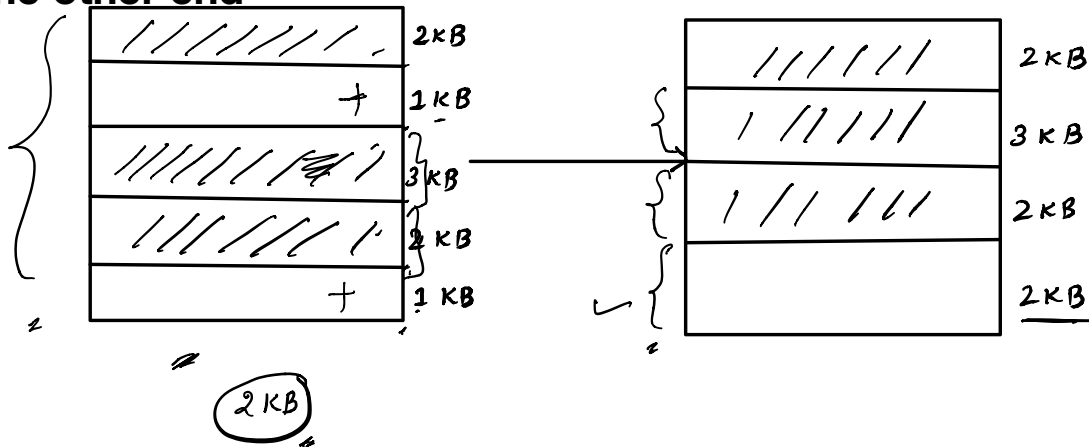


## NONCONTIGUOUS MEMORY ALLOCATION TECHNIQUES

- Contiguous memory allocation suffers from internal and external fragmentation problem
- Fixed partitioning method - internal fragmentation
- Variable partitioning method - external fragmentation
- One solution to the problem of external fragmentation can be to use compaction.
- Compaction only possible with if relocation is dynamic
- In compaction, the memory contents are shuffled so as to place all free memory together as one continuous block
- Move all processes towards one end and all holes towards the other end



- Copying data can be very expensive process
- What are the other possible solutions?

● What if we can allow a process to have noncontiguous physical address space?

● What if we can break down the logical address space of a process into partitions and allocate these partitions into free physical memory spaces?

● Noncontiguous memory allocation techniques

● Paging ✓

● Segmentation ✓

● Paging + Segmentation ✓

