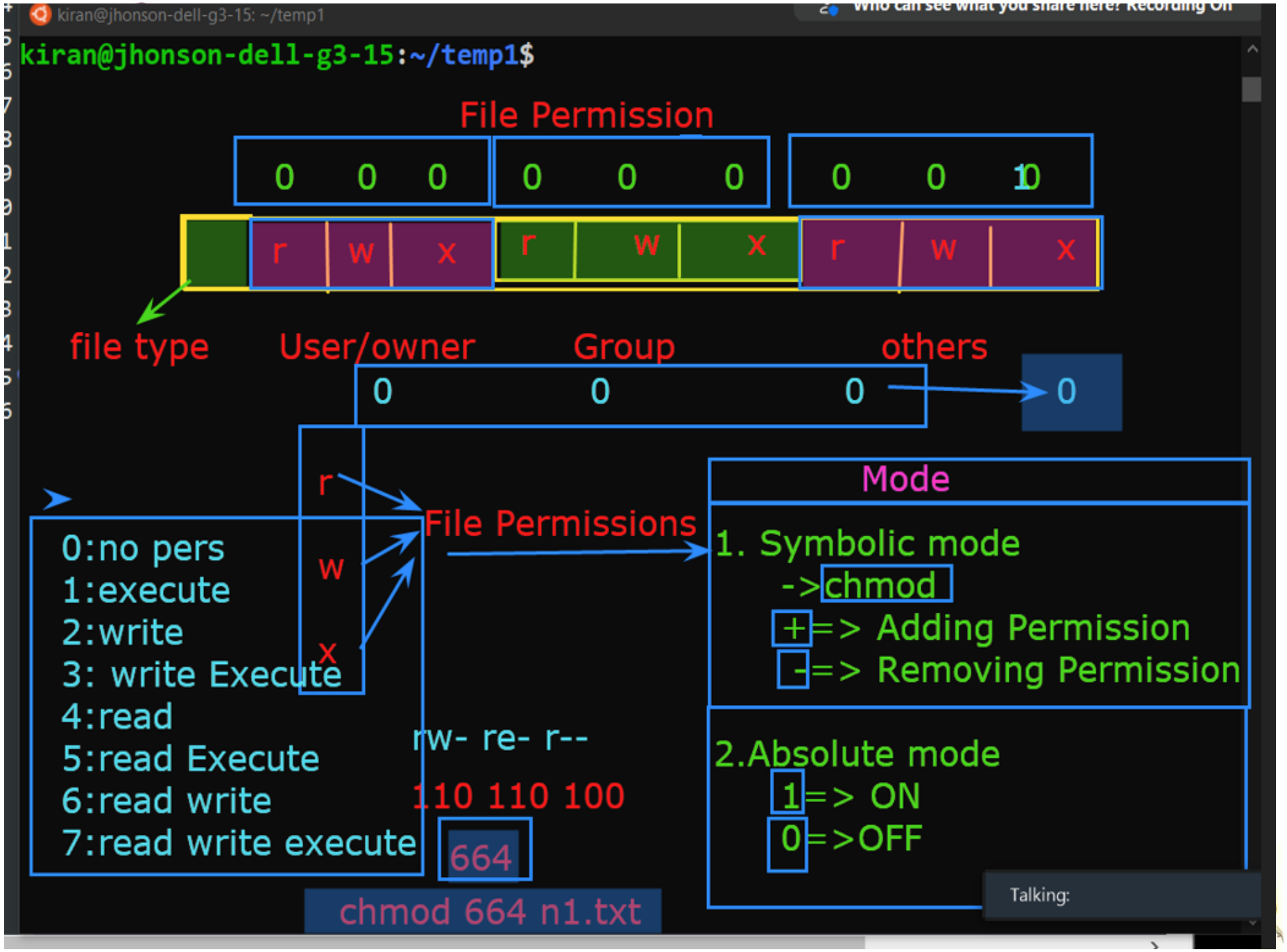

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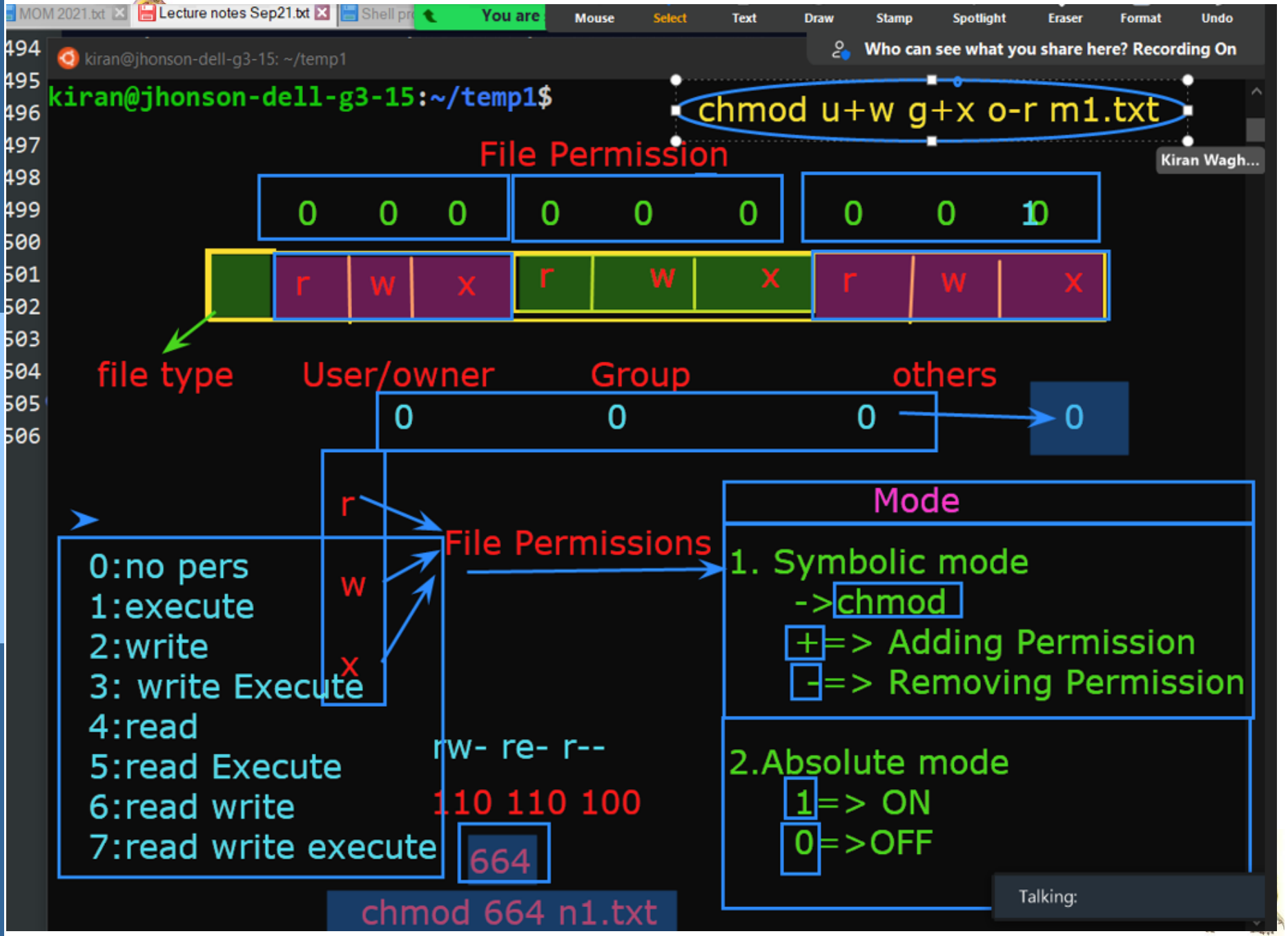

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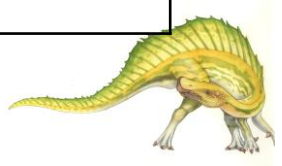
Linux Directory Commands

Directory Command	Description
pwd	The pwd command stands for (print working directory). It displays the current working location or directory of the user. It displays the whole working path starting with /. It is a built-in command.
ls	The ls command is used to show the list of a folder. It will list out all the files in the directed folder.
cd	The cd command stands for (change directory). It is used to change to the directory you want to work from the present directory.
mkdir	With mkdir command you can create your own directory.
rmdir	The rmdir command is used to remove a directory from your system.



