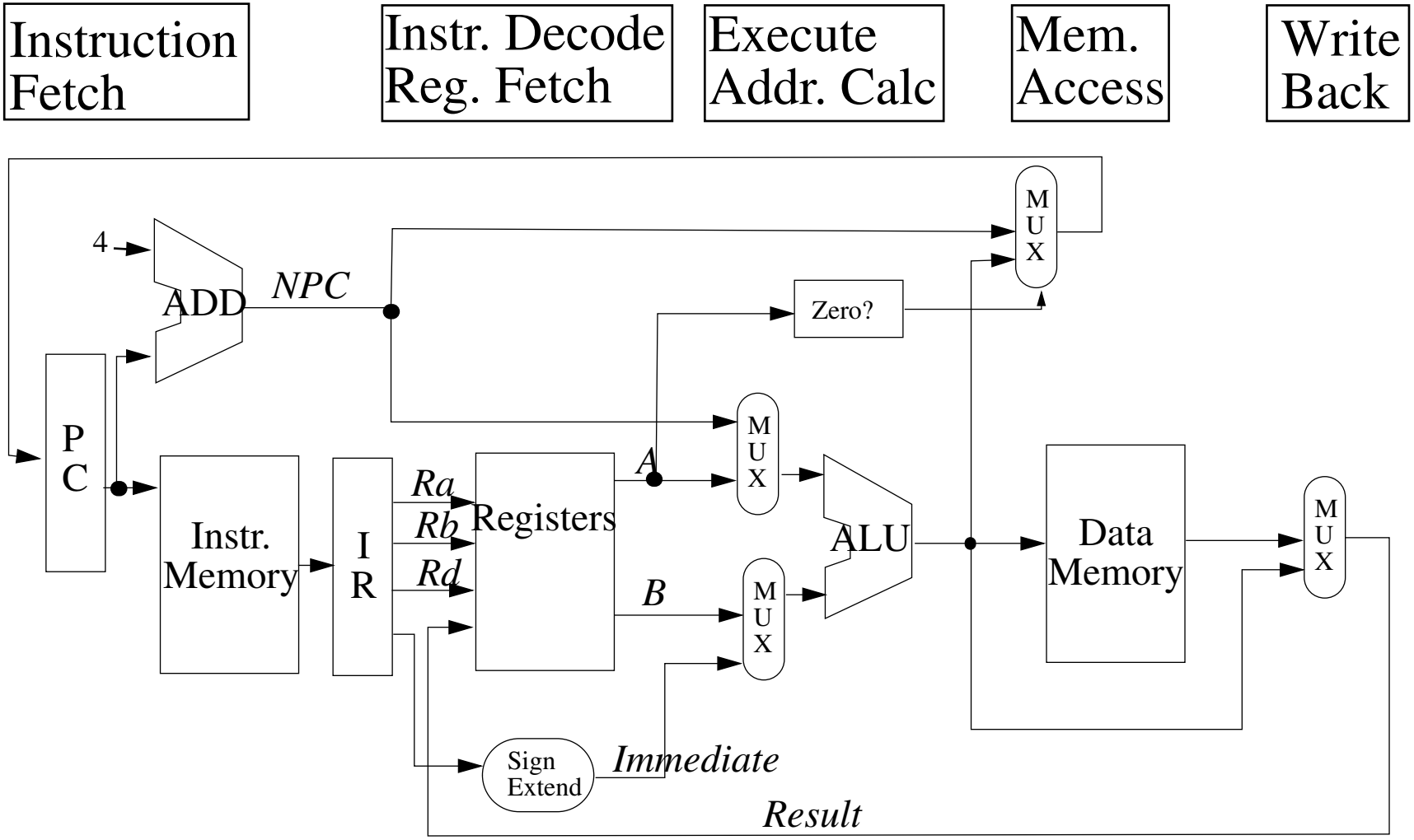
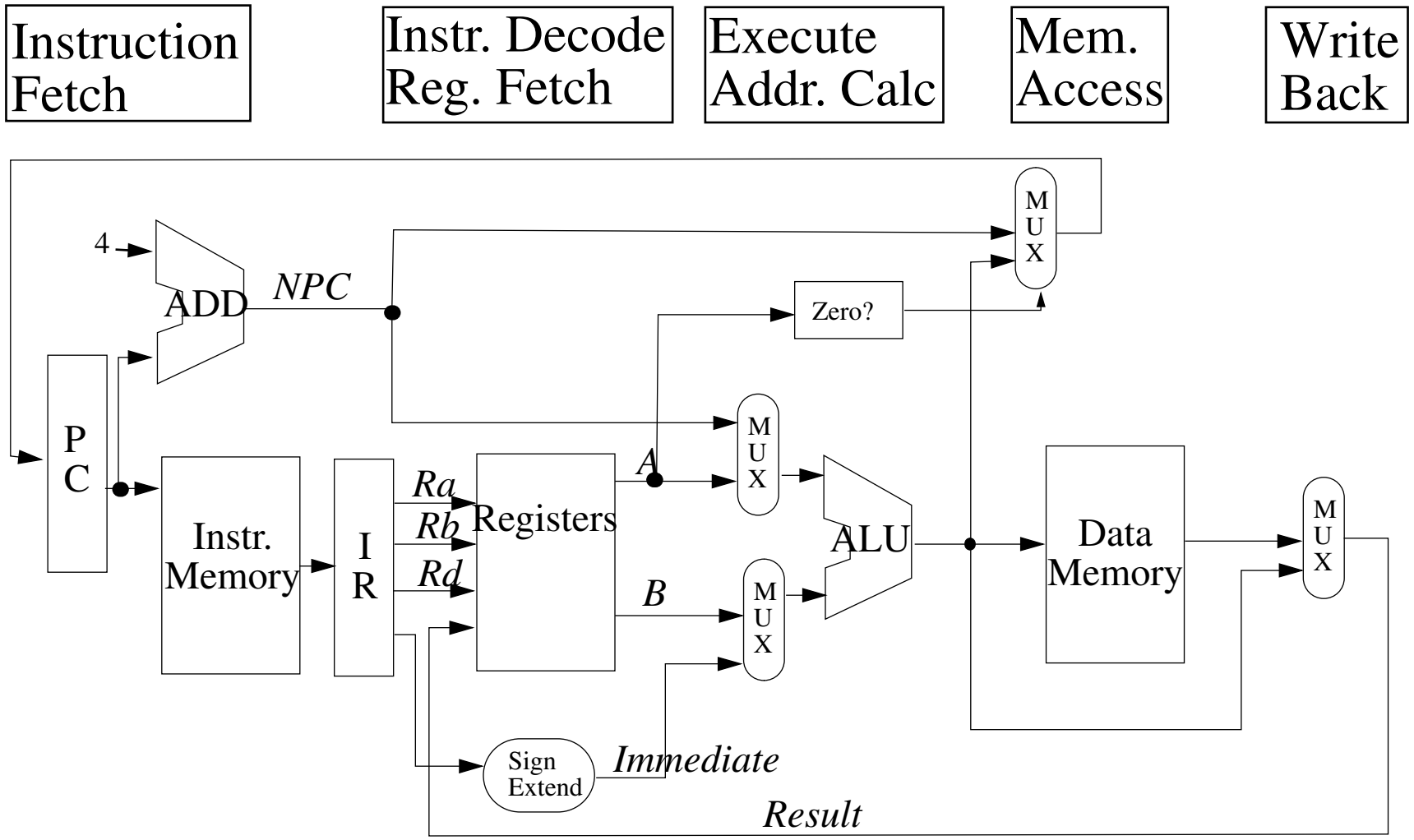
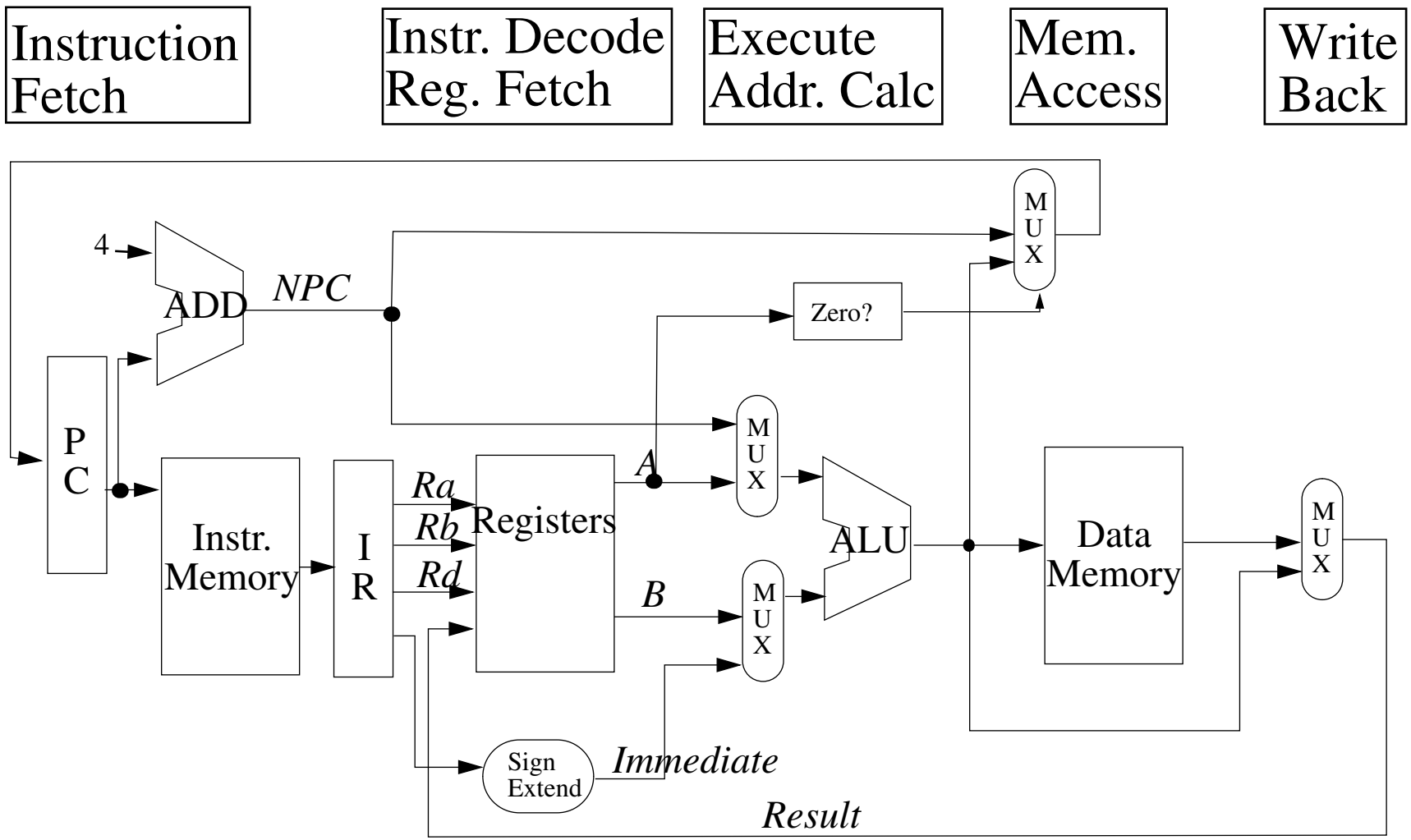
