Chapter 1 Summary

• Three different views of machine structure and function
  • Machine/assembly language view: registers, memory cells, instructions
    • PC, IR
    • Fetch-execute cycle
    • Programs can be manipulated as data
    • No, or almost no, data typing at machine level
  • Architect views the entire system
    • Concerned with price/performance, system balance
  • Logic designer sees system as collection of functional logic blocks
    • Must consider implementation domain
    • Tradeoffs: speed, power, gate fan-in, fan-out