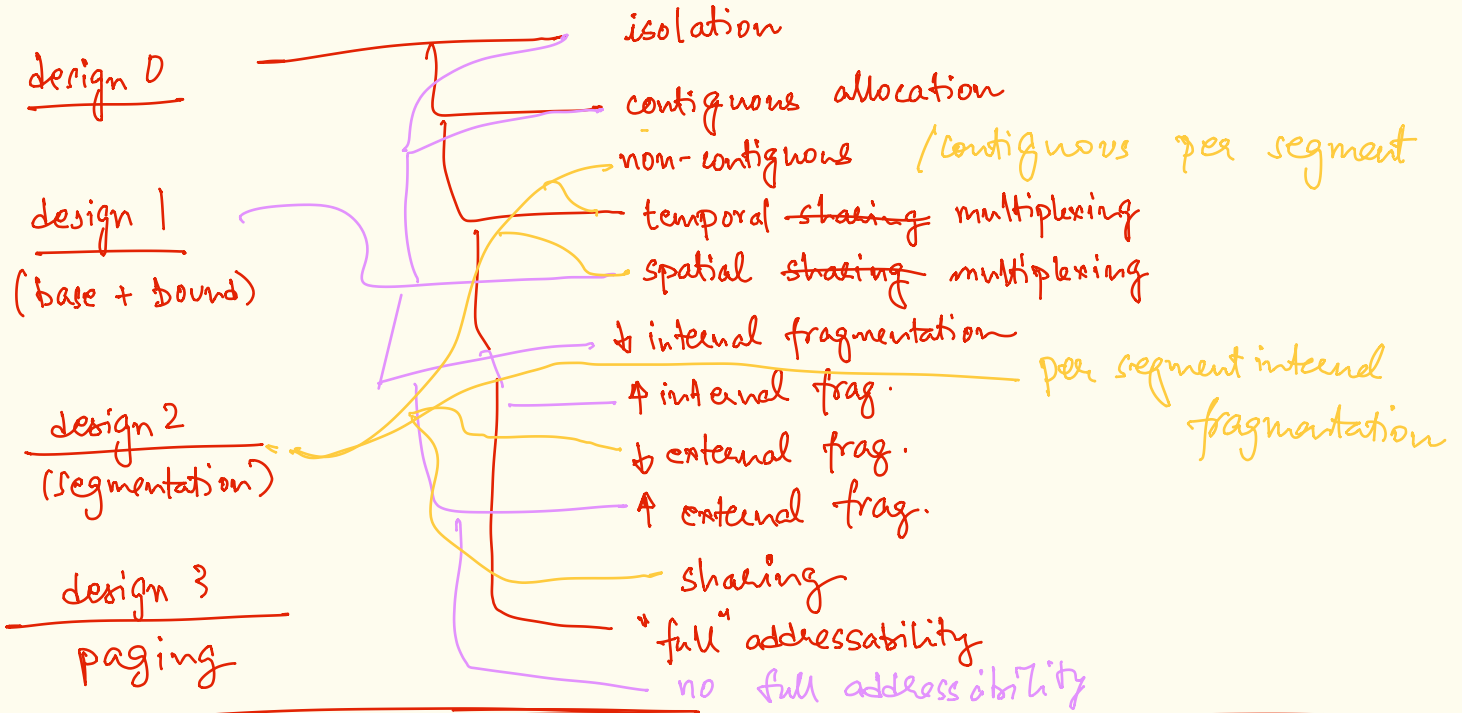
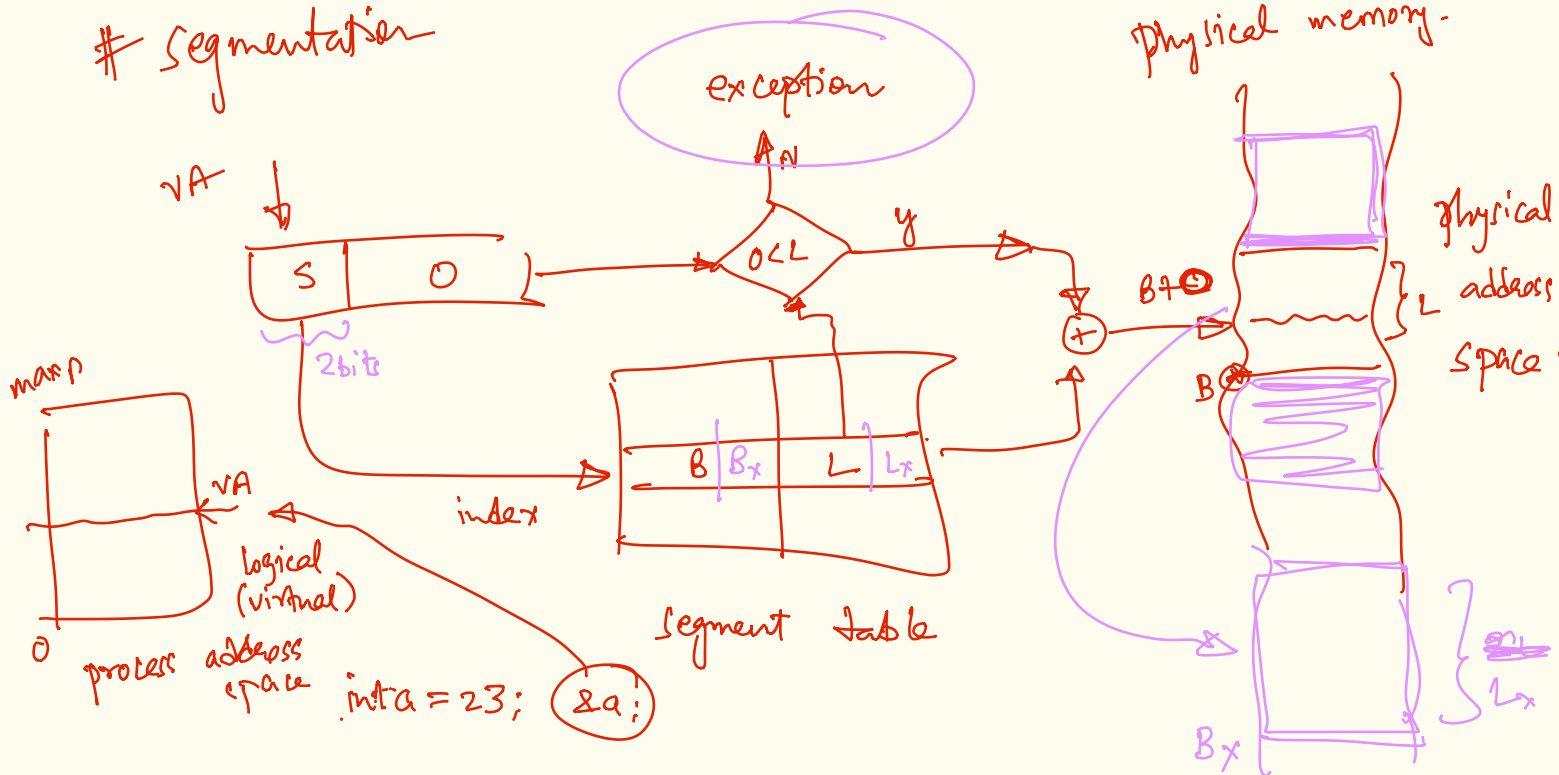


