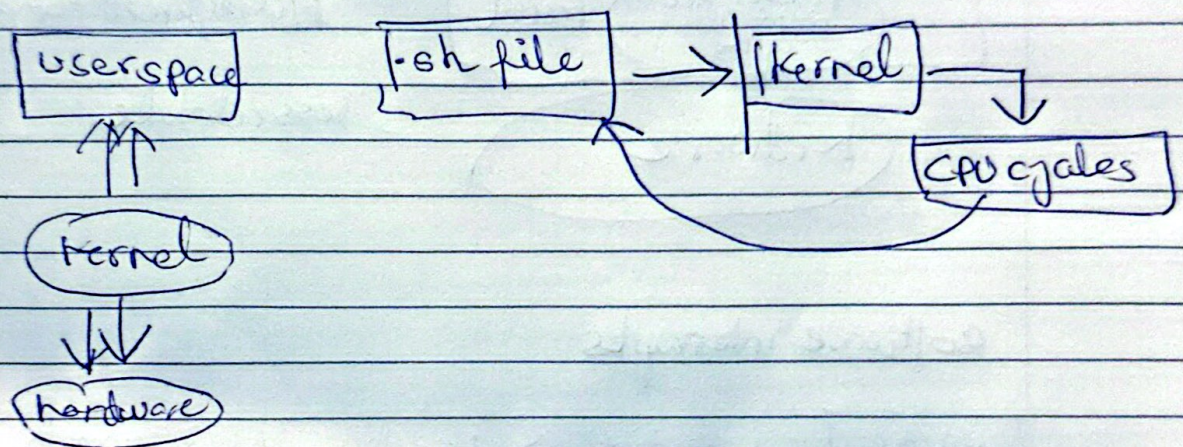


Components of OS

User space → applications are run here cli & gui

kernel space → hardware has access here

interacts with kernel → which is the heart of OS and interacts with hardware.



Kernel

1) process management

- 1) process creation, termination
- 2) process & threads schedule
- 3) Process sync
- 4) process communication

4) I/O management

- control, I/O device
- spooling
- buffering
- caching

2) memory management

- allocate/deallocate
- free space management

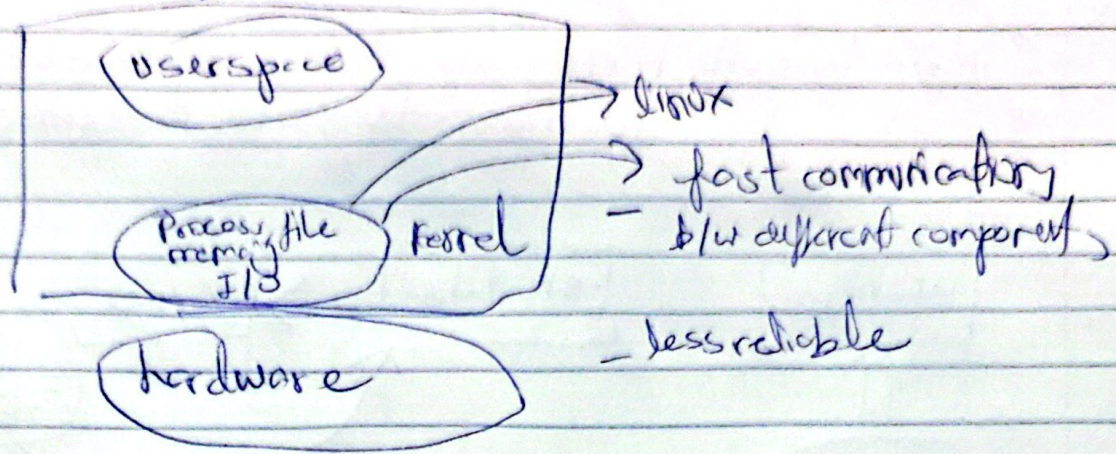
3) file management

- create/delete files
- directory management

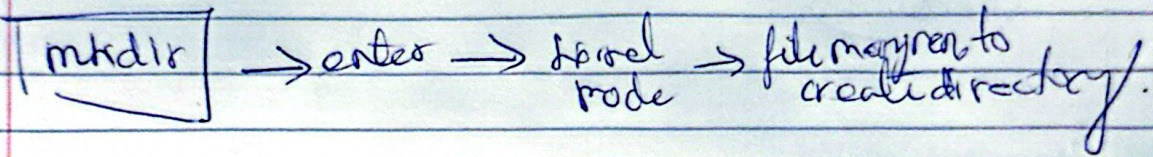
Hamza → Res hop → resume

Types of Kernels

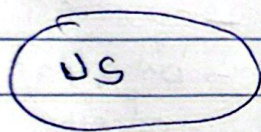
1) monolithic function kernel



Software interrupts

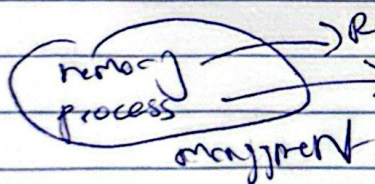


2) microkernel



Linux, Nokia OS phone

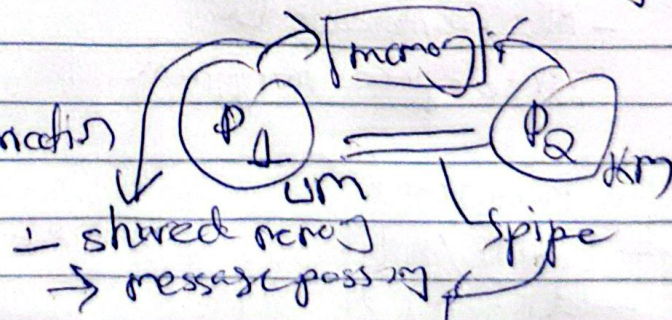
- less bulky
- more reliable
- stable



less performance need more switching

3) IPC

inter process communication



hybrid kernel

→ mesos, windows