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Root Directory	Home Directory
The root directory is the topmost level of the system drive.	The home directory is a subdirectory of the root directory.
It is denoted by a slash '/'.	It is denoted by '~' and has path "**/users/username**".
The admin has access to make any changes in the files and settings.	No user other than the root user can change the settings of the entire system.
The admin can create a user.	Any user having a home directory cannot create a user.
In the Linux file system, everything comes under the root directory.	The home directory contains a particular user's data.

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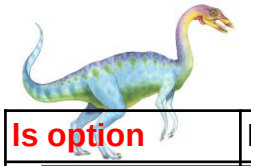
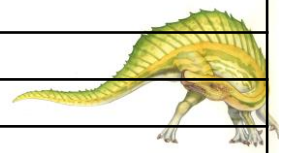


Linux ls command options

ls option	
ls -a	In Linux, hidden files start with . (dot) symbol and they are not visible in the regular directory. The (ls -a) command will enlist the whole list of the current directory including the hidden files.
ls -l	It will show the list in a long list format.
ls -lh	This command will show you the file sizes in human readable format. Size of the file is very difficult to read when displayed in terms of byte. The (ls -lh)command will give you the data in terms of Mb, Gb, Tb, etc.
ls -lhS	If you want to display your files in descending order (highest at the top) according to their size, then you can use (ls -lhS) command.
ls -l - -block-size=[SIZE]	It is used to display the files in a specific size format. Here, in [SIZE] you can assign size according to your requirement.
ls -d */	It is used to display only subdirectories.
ls -g or ls -lG	With this you can exclude column of group information and owner.
ls -n	It is used to print group ID and owner ID instead of their names.
ls --color=[VALUE]	This command is used to print list as colored or discolored.
ls -li	This command prints the index number if file is in the first column.
ls -p	It is used to identify the directory easily by marking the directories with a slash (/) line sign.
ls -r	It is used to print the list in reverse order.
ls -R	It will display the content of the sub-directories also.
ls -lX	It will group the files with same extensions together in the list.
ls -lt	It will sort the list by displaying recently modified filed at top.
ls ~	It gives the contents of home directory.
ls ../	It give the contents of parent directory.
ls --version	It checks the version of ls command.



Mkdir Options

Options	Description
mkdir -p, -parents	Add directory including its sub directory.
mkdir -v, -verbose	Print a message for each created directory.
mkdir -m -mode=MODE	Set access privilege.

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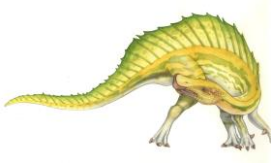
Linux File Commands

Command	Description
file	Determines file type.
touch	Used to create a file.
rm	To remove a file.
cp	To copy a file.
mv	To rename or to move a file.
rename	To rename file.



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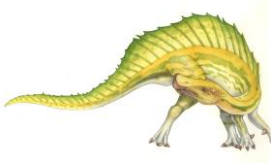
Linux Filter Commands

1. cat
2. cut
3. grep
4. comm
5. sed
6. tee
7. tr
8. uniq
9. wc
10. od
11. sort
12. gzip



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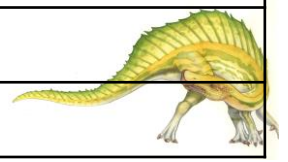
Regular Expression Metacharacters

A regular expression may have one or several repeating metacharacters.

Metacharacter	Description
.	Replaces any character.
^	Matches start of string and represents characters not in the string.
$	Matches end of string.
*	Matches zero or more times the preceding character.
\	Represents the group of characters.
()	Groups regular expressions.
?	Matches exactly one character.
+	Matches one or more times the preceding character.
{N}	Preceding character is matched exactly N times.
{N,}	Preceding character is matched exactly N times or more.
{N,M}	Preceding character is matched exactly N times, but not more than N times.
-	Represents the range.
\b	Matches empty string at the edge of a word.
\B	Matches empty string if it is not at the edge of a word.
\<	Matches empty string at the beginning of a word.
\>	Matches empty string at the end of a word.



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