Intro to Class

what does a computer program do?
- ⇒ fetch, execute
- ⇒ memory (where instructions, data live)

[code / data]

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let's run some programs:
- ⇒) cpu   what happens when... you run 7Z?
- ⇒) mem 1, mem 100   what happens when ...
       concurrency   you access the same memory location?
- ⇒) dtrace -s trace-io.d (one window)
       io (another)   what happens when ... you write to disk?

OS as virtual machine

physical machine:
    runs 1 prog on cpu @ time ⎫ multiplexing
    has 1 physical memory   ⎬
    has devices that are hard to use ⎫ (standard library)

virtual
    many, easy

key
OS issues
    efficiency ⇐
    protection ⇐

Course overview: (web page)
- ⇒4 parts
- ⇒materials:
- ⇒what you do:
       class, discussion
       projects, exams (50/50)
         ↳ by self

⇒ change in privilege level

History: From lib to sys call
- ⇒ procedure call
       call instruction
- ⇒ sys call
       special instruction
       mips: trap ⎫ trap
       x86: int   ⎭

[trap table]

[syscall #]

key: interpose on key events
    ⎰ here : call to
    ⎱ certain routines