Lecture #12

memory virtualization



Segmentation



paging

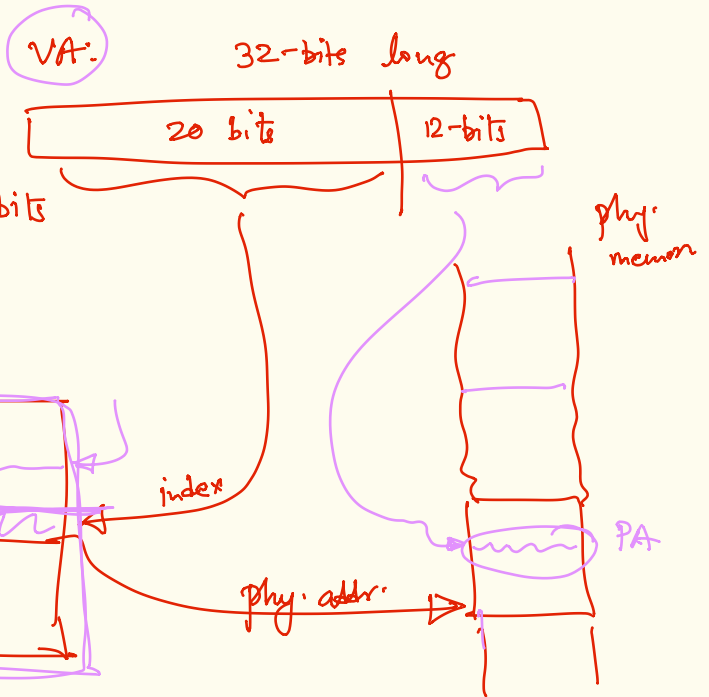
- move all allocation & mgmt to a fixed sized address range — page.

