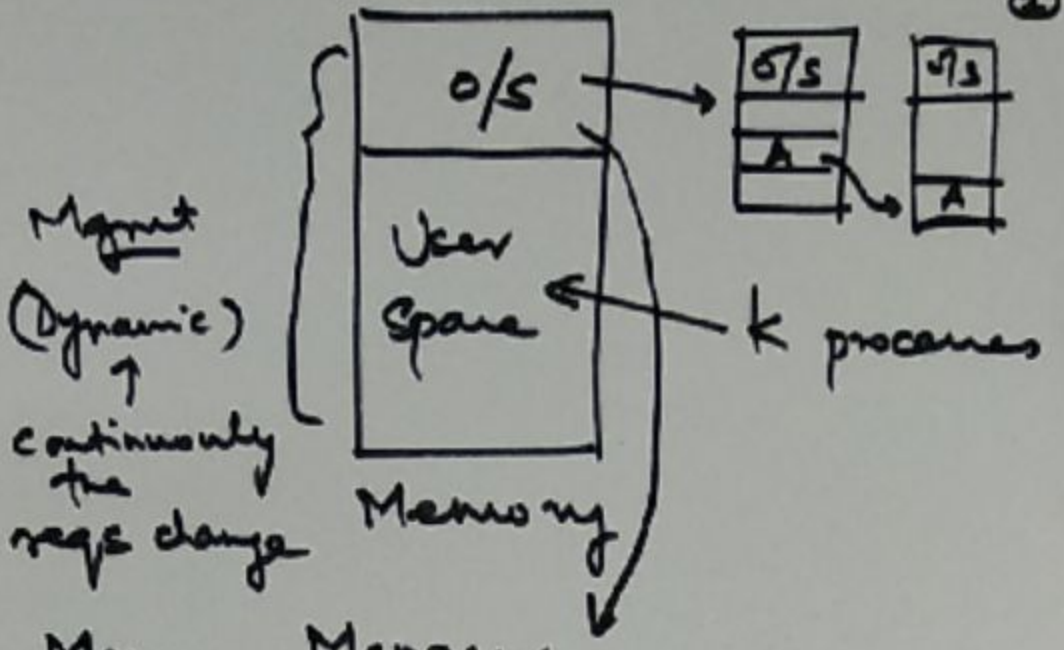
Memory (faster) → Primary Memory

CPU — Disk (slow) → Secondary Memory

Hierarchy of Memory.

Primary Memory — faster in access
- Volatile
- How OS manage this resource?
  - Understand Memory Mgmt Techniques
  - Why?
    - Memory is limited.
      - Need to use more increase complexity of Appl's
      - Multiple process using memory.



Memory Manager

① Allocation of Memory
└ following rules

② De Allocation / Free of Memory

③ Re-Allocation / Reload.

④ Sharing of Memory space

⑤ Relocation

⑥ Protection & Privacy

Terminology

① Address Translation

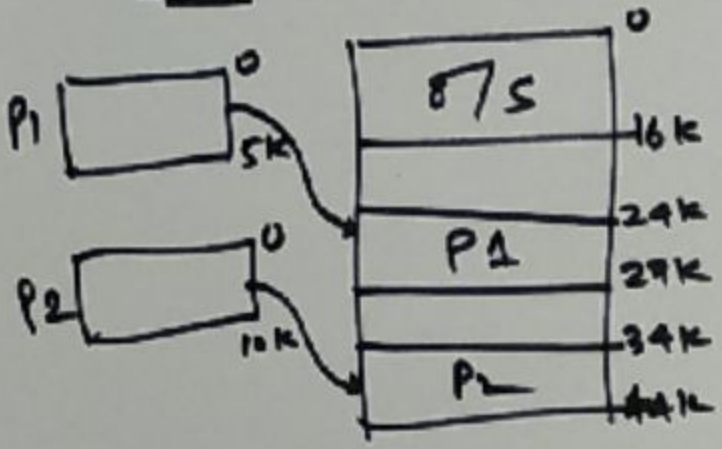
LA → PA

Programmer's View → Translation → System

Logical Address (LA) Space

Physical Address Space (PA)

