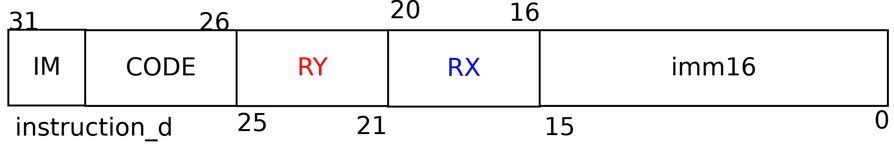

address = gpr[RY] + sign_extended(imm16)

gpr[rx] = sign/zero_extend(memory[address]) (LB/LBU)

gpr[rX] = sign/zero_extend((memory[address] << 8)
| (memory[address+1])) (LH/LHU)

gpr[rx] = (memory[address] << 24)
| (memory[address+1] << 16)
| (memory[address+2] << 8)
| (memory[address+3]) (LW)