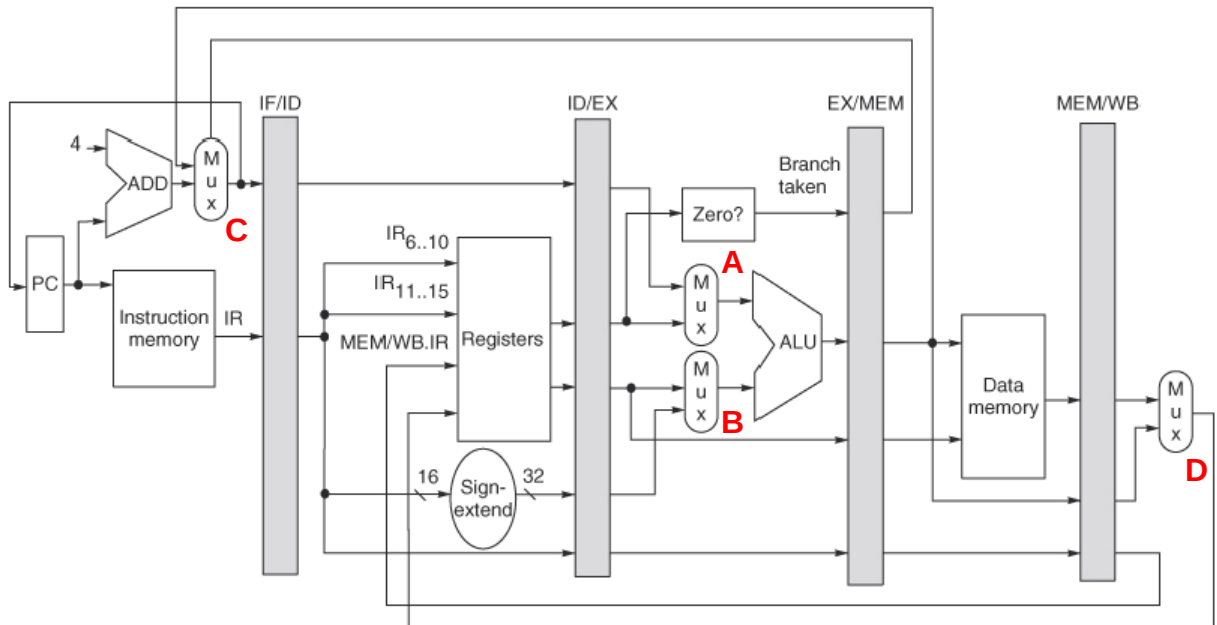
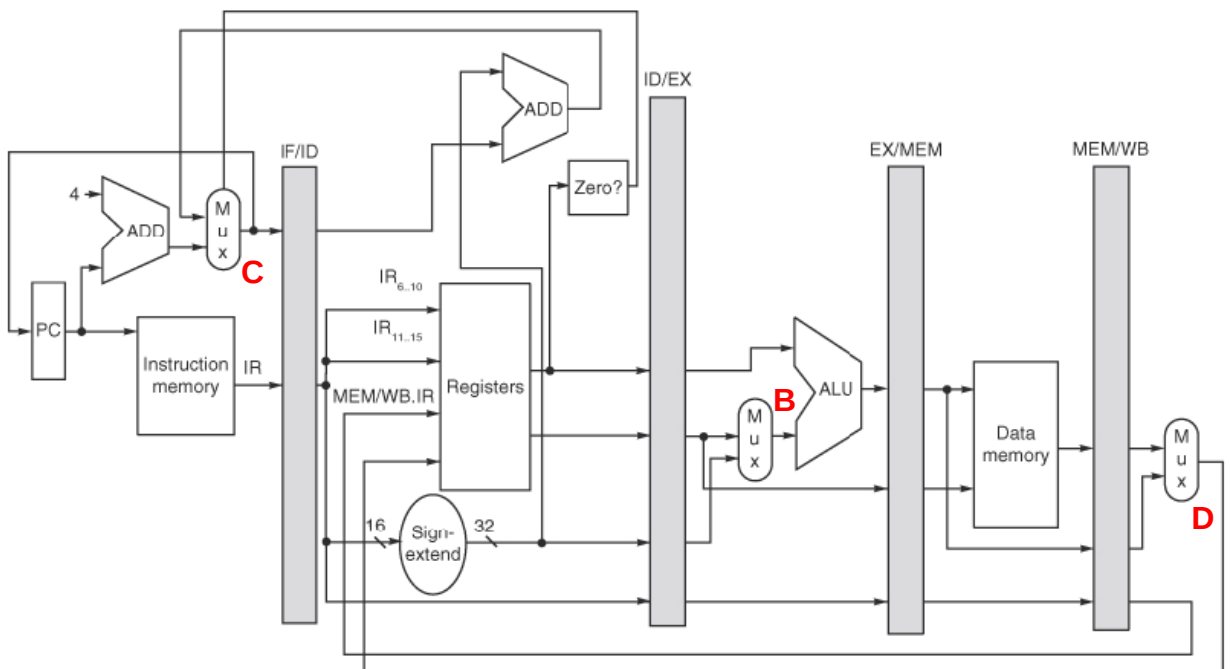


load: $\text{Regs}[\text{rt}] \leftarrow \text{Mem}[\text{Regs}[\text{rs}] + \text{Imm}]$
 store: $\text{Mem}[\text{Regs}[\text{rs}] + \text{Imm}] \leftarrow \text{Regs}[\text{rt}]$
 branch: if $(\text{Regs}[\text{rs}] == 0) \text{ PC} \leftarrow \text{PC} + (\text{Imm} \ll 2)$
 Immediate ALU: $\text{Regs}[\text{rt}] \leftarrow \text{Regs}[\text{rs}] \text{ op Imm}$

RR ALU: $\text{Regs}[\text{rd}] \leftarrow \text{Regs}[\text{rs}] \text{ funct } \text{Regs}[\text{rt}]$



Basic Pipeline



Pipeline that eliminates some branch stalls