0 → Size

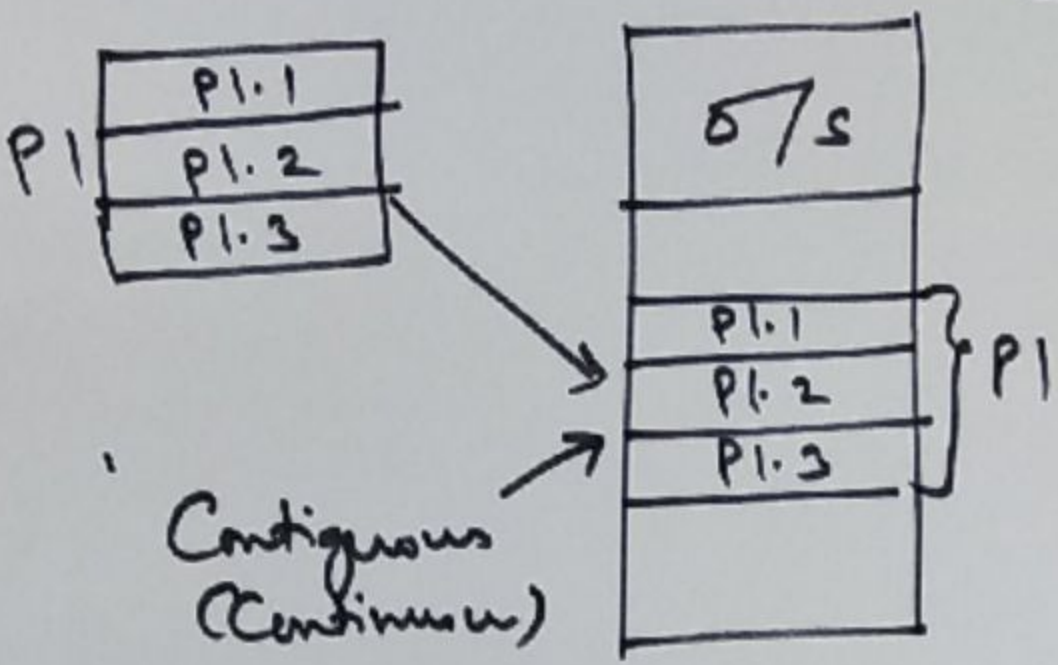


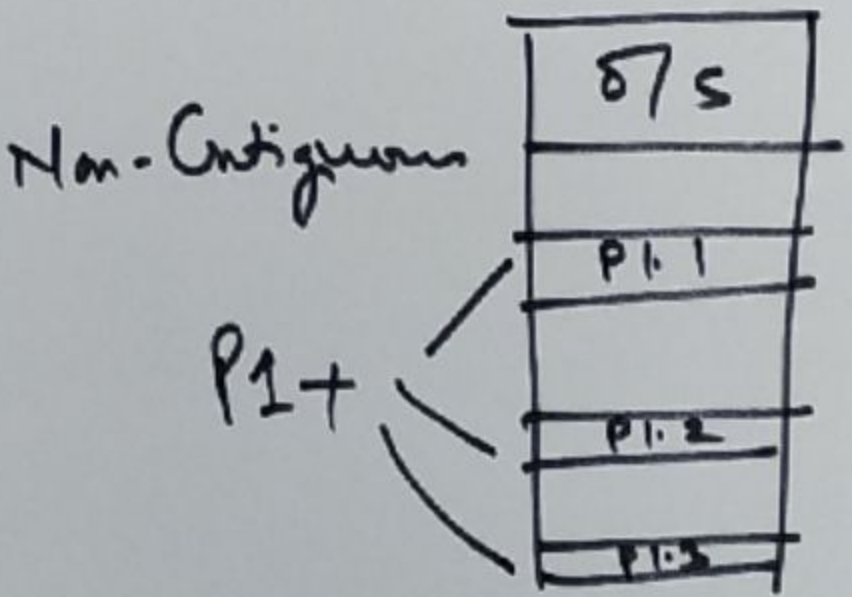
② Unit of Addressing

Memory → Block
(chunk of memory)
(group of memory location)

- Partition → Read / Write
- Page / Frame or page frame
- Segment

→ Type of Unit → Different Memory Mgmt schemes


P1
P1.1
P1.2
P1.3
OS
P1.1
P1.2
P1.3
P1
Contiguous
(Continuous)


Non-Contiguous
OS
P1.1
P1+
P1.2
P1.3