

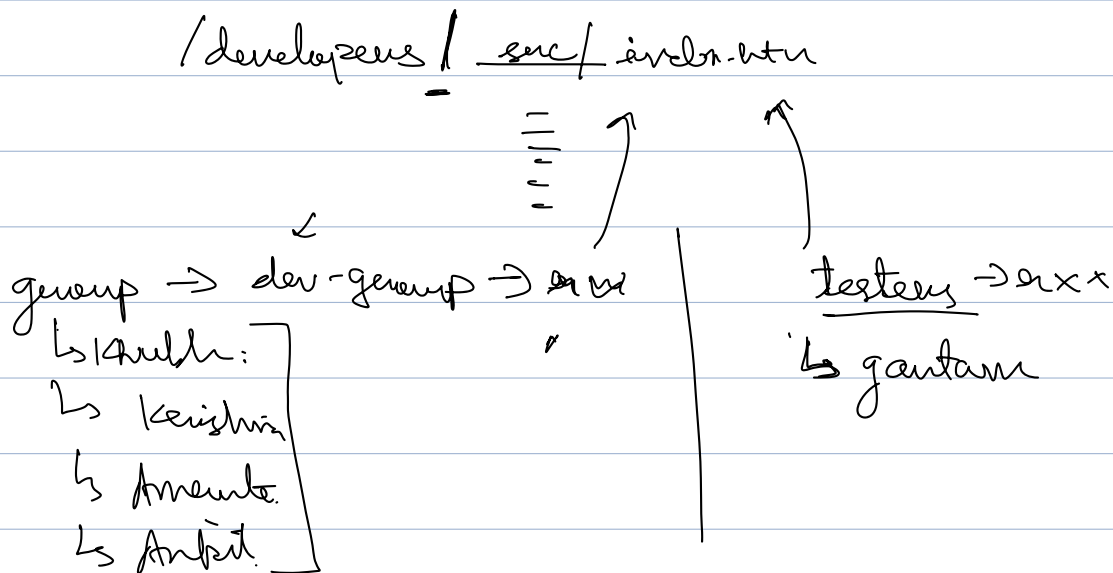
Will start in 5 minutes

Agenda

- ↳ Users, groups, permissions.
- ↳ Process & threads
- ↳ Signals

chmod

Users & groups



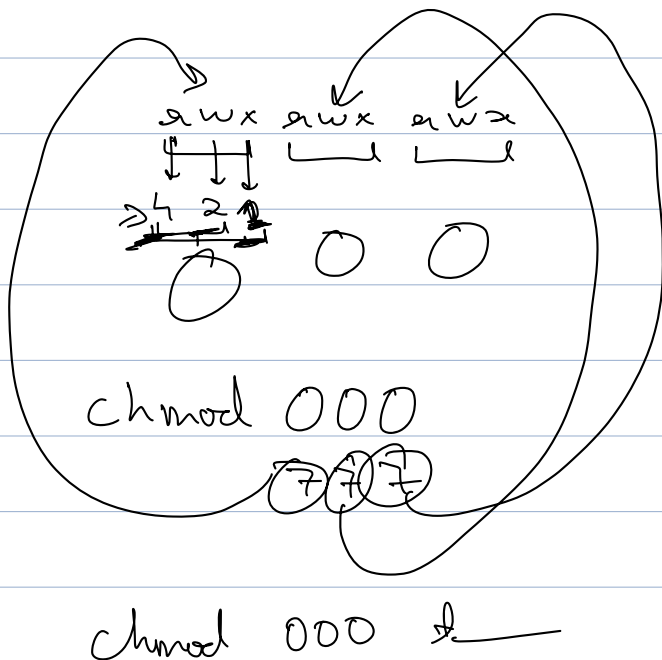
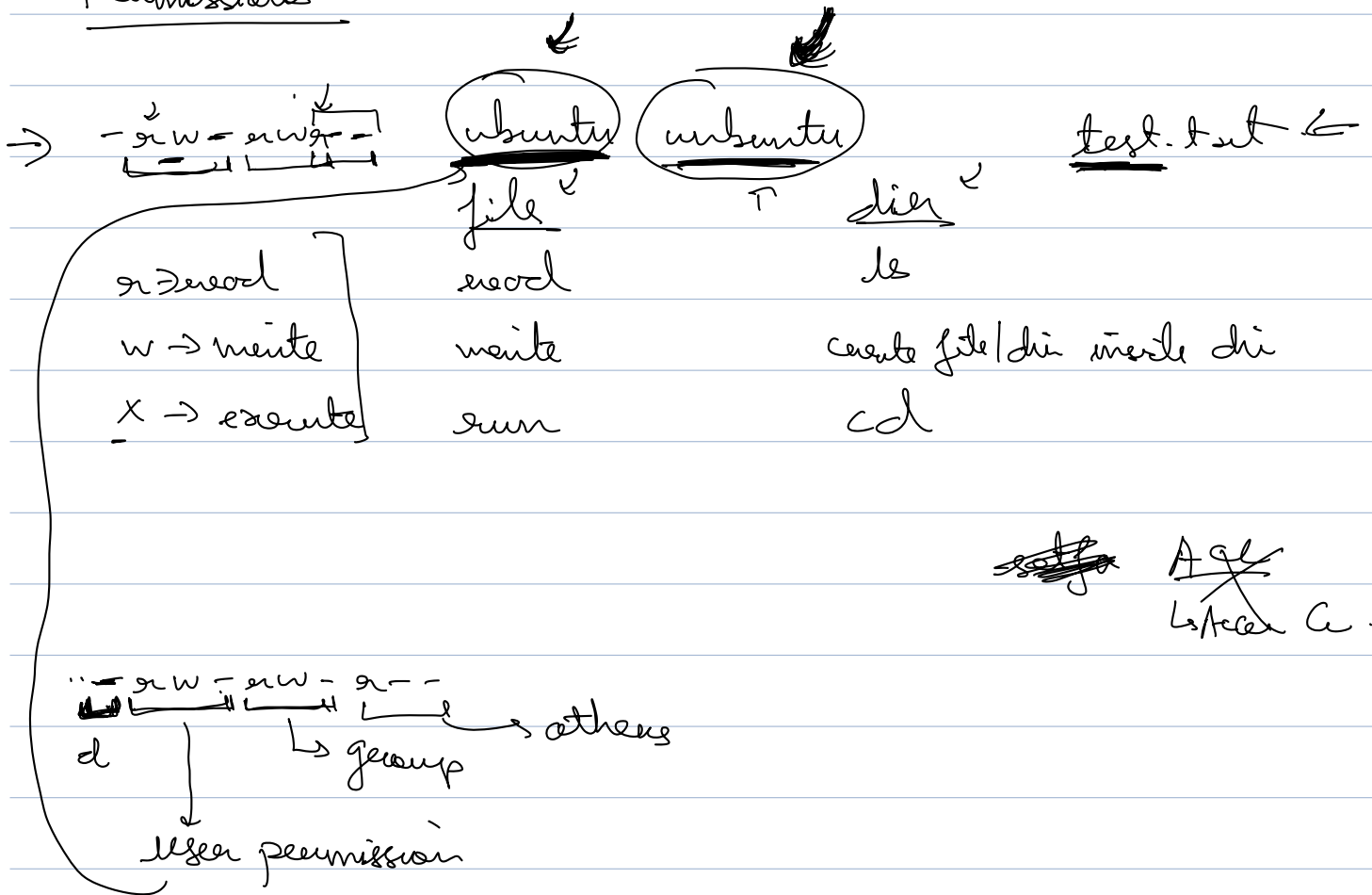
su → super user ← (su) → super user

sudo →

mbdiu — pr

sudo mbdiu — ✓

Permissions



r → 4
w → 2
x → 1

rw → 6
rwx → 7
-wx → 3
r-x → 5

4 = 1 X
r w x
0 0 0
2 0 0 → 4
1 0 1 → 5

Imagine you are a devops engineer with root access and your task is to setup a secure environment for an app.

You are working with a team that has devs, testers and PM

- Devs have access to the source code directory for modifications but not testing or reports
- Testers can access the testing directory but not source code or reports
- PMs can only access the reports directory

Step 1 :

↳ create group →

Step 2 :

↳ create users & set password.

Step 3 :

↳ Add users to specific groups.

