

CS 214: Introduction to Computing Systems

1/6/25

This class

- Systems issues every programmer needs to understand
 - Parallelism: doing more than one thing at once
 - Memory system: not as simple and uniform as previously presented
 - Security: limiting who can do what with the system
- Low-level programming
 - C/C++ and assembly language

Policy summary

- Online book
- Doing Peer Instruction (clicker and online polls)
- You can use 2 late days
- You can work together on homework, but make sure everyone creates and understands their own solution

Any other policy questions?

A. Yes

B. Yes

C. No

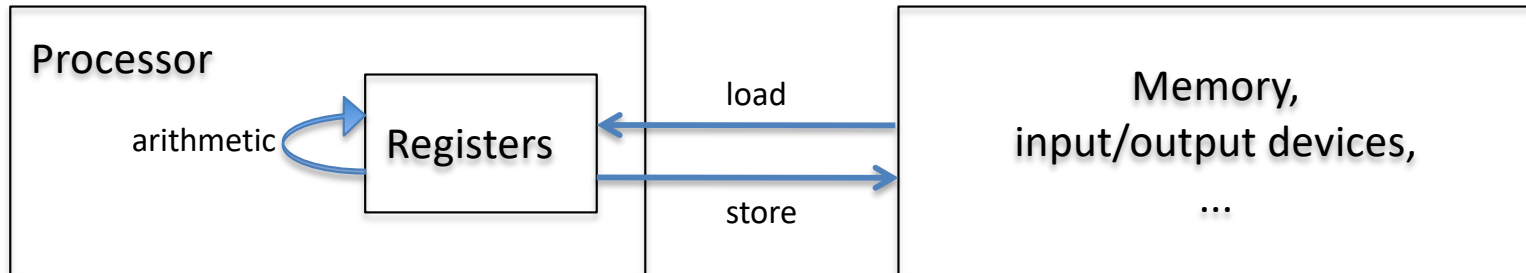
D. No

E. What class is this again?

Extra credit (and cool opportunities)

- Faculty candidate visiting at end of the week
 - Teaching demo
 - Research talk
 - Taking to lunch

Assembly instructions in one slide



Useful registers

| | |
|-----------------------|--|
| \$zero | always stores 0 |
| \$a0, \$a1, ..., \$a3 | arguments to functions |
| \$v0, \$v1 | function results and expression evaluation |
| \$t0, \$t1, ..., \$t9 | unsaved temporaries |
| \$s0, \$s1, ..., \$s7 | saved temporaries |