VIRTUAL MEMORY:

If there is a process whose size is greater than the M/M itself, then the user is given an illusion that even a large process like that can be placed in M/M. Though the size of M/M is finite, the process size can be much larger than that.

LAS = Logical Address Space(Hard disc)

Only the required pages from each process will get their places in M/M rather than an entire process.

Swap in, swap out = We are not keeping the pages permanently in M/M. So, after a while the existing pages of a process can be replaced by some other pages of a new process. This is called Swap in, Swap out.

Page Fault = If a process's page is absent in the page table; means that page has not been placed in M/M, then it will show 'invalid bit' and this phenomenon will be called Page Fault.

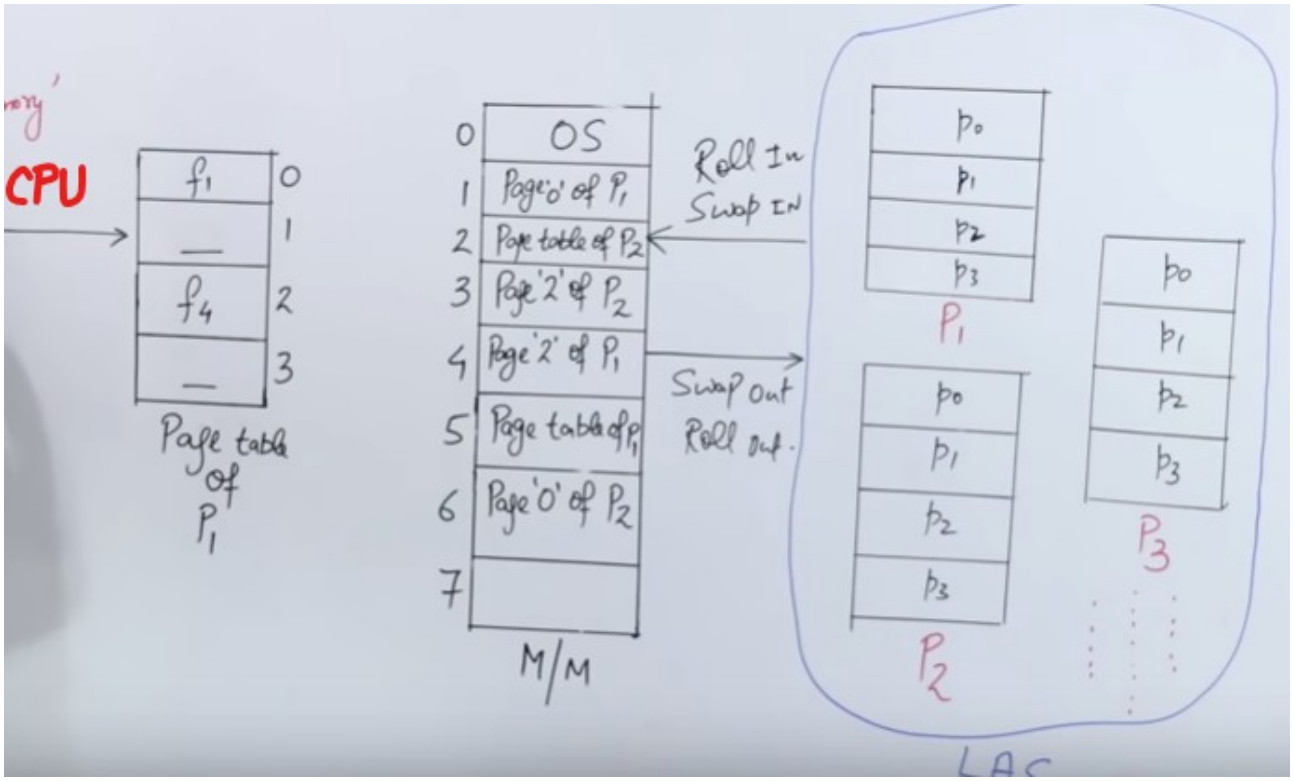

***Figure 1**: VM*

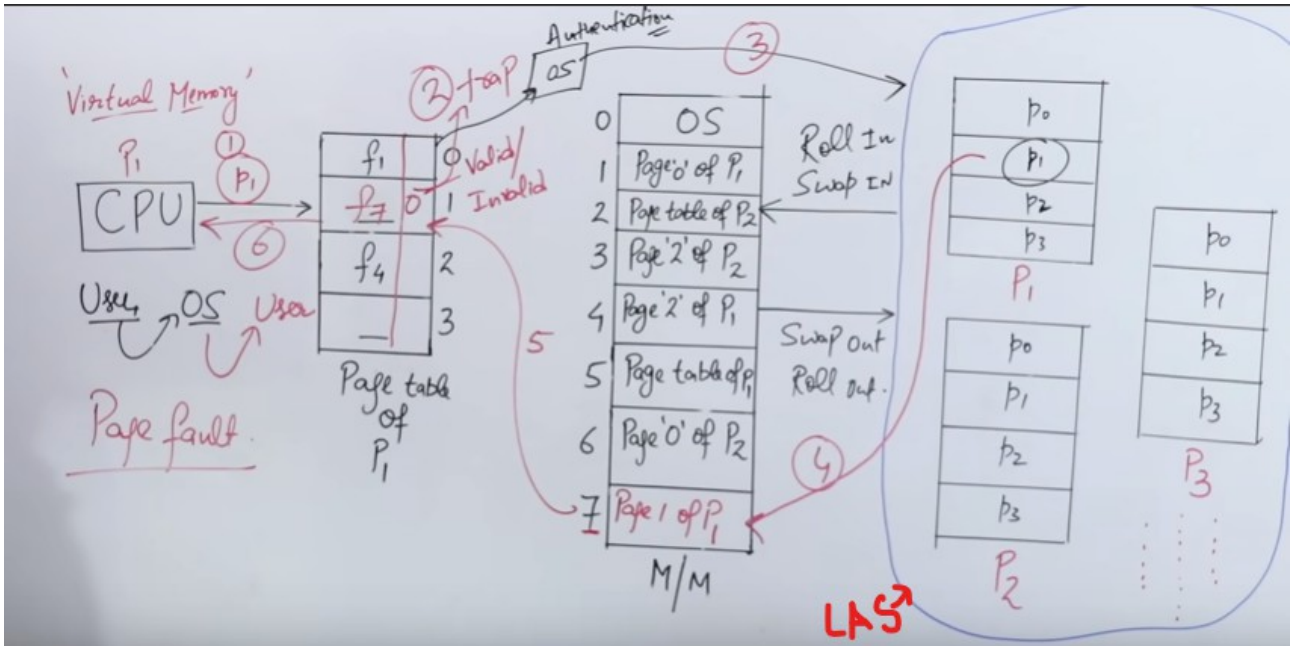

***Figure 2**: VM*

Effective Memory Access Time:
Let's say ***p*** is the probability of Page Fault occurance.

EMAT = ***p*** * (Page Fault Service Time) in ms. + (1 – ***p***) * (Main Memory Access Time) in ns.

SEGMENTATION:

- User point of view

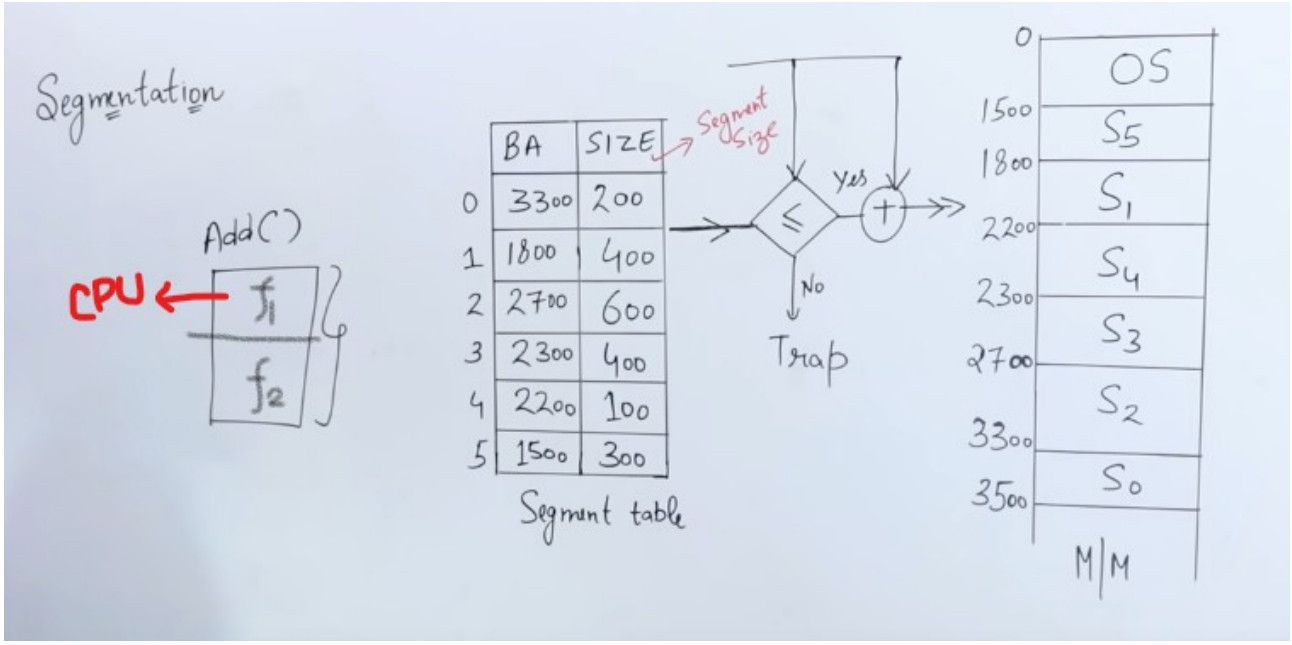

***Figure 3**:*