Step 4 :

↳ create the dir

Step 5

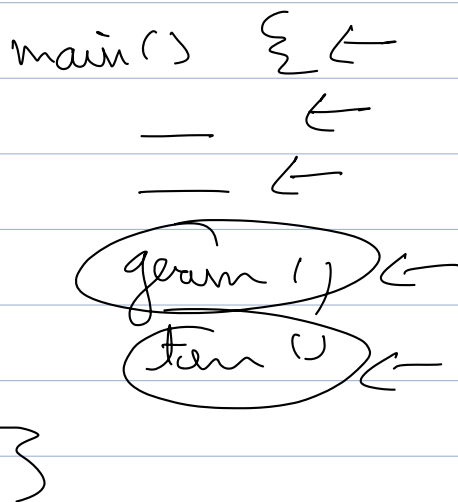
↳ set permissions

Processes & threads

Word Process

- ↳ auto saving ✓ — C)
- ↳ spell check ✓ = C)
- ↳ grammar check ✓ — T)
- ↳ translate ✓ = C)
- ↳ update UI ✓ — C)
- ↳ update ✓ —
- ↳ formatting ✓ —

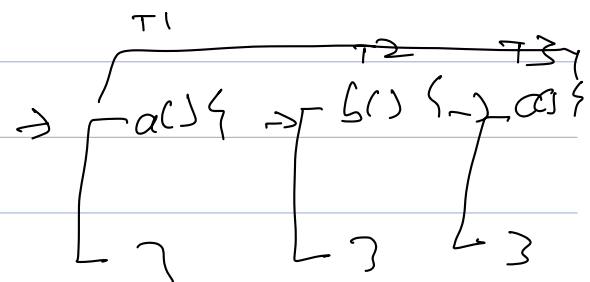
"parallel"



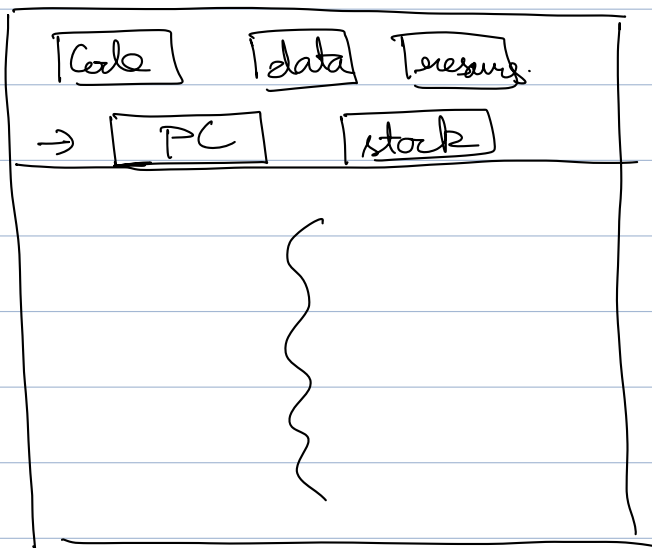
Threads

- ↳ child process
- ↳ lightweight process.

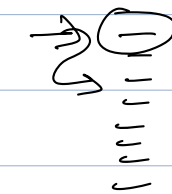
→ Execution unit of a CPU.



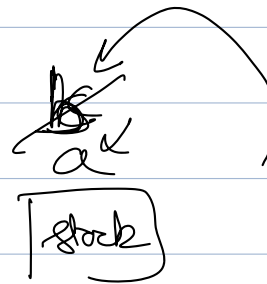
Process



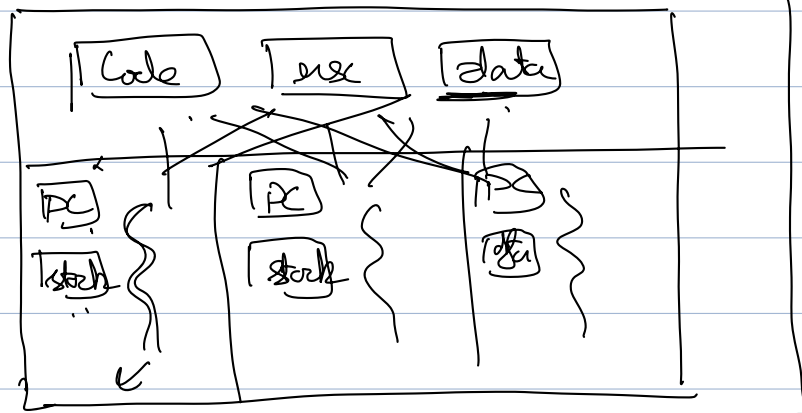
"parallel"