5 Steps of DLX Data Path





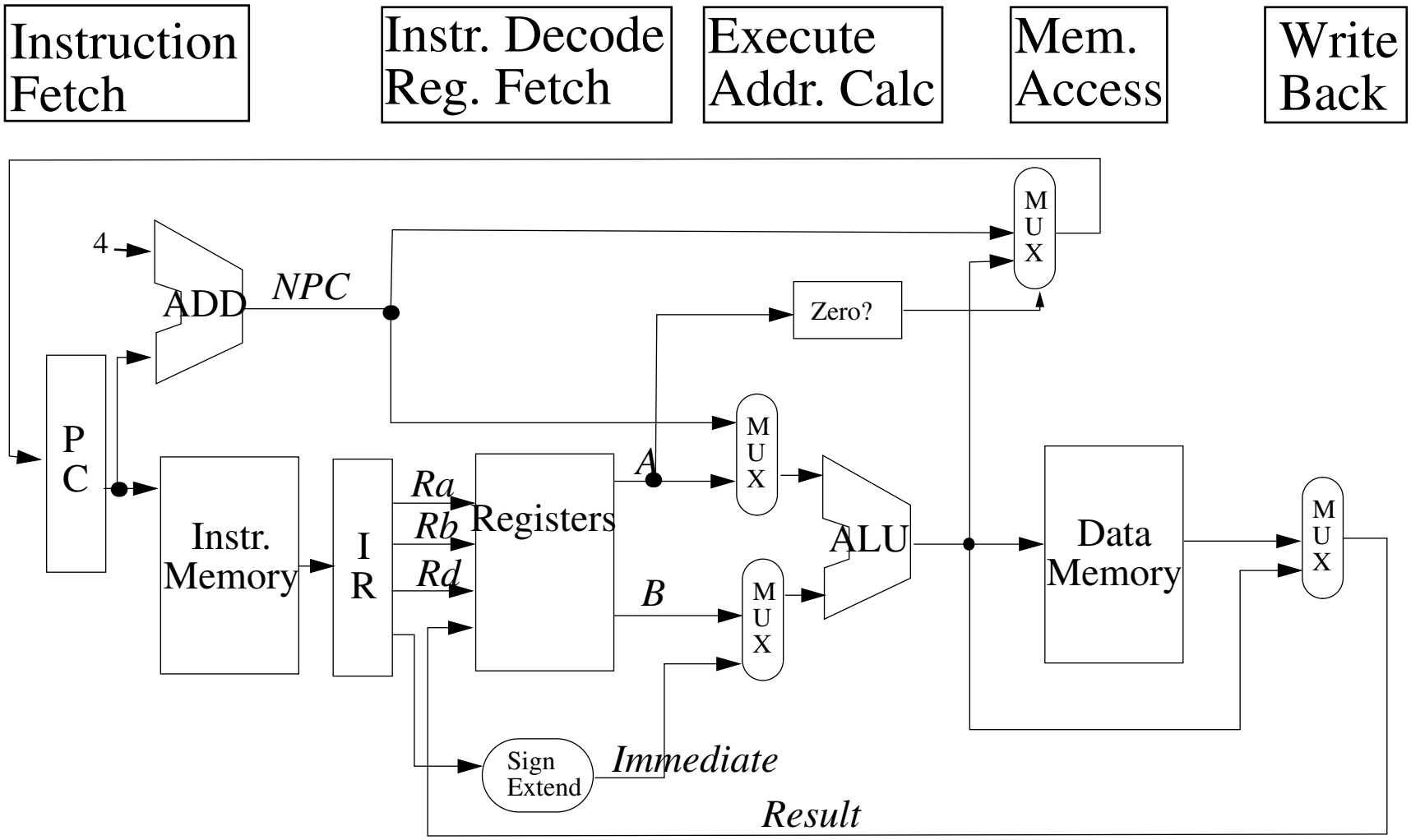
Register-Register:

