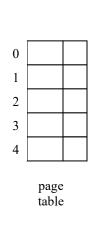
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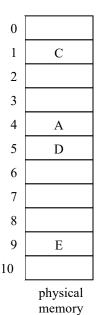
Virtual Memory

Attempt the following questions before you attend tutorial.

- 1. In your own words, explain what is meant by code and data locality?
- 2. Assume we have a demand-paged memory. The page table is held in registers. It takes 16 milliseconds to service a page fault. Memory access time is 100 nanoseconds. Assume that page-fault rate is 0.001. What is the effective access time for this memory system? (Note: 1 millisecond = 1,000 microseconds = 1,000,000 nanoseconds)
- 3. What is the cause of thrashing? How does the system detect thrashing? Once it detects thrashing, what can the system do to eliminate this problem?
- 4. Given the following demand paging system, fill in the entries in the page table by writing the appropriate frame number. Enter i or v in the valid/invalid bit.

 Assuming that each page is 1024 words, write the physical address of the following logical address of the process, in the form (page frame no, offset) format.
 - (i) 2056
 - (ii) 4500





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