



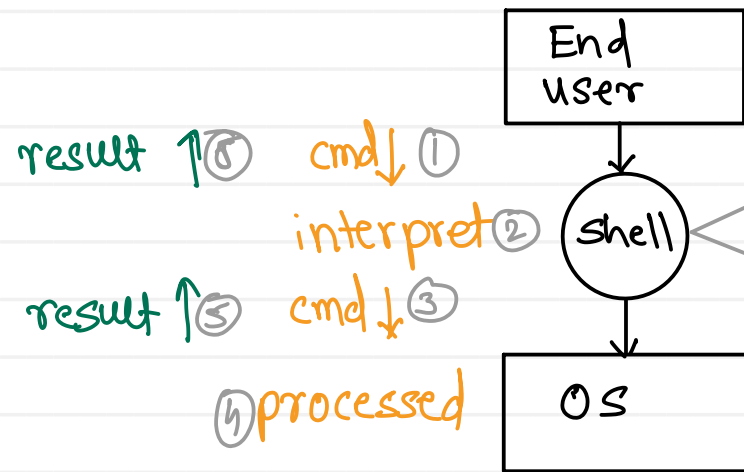
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Module - Concepts of Operating System

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- user interfacing is provided by implementing one program which is called as "shell"
- shell is intermediate between end user & operating system
- shell is a command interpreter



- in Vbuntu default shell is 'bash'

BASH - Bourne Again Shell

echo \$SHELL - will show default shell

chsh - to change default shell

CLI based shell (Command Line Interface)

Windows - cmd.exe, powershell.exe

Linux - bsh(sh), bash, csh, ksh, zsh

GUI based shell (Graphical User Interface)

Windows - explorer.exe

Linux - KDE (Kommun Desktop Env)

- GNOME

(GNU Network Object Model Env)

File - types, permissions, groups

type → - rwxrwxr-x 1 sunbeam sunbeam 16753 Mar 29 05:49 sample.txt
 permissions user/owner group size (bytes) time stamp name

File types :

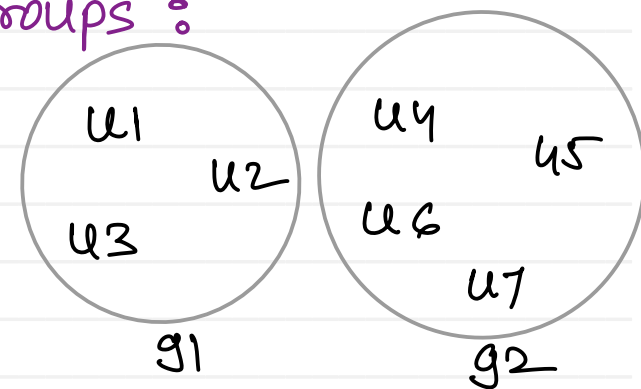
1. Regular file (-)
2. Directory file (d)
3. Link file (l)
4. Pipe file (p)
5. Socket file (s)
6. Character special file (c)
7. Block special file (b)

Permissions :

r-read
 w-write
 x-execute

rwx rwx r-x
 ↑ ↑ ↑
 user/ group others
 owner

Groups :



file : sample.txt
 user/owner : u1 : rwx
 group : g1 (u2,u3) : rwx
 others : u4, u5, u6, u7 : r-x

chmod command

chmod \pm r/w/x fileName

r - read, w - write, x - execute

+ : add

- : remove

chmod +r sample.txt

chmod -x sample.txt

chmod u/g/o \pm r/w/x fileName

u - user/owner

g - group

o - other

chmod u-r sample.txt

chmod g+w sample.txt

chmod o+rw sample.txt

human format: rwx rwx r-x

Numeric format: 111 111 101 (775)

