

CS/COE0447

Computer Organization & Assembly Language

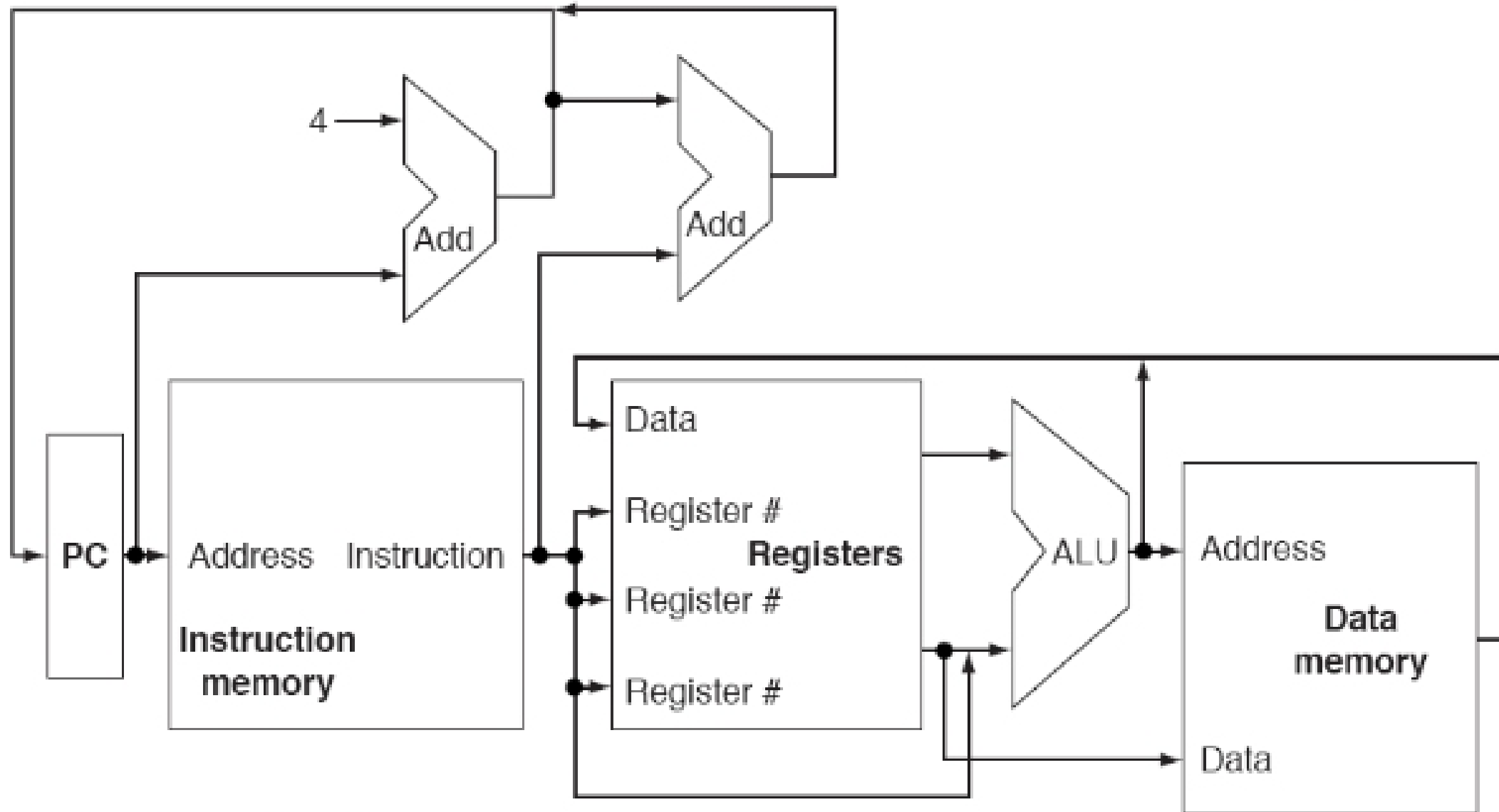
Chapter 5

Part 1

A Simple MIPS

- Memory reference instructions
 - lw (load word) and sw (store word)
- Arithmetic-logical instructions
 - add, sub, and, or, and slt
- Control-transfer instructions
 - beq (branch if equal)
 - j (unconditional jump)

An Abstract Implementation (fig 5.1)



- **Combinational logic**
 - ALU, adder
- **Sequential logic**
 - Register file, instruction memory, data memory