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LSP

D There are two types of to change the file permissions:-

- * Absolute mode
- * Symbolic mode

Absolute mode:-

* In this method of mode, file permissions are represented as a three digit octal numbers.

* The following no's represent the following permission:-

0 -	no permission	---
1 -	execute permission	--x
2 -	write permission	-w-
3 -	write and execute	-wx
4 -	read permission	r--
5 -	read and execute	r-x
6 -	read and write	rw-
7 -	read, write and execute	rwx

Example:- 230

This absolute code is for:-

read write permission for owner

write and execute permission for group

and no permissions for others

and it is as same as '-w--wx--'

Symbolic mode:-

This use mathematical symbols to modify unix file permissions.

operator	description
+	to add permission
-	to remove permission
=	sets the permission and overrides the permissions set earlier.

User denotations:-

- u - owner
- g - group
- o - other
- a - all

examples:-

1) `chmod o=rwx filename`

It will be overriding the all permission of owner to rwx of file.

2) `chmod g+x filename`

It adds the execute permission to the group.

3) `chmod u-w filename`

It removes the write permission for user/owner.

2) Difference between soft links and hard links.

soft links
 * If the earlier file is deleted, soft link does not exist anymore

* soft links will take different inode numbers

* softlinks can be used for directories

* It can be used across the file systems.

Syntax:-

ln -s originalfilename linkname

hard links

* If the earlier file is deleted, the hard link still contains the data of the file

* hard links' inode no. will be same as original file's inode no.

* Hard links are not allowed for directories.

* It cannot be used across file systems.

Syntax

ln original filename linkname

3) a) All files having inode number 9076
 find /home -inum 9076 -print

b) All directories having permission 666
 find /home -type d -perm 755 -print

c) All files not accessed for more than a year.
 find /home -atime +365 -type f

d) All programs but C program files
 find /home -type f -iname "*.c"

6) `rw-r-xr--`

i) `rw-rwxrwx`

absolute:- `chmod 777 filename`

relative:- `chmod u+r, g+w, o+r filename`

ii) `r--r--r--`

absolute:- `chmod 440 filename`

relative `chmod u-w, g-x, o-x filename`

iii) `---x---`

absolute:- `chmod 000 filename`

relative:- `chmod u-rw, g-rx, o-r filename`

v) i) Command substitution:-

allows to substitute an encountering expression that contains one or more special characters.

Ex:- `a = $1`

`d: 'delete'`

ii) set and shift

set - to explicitly set the positional arguments

shift - to shift the positional arguments

ii) trap:-

used to set trap command to signal

Signal	signal no:
exit	0
ctrl+c	1
Del	2
^ \	3
sun kill	9
kill	15

5) ~~for~~ i in \$*

#!/bin/sh

if [\$# -eq 0]

then

echo "enter command line arguments"

exit 1

fi

for i in \$*

do

if [-e \$i]

then

UN = `echo "\$i" | cut -d "." -f1 | tr 'a-z'`

UE = `echo "\$i" | cut -d "." -f2 | tr 'A-Z'`

UN = \$UN.\$UE

if ! [-e \$UN]

then

mv "\$i" "\$UN"

echo "changed \$i to \$UN"

fi

fi

done