Existing permissions: rw- rw- r--

add execute to user & remove write from group

New permissions: rwx r-- r--

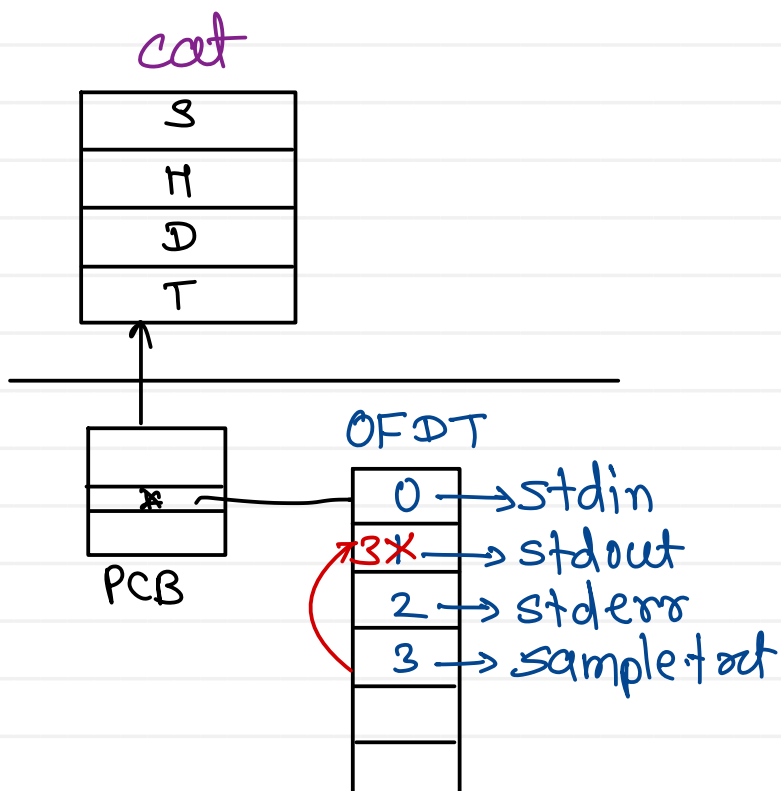
111 100 100

(744)