Op	Rs1	Rs2	Rd		Opx



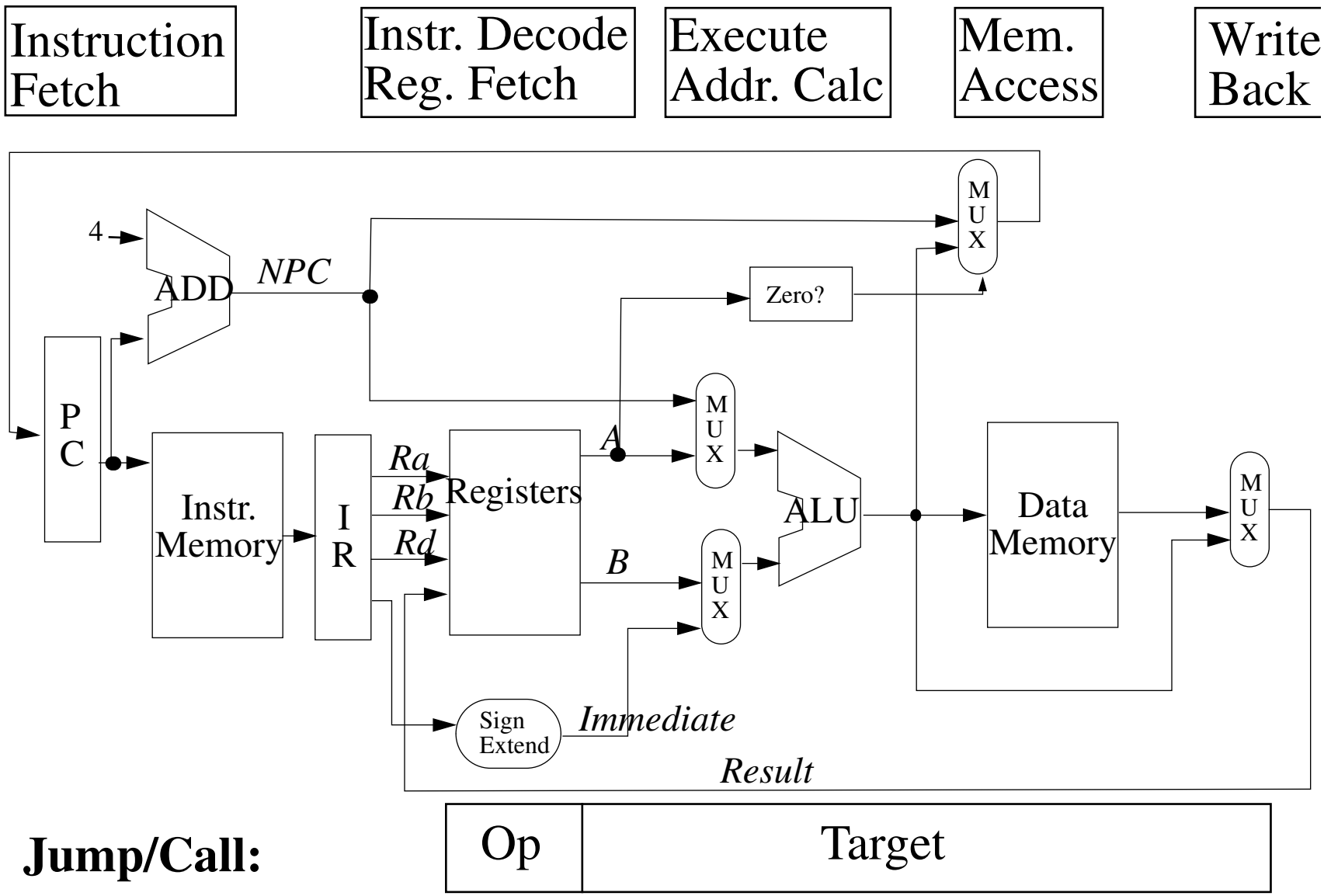
Register-Immediate:

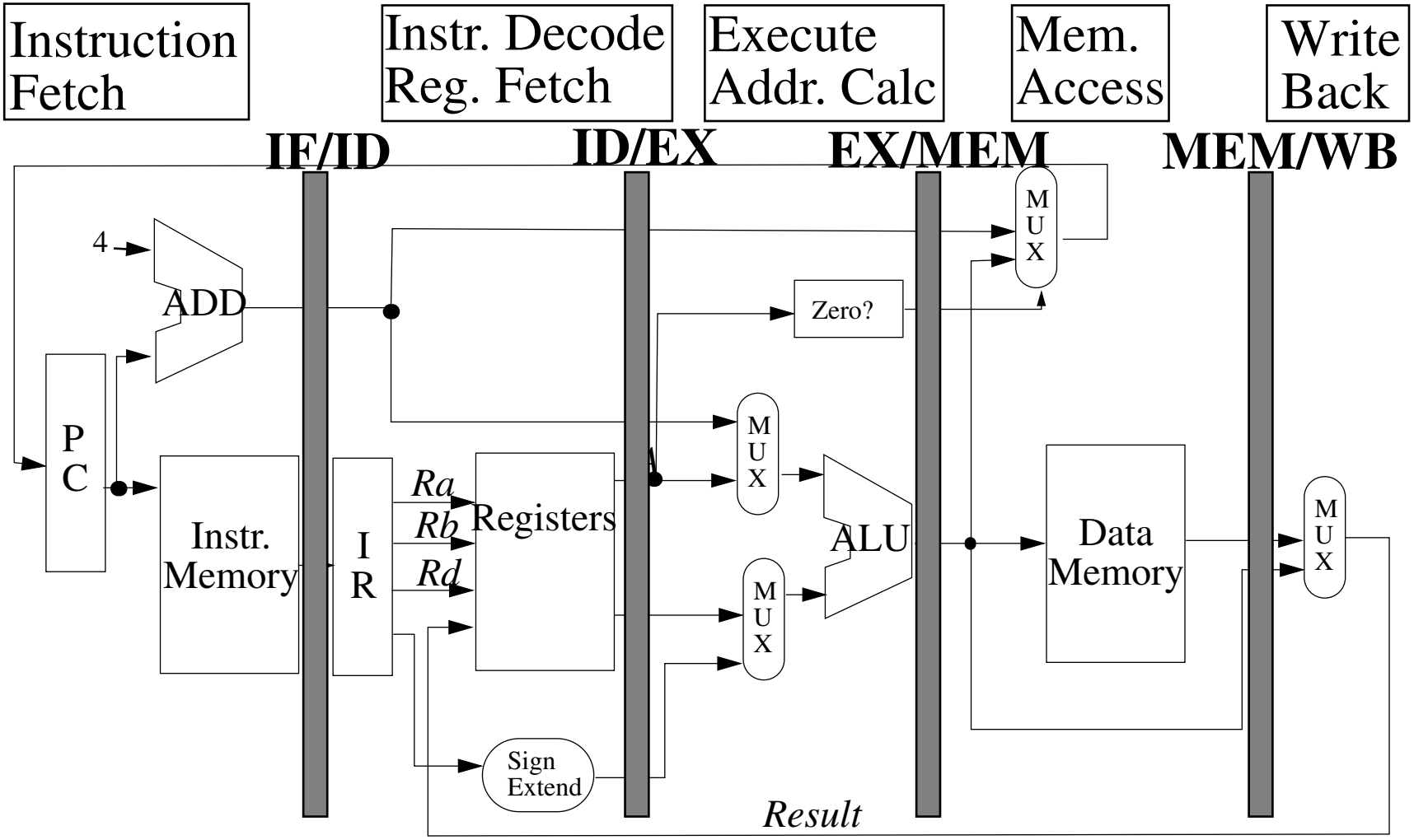
Op	Rs1	Rs2	Immediate



Branch:

Op	Rs1	Rs2 /Opx	Immediate


Instruction Fetch
Instr. Decode Reg. Fetch
Execute Addr. Calc
Mem. Access
Write Back
4
ADD
NPC
M U X
Zero?
P C
Instr. Memory
I R
Ra
Rb
Rd
Registers
A
B
M U X
ALU
Data Memory
M U X
Sign Extend
Immediate
Result
Op
Target

Jump/Call:

Pipelined DLX Datapath