How a CPU works

- fetch instruction using program counter
- decode instruction
- read inputs
- execute instruction
- write output
- increment program counter
- data for a CPU is stored in registers
- next level is RAM
- then hard drives
- n_instructions * cycles_per_instruction * secons_per_cycle
- all improvements are tradeoffs
- CPU, I/O, Memory are the essentials of a computer; they are all connected by a bus
- memory offsets and pc increments are 4 bytes long
- just look at the presentation for all the stuff he is talking about
- that would be a cool thing to do because I did not pay adequate attention