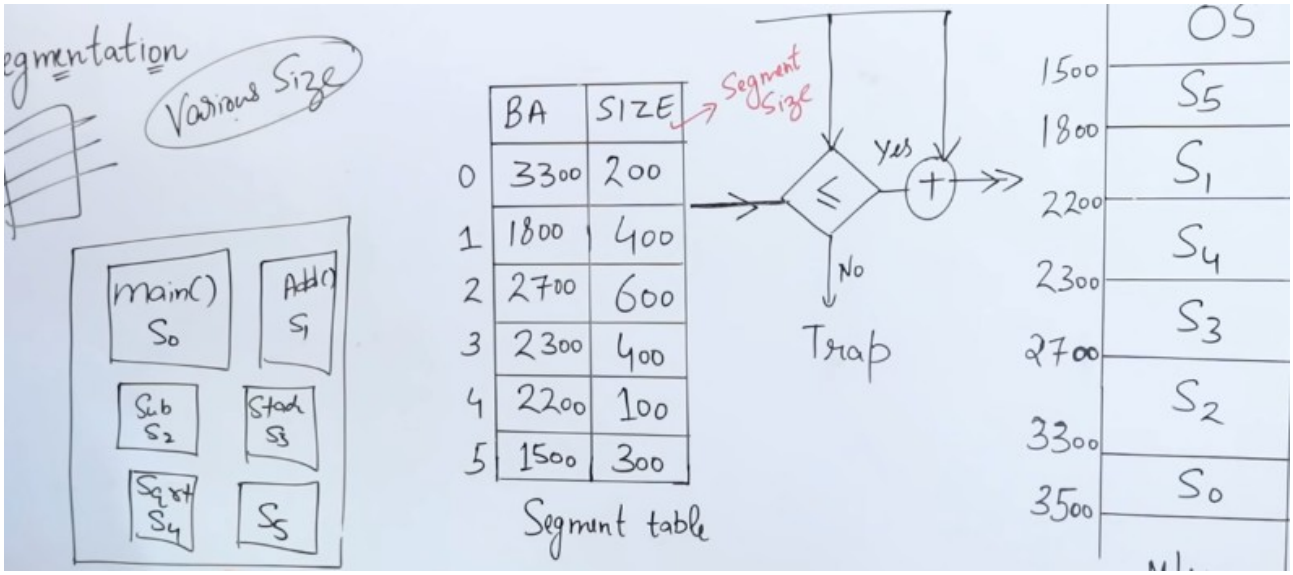

Figure 4:

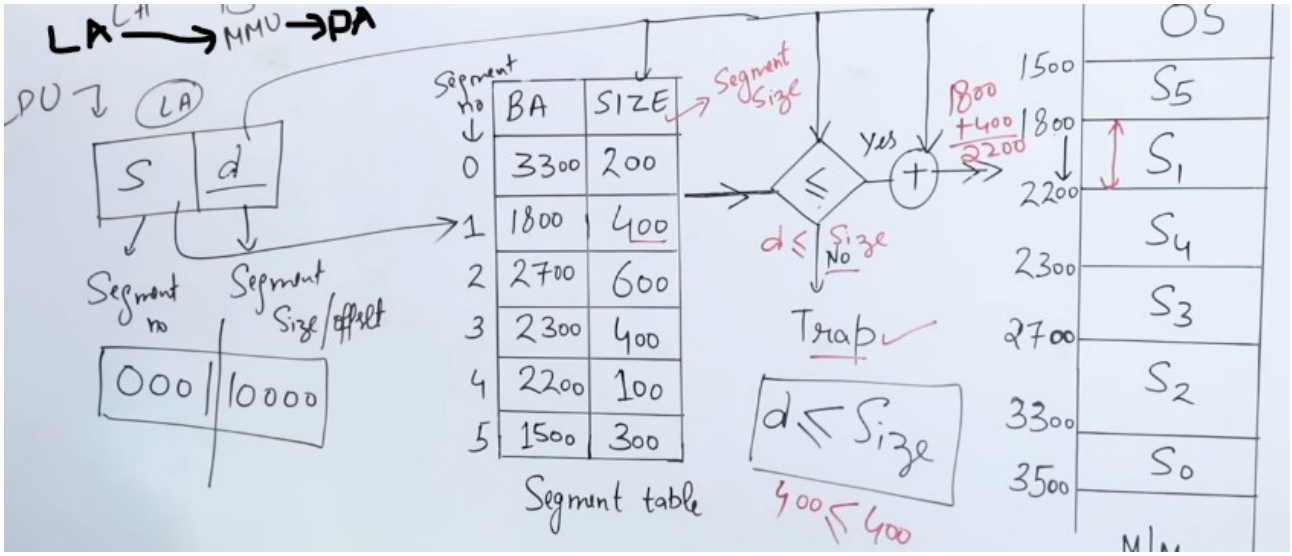

Figure 5: