Directory Structure:

project1\_mari2654\_yang0120

simulator

simulator.c

Makefile

overview

README

test\_suite

multiplication

multiplication.mc

Assembly test

test1

test1.mc

test2

test2.mc

The simulator took quite some time to implement because we did not know how to implement .fill properly. We started out by making an extra array for all the instructions, but it led to nowhere. I then figured out the best way to make the simulator was to put everything into memory. The simulator works by first counting the number of lines in the file and then inserting all the instructions into memory. The simulator works by running continuously by looping through memory until it reaches a halt command. The structure and the code given to us in the assignment were used in the project.

The multiplication problem was hard because we did not know how to use NAND properly and we also did not know how to bit shift using NAND. We created our multiplication algorithm using the one in the book.