e.g: 1 page = 4096 bytes ~ 2¹²

2³² ~ 32 bit address width — 2³² addresses ⇒ 2²⁰ pages

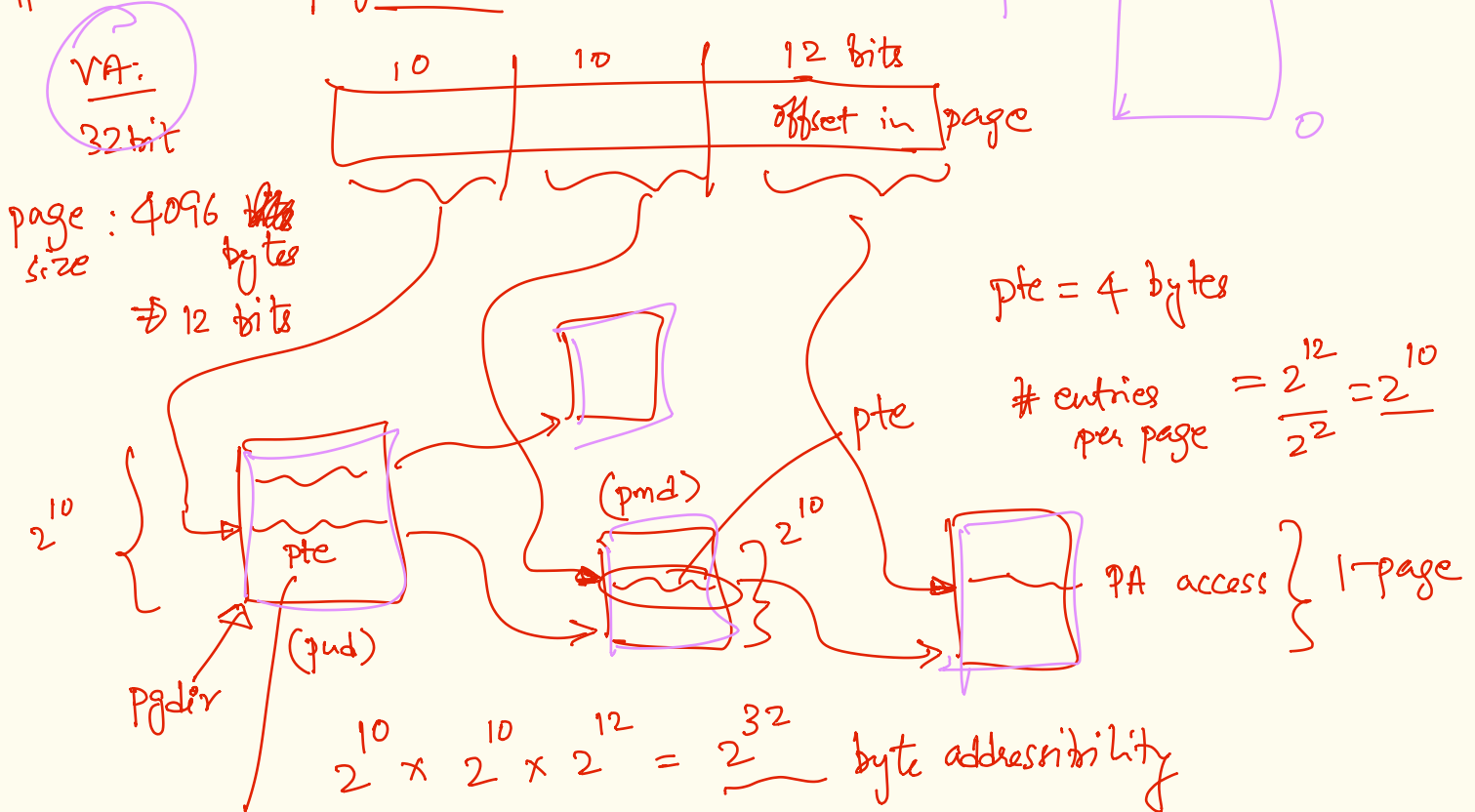
32 bit address space
process.

- 4096 byte pages
- page table?



-ve.
page table in contiguous in memory.
(needs all memory for table pre-allocated).

two-level page table.



page table entry / pte
directory

(*) x86. CR3 ~ which stores the pgdir.
CR2 ~ stores the address (page fault) causing an exception
H/w dependent

what is a pte ?

pte size : 4 bytes

