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Chapter - 4
PERMISSIONS

@@@@In Linux/Unix the file (or) Directory has 8 attributes
 -   rw-r--r-- 1  root root 3096 mar 25 05:31 install.log
(1)      (2)     (3) (4)   (5)  (6)        (7)          (8)


(I) Type (2)Access Permission     (3) Links  (4) User  (5) Group (6) size
in bytes
(7) Last modification Date & Time (8) File name

@@@@ACCESS PERMISSIONS :

@@@@TYPES
d    -     directory
1    -     softlink
s    -     socket file
b    -     block special file
c    -     charecter special file

@@@@PERMISSION MODES
read (r)
write (w)
execute (x)

@@@@LEVELS
User (u) group(g) others (o)

@@@@FILE PERMISSION MODES:
We cas assign the permission in two modes (1) Symbolic (rwx) (2) Absolute
(4 2 1)

@@@@SYMBOLIC MODE:
In this we assign the permissions through characters like (r,w,x)

   Modes        Levels        Controllers
r (read)   I (user)   + add the permission
w (write)  g (group)  - remove the permis:
x (execute)o (others) = equal permission

@@@@ABSOLUTE MODE:
In this mode we assign the permissions through numbers
0 - NIL, 1-Execute,
2 - Write,
3 - Write & Execute,
4 - read,
5 - (Read & Execute),
6 - (Read & Write)
7 - Full Permissons (R,W,E)

@@@@DEFAULT FILE PERMISSONS
* When a file is created with help of cat, touch and vi commands it will
gel the permissions as 644(rw-r--r--)
* Actually in basic unix system when a file is created, it gets
permission as 666
* But in lapses in security so when ever a file is created i unix system
make some bits, with a mask value 022
* After masking we get the defualt file permissions of a file as 644(666-
022=644). 022 is a the UMASK(universal mask) value
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@@@@DEFUALT DIRECTORY PERMISSIONS
* When a directory is created with mkdir command, it will get the permission as 775.
* Actually in the basic unix system when a directory is created it get's the pwrmission as 777(rwxrwxrwx).
* But in lapses in security so when ever a directory is created i unix system make some bits, with a mask value 022.
* After masking we get the defualt permissions of a directory as 755(777-022=755).
Super user umask value = 022
normal user umask value = 002

@@@@TO SEE THE UMASK VALUE
#umask

@@@@TO VIEW UMASK VALUE FROM FILE
#vi /etc/bashrc

@@@@CHMOD COMMANDS
It is used to change the permissions of a file/directory. it can be used by the owner of the file or by root.
with this command we can assign and remove the permissions.
SYNTAX : Chmod <Permission> <File/directory>

@@@@TO ASSIGN NORMAL PERMISSION
#chmod 760 sun

@@@@FULL PERMISSION
#chmod 777 sun

@@@@TO CHANGE OWNERSHIP
in ths way effectively we use the two commands chown & chgrp
@@@@chown :- by using this command we can change owner of file , as well as owner & group at a time

@@@@TO CHANGE THE OWNERSHIP ONLY
#chown <user name> <file name>
#chown sun : salse dir1
#chown -r sun : salse dir1

@@@@CHGRP :- By using This Command We Can Change Group Of the file
#chgrp <group name> <file name/directory name>
#chgrp salse sun

@@@@TO CHANGE THE PERMISSIONS IN GRAPHICAL MODE
#nautilus &
When ever you see this command defaulty the user home directory is displayed in graphical mode.
if you want to open another directory information in graphical mode then you must enter the dir name after nautils
#nautils /boot

@@@@ASSIGN THE PERMISSIONS IN GRAPHICAL MODE
Right click on source -> properties-> Permissions