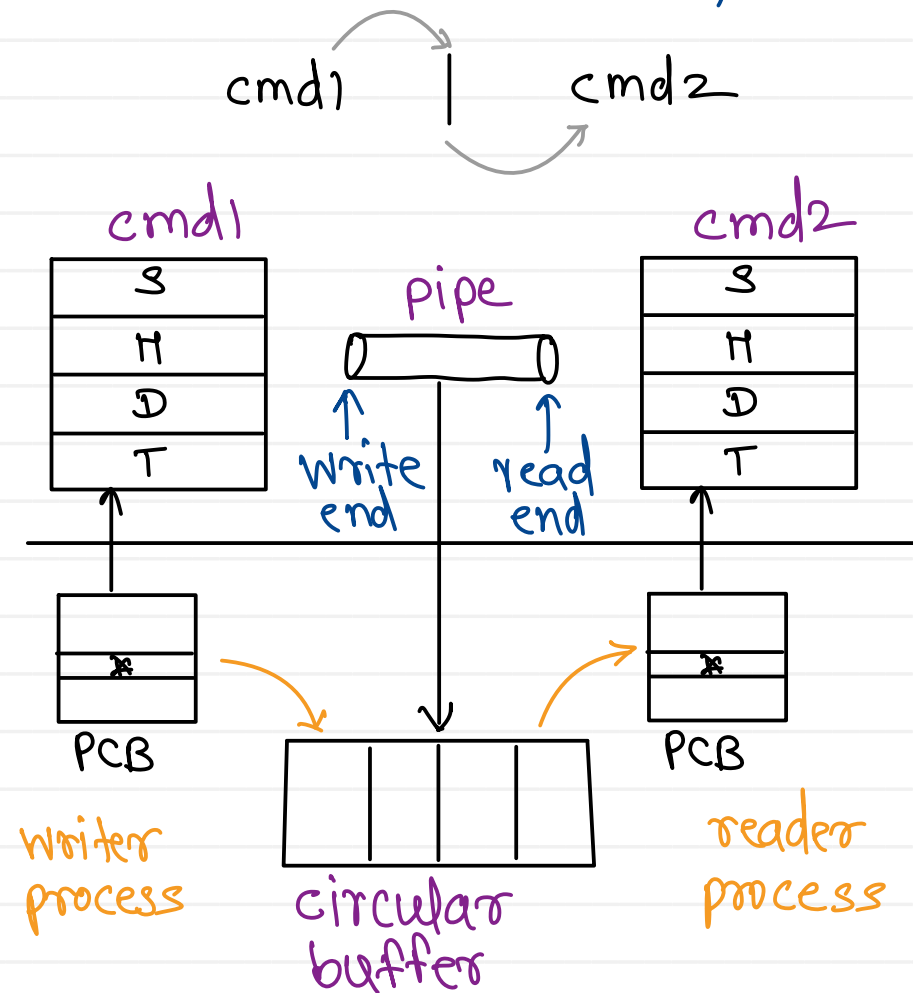
chmod 744 sample.txt

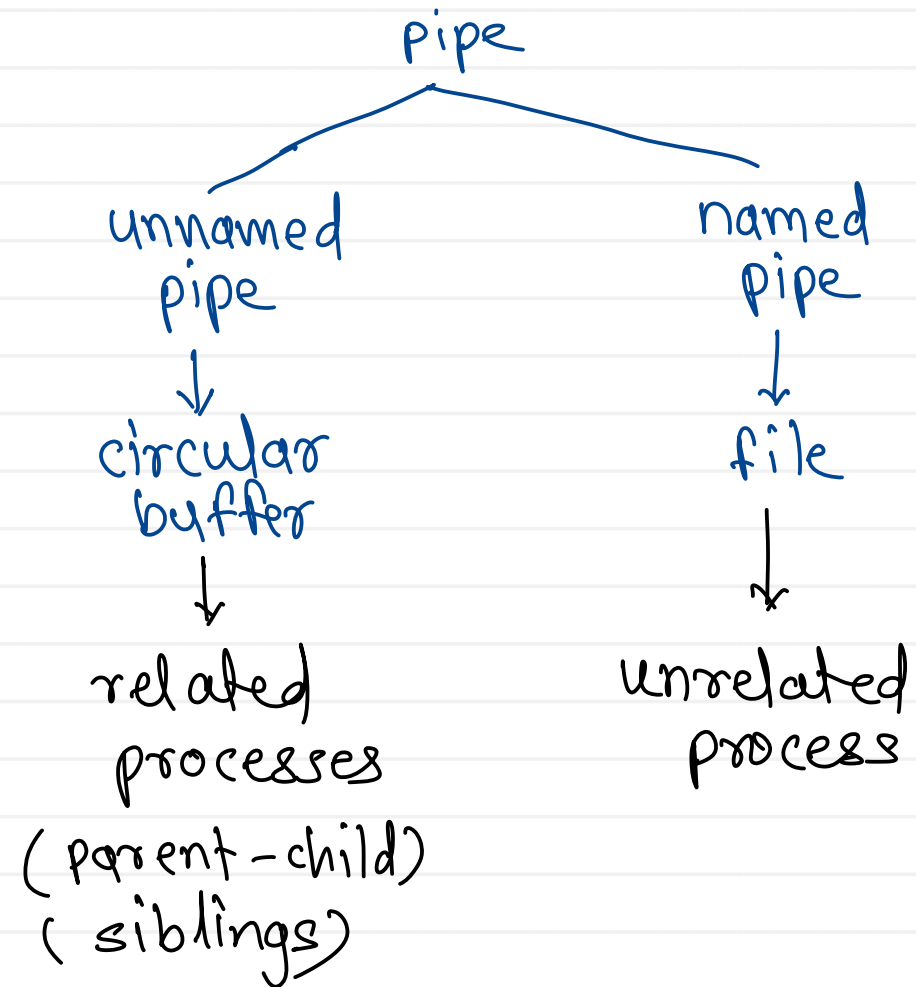
chmod mode fileName

`cat > sample.txt`



`sort numbers.txt | uniq`







Thank you!!!

Devendra Dhande

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