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Lab 7
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Sometime during the first lecture on IBCM, I completely zoned out. When I came to, Floryan was rambling about “accumulators” and “registers”, but I had missed out on too much introductory info to understand any of it. As a result, I learned nothing about IBCM in class and dreaded starting this prelab.

But once I trained my brain to work within the limitations of the single accumulator, writing IBCM code was pretty straightforward. Simple tasks (like loading a variable to the accumulator, adding a number to it, and then storing it again) seemed convoluted at first, but with repetition, they became second nature. Constructing for loops and while loops required some creative thinking, but I found the jumps themselves to be pretty cool and intuitive.

There were a few things I found difficult about IBCM. For one, remembering which hex value does which command was difficult. I had to reference a command cheat sheet while I was writing my code; the constant checking was tedious. Editing code in IBCM is obviously a huge pain. By the last IBCM program assignment, the quine, I had learned the hard way to rigorously pseudo-code the entire program before translating it to IBCM. But even then, I had to add a line, requiring me to rewrite all the memory addresses and hunt for commands whose memory addresses needed to be shifted by one.

Managing the difference between a memory address and the value in that memory address was a bit annoying. I had to set up starter commands in my variables section, add memory values to them in the accumulator, and then store the completed command further down in the code. It was tedious, but after figuring this technique out, I realized that I had effectively created pointers and my own way of dereferencing them. That was a pretty cool moment. The simulator’s step-through functionality was a godsend.

Overall, using IBCM was a pretty cool experience and less painful than I had imagined. I’m almost sad that I’ll probably never work with it again, because it has no practical uses.