

1. Recap of example from last time
  - a. 12-bit virtual addresses, page size of 256 bytes, physical memory size of 2 KB
  - b. Layout of address below

<b>Virtual Page Number (VPN)</b> 4 bits	<b>Offset into Virtual Page</b> 8 bits	=	<b>Virtual Address Size</b> 12 bits
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<b>Physical Frame Number (PFN)</b> 3 bits	<b>Offset into Physical Frame</b> 8 bits	=	<b>Physical Address Size</b> 11 bits
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- c. Translated the virtual address 0x716
  - i. Corresponding physical address was 0x216
- d. State of memory and page table after the previous translation

*Memory*

Physical Frame Number	Size	Address Range	Status
000	256 B	0x000 – 0x0FF	Busy
001	256 B	0x100 – 0x1FF	Busy
010	256 B	0x200 – 0x2FF	Process A
011	256 B	0x300 – 0x3FF	Busy
100	256 B	0x400 – 0x4FF	Empty
101	256 B	0x500 – 0x5FF	Busy
110	256 B	0x600 – 0x6FF	Busy
111	256 B	0x700 – 0x7FF	Empty

*Page Table*

Virtual Page Number	Status
0000	On Disk
0001	Frame 101
0010	On Disk
0011	On Disk
0100	On Disk
0101	On Disk
0110	On Disk
0111	Frame 010
1000	On Disk
1001	On Disk
1010	On Disk
1011	On Disk
1100	On Disk
1101	On Disk
1110	On Disk
1111	On Disk

2. Page table access example – hit
  - a. Now assume we're given the next virtual address
    - i. 0x15F

### 3. Translation lookaside buffer (TLB)

a. Hit in TLB?

b. Miss in TLB?

### 4. Virtual memory summary

### 5. Scheduling (if time)

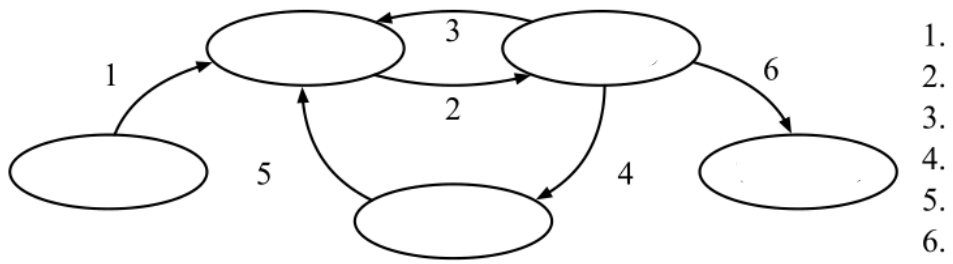
a. Types of scheduling

i. Long-term

ii. Medium-term

iii. Short-term

6. Short-term scheduler (if time)



a. Process states

b. Need enough information to be able to restart given process after done executing