acc &

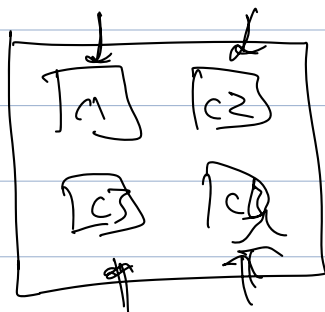


Process



Single vs Multi Core CPU

↳ execution unit of a CPU



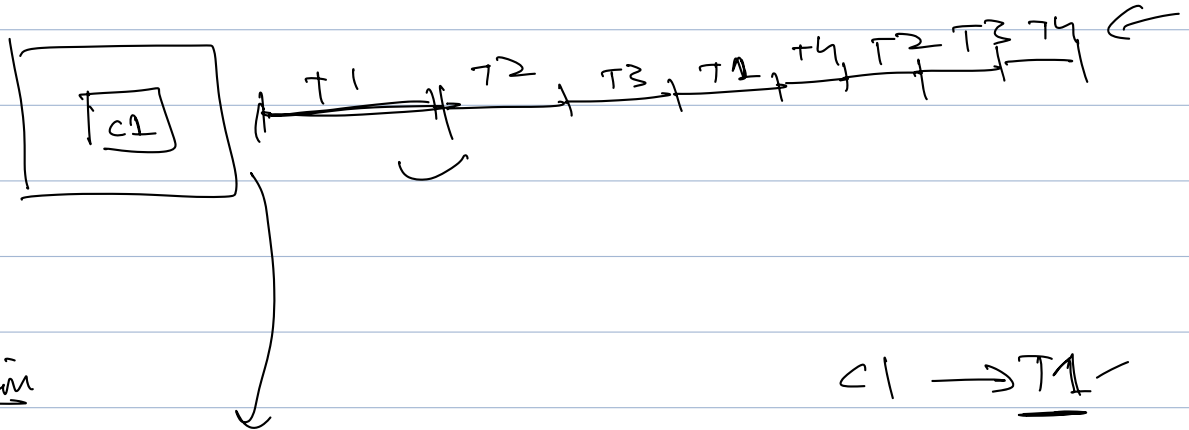
One core can execute only one thread at a time

Concurrency vs parallelism

↓

Concurrency → When a system can have multiple threads in diff stages of execution but not making progress at the same time.

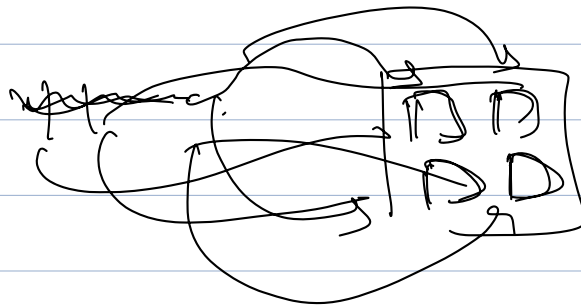
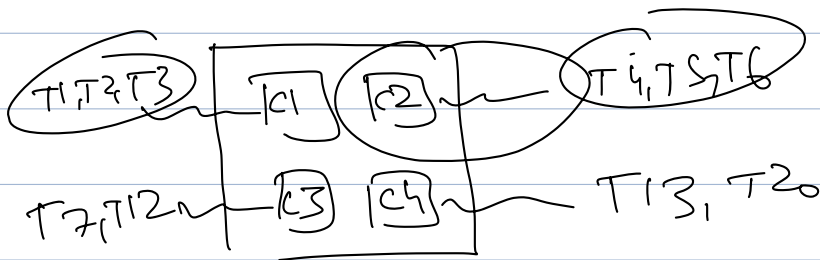
$T_1, T_2, T_3, T_4, T_5, T_6$



Parallelism

$C1 \rightarrow \underline{T1}$

$C2 \rightarrow \underline{T2}$



chmod 777

ls -l
-rwxrwxrwx