

4.10 from the 6th edition text.

Problems 4.11, 4.12, and 4.13 – for these three problems, just implement the described instructions (datapath and control modifications) on the single cycle datapath. Assume that Load With Increment will be an R-type instruction, and Swap and Store Sum will be I-type instructions.

Note that the Store Sum instruction should be $\text{Mem}[\text{Reg}[\text{rt}]] = \text{Reg}[\text{rs}] + \text{SignExtend}(\text{immediate})$.