DF (Disk Free Commands)

#df **(Displays all the filesystems infrmn in blocks)**

#df -a **(Displays all the filesystems infrmn along with dummy FS infmn in blocks)**

#df -h **(Displays FS infmn in Human readable format)**

#df -**k (Displays Fs infmn in KB's)**

#df -i **(Displays inode infmn of FS's))**

#df -T (**Displays FS along with its types)**

#df -m **(Displays FS information MB)**
#df -hT

#df -t <FStype> **(Displays a certain type of Fs)**
xfs
ext4

#df -x <FStype**>** **(exculde a certain type of FS)**
ext4

UMASK (User Mask value) :

The purpose of the user mask valus is to provide security for both files & Directories.

NOTE: The default UMASK value is 022

Perm values :
Read : 4
Write : 2
Execute : 1

RWX : 7

When we create file Perm given by OS : **666 (rw- rw- rw-)**
When we create dir perm given by OS : **777 (rwx rwx rwx)**

How umask provides Security :

For Files : 666
(-) 022

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Final File Perm of File - 644 (rw- r-- r--)
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For Directories : 777 (rwx rwx rwx)
(-) 022
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Final File Perm of Directory - 755 (rwx r-x r-x)
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CHMOD (Change Mode) :

The purpose of CHMOD command is to change the perm of files and directories.
NOTE: Chmod allows us to change the common permissions.

We can use CHMOD comman in 2 modes :

1)Numeric Method
2) Symbolic mode

Numeric Method :

Perm values :
Read : 4
Write : 2
Execute : 1

RWX : 7

#touch file15

#ls -l file15

O/P
-rw- r-- r-- (6 4 4)

Target is to change the perm of file15 from -rw- r-- r-- (6 4 4) to rwx rw- r-x (7 6 5)

#chmod 765 file15

#ls -l file15
O/P
-rwx rw- r-x

Absolute Method:

We are using alphabets & Special Characters

+ --> Adding PERM

- ---> removing the PERM

u : Owner Perm
g : Group Perm
o : Others Perm

#chmod u+x,g+w,o+x file18

Inode Number:

It is the unique number assigned to every file. For every file it has file name and inode number.File name is for user reference and inode number is for kernel reference.
NOTE: Inode number is unique for every file.

NOTE : Inode number contains every information about the files like :

Owner of the file
Group owner of the file
Perm of the file
Number of links
Size of the file

#ls -i <FN>
Abc1
O/P
6568 abc1