

Joseph Godinez

Professor Oscar Ho

Computer Science 240-20

November 24, 2021

## 1. Screenshot of the input and output lab compile

The screenshot displays three windows from the LC3 development environment:

- LC3Edit - Lab\_input\_output.asm**: Shows the assembly source code. The code starts with `.ORIG x3000` and includes instructions for loading `TERM` and `ASCII` values, requesting keyboard input, testing for terminating characters, and converting to lowercase. It uses a loop labeled `AGAIN` to process characters until `TRAP x25` (halt) is reached.
- LC3 Simulator - Lab\_input\_output.obj**: Shows the simulated execution. It displays the state of registers `R0` through `R7`, the Program Counter (`PC`), Instruction Register (`IR`), and Processor Status Register (`PSR`). The instruction stream is visible, showing the execution of the `LD`, `TRAP`, `ADD`, and `BRNZP` instructions.
- LC3 Console**: Shows the input and output of the program. It prompts the user to "Input a character" and displays the input characters: `A`, `W`, `M`, `L`, and `7`.